

# Appendix A

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Air Quality and Greenhouse Gas Study



## Calleguas Regional Salinity Management Pipeline, Phases 3 & 4

### Air Quality and Greenhouse Gas Study

*prepared for*

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# 1 Project Description

## 1.1 Introduction

This study analyzes the air quality, greenhouse gas (GHG) emissions, and potential health risk impacts related to the proposed Calleguas Regional Salinity Management Pipeline (CRSMP), Phases 3 & 4 located within Ventura County, extending from the northeast portion of Camarillo to the western portion of Simi Valley. Rincon Consultants, Inc. (Rincon) prepared this study for Calleguas Municipal Water District (Calleguas) for use in support of environmental documentation pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the project's air quality and GHG impacts related to both temporary construction activity and long-term operation of the project. The conclusions of this study are summarized in Table 1.

**Table 1 Summary of Impacts**

<b>Impact Statement</b>	<b>Proposed Project's Level of Significance</b>	<b>Applicable Regulations</b>
<b>Air Quality</b>		
Would the project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant Impact	None
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard?	Less than significant impact	VCAPCD Rule 55
Would the project expose sensitive receptors to substantial pollutant concentrations?	Less than significant impact	None
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant impact	VCAPCD Rule 55
<b>Greenhouse Gas Emissions</b>		
Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant impact	None
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant impact	None

## Project Location

The proposed pipeline alignment would be located in Ventura County, extending approximately 14.4 miles from near the northeast boundary of the city of Camarillo to the western boundary of the city of Simi Valley. The alignment would traverse portions of Camarillo, Moorpark, Thousand Oaks, and Simi Valley, as well as unincorporated Ventura County.

The pipeline alignment would mostly be located within the public right-of-way within paved roads and dirt shoulders. A portion of the alignment would extend under private property at the northeast corner of the intersection of Las Posas Road and Upland Road, which is currently developed for agricultural production. Roadways along the project alignment include Upland Road, Santa Rosa Road, Read Road, Sunset Valley Road, and Tierra Rejada Road. Regional access would be provided by Somis Road (State

Route 34), State Route 23, State Route 118, and United States 101. Figure 1 shows the regional location of the project site and Figure 2 shows the alignments of both phases of the proposed project.

## **Project Description**

The proposed project would install an underground pipeline composed of polyvinyl chloride (PVC) and high-density polyethylene (HDPE) materials. The proposed project would consist of two phases, Phase 3 and Phase 4, that would connect additional dischargers to the CRSMP. Discharges to these phases, as well as previously constructed phases, would intermingle and combine to create the effluent discharged through the ocean outfall. Phase 3 would install 5.1 miles (27,000 feet) of pipeline starting at the eastern end of the existing CRSMP on the west side of Somis Road and would terminate just past Hill Canyon Road on Santa Rosa Road. Phase 4 would install 9.3 miles (49,000 feet) of pipeline from the end point of Phase 3 to the intersection of Tierra Rejada Road and Madera Road.

### *Construction*

Construction is anticipated to require approximately 16 months for Phase 3 and 30 months for Phase 4. Phases 3 and 4 of the CRSMP would typically be installed in 20- to 40-foot sections. The majority of the pipeline would be installed via conventional open-cut trench construction methods. Trenchless construction methods would be used to cross below existing drainage channels. Trenchless construction methods would also be used to cross Somis Road, Santa Rosa Road, and busy intersections to minimize traffic impacts.

The typical construction sequence for the proposed project would include the following pipeline installation phases:

- **Open-cut trench pipeline installation** typically consists of trench excavation (including saw cutting of pavement where applicable), pipe bedding stabilization, pipe installation, and backfill. The construction crew would typically operate a backhoe and/or excavator, compaction equipment (attachment on an excavator and hand-operated equipment), dump trucks for stockpiling of soils and delivery of backfill material, utility trucks (with truck-mounted or towed generator and hand tools), and water trucks/water buffalos. Where required by the jurisdictional agency to backfill with sand cement slurry, concrete trucks would deliver slurry to the project site.
- **Trenchless installation** typically consists of excavation of launching and receiving pits (including saw cutting of pavement where applicable), installation of shoring system and boring equipment, installation of steel casing and pipeline, removal of equipment, and backfill. This step typically includes the excavation and backfill of the pits using an excavator, dump truck, and potentially a second mini excavator inside the pits. The trenchless installation would be performed by operating a crane to lower and remove equipment and materials.
- **Paving and ground restoration** typically is performed at the completion of each segment of pipeline and then at the end of a project once all excavation and backfill operations have been completed.

The maximum depth of excavation typically would be 8 feet. Where the pipeline would need to cross below an existing utility or drainage channel, the depths may be greater and would depend on the characteristics of the utility or channel.

Based on an installation rate of 80 feet per day<sup>1</sup> and a 4-foot-wide trench, the average amount of excess spoils requiring removal would be approximately 60 cubic yards per day and would require approximately 7 haul roundtrips per day. The average daily number of heavy-duty trucks hauling material to and from the construction site (including the delivery of pipe sections and miscellaneous supplies, hauling of pipe bedding and backfill materials, and removal of excess spoils) would be approximately 14 haul roundtrips per day.

Generally, trench spoils would be temporarily stockpiled within the construction staging and storage area, then backfilled to the trench after pipeline installation or hauled away for re-use or disposal at an appropriately licensed landfill. Storage of materials and equipment would be dependent upon the location of the contractor and subcontractors. If the contractors are local, they may store equipment and materials in their own yards.

If groundwater dewatering is required based on site conditions, the project would adhere to applicable rules and regulations related to discharge. Depending on the quality of the dewatered groundwater, water could be trucked off-site for reuse for dust control and irrigation.

During construction of the proposed project, Calleguas' construction contractor would implement best management practices (BMPs) in accordance with the project's specifications, including the following measures for the protection of air quality: dust control would be conducted during ground-disturbing activities using an approved method such as water application; no substantial ground-disturbing activities would be conducted during periods of high winds; on-site construction vehicles would not travel at speeds greater than 15 miles per hour in unpaved areas; and trucks transporting earth material to or from the project site would be covered and would maintain a minimum two-foot freeboard.

### *Operation*

Once construction is complete, Calleguas staff would periodically inspect the pipeline and perform routine maintenance. Valves on the appurtenances would be exercised roughly once per year and the pipeline alignment would be marked as needed in response to DigAlert (utility marking) requests.

The proposed project would operate under open channel flow, meaning the contents of the pipeline would be propelled by gravity. Project operation would not introduce new electricity demands.

In the event any project component is compromised during operation, Calleguas would temporarily cease operations and conduct emergency repairs as soon as possible; emergency response and repairs are part of Calleguas' normal operations to maintain system integrity and reliability and are not a new or increased activity associated with the project.

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<sup>1</sup> The project would install multiple sections per day at a rate of 20 to 40 feet of pipeline per section.

**Figure 1 Regional Location**



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EPS Proj, Regional, Phase 3 Locn  
 Fig 2.1 Regional Location

- Phase 3 Pipeline
- Phase 4 Pipeline
- Existing Salinity Management Pipeline

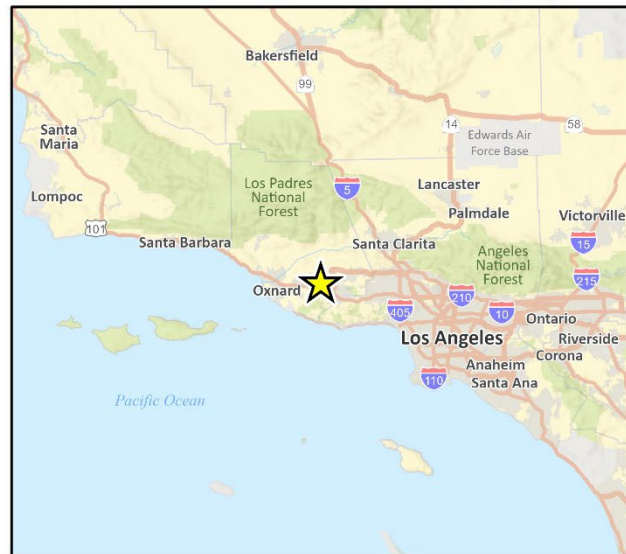
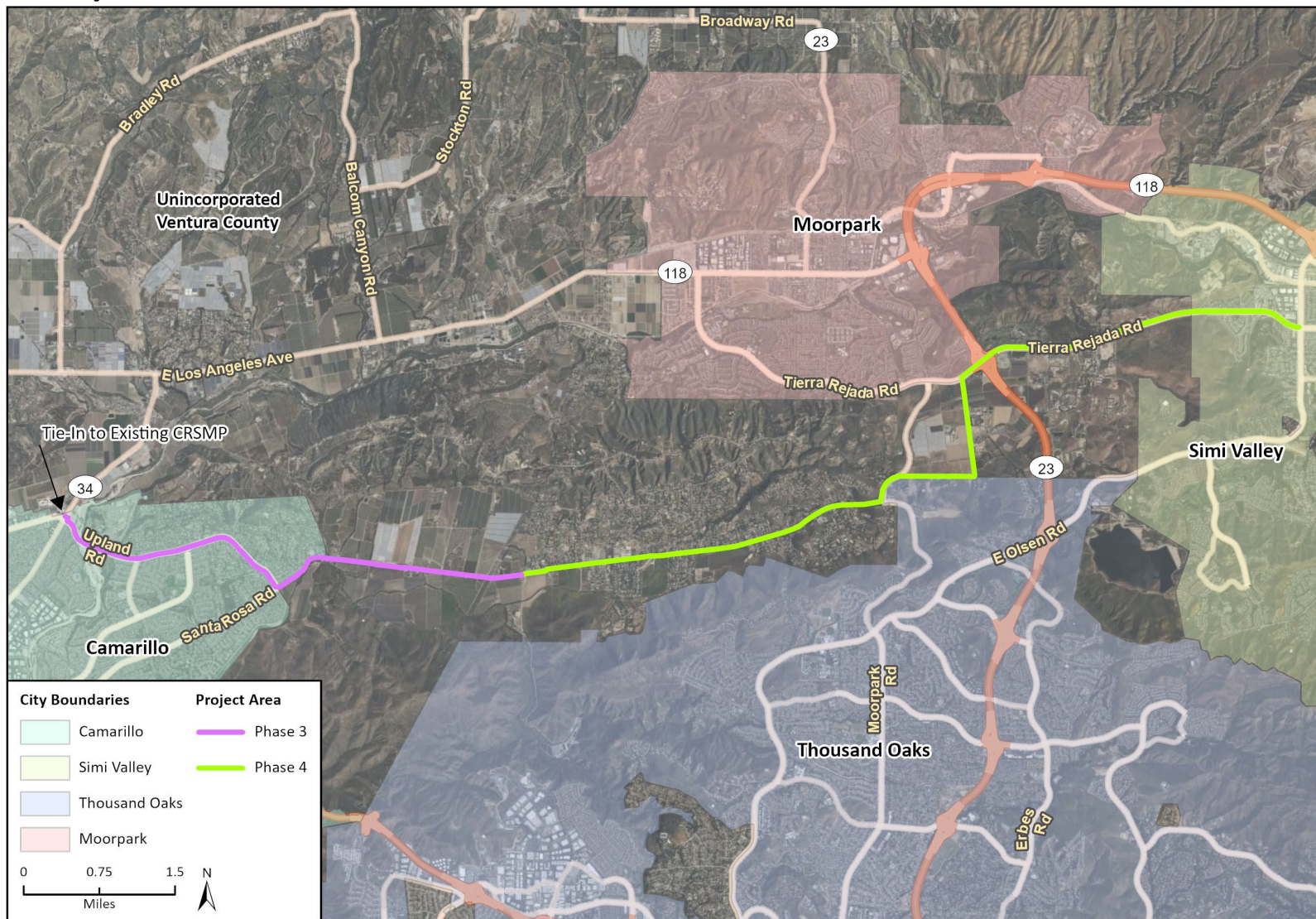




Figure 2 Project Site Location



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Additional data provided by the County of Ventura.

Proj. Regional, Phase 3 Locn  
Fig 2.2 Project Location

## 2 Background

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### 2.1 Local Climate and Meteorology

The project area is part of the South Central Coast Air Basin (SCCAB) which includes San Luis Obispo, Santa Barbara, and Ventura counties. The climate of the Ventura County area and all of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the semi-permanent high-pressure cell in the northeastern Pacific Ocean. The Mediterranean climate of the region produces moderate average temperatures, although slightly more extreme temperatures can be reached in the winter and summer. The warmest months in the project area are August and September, with an average maximum temperature of 77 degrees Fahrenheit (°F), while the coldest month of the year are December, January, and February, with an average minimum temperature of 42°F. Typically, the project area’s annual average maximum temperature is 71°F, and the annual average minimum temperature is 50°F. The climate is semi-arid, with rainfall concentrated in the winter months. Table 2 summarizes local climatic conditions.

**Table 2 Climatic Conditions in the Project Area**

Weather Condition	Value
Average annual rainfall	15.22 inches
Average maximum temperature (annual)	71°F
Average minimum temperature (annual)	50°F
Warmest month(s)	August and September
Coolest month(s)	December, January, and February

Source: United States Climate Data 2022.

California’s weather is heavily influenced by a semi-permanent high-pressure system west of the Pacific coast. The Mediterranean climate of the region and the coastal influence produce moderate temperatures year-round, with rainfall concentrated in the winter months. The sea breeze, which is the predominant wind, is a primary factor in creating this climate and typically flows from the west-southwest in a day-night cycle with speeds generally ranging from 5 to 15 miles per hour.

Two types of temperature inversions (warmer air on top of cooler air) are created in the area: subsidence and radiational. The subsidence inversion is a regional effect created by the Pacific high in which air is heated as it is compressed when it flows from the high-pressure area to the low-pressure areas inland. This type of inversion generally forms at about 1,000 to 2,000 feet and can occur throughout the year, but it is most evident during the summer months. Radiational, or surface, inversions are formed by the more rapid cooling of air near the ground at night, especially during winter. This type of inversion is typically lower and is generally accompanied by stable air. Both types of inversions limit the dispersal of air pollutants within the regional airshed, with the more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion.

## 2.1.1 Air Quality

### Air Pollutants of Concern

The federal and State Clean Air Acts mandate the control and reduction of certain air pollutants. Under these laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for criteria air pollutants that are a threat to public health and welfare. Criteria pollutants that are a concern in the SCCAB are described below.

#### *Ozone*

Ozone is a highly oxidative unstable gas produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides ( $\text{NO}_x$ ) and reactive organic compounds (ROC)/volatile organic compounds (VOC).<sup>2</sup> ROC is composed of non-methane hydrocarbons (with specific exclusions), and  $\text{NO}_x$  is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide ( $\text{NO}_2$ ).  $\text{NO}_x$  is formed during the combustion of fuels, while ROC is formed during the combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different atmosphere components. Consequently, high ozone levels tend to exist only while high ROC and  $\text{NO}_x$  levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mainly occurs in concentrations considered serious between April and October. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors (USEPA 2022a). Depending on the level of exposure, ozone can cause coughing and a sore or scratchy throat; make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath; inflame and damage the airways; make the lungs more susceptible to infection; and aggravate lung diseases such as asthma, emphysema, and chronic bronchitis.

#### *Nitrogen Dioxide*

Nitrogen dioxide ( $\text{NO}_2$ ) is a by-product of fuel combustion. The primary sources are motor vehicles, industrial boilers, and furnaces. The principal form of  $\text{NO}_x$  produced by combustion is nitric oxide (NO), but NO reacts rapidly to form  $\text{NO}_2$ , creating the mixture of NO and  $\text{NO}_2$ , commonly called  $\text{NO}_x$ .  $\text{NO}_2$  is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Breathing air with a high concentration of  $\text{NO}_2$  can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of  $\text{NO}_2$  may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma and children and the elderly are generally at greater risk for the health effects of  $\text{NO}_2$  (USEPA 2022a).  $\text{NO}_2$  absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of ozone/smog and acid rain.

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<sup>2</sup> CARB defines VOC and ROC similarly as, “any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROC and VOC are considered comparable in terms of mass emissions, and the term ROC is used in this report.

### *Carbon Monoxide*

Carbon monoxide (CO) is a localized pollutant found in high concentrations only near its source. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic's incomplete combustion of petroleum fuels. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability to get oxygenated blood to their hearts in situations where they need more oxygen than usual. As a result, they are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain, also known as angina (USEPA 2022a).

### *Particulate Matter*

Particulates less than 10 microns in diameter (PM<sub>10</sub>) and less than 2.5 microns in diameter (PM<sub>2.5</sub>) are comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM<sub>10</sub> and PM<sub>2.5</sub> are emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. The atmosphere, through chemical reactions, can form particulate matter. The characteristics, sources, and potential health effects of PM<sub>10</sub> and PM<sub>2.5</sub> can be very different. PM<sub>10</sub> is generally associated with dust mobilized by wind and vehicles. In contrast, PM<sub>2.5</sub> is generally associated with combustion processes and formation in the atmosphere as a secondary pollutant through chemical reactions. PM<sub>10</sub> can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, and surface soiling. For PM<sub>2.5</sub>, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (CARB 2022a).

### *Sulfur Dioxide*

Sulfur dioxide (SO<sub>2</sub>) is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of SO<sub>2</sub> emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO<sub>2</sub> emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO<sub>2</sub> can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO<sub>2</sub> (USEPA 2022a).

### *Lead*

Lead (Pb) is a metal found naturally in the environment, as well as in manufacturing products. The major sources of Pb emissions historically have been mobile and industrial. However, due to the USEPA's regulatory efforts to remove lead from gasoline, atmospheric Pb concentrations have declined substantially over the past several decades. The most dramatic reductions in Pb emissions occurred with the permanent phase-out of leaded gasoline, controls on emissions of Pb compounds through EPA's air toxics program, and other national and State regulations. The result was a decrease of airborne Pb concentrations by 98 percent between 1980 and 2005 (USEPA 2022a). As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest Pb level in the air is generally found near Pb smelters. Other stationary sources include waste

incinerators, utilities, and Pb-acid battery manufacturers. Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system depending on exposure. Pb exposure also affects the oxygen-carrying capacity of the blood. The Pb effects most likely encountered in current populations are neurological in children. Infants and young children are susceptible to Pb exposures, contributing to behavioral problems, learning deficits, and lowered intelligence quotient (USEPA 2022a).

### *Toxic Air Contaminants*

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TAC) are airborne substances that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70<sup>th</sup> the diameter of a human hair) and thus is a subset of PM<sub>2.5</sub>. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2022a). TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health. People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2020).

### *Valley Fever*

San Joaquin Valley Fever (formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. Infection is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by wind, construction, farming, or other activities. According to VCAPCD, the following factors may indicate a project's potential to create significant Valley Fever impacts:

- Disturbance of the topsoil of undeveloped land (to a depth of about 12 inches).
- Dry, alkaline, sandy soils.
- Virgin, undisturbed, non-urban areas.
- Windy areas.
- Archaeological resources probable or known to exist in the area (Native American midden sites).
- Special events (fairs, concerts) and motorized activities (motocross track, All Terrain Vehicle activities) on unvegetated soil (non-grass).
- Non-native population (i.e., out-of-area construction workers).

Common health effects from *Coccidioides* can include fatigue, fever, headache, rashes, and cough. In extremely rare cases, the fungal spores can enter the skin through a cut, wound, or splinter and cause a skin infection (Centers for Disease Control and Prevention 2020).

## Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, people engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. VCAPCD defines sensitive receptors as facilities or land uses which include members of the population particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Sensitive receptors listed in the VCAPCD Guidelines include residences, schools, hospitals, and daycare centers (VCAPCD 2003). Potential sensitive receptors within 100 feet of the project site include numerous single-family residences. The nearest sensitive receptors to the proposed pipeline alignment are residences immediately north and south of the Phase 3 and Phase 4 pipeline alignment.

### 2.1.2 Greenhouse Gas

Gases that trap heat in the atmosphere are known as GHGs. GHGs allow sunlight to enter the atmosphere but trap a portion of the outward-bound infrared radiation that warms the air. The process is similar to the effect greenhouses have in raising the internal temperature of the structure. Both natural processes and human activities emit GHGs. The accumulation of GHGs in the atmosphere regulates the Earth's temperature, but emissions from human activities (such as fossil fuel-based electricity production and the use of motor vehicles) have elevated the concentration of GHGs in the atmosphere. Scientists agree that this accumulation of GHGs has contributed to an increase in the temperature of the Earth's atmosphere and to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most scientists agree there is a direct link between increased emissions of GHGs and long-term global temperature increases.

The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxides (N<sub>2</sub>O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Emissions of CO<sub>2</sub> are usually by-products of fossil fuel combustion, and CH<sub>4</sub> results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases and SF<sub>6</sub>.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO<sub>2</sub>) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO<sub>2</sub>e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30



times greater than CO<sub>2</sub> on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).<sup>3</sup>

## Greenhouse Gases

### *Carbon Dioxide*

Carbon dioxide (CO<sub>2</sub>) is the primary GHG emitted through human activities. In 2020, CO<sub>2</sub> accounted for about 79 percent of all United States GHG emissions from human activities. CO<sub>2</sub> is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals). Human activities are altering the carbon cycle – both by adding more CO<sub>2</sub> to the atmosphere, and by influencing the ability of natural sinks, like forests and soils, to remove and store CO<sub>2</sub> from the atmosphere. While CO<sub>2</sub> emissions come from a variety of natural sources, human-related emissions are responsible for the increase that has occurred in the atmosphere since the industrial revolution (USEPA 2022b).

### *Methane*

Methane (CH<sub>4</sub>) is a colorless, odorless gas and is the major component of natural gas. In 2020, methane accounted for about 11 percent of all United States GHG emissions from human activities. Human activities emitting methane include leaks from natural gas systems and the raising of livestock. Methane is also emitted by natural sources such as natural wetlands. In addition, natural processes in soil and chemical reactions in the atmosphere help remove CH<sub>4</sub> from the atmosphere. Methane's lifetime in the atmosphere is much shorter than CO<sub>2</sub>, but CH<sub>4</sub> is more efficient at trapping radiation than CO<sub>2</sub>. Pound for pound, the comparative impact of CH<sub>4</sub> is 25 times greater than CO<sub>2</sub> over a 100-year period (USEPA 2022b).

### *Nitrous Oxide*

Nitrous oxide (N<sub>2</sub>O) is a clear, colorless gas with a slightly sweet odor. In 2020, nitrous oxide accounted for about seven percent of all United States GHG emissions from human activities. Human activities, such as agriculture, fuel combustion, wastewater management, and industrial processes, are increasing the amount of N<sub>2</sub>O in the atmosphere. Nitrous oxide is also naturally present in the atmosphere as part of the Earth's nitrogen cycle and has a variety of natural sources. Nitrous oxide molecules stay in the atmosphere for an average of 114 years before being removed by a sink or destroyed through chemical reactions. The impact of one pound of N<sub>2</sub>O on warming the atmosphere is almost 300 times that of one pound of carbon dioxide (USEPA 2022b).

## Greenhouse Gas Emissions Inventory

### *Global Emissions Inventory*

In 2015, worldwide anthropogenic GHG emissions totaled 47,000 billion metric tons (MT) of CO<sub>2</sub>e, which is a 43 percent increase from 1990 GHG levels (USEPA 2022c). Specifically, 34,522 million metric tons (MMT) of CO<sub>2</sub>e of CO<sub>2</sub>, 8,241 MMT of CO<sub>2</sub>e of CH<sub>4</sub>, 2,997 MMT of CO<sub>2</sub>e of N<sub>2</sub>O, and 1,001 MMT of CO<sub>2</sub>e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy

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<sup>3</sup> The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes the GWPs from the Fourth Assessment Report.

production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agricultural uses and industrial processes contributed 12 percent and 6 percent, respectively. Waste sources contributed for 3 percent and 2 percent was due to international transportation sources. These sources account for approximately 98 percent because there was a net sink of two percent from land-use change and forestry. (USEPA 2022c).

### *United States Emissions Inventory*

United States GHG emissions were 5,222 MMT of CO<sub>2</sub>e in 2020. Emissions decreased by 9 percent from 2019 to 2020; since 1990, Total United States emissions have decreased by 11 percent from 1990 to 2020. The sharp decline in emissions from 2019 to 2020 is largely due to the impacts of the coronavirus (COVID-19) pandemic on travel and economic activity; however, the decline also reflects the combined impacts of long-term trends in many factors, including population, economic growth, energy markets, technological changes including energy efficiency, and the carbon intensity of energy fuel choices. In 2020, transportation activities accounted for the largest portion (27 percent) of total United States greenhouse gas emissions. Emissions from electric power accounted for the second largest portion (25 percent), while emissions from industry accounted for the third largest portion (24 percent) of total United States greenhouse gas emissions in 2020 (USEPA 2022d).

### *California Emissions Inventory*

Based on the CARB California Greenhouse Gas Inventory for 2000-2020, California produced 369.2 MMT of CO<sub>2</sub>e in 2019, which is 35.3 MMT of CO<sub>2</sub>e lower than 2019 levels. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 37 percent of the State's total GHG emissions. The industrial sector is the second largest source, comprising 20 percent of the State's GHG emissions while electric power accounts for approximately 16 percent (CARB 2022b). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO<sub>2</sub>e (CARB 2022a). The annual 2030 statewide target emissions level is 260 MT of CO<sub>2</sub>e (CARB 2017).

## **Potential Effects of Climate Change**

Globally, climate change has the potential to affect numerous environmental resources though impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21<sup>st</sup> century than were observed during the 20<sup>th</sup> century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, with 2013 to 2021 among the warmest years from 1880 to 2021. The average global land and ocean surface temperature for January to December 2021 was 0.84°C (1.51 °F) above the 20<sup>th</sup> century average of 13.9°C (57.0°F) (National Oceanic and Atmospheric Administration 2022a). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land-Surface Air Temperature and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014, 2018).



Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (California Natural Resource Agency 2019). *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the State and regionally specific climate change case studies. However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy (California Natural Resource Agency 2019). A summary follows of some of the potential effects that climate change could generate in California.

### *Air Quality*

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C (4.3°F to 5.8°F) in the next 50 years and by 3.1 to 4.9°C (5.6°F to 8.8°F) in the next century (California Natural Resource Agency 2019). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the State has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (California Natural Resource Agency 2019). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State. With increasing temperatures, shifting weather patterns, longer dry seasons, and more dry fuel loads, the frequency of large wildfires and area burned is expected to continue to increase. (California Natural Resources Agency 2021).

### *Water Supply*

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (California Natural Resource Agency 2019). The Sierra Nevada Mountains snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack. Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (California Natural Resource Agency 2019).

### *Hydrology and Sea Level Rise*

Climate change could affect the intensity and frequency of storms and flooding (California Natural Resource Agency 2019). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.4 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2022). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Oceanic and Atmospheric Administration 2022b). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (California Natural Resource Agency 2019). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

### *Agriculture*

California has an over \$50 billion annual agricultural industry that produces over a third of the Country's vegetables and two-thirds of the Country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO<sub>2</sub> levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (California Natural Resource Agency 2019). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

### *Ecosystems and Wildlife*

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions with higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; California Natural Resource Agency 2019).

## 2.2 Regulatory Setting

### 2.2.1 Air Quality

#### **Federal and State**

The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) establish ambient air quality standards and regulatory authorities to attain those standards. As required by the CAA, the USEPA has

identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and Pb.

Under the CCAA, California has adopted the CAAQS, which are more stringent than the NAAQS for certain pollutants and averaging periods. Table 3 presents the current attainment status for each regulated pollutant and the federal and State standards for regulated pollutants. California also has established State ambient air quality standards for sulfates, hydrogen sulfide, and vinyl chloride.

As required by the federal CAA and the CCAA, air basins or portions thereof have been classified as either “attainment” or “nonattainment” for each criteria air pollutant, based on whether the standards have been achieved. The air quality in an attainment area meets or is better than the NAAQS or CAAQS. A non-attainment area has air quality that is worse than the NAAQS or CAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS.

VCAPCD is the designated air quality control agency for Ventura County. Ventura County currently meets the NAAQS for all criteria air pollutants except ozone. Ventura County is classified an attainment/maintenance area for CO and attainment for PM<sub>10</sub>. Ventura County is currently classified as a nonattainment area under the CAAQS for ozone and PM<sub>10</sub> (VCAPCD 2022). Characteristics of ozone, CO, NO<sub>2</sub>, and suspended particulates are described in the subsequent sections.

**Table 3 Federal and State Ambient Air Quality Standards**

Pollutant	Federal Attainment Status	State Attainment Status
Ozone	Non-attainment (8-hr)	Non-attainment (8-hr)/ Non-attainment (1-hr)
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Particulate Matter 10 (PM <sub>10</sub> )	Attainment	Nonattainment
Particulate Matter 2.5 (PM <sub>2.5</sub> )	Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment
Lead	No Designation/Classification	Attainment

Sources: Ventura County Air Pollution Control District, United States Environmental Protection Agency 2022e.

### *Existing Ambient Air Quality*

VCAPCD maintains the ambient air monitoring network and records air quality readings throughout Ventura County. The monitoring stations aim to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. Current air quality information is obtained from the nearest monitoring station to the project site in SCCAB. The monitoring station closest to the project site is the Thousand Oaks-Moorpark station (located at 2323 Moorpark Road, Thousand Oaks), approximately 2 and 8 miles south of the Phase 3 and 4 pipeline alignments. This station collects 8-hour ozone, hourly ozone, and PM<sub>2.5</sub> measurements. The nearest monitoring station with NO<sub>2</sub>, and PM<sub>10</sub> measurements is the Simi Valley-Cochran Street monitoring station (located at 5400 Cochran Street, Simi Valley), approximately 6 and 19 miles west of the Phase 3

and 4 pipeline alignments. Table 4 indicates the number of days each federal and State standard was exceeded at the Thousand Oaks-Moorpark Road and Simi Valley-Cochran Street monitoring stations. As shown therein, 2019, 2020, and 2021 ozone measurements exceeded the federal and State eight-hour standard. The State 1-hr ozone standard was exceeded in 2020. PM<sub>10</sub> State standards in 2019, 2020, and 2021 were exceeded and the PM<sub>2.5</sub> federal standards were exceeded in 2020. No other State or federal standards were exceeded at the monitoring stations. Since CO and SO<sub>2</sub> are in attainment within Ventura County region, they are not monitored at the nearest air monitoring stations and therefore ambient air quality is not reported for these two pollutants.

**Table 4 Ambient Air Quality at the Nearest Monitoring Station**

Pollutant	2019	2020	2021
Ozone (ppm), 8-Hr Average <sup>1</sup>	0.074	0.084	0.073
Number of Days of State exceedances (>0.070 ppm)	1	7	1
Number of days of federal exceedances (>0.070 ppm)	1	7	1
Ozone (ppm), Worst Hour <sup>1</sup>	0.082	0.097	0.077
Number of days of State exceedances (>0.09 ppm)	0	1	0
Number of days of federal exceedances (>0.112 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst Hour <sup>2</sup>	0.045	0.042	0.035
Number of days of State exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, mg/m <sup>3</sup> , Worst 24 Hours <sup>2</sup>	127.9	90.5	103.7
Number of days of State exceedances (>50 mg/m <sup>3</sup> )	4	6	3
Number of days above federal standard (>150 mg/m <sup>3</sup> )	0	0	0
Particulate Matter <2.5 microns, mg/m <sup>3</sup> , Worst 24 Hours <sup>1</sup>	24.5	36.3	20.1
Number of days above federal standard (>35 mg/m <sup>3</sup> )	0	1	0

ppm = parts per million; mg = microgram; m<sup>3</sup> = meters cubed  
<sup>1</sup>Measurements were taken at Thousand Oaks-Moorpark Road  
<sup>2</sup>Measurements were taken at Simi Valley-Cochran Street  
 Source: California Air Resources Board 2022c

## Regional

### *Air Quality Management Plans*

The federal Clean Air Act Amendments of 1990 set a schedule for the attainment of the NAAQS. States are required to prepare a SIP to develop strategies to achieve attainment of the standards. In addition, the California Clean Air Act of 1988 requires areas that exceed the California ambient air quality standards to plan for the eventual attainment of the CAAQS. VCAPCD monitors and regulates local air quality in Ventura County and implements Air Quality Management Plans (AQMPs).

The 2016 AQMP is the most recent attainment plan adopted by VCAPCD in 2017. The 2016 AQMP presents a combined local and State clean air strategy based on concurrent ROC and NO<sub>x</sub> emission reductions to bring Ventura County into attainment of the 2008 federal 8-hour ozone standard. The 2016 AQMP was prepared to satisfy federal Clean Air Act planning requirements for areas designated as

serious federal 8-hour ozone nonattainment areas, including, but not limited to, updated air quality information, an updated emissions inventory, local and State air pollutant control measures, new emission forecasts and projections, a new federal conformity budget for transportation projects, a reasonable further progress demonstration for precursors of ozone (ROC and NO<sub>x</sub>), a demonstration that Ventura County will attain the 2008 federal 8-hour ozone standard, and contingency measures (VCAPCD 2017).

### **APPLICABLE VCAPCD RULES**

VCAPCD implements rules and regulations for emissions generated by various uses and activities. The rules and regulations detail pollution-reduction measures to be implemented during construction and operation of projects. This section discusses the rules and regulations relevant to the project.

#### **RULE 50 (OPACITY)**

This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the proposed project.

#### **RULE 51 (NUISANCE)**

This rule prohibits any person from discharging air contaminants or any other material from a source which would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public or which endangers the comfort, health, safety, or repose to any considerable number of persons or the public. The rule would apply during construction and operational activities.

#### **RULE 55 (FUGITIVE DUST)**

This rule requires fugitive dust generators, including construction and demolition projects, to implement control measures limiting the amount of dust from vehicle track-out, earth moving, bulk material handling, and truck hauling activities. The rule would apply during construction and operational activities.

#### **RULE 55.1 (PAVED ROADS AND PUBLIC UNPAVED ROADS)**

This rule requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public unpaved road. This rule would apply throughout all construction activities.

#### **RULE 55.2 (STREET SWEEPING EQUIPMENT)**

This rule requires the use of PM<sub>10</sub> efficient street sweepers for routine street sweeping and for removing vehicle track-out pursuant to Rule 55. This rule would apply during all construction activities.

#### **RULE 74.4 (CUTBACK ASPHALT)**

This rule sets limits on the type of application and ROC content of cutback and emulsified asphalt. The proposed project is required to comply with the type of application and ROC content standards set forth in this rule.

## 2.2.2 Greenhouse Gas

### **Federal Regulations**

#### *Federal Clean Air Act*

The United States Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 United States 05-1120) that the USEPA has the authority to regulate motor vehicle GHG emissions under the federal CAA. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when CAA permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the United States Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

#### *Safer Affordable Fuel-Efficient Vehicles Rule*

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the USEPA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO<sub>2</sub> emissions standards for passenger cars and trucks of model years 2021-2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020). To account for the effects of the SAFE Vehicles Rule, CARB released off-model adjustment factors on June 26, 2020 to adjust GHG emissions outputs from the EMFAC model<sup>4</sup> (CARB 2020).

### **State Regulations**

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. There are numerous regulations aimed at reducing the State's GHG emissions. These initiatives are summarized below.

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the USEPA granted the waiver of CAA preemption to California for its GHG emission standards for motor vehicles, beginning with the

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<sup>4</sup> The EMFAC (short for Emission FACTor) model estimates the emissions inventories of on-road mobile sources in California. The model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California, and to support CARB's regulatory and air quality planning efforts.

2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the USEPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as “LEV (Low Emission Vehicle) III GHG,” regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles, and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels.

### *California Global Warming Solutions Act of 2006 (Assembly Bill 32 and Senate Bill 32)*

The “California Global Warming Solutions Act of 2006” (AB 32) outlines California’s major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO<sub>2</sub>e which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan’s approval.

CARB approved the 2013 Scoping Plan update in May 2014. The update defined CARB’s climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State’s longer term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of 6 MT of CO<sub>2</sub>e by 2030 and 2 MT of CO<sub>2</sub>e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

The Draft 2022 Scoping Plan Update has been prepared to assess the progress towards the 2030 target as well as to outline a plan to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State’s long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022d).

### *Senate Bill 375*

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the State’s ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPO) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO’s Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as “transit priority projects”) can receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in per capita GHG emissions from passenger vehicles by 2020<sup>5</sup> and a 19 percent reduction in per capita GHG emissions from passenger vehicles by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

### *Senate Bill 1383*

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statutes of 2016) requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

### *Executive Order B-55-18*

On September 10, 2018, Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

### *Executive Order N-79-20*

On September 23, 2020, Governor Newsom issued EO N-79-20, which established the following new statewide goals:

- All new passenger cars and trucks sold in-State to be zero-emission by 2035;
- All medium- and heavy-duty vehicles in the State to be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and
- All off-road vehicles and equipment to be zero-emission by 2035 where feasible.

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<sup>5</sup> SCAG met 2020 GHG reduction but confirmation from CARB is still pending.



EO N-79-20 directs CARB, the Governor's Office of Business and Economic Development, the California Energy Commission, the California Department of Transportation, and other state agencies to take steps toward drafting regulations and strategies and leveraging agency resources toward achieving these goals.

### *The California Climate Crisis Act (Assembly Bill 1279)*

AB 1279 was passed on September 16, 2022 and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045. In addition, it requires that the State achieve and maintain net negative greenhouse gas emissions and ensure that, by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below 1990 levels. The bill would require updates to the Scoping Plan (once every five years) to implement various policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies.

## **Regional Regulations**

### *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

## 3 Impact Analysis

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### 3.1 Methodology

Criteria pollutant and GHG emissions for proposed project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. VCAPCD identifies separate ozone significance thresholds for the following three geographic areas within Ventura County: (1) the Ojai Planning Area, (2) the city of Simi Valley, and (3) the remainder of Ventura County. The proposed project is a linear pipeline that traverses across two of these geographic areas: the city of Simi Valley and the remainder of Ventura County (outside of the Ojai Planning Area). As such, both of those ozone significance thresholds are applicable to the proposed project. The remainder of Ventura County (outside of the Ojai Planning Area) thresholds are expressed in pounds per day, while the city of Simi Valley thresholds are expressed in tons per year.

This analysis conservatively compares total project emissions against both sets of applicable ozone significance thresholds. In reality, a subset of project emissions would occur within the city of Simi Valley geographic area and another subset would occur within the remainder of Ventura County (outside of the Ojai Planning Area) geographic area.

CalEEMod output files for the projects are included in Attachment A.

#### Construction Emissions

Construction emissions modeled include on-site construction equipment and vehicle trips, such as worker and truck hauling trips. CalEEMod estimates construction emissions by multiplying the time equipment is in operation by emission factors.

The proposed project's construction was analyzed based on the construction duration, equipment list, and construction-related vehicle trips provided by Calleguas. The construction for Phases 3 and 4 would have an area of disturbance of 108,000 and 196,000 square feet,<sup>6</sup> respectively.

Due to uncertainties about the anticipated timing of dischargers, duration of permitting and design, and other considerations, there is currently no planned start date. For the purposes of air quality modeling, the construction start date for Phase 3 was conservatively assumed to begin in June 2024, and Phase 4 construction was assumed to start at the end of Phase 3. Project construction was therefore calculated to conclude in February 2028. Realistically, construction would likely begin later than June 2024. However, this calculated start date offers a realistically conservative estimate of air quality emissions, as it is assumed a later start date would yield equal or decreased emissions due to a number of factors including increasing equipment efficiency standards. Open-cut trench and trenchless construction schedules were estimated based on pipeline installation rates provided by Calleguas.

Phase 3 construction is estimated to consist of 460 linear feet of trenchless construction and 25,740 linear feet of open-cut trench construction. Based on a trenchless pipeline installation rate of

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<sup>6</sup> Pipeline would be installed inside a 4-foot-wide trench. Therefore, Phase 3 (27,000 linear feet) and Phase 4 (49,000 linear feet) pipeline would disturb 108,000 square feet (27,000 linear feet x 4 feet) and 196,000 square feet (49,000 linear feet x 4 feet), respectively.

100 feet per 24 days, trenchless construction would occur for approximately 111 working days.<sup>7</sup> In addition, assuming a pipeline installation rate of 80 feet per day, open-cut trench construction would last approximately 322 days.<sup>8</sup> In addition, it was assumed pipeline installation across the Upland Road bridge would be performed in approximately two weeks. Paving and ground restoration activity would occur after pipeline installation. CalEEMod default assumptions are used to estimate the paving and ground restoration schedule.

Phase 4 construction is estimated to consist of 400 linear feet of trenchless construction and 48,600 linear feet of open-cut trench construction. Based on a trenchless pipeline installation rate of 100 feet of pipeline installation every 24 working days, trenchless construction would occur for approximately 96 working days.<sup>9</sup> In addition, assuming an open-cut trench pipeline installation rate of 80 feet per day, open-cut trench construction was assumed to last approximately 608 days.<sup>10</sup> Paving and ground restoration activity would occur after pipeline installation. CalEEMod default assumptions are used to estimate the paving and ground restoration schedule.

The analysis assumes construction equipment would not be operating continually. Each piece of construction equipment is estimated to be operated up to five hours per day. In addition, construction equipment is assumed to be diesel-powered. It was also assumed the project would comply with all applicable regulatory standards. In particular, it was assumed the project would comply with VCAPCD Rule 55 for fugitive dust control measures, which are discussed under Section 2.3, *Air Quality Regulation*. Construction activities were assumed to include 14 daily hauling round trips to transport material to and from the site with heavy-duty trucks.

## Operational Emissions

Maintenance activities would occur annually and on an as-needed basis. Approximately one vehicle trip by maintenance staff per year would occur. It was assumed routine maintenance and inspection vehicle trips would occur from the District's office to and along the Phase 3 and 4 pipeline alignments, which is approximately 40 vehicle miles total. Operational area sources were assumed to include off-gassing of repaved roadways and painted roadway striping.

### CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The entire Basin is in conformance with State and federal CO standards, and most air quality monitoring stations no longer report CO levels. There are no representative air monitoring stations near the project site measuring CO levels. The 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 (BAAQMD 2017). The construction and operations of this project would generate negligible long-term traffic volumes and would not emit the levels of CO necessary to result in a localized hot spot. Therefore, CO hotspots are not discussed further in this document.

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<sup>7</sup> The project would install approximately 100 feet of pipeline per 24 days. Trenchless construction = 111 days (460 linear feet/100 linear feet then multiply by 24 days)

<sup>8</sup> The project would install approximately 80 feet of pipeline per day. Open-cut trench = 322 days (25,740 linear feet/80 feet per day).

<sup>9</sup> The project would install approximately 100 feet of pipeline per 24 days. Trenchless construction = 96 days (400 linear feet/100 linear feet then multiply by 24 days)

<sup>10</sup> The project would install approximately 80 feet of pipeline per day. Open-cut trench = 608 days (48,600 linear feet/80 feet per day).

## 3.2 Significance Thresholds

Based on the *CEQA Guidelines*, the project would have a significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project site's region is in non-attainment under an applicable federal or State ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

### 3.2.1 Air Quality

VCAPCD's Ventura County Air Quality Assessment Guidelines (2003) recommend specific air criteria pollutant emission thresholds for determining whether a project may have a significant adverse impact on air quality within the Basin. VCAPCD identifies separate ozone significance thresholds for (1) the Ojai Planning Area, (2) the city of Simi Valley, and (3) the remainder of Ventura County. The proposed project is a linear pipeline that traverses across two of these geographic areas: the city of Simi Valley and the remainder of Ventura County (outside of the Ojai Planning Area). As such, both of those ozone significance thresholds are applicable to the proposed project.

VCAPCD recommends a 25 pounds per day (lbs/day) significance threshold for ozone precursor emissions (ROC and NO<sub>x</sub>) in Ventura County for areas outside of the Ojai Planning Area and Simi Valley. For development projects in Simi Valley, VCAPCD notes a significance threshold of 13.7 tons per year for ozone precursors is used, as directed by the City of Simi Valley City Council. These thresholds indicate if a project would jeopardize the attainment of the ozone standard. Both Ventura County and Simi Valley thresholds are applicable to the project, and they represent different time scales. Therefore, this analysis adopts both of these significance thresholds for the project. Impacts would be considered significant if the project's emissions exceed 25 lbs/day or 13.7 tons per year for ozone precursors. VCAPCD BMPs are required if project emissions exceed the ozone precursor thresholds.

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

### 3.2.2 Greenhouse Gas Emissions

The significance criteria used to evaluate the project impacts to GHG emissions are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 California Code of Regulations 15000 et seq.). For the purposes of the GHG analysis, a significant impact would occur if the project would:

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

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines*, Section 15064[h][1]).

According to the State CEQA Guidelines, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions.

The County of Ventura developed an integrated approach to address climate change in the Ventura County 2040 General Plan, which serves as the County's CAP. The 2040 General Plan is a qualified GHG emissions reduction plan that future projects can tier from the cumulative GHG analysis in the 2040 General Plan Draft EIR. However, the 2040 General Plan does not establish a quantitative significance threshold for evaluating GHG emissions in CEQA analyses. The City of Simi Valley CAP aims to reduce emissions attributable to Simi Valley to levels at or below 1990 GHG emissions by the year 2020, consistent with the target reductions of AB 32. However, the Simi Valley CAP does not address post-2020 target reduction, intending to adopt a new plan by January 1, 2020. The City of Simi Valley has yet to adopt a new plan post-2020; therefore, the City of Simi Valley does not have an established significance threshold for evaluating GHG emissions. The Cities of Camarillo, Moorpark, and Thousand Oaks do not have adopted CAPs or numeric GHG thresholds. In addition, Calleguas does not have a formal CAP or GHG reduction plan. In the absence of any adopted numeric threshold, the significance of the project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For this project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the 2017 Scoping Plan. GHG emissions from the construction and operation of the project are provided for informational purposes.

### 3.3 Project-Level Air Quality Project Impacts

**Threshold 1:** Conflict with or obstruct implementation of the applicable air quality plan?

**Impact AQ-1 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT THE IMPLEMENTATION OF THE VCAPCD 2016 AIR QUALITY MANAGEMENT PLAN. NO IMPACT WOULD OCCUR.**

A project may be inconsistent with the applicable air quality plan if the project would generate population, housing, or employment growth exceeding the forecasts used in the development of the plan. This analysis examines the proposed project’s consistency with VCAPCD’s 2016 Ventura County AQMP. The 2016 Ventura County AQMP relies on SCAG’s 2016 Regional Transportation Plan/Sustainable Communities Strategy forecasts of regional population growth in its projections for managing Ventura County’s air quality (SCAG 2016).

The proposed project would involve construction of a brine and recycled water pipeline. No direct growth would occur as a result of the project because it does not propose new homes, businesses, or other land uses that would generate population growth. As discussed in the 2014 Supplemental Environmental Impact Report for Phase 2 of the CRSMP, any additional water supply projects facilitated by the extended CRSMP would improve the reliability of local water supplies and reduce the region’s reliance on imported supplies. These projects have likely been identified already in planning documents such as Urban Water Management Plans (UWMPs). For example, the Camrosa Water District’s 2020 UWMP identifies a potential groundwater desalter project to treat for nitrates in the Santa Rosa Basin. If developed, the desalter would discharge brine from the treatment process to the CRSMP. According to the UWMP, the purpose of the desalter would be to improve water quality in the Santa Rosa Basin and increase Camrosa Water District’s self-reliance (Camrosa Water District 2021). The project would therefore not generate population, housing, or employment growth exceeding the forecasts used in the development of the plan.

Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plans. No impact would occur.

**Threshold 2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the site’s project region is in non-attainment under an applicable federal or State ambient air quality standard?

**Impact AQ-2 THE PROJECT WOULD NOT VIOLATE ANY AIR QUALITY STANDARDS OR CONTRIBUTE SUBSTANTIALLY TO AN EXISTING OR PROJECTED AIR QUALITY VIOLATION OR RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT SITE’S REGION IS IN NONATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

The proposed project would generate short-term emissions associated with project construction and negligible operational emissions associated with worker trips for maintenance and inspection of the pipeline. Construction and operational emissions were estimated using the CalEEMod version 2020.4.0.

#### Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust and exhaust emissions from heavy-duty construction vehicles. The excavation phase of the project would involve the largest use of heavy equipment and generation of fugitive dust. As

shown in Table 5 and Table 6, based on the duration of construction activities and the equipment to be utilized on site, the proposed project's short-term construction-related emissions of ROC or NO<sub>x</sub> would not exceed the VCAPCD threshold of 13.7 tons per year in Simi Valley and 25 lbs/day for elsewhere in Ventura County. In addition, the project would include BMPs to control fugitive dust consistent with Ventura County Air Quality Assessment Guidelines, Section 7.4.1. Therefore, construction-related project emissions would not violate air quality standards, and impacts would be less than significant.

**Table 5 Estimated Maximum Daily Construction Emissions (lbs/day)**

	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Phase 3</b>						
2024	2	17	21	<1	2	1
2025	1	9	13	<1	1	1
<b>Phases 4</b>						
2025	2	18	22	<1	3	1
2026	2	18	20	<1	3	1
2027	1	9	14	<1	1	1
2028	1	9	14	<1	1	1
<b>Maximum Emissions</b>	<b>2</b>	<b>18</b>	<b>22</b>	<b>&lt;1</b>	<b>3</b>	<b>1</b>
VCAPCD Thresholds <sup>1</sup>	25	25	N/A	N/A	N/A	N/A
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

VCAPCD = Ventura County Air Pollution Control District; ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

<sup>1</sup>VCAPCD Threshold for Ventura County outside of Ojai Planning Area.

Notes: This table provides a conservative analysis and presents the maximum daily emissions when the construction phases overlap. See Attachment A for modeling details and CalEEMod results.

Some totals may not add up due to rounding. Emissions data is sourced from "Table 2.1 Construction Emission" results in Attachment A, which incorporate emissions reductions from measures to be implemented during project construction, such as watering of soils during construction required under VCAPCD Rule 55.

**Table 6 Estimated Annual Construction Emissions (tons/year)**

	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Phase 3</b>						
2024	<1	1	1	<1	<1	<1
2025	<1	1	1	<1	<1	<1
<b>Phases 4</b>						
2025	<1	1	1	<1	<1	<1
2026	<1	1	2	<1	<1	<1
2027	<1	1	2	<1	<1	<1
2028	<1	<1	<1	<1	<1	<1
<b>Maximum Emissions</b>	<b>&lt;1</b>	<b>1</b>	<b>2</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
VCAPCD Thresholds <sup>1</sup>	13.7	13.7	N/A	N/A	N/A	N/A
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

VCAPCD = Ventura County Air Pollution Control District; ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

<sup>1</sup>VCAPCD Threshold for Simi Valley.

Notes: This table provides a conservative analysis and presents the maximum daily emissions when the construction phases overlap. See Attachment A for modeling details and CalEEMod results.

Some totals may not add up due to rounding. Emissions data is sourced from “Table 2.1 Construction Emission” results in Attachment A, which incorporate emissions reductions from measures to be implemented during project construction, such as watering of soils during construction required under VCAPCD Rule 55.

## Operational Emissions

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., off-gassing of repaved roadways and roadway striping) and mobile sources. The project’s operational mobile emissions would include annual site visits to the pipeline alignment for visual inspection, maintenance activities, and as-needed repairs. Table 7 and Table 8 summarizes the project’s maximum daily operational emissions. As shown therein, operational emissions would not exceed VCAPCD guideline of 13.7 tons per year in Simi Valley and 25 lbs/day for elsewhere in Ventura County. Therefore, impacts associated with operational emissions would be less than significant.



**Table 7 Estimated Maximum Daily Operational Emissions (lbs/day)**

Emissions Source	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Phase 3</b>						
Area	<1	<1	<1	<1	<1	<1
<b>Phase 4</b>						
Area	<1	<1	<1	<1	<1	<1
<b>Phase 3 &amp; 4 Combined Mobile Emissions</b>						
Mobile	<1	<1	<1	<1	<1	<1
<b>Total</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
VCAPCD Thresholds <sup>1</sup>	25	25	N/A	N/A	N/A	N/A
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

VCAPCD = Ventura County Air Pollution Control District; ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

<sup>1</sup>VCAPCD Threshold for Ventura County outside of Ojai Planning Area.

See Attachment A for modeling details and CalEEMod results.

Notes: Some totals may not add up due to rounding. Emissions data is sourced from "Table 2.2 Operational Emission" results in Attachment A, which incorporate emissions reductions from measures to be implemented during project construction, such as watering of soils during construction required under VCAPCD Rule 55.

**Table 8 Estimated Annual Operational Emissions (tons/year)**

Emissions Source	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Phase 3</b>						
Area	<1	<1	<1	<1	<1	<1
<b>Phase 4</b>						
Area	<1	<1	<1	<1	<1	<1
<b>Phase 3 &amp; 4 Combined Mobile Emissions</b>						
Mobile	<1	<1	<1	<1	<1	<1
<b>Total</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
VCAPCD Thresholds <sup>1</sup>	13.7	13.7	N/A	N/A	N/A	N/A
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

VCAPCD = Ventura County Air Pollution Control District; ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter 10 microns or less in diameter; PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

<sup>1</sup>VCAPCD Threshold for Simi Valley.

See Attachment A for modeling details and CalEEMod results.

Notes: Some totals may not add up due to rounding. Emissions data is sourced from "Table 2.2 Operational Emission" results in Attachment A, which incorporate emissions reductions from measures to be implemented during project construction, such as watering of soils during construction required under VCAPCD Rule 55.

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

**Impact AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS RELATED TO TACS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

### Toxic Air Contaminants

Health impacts associated with TACs are generally associated with long-term exposure. The greatest potential for TAC emissions would be during construction, which may result in a short-term increase of TAC emissions.

#### *Construction*

The greatest potential for TAC emissions during construction would be from heavy equipment operations that generate DPM emissions. Generation of DPM from construction projects typically occurs in a single area for a short period. As discussed under Impact AQ-2, project construction would result in emissions of criteria pollutants, including PM<sub>10</sub>, ROC, and NO<sub>x</sub>. The construction emissions for the proposed project would move linearly along the Phase 3 and 4 pipeline alignments. The project would install approximately 80 feet of pipeline per day and would expose sensitive receivers to construction TAC emissions for approximately 25 days.<sup>11</sup> Therefore, exposure at a given sensitive receptor within 1,000 feet of heavy equipment use would occur for less than two months. Thus, the project would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

#### *Operational*

Sources of operational TACs typically include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities. The proposed project is not one of these uses. In addition, the proposed project would not require any new or additional stationary sources of air pollutant emissions. Therefore, no impact would occur.

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

**Impact AQ-4 THE PROJECT WOULD NOT SUBSTANTIALLY INCREASE THE RISK OF VALLEY FEVER OR GENERATE ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

Valley Fever is known to occur in Ventura County soils, and exposure risk is highest from agricultural and construction activities. The fungal spores responsible for Valley Fever generally grow in virgin, undisturbed soil. Soils along the project's pipeline alignment are already disturbed from construction of roadways, commercial structures, and residences, as well as activities associated with agricultural production. Due to the previous amount of disturbance on the project alignment, disturbance of soils during construction activities is unlikely to pose a substantial risk of infection of Valley Fever to construction workers or people residing or working in the project area. Standard construction measures

<sup>11</sup> CARB recommends siting sensitive receptors 1,000 feet from TAC emitting sources (CARB 2005). A sensitive receptor would be exposed to the project construction approaching from 1,000 feet away and project construction residing 1,000 feet away. Therefore, a sensitive receptor would be exposed for 25 days = (2,000 feet divided by 80 feet installation per day).

incorporated as part of the proposed project would reduce fugitive dust generation, which would further minimize the potential risk of infection. Therefore, construction of the proposed project would not substantially increase the risk to public health above existing background levels, and impacts related to Valley Fever would be less than significant.

Project construction could generate odors associated with heavy-duty equipment operation and earth-moving activities. Such odors would be temporary in nature and limited to the duration of construction in the vicinity of a given receptor. The proposed pipeline would be installed below ground and would not create objectionable odors during project operation. With respect to operation, CARB's Air Quality and Land Use Handbook: A Community Health Perspective (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of odors (e.g., sewage treatment plants, landfills, recycling facilities, biomass operations, autobody shops, fiberglass manufacturing, and livestock operations). Recycled water and/or brine discharge pipeline operations are not identified on this list. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people, and impacts would be less than significant.

### 3.4 Project-Level Greenhouse Gas Project Impacts

<b>Threshold 1:</b>	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
<b>Threshold 2:</b>	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Impact GHG-1 THE PROPOSED PROJECT WOULD BE CONSISTENT WITH THE COUNTY OF VENTURA 2040 GENERAL PLAN, CITY OF CAMARILLO GENERAL PLAN, CITY OF THOUSAND OAKS GENERAL PLAN, CITY OF MOORPARK GENERAL PLAN, CITY OF SIMI VALLEY GENERAL PLAN, AND THE 2017 SCOPING PLAN. THEREFORE, THE PROJECT WOULD NOT GENERATE GREENHOUSE GAS EMISSIONS THAT WOULD HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.**

This analysis evaluates the proposed project against the goals of the 2017 Scoping Plan. Approximately 2 percent of total energy usage in California is used for the conveyance, treatment, and distribution of water (CARB 2017). One of the goals of the 2017 Scoping Plan is to “develop and support more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system with a focus on actions that provide direct GHG reductions” (CARB 2017). The proposed project would facilitate the utilization of local water sources by providing a mechanism to efficiently dispose of the concentrate generated during treatment of these water sources. Therefore, although the project would generate temporary construction and minimal operational emissions, the project would ultimately be consistent with the goals of CARB's 2017 Scoping Plan.

The proposed project would not be in conflict with any applicable plans, policies, or regulations for the purpose of reducing GHG emissions. Therefore, impacts related to GHG emissions would be less than significant.

Project construction would generate GHG emissions from the operation of heavy machinery for the pipeline, and equipment and materials haul truck trips and construction worker trips to and from the project site. Construction GHG emissions were estimated using CalEEMod version 2020.4.0. Operation of the proposed project would generate minimal GHG emissions associated with the area and mobile

sources, such as off-gassing of paved roads and pipeline maintenance and inspection trips. The pipeline itself would not generate new demand for electricity, water supply, or natural gas. Maintenance activities would occur annually from the District’s office along the pipeline alignment length. Quantification of GHG emissions from construction and operational activities are provided for informational purposes.

### Construction Emissions

As shown in Table 9, construction of the proposed project would generate an estimated total of 1,784 MT CO<sub>2</sub>e. The Association of Environmental Professionals (2016) recommends GHG emissions from construction be amortized over 30 years<sup>12</sup> and added to operational GHG emissions to determine the overall impact of a project. The construction of the proposed project would generate an estimated 59 MT CO<sub>2</sub>e per year over a 30-year period.

**Table 9 Estimated Construction Emissions of Greenhouse Gases**

Construction	Project Emissions MT CO <sub>2</sub> e
<b>Construction Emissions</b>	
<b>Phase 3</b>	
2024	354
2025	292
<b>Phase 4</b>	
2025	183
2026	483
2027	437
2028	35
<b>Total Construction Emissions</b>	<b>1,612</b>
<b>Amortized Construction Emissions (over 30 years)</b>	<b>59</b>
MT CO <sub>2</sub> e = metric tons of carbon dioxide equivalent	
Source: Attachment A CalEEMod worksheets	

Table 10 combines the estimated construction and operational GHG emissions associated with development of the project. Operation of the project would generate an estimated one maintenance vehicle trip per year, resulting in negligible annual mobile GHG emissions. As shown in Table 10, annual emissions from the proposed project would be approximately 59 MT of CO<sub>2</sub>e per year with amortized construction emissions. Impacts related to GHG emissions would be less than significant.

<sup>12</sup> The lifetime of the project is anticipated to be longer than 30 years; therefore, the analysis is conservative.

**Table 10 Combined Annual Emissions of Greenhouse Gases**

<b>Emission Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
<b>Construction<sup>1</sup></b>	<b>59</b>
<b>Operations Phase 3</b>	
Area	<1
Energy	<1
Mobile	<1
Solid Waste	<1
Water, Wastewater	<1
<b>Operations Phase 4</b>	
Area	<1
Energy	<1
Mobile	<1
Solid Waste	<1
Water, Wastewater	<1
<b>Total</b>	<b>59</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent

<sup>1</sup> Amortized construction related GHG emissions over 30 years

Source: Attachment A CalEEMod worksheets.

## 4 References

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# Attachment A

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CalEEMod Outputs

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 3- AQ  
Ventura County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	108.00	1000sqft	2.48	108,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (27,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant provided information, 80 feet installation per day would occur. Based on project details, Phase 3 would have 460 LF of trenchless activity, crossing upland road bridge would take 2 weeks, and the remainder would be open-cut trench.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Grading -

Vehicle Trips - Based on applicant provided information. Maintenance and inspection work trips would occur annually for one day with one worker vehicle that would travel from the District's office to the pipeline and back.

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	10.00
tblConstructionPhase	NumDays	220.00	33.00
tblConstructionPhase	NumDays	220.00	322.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	6.00	79.00
tblConstructionPhase	NumDays	6.00	322.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,095.00
tblTripsAndVMT	HaulingTripNumber	0.00	451.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,505.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblVehicleTrips	CW_TL	9.50	0.11
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1258	1.1017	1.3712	3.8200e-003	0.0770	0.0388	0.1158	0.0207	0.0374	0.0581	0.0000	347.8838	347.8838	0.0503	0.0173	354.3033
2025	0.1086	0.8579	1.2148	3.1700e-003	0.0657	0.0295	0.0952	0.0176	0.0284	0.0460	0.0000	287.6403	287.6403	0.0431	0.0119	292.2578
<b>Maximum</b>	<b>0.1258</b>	<b>1.1017</b>	<b>1.3712</b>	<b>3.8200e-003</b>	<b>0.0770</b>	<b>0.0388</b>	<b>0.1158</b>	<b>0.0207</b>	<b>0.0374</b>	<b>0.0581</b>	<b>0.0000</b>	<b>347.8838</b>	<b>347.8838</b>	<b>0.0503</b>	<b>0.0173</b>	<b>354.3033</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1258	1.1017	1.3711	3.8200e-003	0.0770	0.0388	0.1158	0.0207	0.0374	0.0581	0.0000	347.8836	347.8836	0.0503	0.0173	354.3031
2025	0.1086	0.8579	1.2148	3.1700e-003	0.0657	0.0295	0.0952	0.0176	0.0284	0.0460	0.0000	287.6401	287.6401	0.0431	0.0119	292.2575
<b>Maximum</b>	<b>0.1258</b>	<b>1.1017</b>	<b>1.3711</b>	<b>3.8200e-003</b>	<b>0.0770</b>	<b>0.0388</b>	<b>0.1158</b>	<b>0.0207</b>	<b>0.0374</b>	<b>0.0581</b>	<b>0.0000</b>	<b>347.8836</b>	<b>347.8836</b>	<b>0.0503</b>	<b>0.0173</b>	<b>354.3031</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-3-2024	9-2-2024	0.5292	0.5292
2	9-3-2024	12-2-2024	0.5668	0.5668
3	12-3-2024	3-2-2025	0.3463	0.3463
4	3-3-2025	6-2-2025	0.3418	0.3418
5	6-3-2025	9-2-2025	0.3408	0.3408
6	9-3-2025	9-30-2025	0.0519	0.0519
		Highest	0.5668	0.5668



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.5700e-003	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.9000e-004	9.0000e-005	7.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0273	0.0273	2.0000e-005	1.0000e-005	0.0299
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.7600e-003</b>	<b>1.0000e-004</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0292</b>	<b>0.0292</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0320</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.5700e-003	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.9000e-004	9.0000e-005	7.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0273	0.0273	2.0000e-005	1.0000e-005	0.0299
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.7600e-003</b>	<b>1.0000e-004</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0292</b>	<b>0.0292</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0320</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation - Pipe-in-a-Bridge	Grading	6/3/2024	6/14/2024	5	10	
2	Installation - Pipe-in-a-Bridge	Building Construction	6/3/2024	6/14/2024	5	10	
3	Excavation - Trenchless	Grading	6/17/2024	10/3/2024	5	79	

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Installation - Trenchless	Building Construction	10/4/2024	11/19/2024	5	33
5	Installation/Backfill - Open Trench	Building Construction	6/17/2024	9/9/2025	5	322
6	Excavation - Open Trench	Grading	6/17/2024	9/9/2025	5	322
7	Paving - Open Trench	Paving	9/10/2025	9/23/2025	5	10

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

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

**Acres of Paving: 2.48**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Pipe-in-a-Bridge	Excavators	1	4.00	158	0.38
Excavation - Pipe-in-a-Bridge	Graders	0	8.00	187	0.41
Excavation - Pipe-in-a-Bridge	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	0	4.00	97	0.37
Excavation - Trenchless	Bore/Drill Rigs	0	8.00	221	0.50
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Cranes	0	8.00	231	0.29
Excavation - Trenchless	Dumpers/Tenders	0	8.00	16	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Excavation - Trenchless	Welders	0	8.00	46	0.45
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48

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Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Plate Compactors	0	8.00	8	0.43
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Pipe-in-a-Bridge	Cranes	0	8.00	231	0.29
Installation - Pipe-in-a-Bridge	Forklifts	0	7.00	89	0.20
Installation - Pipe-in-a-Bridge	Generator Sets	0	8.00	84	0.74
Installation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Installation - Pipe-in-a-Bridge	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38
Installation - Trenchless	Forklifts	0	7.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Installation/Backfill - Open Trench	Cranes	0	8.00	231	0.29
Installation/Backfill - Open Trench	Forklifts	0	7.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42

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Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30
Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Pipe-in-a-Bridge	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Trenchless	4	10.00	0.00	1,095.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Pipe-in-a-Bridge	1	45.00	0.00	140.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	45.00	0.00	451.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	45.00	0.00	4,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.5100e-003	8.1600e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	1.1346	1.1346	3.7000e-004	0.0000	1.1438
<b>Total</b>	<b>4.5000e-004</b>	<b>3.5100e-003</b>	<b>8.1600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.1346</b>	<b>1.1346</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.1438</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.0000e-005	3.0000e-005	3.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0919	0.0919	0.0000	0.0000	0.0927
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0919</b>	<b>0.0919</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0927</b>

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**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.5100e-003	8.1600e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	1.1346	1.1346	3.7000e-004	0.0000	1.1438
<b>Total</b>	<b>4.5000e-004</b>	<b>3.5100e-003</b>	<b>8.1600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.1346</b>	<b>1.1346</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.1438</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.0000e-005	3.0000e-005	3.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0919	0.0919	0.0000	0.0000	0.0927
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0919</b>	<b>0.0919</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0927</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6000e-004	3.6200e-003	5.5900e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.6844	0.6844	2.2000e-004	0.0000	0.6899
<b>Total</b>	<b>3.6000e-004</b>	<b>3.6200e-003</b>	<b>5.5900e-003</b>	<b>1.0000e-005</b>		<b>1.7000e-004</b>	<b>1.7000e-004</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6844</b>	<b>0.6844</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6899</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	8.6800e-003	2.4800e-003	4.0000e-005	1.2000e-003	6.0000e-005	1.2600e-003	3.3000e-004	6.0000e-005	3.9000e-004	0.0000	3.9107	3.9107	2.8000e-004	6.2000e-004	4.1034
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-004	4.0000e-004	5.2300e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3784	1.3784	4.0000e-005	4.0000e-005	1.3910
<b>Total</b>	<b>7.4000e-004</b>	<b>9.0800e-003</b>	<b>7.7100e-003</b>	<b>5.0000e-005</b>	<b>3.0100e-003</b>	<b>7.0000e-005</b>	<b>3.0800e-003</b>	<b>8.1000e-004</b>	<b>7.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>5.2892</b>	<b>5.2892</b>	<b>3.2000e-004</b>	<b>6.6000e-004</b>	<b>5.4944</b>



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**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6000e-004	3.6200e-003	5.5900e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.6844	0.6844	2.2000e-004	0.0000	0.6899
<b>Total</b>	<b>3.6000e-004</b>	<b>3.6200e-003</b>	<b>5.5900e-003</b>	<b>1.0000e-005</b>		<b>1.7000e-004</b>	<b>1.7000e-004</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6844</b>	<b>0.6844</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6899</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	8.6800e-003	2.4800e-003	4.0000e-005	1.2000e-003	6.0000e-005	1.2600e-003	3.3000e-004	6.0000e-005	3.9000e-004	0.0000	3.9107	3.9107	2.8000e-004	6.2000e-004	4.1034
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-004	4.0000e-004	5.2300e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3784	1.3784	4.0000e-005	4.0000e-005	1.3910
<b>Total</b>	<b>7.4000e-004</b>	<b>9.0800e-003</b>	<b>7.7100e-003</b>	<b>5.0000e-005</b>	<b>3.0100e-003</b>	<b>7.0000e-005</b>	<b>3.0800e-003</b>	<b>8.1000e-004</b>	<b>7.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>5.2892</b>	<b>5.2892</b>	<b>3.2000e-004</b>	<b>6.6000e-004</b>	<b>5.4944</b>

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**3.4 Excavation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0241	0.1899	0.2933	5.8000e-004		8.3500e-003	8.3500e-003		8.1200e-003	8.1200e-003	0.0000	49.9009	49.9009	8.5300e-003	0.0000	50.1141
<b>Total</b>	<b>0.0241</b>	<b>0.1899</b>	<b>0.2933</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>8.3500e-003</b>	<b>8.3500e-003</b>	<b>0.0000</b>	<b>8.1200e-003</b>	<b>8.1200e-003</b>	<b>0.0000</b>	<b>49.9009</b>	<b>49.9009</b>	<b>8.5300e-003</b>	<b>0.0000</b>	<b>50.1141</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0700e-003	0.0679	0.0194	3.0000e-004	9.4100e-003	4.9000e-004	9.8900e-003	2.5800e-003	4.6000e-004	3.0500e-003	0.0000	30.5874	30.5874	2.1800e-003	4.8800e-003	32.0947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	7.1000e-004	9.1800e-003	3.0000e-005	3.1800e-003	2.0000e-005	3.2000e-003	8.5000e-004	2.0000e-005	8.6000e-004	0.0000	2.4199	2.4199	7.0000e-005	7.0000e-005	2.4419
<b>Total</b>	<b>2.1300e-003</b>	<b>0.0686</b>	<b>0.0285</b>	<b>3.3000e-004</b>	<b>0.0126</b>	<b>5.1000e-004</b>	<b>0.0131</b>	<b>3.4300e-003</b>	<b>4.8000e-004</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>33.0073</b>	<b>33.0073</b>	<b>2.2500e-003</b>	<b>4.9500e-003</b>	<b>34.5367</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Excavation - Trenchless - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0241	0.1899	0.2933	5.8000e-004		8.3500e-003	8.3500e-003		8.1200e-003	8.1200e-003	0.0000	49.9009	49.9009	8.5300e-003	0.0000	50.1141
<b>Total</b>	<b>0.0241</b>	<b>0.1899</b>	<b>0.2933</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>8.3500e-003</b>	<b>8.3500e-003</b>	<b>0.0000</b>	<b>8.1200e-003</b>	<b>8.1200e-003</b>	<b>0.0000</b>	<b>49.9009</b>	<b>49.9009</b>	<b>8.5300e-003</b>	<b>0.0000</b>	<b>50.1141</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0700e-003	0.0679	0.0194	3.0000e-004	9.4100e-003	4.9000e-004	9.8900e-003	2.5800e-003	4.6000e-004	3.0500e-003	0.0000	30.5874	30.5874	2.1800e-003	4.8800e-003	32.0947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	7.1000e-004	9.1800e-003	3.0000e-005	3.1800e-003	2.0000e-005	3.2000e-003	8.5000e-004	2.0000e-005	8.6000e-004	0.0000	2.4199	2.4199	7.0000e-005	7.0000e-005	2.4419
<b>Total</b>	<b>2.1300e-003</b>	<b>0.0686</b>	<b>0.0285</b>	<b>3.3000e-004</b>	<b>0.0126</b>	<b>5.1000e-004</b>	<b>0.0131</b>	<b>3.4300e-003</b>	<b>4.8000e-004</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>33.0073</b>	<b>33.0073</b>	<b>2.2500e-003</b>	<b>4.9500e-003</b>	<b>34.5367</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7800e-003	0.0748	0.0591	1.9000e-004		2.8200e-003	2.8200e-003		2.6500e-003	2.6500e-003	0.0000	16.3212	16.3212	4.7300e-003	0.0000	16.4394
<b>Total</b>	<b>8.7800e-003</b>	<b>0.0748</b>	<b>0.0591</b>	<b>1.9000e-004</b>		<b>2.8200e-003</b>	<b>2.8200e-003</b>		<b>2.6500e-003</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>16.3212</b>	<b>16.3212</b>	<b>4.7300e-003</b>	<b>0.0000</b>	<b>16.4394</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-004	0.0280	7.9700e-003	1.2000e-004	3.8700e-003	2.0000e-004	4.0700e-003	1.0600e-003	1.9000e-004	1.2500e-003	0.0000	12.5981	12.5981	9.0000e-004	2.0100e-003	13.2189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.3400e-003	0.0173	5.0000e-005	5.9900e-003	3.0000e-005	6.0200e-003	1.5900e-003	3.0000e-005	1.6200e-003	0.0000	4.5489	4.5489	1.4000e-004	1.3000e-004	4.5902
<b>Total</b>	<b>2.4200e-003</b>	<b>0.0293</b>	<b>0.0252</b>	<b>1.7000e-004</b>	<b>9.8600e-003</b>	<b>2.3000e-004</b>	<b>0.0101</b>	<b>2.6500e-003</b>	<b>2.2000e-004</b>	<b>2.8700e-003</b>	<b>0.0000</b>	<b>17.1469</b>	<b>17.1469</b>	<b>1.0400e-003</b>	<b>2.1400e-003</b>	<b>17.8092</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7800e-003	0.0748	0.0591	1.9000e-004		2.8200e-003	2.8200e-003		2.6500e-003	2.6500e-003	0.0000	16.3212	16.3212	4.7300e-003	0.0000	16.4394
<b>Total</b>	<b>8.7800e-003</b>	<b>0.0748</b>	<b>0.0591</b>	<b>1.9000e-004</b>		<b>2.8200e-003</b>	<b>2.8200e-003</b>		<b>2.6500e-003</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>16.3212</b>	<b>16.3212</b>	<b>4.7300e-003</b>	<b>0.0000</b>	<b>16.4394</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-004	0.0280	7.9700e-003	1.2000e-004	3.8700e-003	2.0000e-004	4.0700e-003	1.0600e-003	1.9000e-004	1.2500e-003	0.0000	12.5981	12.5981	9.0000e-004	2.0100e-003	13.2189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.3400e-003	0.0173	5.0000e-005	5.9900e-003	3.0000e-005	6.0200e-003	1.5900e-003	3.0000e-005	1.6200e-003	0.0000	4.5489	4.5489	1.4000e-004	1.3000e-004	4.5902
<b>Total</b>	<b>2.4200e-003</b>	<b>0.0293</b>	<b>0.0252</b>	<b>1.7000e-004</b>	<b>9.8600e-003</b>	<b>2.3000e-004</b>	<b>0.0101</b>	<b>2.6500e-003</b>	<b>2.2000e-004</b>	<b>2.8700e-003</b>	<b>0.0000</b>	<b>17.1469</b>	<b>17.1469</b>	<b>1.0400e-003</b>	<b>2.1400e-003</b>	<b>17.8092</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1700e-003	0.0754	0.1085	1.6000e-004		3.3800e-003	3.3800e-003		3.1500e-003	3.1500e-003	0.0000	13.5360	13.5360	4.0700e-003	0.0000	13.6379
<b>Total</b>	<b>8.1700e-003</b>	<b>0.0754</b>	<b>0.1085</b>	<b>1.6000e-004</b>		<b>3.3800e-003</b>	<b>3.3800e-003</b>		<b>3.1500e-003</b>	<b>3.1500e-003</b>	<b>0.0000</b>	<b>13.5360</b>	<b>13.5360</b>	<b>4.0700e-003</b>	<b>0.0000</b>	<b>13.6379</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9400e-003	0.1231	0.0351	5.5000e-004	0.0171	8.8000e-004	0.0179	4.6800e-003	8.4000e-004	5.5200e-003	0.0000	55.4951	55.4951	3.9500e-003	8.8500e-003	58.2300
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5300e-003	5.7500e-003	0.0742	2.1000e-004	0.0258	1.4000e-004	0.0259	6.8400e-003	1.3000e-004	6.9700e-003	0.0000	19.5739	19.5739	5.8000e-004	5.5000e-004	19.7519
<b>Total</b>	<b>0.0105</b>	<b>0.1289</b>	<b>0.1094</b>	<b>7.6000e-004</b>	<b>0.0428</b>	<b>1.0200e-003</b>	<b>0.0438</b>	<b>0.0115</b>	<b>9.7000e-004</b>	<b>0.0125</b>	<b>0.0000</b>	<b>75.0690</b>	<b>75.0690</b>	<b>4.5300e-003</b>	<b>9.4000e-003</b>	<b>77.9819</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1700e-003	0.0754	0.1085	1.6000e-004		3.3800e-003	3.3800e-003		3.1500e-003	3.1500e-003	0.0000	13.5360	13.5360	4.0700e-003	0.0000	13.6378
<b>Total</b>	<b>8.1700e-003</b>	<b>0.0754</b>	<b>0.1085</b>	<b>1.6000e-004</b>		<b>3.3800e-003</b>	<b>3.3800e-003</b>		<b>3.1500e-003</b>	<b>3.1500e-003</b>	<b>0.0000</b>	<b>13.5360</b>	<b>13.5360</b>	<b>4.0700e-003</b>	<b>0.0000</b>	<b>13.6378</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9400e-003	0.1231	0.0351	5.5000e-004	0.0171	8.8000e-004	0.0179	4.6800e-003	8.4000e-004	5.5200e-003	0.0000	55.4951	55.4951	3.9500e-003	8.8500e-003	58.2300
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5300e-003	5.7500e-003	0.0742	2.1000e-004	0.0258	1.4000e-004	0.0259	6.8400e-003	1.3000e-004	6.9700e-003	0.0000	19.5739	19.5739	5.8000e-004	5.5000e-004	19.7519
<b>Total</b>	<b>0.0105</b>	<b>0.1289</b>	<b>0.1094</b>	<b>7.6000e-004</b>	<b>0.0428</b>	<b>1.0200e-003</b>	<b>0.0438</b>	<b>0.0115</b>	<b>9.7000e-004</b>	<b>0.0125</b>	<b>0.0000</b>	<b>75.0690</b>	<b>75.0690</b>	<b>4.5300e-003</b>	<b>9.4000e-003</b>	<b>77.9819</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6900e-003	0.0892	0.1373	2.0000e-004		3.5900e-003	3.5900e-003		3.3500e-003	3.3500e-003	0.0000	17.1731	17.1731	5.1700e-003	0.0000	17.3023
<b>Total</b>	<b>9.6900e-003</b>	<b>0.0892</b>	<b>0.1373</b>	<b>2.0000e-004</b>		<b>3.5900e-003</b>	<b>3.5900e-003</b>		<b>3.3500e-003</b>	<b>3.3500e-003</b>	<b>0.0000</b>	<b>17.1731</b>	<b>17.1731</b>	<b>5.1700e-003</b>	<b>0.0000</b>	<b>17.3023</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4300e-003	0.1534	0.0456	6.8000e-004	0.0216	1.1100e-003	0.0228	5.9400e-003	1.0600e-003	7.0000e-003	0.0000	68.9464	68.9464	5.1600e-003	0.0110	72.3532
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.5700e-003	0.0880	2.6000e-004	0.0327	1.6000e-004	0.0328	8.6700e-003	1.5000e-004	8.8300e-003	0.0000	24.1980	24.1980	6.7000e-004	6.5000e-004	24.4088
<b>Total</b>	<b>0.0126</b>	<b>0.1600</b>	<b>0.1336</b>	<b>9.4000e-004</b>	<b>0.0543</b>	<b>1.2700e-003</b>	<b>0.0556</b>	<b>0.0146</b>	<b>1.2100e-003</b>	<b>0.0158</b>	<b>0.0000</b>	<b>93.1444</b>	<b>93.1444</b>	<b>5.8300e-003</b>	<b>0.0117</b>	<b>96.7620</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6900e-003	0.0892	0.1373	2.0000e-004		3.5900e-003	3.5900e-003		3.3500e-003	3.3500e-003	0.0000	17.1731	17.1731	5.1700e-003	0.0000	17.3023
<b>Total</b>	<b>9.6900e-003</b>	<b>0.0892</b>	<b>0.1373</b>	<b>2.0000e-004</b>		<b>3.5900e-003</b>	<b>3.5900e-003</b>		<b>3.3500e-003</b>	<b>3.3500e-003</b>	<b>0.0000</b>	<b>17.1731</b>	<b>17.1731</b>	<b>5.1700e-003</b>	<b>0.0000</b>	<b>17.3023</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4300e-003	0.1534	0.0456	6.8000e-004	0.0216	1.1100e-003	0.0228	5.9400e-003	1.0600e-003	7.0000e-003	0.0000	68.9464	68.9464	5.1600e-003	0.0110	72.3532
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.5700e-003	0.0880	2.6000e-004	0.0327	1.6000e-004	0.0328	8.6700e-003	1.5000e-004	8.8300e-003	0.0000	24.1980	24.1980	6.7000e-004	6.5000e-004	24.4088
<b>Total</b>	<b>0.0126</b>	<b>0.1600</b>	<b>0.1336</b>	<b>9.4000e-004</b>	<b>0.0543</b>	<b>1.2700e-003</b>	<b>0.0556</b>	<b>0.0146</b>	<b>1.2100e-003</b>	<b>0.0158</b>	<b>0.0000</b>	<b>93.1444</b>	<b>93.1444</b>	<b>5.8300e-003</b>	<b>0.0117</b>	<b>96.7620</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0653	0.5168	0.7006	1.4900e-003		0.0221	0.0221		0.0214	0.0214	0.0000	129.1778	129.1778	0.0241	0.0000	129.7794
<b>Total</b>	<b>0.0653</b>	<b>0.5168</b>	<b>0.7006</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>0.0221</b>	<b>0.0221</b>	<b>0.0000</b>	<b>0.0214</b>	<b>0.0214</b>	<b>0.0000</b>	<b>129.1778</b>	<b>129.1778</b>	<b>0.0241</b>	<b>0.0000</b>	<b>129.7794</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	2.8400e-003	1.9200e-003	0.0247	7.0000e-005	8.5900e-003	5.0000e-005	8.6300e-003	2.2800e-003	4.0000e-005	2.3200e-003	0.0000	6.5246	6.5246	1.9000e-004	1.8000e-004	6.5840
<b>Total</b>	<b>2.8400e-003</b>	<b>1.9200e-003</b>	<b>0.0247</b>	<b>7.0000e-005</b>	<b>8.5900e-003</b>	<b>5.0000e-005</b>	<b>8.6300e-003</b>	<b>2.2800e-003</b>	<b>4.0000e-005</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>6.5246</b>	<b>6.5246</b>	<b>1.9000e-004</b>	<b>1.8000e-004</b>	<b>6.5840</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0653	0.5168	0.7006	1.4900e-003		0.0221	0.0221		0.0214	0.0214	0.0000	129.1777	129.1777	0.0241	0.0000	129.7793
<b>Total</b>	<b>0.0653</b>	<b>0.5168</b>	<b>0.7006</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>0.0221</b>	<b>0.0221</b>	<b>0.0000</b>	<b>0.0214</b>	<b>0.0214</b>	<b>0.0000</b>	<b>129.1777</b>	<b>129.1777</b>	<b>0.0241</b>	<b>0.0000</b>	<b>129.7793</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	2.8400e-003	1.9200e-003	0.0247	7.0000e-005	8.5900e-003	5.0000e-005	8.6300e-003	2.2800e-003	4.0000e-005	2.3200e-003	0.0000	6.5246	6.5246	1.9000e-004	1.8000e-004	6.5840
<b>Total</b>	<b>2.8400e-003</b>	<b>1.9200e-003</b>	<b>0.0247</b>	<b>7.0000e-005</b>	<b>8.5900e-003</b>	<b>5.0000e-005</b>	<b>8.6300e-003</b>	<b>2.2800e-003</b>	<b>4.0000e-005</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>6.5246</b>	<b>6.5246</b>	<b>1.9000e-004</b>	<b>1.8000e-004</b>	<b>6.5840</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0774	0.5861	0.8843	1.8900e-003		0.0236	0.0236		0.0229	0.0229	0.0000	163.7420	163.7420	0.0303	0.0000	164.4983
<b>Total</b>	<b>0.0774</b>	<b>0.5861</b>	<b>0.8843</b>	<b>1.8900e-003</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0229</b>	<b>0.0229</b>	<b>0.0000</b>	<b>163.7420</b>	<b>163.7420</b>	<b>0.0303</b>	<b>0.0000</b>	<b>164.4983</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	2.1900e-003	0.0294	9.0000e-005	0.0109	5.0000e-005	0.0109	2.8900e-003	5.0000e-005	2.9400e-003	0.0000	8.0660	8.0660	2.2000e-004	2.2000e-004	8.1363
<b>Total</b>	<b>3.3800e-003</b>	<b>2.1900e-003</b>	<b>0.0294</b>	<b>9.0000e-005</b>	<b>0.0109</b>	<b>5.0000e-005</b>	<b>0.0109</b>	<b>2.8900e-003</b>	<b>5.0000e-005</b>	<b>2.9400e-003</b>	<b>0.0000</b>	<b>8.0660</b>	<b>8.0660</b>	<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>8.1363</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0774	0.5861	0.8843	1.8900e-003		0.0236	0.0236		0.0229	0.0229	0.0000	163.7418	163.7418	0.0303	0.0000	164.4981
<b>Total</b>	<b>0.0774</b>	<b>0.5861</b>	<b>0.8843</b>	<b>1.8900e-003</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0229</b>	<b>0.0229</b>	<b>0.0000</b>	<b>163.7418</b>	<b>163.7418</b>	<b>0.0303</b>	<b>0.0000</b>	<b>164.4981</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	2.1900e-003	0.0294	9.0000e-005	0.0109	5.0000e-005	0.0109	2.8900e-003	5.0000e-005	2.9400e-003	0.0000	8.0660	8.0660	2.2000e-004	2.2000e-004	8.1363
<b>Total</b>	<b>3.3800e-003</b>	<b>2.1900e-003</b>	<b>0.0294</b>	<b>9.0000e-005</b>	<b>0.0109</b>	<b>5.0000e-005</b>	<b>0.0109</b>	<b>2.8900e-003</b>	<b>5.0000e-005</b>	<b>2.9400e-003</b>	<b>0.0000</b>	<b>8.0660</b>	<b>8.0660</b>	<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>8.1363</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1700e-003	0.0203	0.0288	6.0000e-005		9.2000e-004	9.2000e-004		8.5000e-004	8.5000e-004	0.0000	5.1265	5.1265	1.6300e-003	0.0000	5.1672
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.4200e-003</b>	<b>0.0203</b>	<b>0.0288</b>	<b>6.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>5.1265</b>	<b>5.1265</b>	<b>1.6300e-003</b>	<b>0.0000</b>	<b>5.1672</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.4100e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3884	0.3884	1.0000e-005	1.0000e-005	0.3918
<b>Total</b>	<b>1.6000e-004</b>	<b>1.1000e-004</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.3884</b>	<b>0.3884</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3918</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1700e-003	0.0203	0.0288	6.0000e-005		9.2000e-004	9.2000e-004		8.5000e-004	8.5000e-004	0.0000	5.1265	5.1265	1.6300e-003	0.0000	5.1671
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.4200e-003</b>	<b>0.0203</b>	<b>0.0288</b>	<b>6.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>5.1265</b>	<b>5.1265</b>	<b>1.6300e-003</b>	<b>0.0000</b>	<b>5.1671</b>

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.4100e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3884	0.3884	1.0000e-005	1.0000e-005	0.3918
<b>Total</b>	<b>1.6000e-004</b>	<b>1.1000e-004</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.3884</b>	<b>0.3884</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3918</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9000e-004	9.0000e-005	7.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0273	0.0273	2.0000e-005	1.0000e-005	0.0299
Unmitigated	1.9000e-004	9.0000e-005	7.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0273	0.0273	2.0000e-005	1.0000e-005	0.0299

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.08	0.00	0.00	31	31
Total	1.08	0.00	0.00	31	31

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.11	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553410	0.058491	0.170447	0.127855	0.026791	0.007507	0.012149	0.006212	0.000674	0.000390	0.028812	0.000632	0.006629







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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.5700e-003	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-003
Unmitigated	8.5700e-003	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-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	1.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-003
<b>Total</b>	<b>8.5700e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0600e-003</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9300e-003	1.9300e-003	1.0000e-005	0.0000	2.0600e-003
<b>Total</b>	<b>8.5700e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 3- AQ  
Ventura County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	108.00	1000sqft	2.48	108,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (27,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant provided information, 80 feet installation per day would occur. Based on project details, Phase 3 would have 460 LF of trenchless activity, crossing upland road bridge would take 2 weeks, and the remainder would be open-cut trench.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Grading -

Vehicle Trips - Based on applicant provided information. Maintenance and inspection work trips would occur annually for one day with one worker vehicle that would travel from the District's office to the pipeline and back.

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	10.00
tblConstructionPhase	NumDays	220.00	33.00
tblConstructionPhase	NumDays	220.00	322.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	6.00	79.00
tblConstructionPhase	NumDays	6.00	322.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,095.00
tblTripsAndVMT	HaulingTripNumber	0.00	451.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,505.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblVehicleTrips	CW_TL	9.50	0.11
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9246	16.7326	21.4615	0.0577	1.3454	0.5977	1.9037	0.3611	0.5774	0.8944	0.0000	5,793.775 0	5,793.775 0	0.8956	0.2920	5,899.631 5
2025	1.1574	9.3099	13.1842	0.0345	0.7372	0.3174	1.0545	0.1977	0.3058	0.5034	0.0000	3,453.135 1	3,453.135 1	0.5084	0.1457	3,509.264 6
<b>Maximum</b>	<b>1.9246</b>	<b>16.7326</b>	<b>21.4615</b>	<b>0.0577</b>	<b>1.3454</b>	<b>0.5977</b>	<b>1.9037</b>	<b>0.3611</b>	<b>0.5774</b>	<b>0.8944</b>	<b>0.0000</b>	<b>5,793.775 0</b>	<b>5,793.775 0</b>	<b>0.8956</b>	<b>0.2920</b>	<b>5,899.631 5</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9246	16.7326	21.4615	0.0577	1.3454	0.5977	1.9037	0.3611	0.5774	0.8944	0.0000	5,793.775 0	5,793.775 0	0.8956	0.2920	5,899.631 5
2025	1.1574	9.3099	13.1842	0.0345	0.7372	0.3174	1.0545	0.1977	0.3058	0.5034	0.0000	3,453.135 1	3,453.135 1	0.5084	0.1457	3,509.264 6
<b>Maximum</b>	<b>1.9246</b>	<b>16.7326</b>	<b>21.4615</b>	<b>0.0577</b>	<b>1.3454</b>	<b>0.5977</b>	<b>1.9037</b>	<b>0.3611</b>	<b>0.5774</b>	<b>0.8944</b>	<b>0.0000</b>	<b>5,793.775 0</b>	<b>5,793.775 0</b>	<b>0.8956</b>	<b>0.2920</b>	<b>5,899.631 5</b>



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.4900e-003	7.5000e-004	6.7000e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2324	0.2324	1.4000e-004	7.0000e-005	0.2561
<b>Total</b>	<b>0.0490</b>	<b>8.5000e-004</b>	<b>0.0177</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>4.0000e-005</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>7.0000e-005</b>		<b>0.2561</b>	<b>0.2561</b>	<b>2.0000e-004</b>	<b>7.0000e-005</b>	<b>0.2813</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.4900e-003	7.5000e-004	6.7000e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2324	0.2324	1.4000e-004	7.0000e-005	0.2561
<b>Total</b>	<b>0.0490</b>	<b>8.5000e-004</b>	<b>0.0177</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>4.0000e-005</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>7.0000e-005</b>		<b>0.2561</b>	<b>0.2561</b>	<b>2.0000e-004</b>	<b>7.0000e-005</b>	<b>0.2813</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Excavation - Pipe-in-a-Bridge	Grading	6/3/2024	6/14/2024	5	10	
2	Installation - Pipe-in-a-Bridge	Building Construction	6/3/2024	6/14/2024	5	10	
3	Excavation - Trenchless	Grading	6/17/2024	10/3/2024	5	79	
4	Installation - Trenchless	Building Construction	10/4/2024	11/19/2024	5	33	
5	Installation/Backfill - Open Trench	Building Construction	6/17/2024	9/9/2025	5	322	
6	Excavation - Open Trench	Grading	6/17/2024	9/9/2025	5	322	
7	Paving - Open Trench	Paving	9/10/2025	9/23/2025	5	10	

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

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

**Acres of Paving: 2.48**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Pipe-in-a-Bridge	Excavators	1	4.00	158	0.38
Excavation - Pipe-in-a-Bridge	Graders	0	8.00	187	0.41
Excavation - Pipe-in-a-Bridge	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	0	4.00	97	0.37



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Excavation - Trenchless	Bore/Drill Rigs	0	8.00	221	0.50
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Cranes	0	8.00	231	0.29
Excavation - Trenchless	Dumpers/Tenders	0	8.00	16	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Excavation - Trenchless	Welders	0	8.00	46	0.45
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48
Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Plate Compactors	0	8.00	8	0.43
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Pipe-in-a-Bridge	Cranes	0	8.00	231	0.29
Installation - Pipe-in-a-Bridge	Forklifts	0	7.00	89	0.20
Installation - Pipe-in-a-Bridge	Generator Sets	0	8.00	84	0.74
Installation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Installation - Pipe-in-a-Bridge	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Installation - Trenchless	Forklifts	0	7.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Installation/Backfill - Open Trench	Cranes	0	8.00	231	0.29
Installation/Backfill - Open Trench	Forklifts	0	7.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42
Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30
Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Pipe-in-a-Bridge	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Trenchless	4	10.00	0.00	1,095.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Pipe-in-a-Bridge	1	45.00	0.00	140.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	45.00	0.00	451.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	45.00	0.00	4,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0901	0.7014	1.6325	2.5800e-003		0.0346	0.0346		0.0318	0.0318		250.1327	250.1327	0.0809		252.1551
<b>Total</b>	<b>0.0901</b>	<b>0.7014</b>	<b>1.6325</b>	<b>2.5800e-003</b>	<b>0.0000</b>	<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>0.0318</b>	<b>0.0318</b>		<b>250.1327</b>	<b>250.1327</b>	<b>0.0809</b>		<b>252.1551</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	8.7300e-003	5.6100e-003	0.0706	2.0000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6500e-003		20.1168	20.1168	6.3000e-004	5.8000e-004	20.3061
<b>Total</b>	<b>8.7300e-003</b>	<b>5.6100e-003</b>	<b>0.0706</b>	<b>2.0000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6500e-003</b>		<b>20.1168</b>	<b>20.1168</b>	<b>6.3000e-004</b>	<b>5.8000e-004</b>	<b>20.3061</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0901	0.7014	1.6325	2.5800e-003		0.0346	0.0346		0.0318	0.0318	0.0000	250.1327	250.1327	0.0809		252.1551
<b>Total</b>	<b>0.0901</b>	<b>0.7014</b>	<b>1.6325</b>	<b>2.5800e-003</b>	<b>0.0000</b>	<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>0.0318</b>	<b>0.0318</b>	<b>0.0000</b>	<b>250.1327</b>	<b>250.1327</b>	<b>0.0809</b>		<b>252.1551</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	8.7300e-003	5.6100e-003	0.0706	2.0000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6500e-003		20.1168	20.1168	6.3000e-004	5.8000e-004	20.3061
<b>Total</b>	<b>8.7300e-003</b>	<b>5.6100e-003</b>	<b>0.0706</b>	<b>2.0000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6500e-003</b>		<b>20.1168</b>	<b>20.1168</b>	<b>6.3000e-004</b>	<b>5.8000e-004</b>	<b>20.3061</b>

**3.3 Installation - Pipe-in-a-Bridge - 2024**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0720	0.7241	1.1178	1.5600e-003		0.0332	0.0332		0.0306	0.0306		150.8834	150.8834	0.0488		152.1033
<b>Total</b>	<b>0.0720</b>	<b>0.7241</b>	<b>1.1178</b>	<b>1.5600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0306</b>	<b>0.0306</b>		<b>150.8834</b>	<b>150.8834</b>	<b>0.0488</b>		<b>152.1033</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.7357	0.4989	7.7500e-003	0.2444	0.0124	0.2569	0.0670	0.0119	0.0789		862.6329	862.6329	0.0613	0.1375	905.1419
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1572</b>	<b>1.8198</b>	<b>1.5583</b>	<b>0.0107</b>	<b>0.6141</b>	<b>0.0143</b>	<b>0.6284</b>	<b>0.1650</b>	<b>0.0137</b>	<b>0.1787</b>		<b>1,164.3847</b>	<b>1,164.3847</b>	<b>0.0707</b>	<b>0.1463</b>	<b>1,209.7341</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0720	0.7241	1.1178	1.5600e-003		0.0332	0.0332		0.0306	0.0306	0.0000	150.8834	150.8834	0.0488		152.1033
<b>Total</b>	<b>0.0720</b>	<b>0.7241</b>	<b>1.1178</b>	<b>1.5600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0306</b>	<b>0.0306</b>	<b>0.0000</b>	<b>150.8834</b>	<b>150.8834</b>	<b>0.0488</b>		<b>152.1033</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.7357	0.4989	7.7500e-003	0.2444	0.0124	0.2569	0.0670	0.0119	0.0789		862.6329	862.6329	0.0613	0.1375	905.1419
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1572</b>	<b>1.8198</b>	<b>1.5583</b>	<b>0.0107</b>	<b>0.6141</b>	<b>0.0143</b>	<b>0.6284</b>	<b>0.1650</b>	<b>0.0137</b>	<b>0.1787</b>		<b>1,164.3847</b>	<b>1,164.3847</b>	<b>0.0707</b>	<b>0.1463</b>	<b>1,209.7341</b>

**3.4 Excavation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6106	4.8080	7.4244	0.0146		0.2114	0.2114		0.2056	0.2056		1,392.5655	1,392.5655	0.2380		1,398.5156
<b>Total</b>	<b>0.6106</b>	<b>4.8080</b>	<b>7.4244</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.2114</b>	<b>0.2114</b>	<b>0.0000</b>	<b>0.2056</b>	<b>0.2056</b>		<b>1,392.5655</b>	<b>1,392.5655</b>	<b>0.2380</b>		<b>1,398.5156</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Excavation - Trenchless - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7185	0.4939	7.6700e-003	0.2420	0.0123	0.2543	0.0663	0.0118	0.0781		854.0534	854.0534	0.0607	0.1361	896.1396
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
Worker	0.0291	0.0187	0.2354	6.5000e-004	0.0822	4.3000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0559	67.0559	2.0900e-003	1.9400e-003	67.6871
<b>Total</b>	<b>0.0551</b>	<b>1.7372</b>	<b>0.7293</b>	<b>8.3200e-003</b>	<b>0.3242</b>	<b>0.0127</b>	<b>0.3369</b>	<b>0.0881</b>	<b>0.0122</b>	<b>0.1002</b>		<b>921.1093</b>	<b>921.1093</b>	<b>0.0628</b>	<b>0.1381</b>	<b>963.8268</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6106	4.8080	7.4244	0.0146		0.2114	0.2114		0.2056	0.2056	0.0000	1,392.5655	1,392.5655	0.2380		1,398.5156
<b>Total</b>	<b>0.6106</b>	<b>4.8080</b>	<b>7.4244</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.2114</b>	<b>0.2114</b>	<b>0.0000</b>	<b>0.2056</b>	<b>0.2056</b>	<b>0.0000</b>	<b>1,392.5655</b>	<b>1,392.5655</b>	<b>0.2380</b>		<b>1,398.5156</b>



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Excavation - Trenchless - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7185	0.4939	7.6700e-003	0.2420	0.0123	0.2543	0.0663	0.0118	0.0781		854.0534	854.0534	0.0607	0.1361	896.1396
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
Worker	0.0291	0.0187	0.2354	6.5000e-004	0.0822	4.3000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0559	67.0559	2.0900e-003	1.9400e-003	67.6871
<b>Total</b>	<b>0.0551</b>	<b>1.7372</b>	<b>0.7293</b>	<b>8.3200e-003</b>	<b>0.3242</b>	<b>0.0127</b>	<b>0.3369</b>	<b>0.0881</b>	<b>0.0122</b>	<b>0.1002</b>		<b>921.1093</b>	<b>921.1093</b>	<b>0.0628</b>	<b>0.1381</b>	<b>963.8268</b>

**3.5 Installation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5322	4.5316	3.5798	0.0116		0.1707	0.1707		0.1603	0.1603		1,090.3680	1,090.3680	0.3157		1,098.2608
<b>Total</b>	<b>0.5322</b>	<b>4.5316</b>	<b>3.5798</b>	<b>0.0116</b>		<b>0.1707</b>	<b>0.1707</b>		<b>0.1603</b>	<b>0.1603</b>		<b>1,090.3680</b>	<b>1,090.3680</b>	<b>0.3157</b>		<b>1,098.2608</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.6944	0.4870	7.5700e-003	0.2386	0.0121	0.2508	0.0654	0.0116	0.0770		842.0940	842.0940	0.0598	0.1342	883.5909
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1566</b>	<b>1.7785</b>	<b>1.5464</b>	<b>0.0105</b>	<b>0.6083</b>	<b>0.0141</b>	<b>0.6223</b>	<b>0.1634</b>	<b>0.0134</b>	<b>0.1768</b>		<b>1,143.8458</b>	<b>1,143.8458</b>	<b>0.0692</b>	<b>0.1430</b>	<b>1,188.1831</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5322	4.5316	3.5798	0.0116		0.1707	0.1707		0.1603	0.1603	0.0000	1,090.3680	1,090.3680	0.3157		1,098.2608
<b>Total</b>	<b>0.5322</b>	<b>4.5316</b>	<b>3.5798</b>	<b>0.0116</b>		<b>0.1707</b>	<b>0.1707</b>		<b>0.1603</b>	<b>0.1603</b>	<b>0.0000</b>	<b>1,090.3680</b>	<b>1,090.3680</b>	<b>0.3157</b>		<b>1,098.2608</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.6944	0.4870	7.5700e-003	0.2386	0.0121	0.2508	0.0654	0.0116	0.0770		842.0940	842.0940	0.0598	0.1342	883.5909
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1566</b>	<b>1.7785</b>	<b>1.5464</b>	<b>0.0105</b>	<b>0.6083</b>	<b>0.0141</b>	<b>0.6223</b>	<b>0.1634</b>	<b>0.0134</b>	<b>0.1768</b>		<b>1,143.8458</b>	<b>1,143.8458</b>	<b>0.0692</b>	<b>0.1430</b>	<b>1,188.1831</b>

**3.6 Installation/Backfill - Open Trench - 2024**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1150	1.0622	1.5288	2.2500e-003		0.0477	0.0477		0.0443	0.0443		210.1538	210.1538	0.0632		211.7347
<b>Total</b>	<b>0.1150</b>	<b>1.0622</b>	<b>1.5288</b>	<b>2.2500e-003</b>		<b>0.0477</b>	<b>0.0477</b>		<b>0.0443</b>	<b>0.0443</b>		<b>210.1538</b>	<b>210.1538</b>	<b>0.0632</b>		<b>211.7347</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.7346	0.4985	7.7400e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		862.0589	862.0589	0.0613	0.1374	904.5396
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1572</b>	<b>1.8187</b>	<b>1.5579</b>	<b>0.0107</b>	<b>0.6139</b>	<b>0.0143</b>	<b>0.6283</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,163.8106</b>	<b>1,163.8106</b>	<b>0.0707</b>	<b>0.1462</b>	<b>1,209.1317</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1150	1.0622	1.5288	2.2500e-003		0.0477	0.0477		0.0443	0.0443	0.0000	210.1538	210.1538	0.0632		211.7347
<b>Total</b>	<b>0.1150</b>	<b>1.0622</b>	<b>1.5288</b>	<b>2.2500e-003</b>		<b>0.0477</b>	<b>0.0477</b>		<b>0.0443</b>	<b>0.0443</b>	<b>0.0000</b>	<b>210.1538</b>	<b>210.1538</b>	<b>0.0632</b>		<b>211.7347</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.7346	0.4985	7.7400e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		862.0589	862.0589	0.0613	0.1374	904.5396
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
Worker	0.1309	0.0841	1.0594	2.9300e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		301.7517	301.7517	9.4100e-003	8.7400e-003	304.5922
<b>Total</b>	<b>0.1572</b>	<b>1.8187</b>	<b>1.5579</b>	<b>0.0107</b>	<b>0.6139</b>	<b>0.0143</b>	<b>0.6283</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,163.8106</b>	<b>1,163.8106</b>	<b>0.0707</b>	<b>0.1462</b>	<b>1,209.1317</b>

**3.6 Installation/Backfill - Open Trench - 2025**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7054	0.5104	7.5700e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		844.9193	844.9193	0.0632	0.1348	886.6662
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
Worker	0.1228	0.0759	0.9920	2.8200e-003	0.3697	1.8300e-003	0.3715	0.0981	1.6800e-003	0.0997		294.2887	294.2887	8.5700e-003	8.1800e-003	296.9419
<b>Total</b>	<b>0.1488</b>	<b>1.7813</b>	<b>1.5024</b>	<b>0.0104</b>	<b>0.6140</b>	<b>0.0142</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0135</b>	<b>0.1785</b>		<b>1,139.2080</b>	<b>1,139.2080</b>	<b>0.0717</b>	<b>0.1430</b>	<b>1,183.6081</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7054	0.5104	7.5700e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		844.9193	844.9193	0.0632	0.1348	886.6662
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
Worker	0.1228	0.0759	0.9920	2.8200e-003	0.3697	1.8300e-003	0.3715	0.0981	1.6800e-003	0.0997		294.2887	294.2887	8.5700e-003	8.1800e-003	296.9419
<b>Total</b>	<b>0.1488</b>	<b>1.7813</b>	<b>1.5024</b>	<b>0.0104</b>	<b>0.6140</b>	<b>0.0142</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0135</b>	<b>0.1785</b>		<b>1,139.2080</b>	<b>1,139.2080</b>	<b>0.0717</b>	<b>0.1430</b>	<b>1,183.6081</b>

**3.7 Excavation - Open Trench - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9200	7.2785	9.8679	0.0210		0.3109	0.3109		0.3011	0.3011		2,005.5518	2,005.5518	0.3736		2,014.8920
<b>Total</b>	<b>0.9200</b>	<b>7.2785</b>	<b>9.8679</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.3109</b>	<b>0.3109</b>	<b>0.0000</b>	<b>0.3011</b>	<b>0.3011</b>		<b>2,005.5518</b>	<b>2,005.5518</b>	<b>0.3736</b>		<b>2,014.8920</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0436	0.0280	0.3531	9.8000e-004	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		100.5839	100.5839	3.1400e-003	2.9100e-003	101.5307
<b>Total</b>	<b>0.0436</b>	<b>0.0280</b>	<b>0.3531</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.4000e-004</b>	<b>0.1239</b>	<b>0.0327</b>	<b>5.9000e-004</b>	<b>0.0333</b>		<b>100.5839</b>	<b>100.5839</b>	<b>3.1400e-003</b>	<b>2.9100e-003</b>	<b>101.5307</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9200	7.2785	9.8679	0.0210		0.3109	0.3109		0.3011	0.3011	0.0000	2,005.5518	2,005.5518	0.3736		2,014.8920
<b>Total</b>	<b>0.9200</b>	<b>7.2785</b>	<b>9.8679</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.3109</b>	<b>0.3109</b>	<b>0.0000</b>	<b>0.3011</b>	<b>0.3011</b>	<b>0.0000</b>	<b>2,005.5518</b>	<b>2,005.5518</b>	<b>0.3736</b>		<b>2,014.8920</b>



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0436	0.0280	0.3531	9.8000e-004	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		100.5839	100.5839	3.1400e-003	2.9100e-003	101.5307
<b>Total</b>	<b>0.0436</b>	<b>0.0280</b>	<b>0.3531</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.4000e-004</b>	<b>0.1239</b>	<b>0.0327</b>	<b>5.9000e-004</b>	<b>0.0333</b>		<b>100.5839</b>	<b>100.5839</b>	<b>3.1400e-003</b>	<b>2.9100e-003</b>	<b>101.5307</b>

**3.7 Excavation - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0409	0.0253	0.3307	9.4000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		98.0962	98.0962	2.8600e-003	2.7300e-003	98.9806
<b>Total</b>	<b>0.0409</b>	<b>0.0253</b>	<b>0.3307</b>	<b>9.4000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>98.0962</b>	<b>98.0962</b>	<b>2.8600e-003</b>	<b>2.7300e-003</b>	<b>98.9806</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0409	0.0253	0.3307	9.4000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		98.0962	98.0962	2.8600e-003	2.7300e-003	98.9806
<b>Total</b>	<b>0.0409</b>	<b>0.0253</b>	<b>0.3307</b>	<b>9.4000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>98.0962</b>	<b>98.0962</b>	<b>2.8600e-003</b>	<b>2.7300e-003</b>	<b>98.9806</b>

**3.8 Paving - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701		1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6498					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0837</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>		<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0355	0.0219	0.2866	8.2000e-004	0.1068	5.3000e-004	0.1073	0.0283	4.9000e-004	0.0288		85.0167	85.0167	2.4700e-003	2.3600e-003	85.7832
<b>Total</b>	<b>0.0355</b>	<b>0.0219</b>	<b>0.2866</b>	<b>8.2000e-004</b>	<b>0.1068</b>	<b>5.3000e-004</b>	<b>0.1073</b>	<b>0.0283</b>	<b>4.9000e-004</b>	<b>0.0288</b>		<b>85.0167</b>	<b>85.0167</b>	<b>2.4700e-003</b>	<b>2.3600e-003</b>	<b>85.7832</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701	0.0000	1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6498					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0837</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>	<b>0.0000</b>	<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0355	0.0219	0.2866	8.2000e-004	0.1068	5.3000e-004	0.1073	0.0283	4.9000e-004	0.0288		85.0167	85.0167	2.4700e-003	2.3600e-003	85.7832
<b>Total</b>	<b>0.0355</b>	<b>0.0219</b>	<b>0.2866</b>	<b>8.2000e-004</b>	<b>0.1068</b>	<b>5.3000e-004</b>	<b>0.1073</b>	<b>0.0283</b>	<b>4.9000e-004</b>	<b>0.0288</b>		<b>85.0167</b>	<b>85.0167</b>	<b>2.4700e-003</b>	<b>2.3600e-003</b>	<b>85.7832</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**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	1.4900e-003	7.5000e-004	6.7000e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2324	0.2324	1.4000e-004	7.0000e-005	0.2561
Unmitigated	1.4900e-003	7.5000e-004	6.7000e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2324	0.2324	1.4000e-004	7.0000e-005	0.2561

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.08	0.00	0.00	31	31
Total	1.08	0.00	0.00	31	31

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.11	7.30	7.30	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553410	0.058491	0.170447	0.127855	0.026791	0.007507	0.012149	0.006212	0.000674	0.000390	0.028812	0.000632	0.006629

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Unmitigated	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	8.2300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0100e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
<b>Total</b>	<b>0.0475</b>	<b>1.0000e-004</b>	<b>0.0110</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0236</b>	<b>0.0236</b>	<b>6.0000e-005</b>		<b>0.0252</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.2300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0100e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
<b>Total</b>	<b>0.0475</b>	<b>1.0000e-004</b>	<b>0.0110</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0236</b>	<b>0.0236</b>	<b>6.0000e-005</b>		<b>0.0252</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 3- AQ  
Ventura County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	108.00	1000sqft	2.48	108,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (27,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant provided information, 80 feet installation per day would occur. Based on project details, Phase 3 would have 460 LF of trenchless activity, crossing upland road bridge would take 2 weeks, and the remainder would be open-cut trench.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Based on applicant provided information

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Grading -

Vehicle Trips - Based on applicant provided information. Maintenance and inspection work trips would occur annually for one day with one worker vehicle that would travel from the District's office to the pipeline and back.

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	10.00
tblConstructionPhase	NumDays	220.00	33.00
tblConstructionPhase	NumDays	220.00	322.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	6.00	79.00
tblConstructionPhase	NumDays	6.00	322.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,095.00
tblTripsAndVMT	HaulingTripNumber	0.00	451.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,505.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblTripsAndVMT	VendorTripNumber	18.00	0.00
tblVehicleTrips	CW_TL	9.50	0.11
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9050	16.5721	21.4764	0.0579	1.3454	0.5976	1.9037	0.3611	0.5774	0.8944	0.0000	5,813.3598	5,813.3598	0.8940	0.2897	5,918.7063
2025	1.1466	9.2250	13.1976	0.0347	0.7372	0.3173	1.0545	0.1977	0.3057	0.5034	0.0000	3,470.0050	3,470.0050	0.5075	0.1445	3,525.7480
<b>Maximum</b>	<b>1.9050</b>	<b>16.5721</b>	<b>21.4764</b>	<b>0.0579</b>	<b>1.3454</b>	<b>0.5976</b>	<b>1.9037</b>	<b>0.3611</b>	<b>0.5774</b>	<b>0.8944</b>	<b>0.0000</b>	<b>5,813.3598</b>	<b>5,813.3598</b>	<b>0.8940</b>	<b>0.2897</b>	<b>5,918.7063</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9050	16.5721	21.4764	0.0579	1.3454	0.5976	1.9037	0.3611	0.5774	0.8944	0.0000	5,813.3598	5,813.3598	0.8940	0.2897	5,918.7063
2025	1.1466	9.2250	13.1976	0.0347	0.7372	0.3173	1.0545	0.1977	0.3057	0.5034	0.0000	3,470.0050	3,470.0050	0.5075	0.1445	3,525.7480
<b>Maximum</b>	<b>1.9050</b>	<b>16.5721</b>	<b>21.4764</b>	<b>0.0579</b>	<b>1.3454</b>	<b>0.5976</b>	<b>1.9037</b>	<b>0.3611</b>	<b>0.5774</b>	<b>0.8944</b>	<b>0.0000</b>	<b>5,813.3598</b>	<b>5,813.3598</b>	<b>0.8940</b>	<b>0.2897</b>	<b>5,918.7063</b>





Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.6400e-003	6.6000e-004	5.1200e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2319	0.2319	1.2000e-004	6.0000e-005	0.2531
<b>Total</b>	<b>0.0491</b>	<b>7.6000e-004</b>	<b>0.0161</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>4.0000e-005</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>7.0000e-005</b>		<b>0.2556</b>	<b>0.2556</b>	<b>1.8000e-004</b>	<b>6.0000e-005</b>	<b>0.2782</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.6400e-003	6.6000e-004	5.1200e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2319	0.2319	1.2000e-004	6.0000e-005	0.2531
<b>Total</b>	<b>0.0491</b>	<b>7.6000e-004</b>	<b>0.0161</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>4.0000e-005</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>7.0000e-005</b>		<b>0.2556</b>	<b>0.2556</b>	<b>1.8000e-004</b>	<b>6.0000e-005</b>	<b>0.2782</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Excavation - Pipe-in-a-Bridge	Grading	6/3/2024	6/14/2024	5	10	
2	Installation - Pipe-in-a-Bridge	Building Construction	6/3/2024	6/14/2024	5	10	
3	Excavation - Trenchless	Grading	6/17/2024	10/3/2024	5	79	
4	Installation - Trenchless	Building Construction	10/4/2024	11/19/2024	5	33	
5	Installation/Backfill - Open Trench	Building Construction	6/17/2024	9/9/2025	5	322	
6	Excavation - Open Trench	Grading	6/17/2024	9/9/2025	5	322	
7	Paving - Open Trench	Paving	9/10/2025	9/23/2025	5	10	

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

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

**Acres of Paving: 2.48**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Pipe-in-a-Bridge	Excavators	1	4.00	158	0.38
Excavation - Pipe-in-a-Bridge	Graders	0	8.00	187	0.41
Excavation - Pipe-in-a-Bridge	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	0	4.00	97	0.37

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Excavation - Trenchless	Bore/Drill Rigs	0	8.00	221	0.50
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Cranes	0	8.00	231	0.29
Excavation - Trenchless	Dumpers/Tenders	0	8.00	16	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Excavation - Trenchless	Welders	0	8.00	46	0.45
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48
Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Plate Compactors	0	8.00	8	0.43
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Pipe-in-a-Bridge	Cranes	0	8.00	231	0.29
Installation - Pipe-in-a-Bridge	Forklifts	0	7.00	89	0.20
Installation - Pipe-in-a-Bridge	Generator Sets	0	8.00	84	0.74
Installation - Pipe-in-a-Bridge	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Installation - Pipe-in-a-Bridge	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Installation - Trenchless	Forklifts	0	7.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Installation/Backfill - Open Trench	Cranes	0	8.00	231	0.29
Installation/Backfill - Open Trench	Forklifts	0	7.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42
Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30
Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Pipe-in-a-Bridge	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Trenchless	4	10.00	0.00	1,095.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Pipe-in-a-Bridge	1	45.00	0.00	140.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	45.00	0.00	451.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	45.00	0.00	4,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000				0.0000
Off-Road	0.0901	0.7014	1.6325	2.5800e-003		0.0346	0.0346		0.0318	0.0318		250.1327	250.1327	0.0809			252.1551
<b>Total</b>	<b>0.0901</b>	<b>0.7014</b>	<b>1.6325</b>	<b>2.5800e-003</b>	<b>0.0000</b>	<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>0.0318</b>	<b>0.0318</b>		<b>250.1327</b>	<b>250.1327</b>	<b>0.0809</b>			<b>252.1551</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	8.0700e-003	4.7900e-003	0.0718	2.0000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6500e-003		21.0250	21.0250	5.8000e-004	5.2000e-004	21.1957
<b>Total</b>	<b>8.0700e-003</b>	<b>4.7900e-003</b>	<b>0.0718</b>	<b>2.0000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6500e-003</b>		<b>21.0250</b>	<b>21.0250</b>	<b>5.8000e-004</b>	<b>5.2000e-004</b>	<b>21.1957</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0901	0.7014	1.6325	2.5800e-003		0.0346	0.0346		0.0318	0.0318	0.0000	250.1327	250.1327	0.0809		252.1551
<b>Total</b>	<b>0.0901</b>	<b>0.7014</b>	<b>1.6325</b>	<b>2.5800e-003</b>	<b>0.0000</b>	<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>0.0318</b>	<b>0.0318</b>	<b>0.0000</b>	<b>250.1327</b>	<b>250.1327</b>	<b>0.0809</b>		<b>252.1551</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Pipe-in-a-Bridge - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	8.0700e-003	4.7900e-003	0.0718	2.0000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6500e-003		21.0250	21.0250	5.8000e-004	5.2000e-004	21.1957
<b>Total</b>	<b>8.0700e-003</b>	<b>4.7900e-003</b>	<b>0.0718</b>	<b>2.0000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6500e-003</b>		<b>21.0250</b>	<b>21.0250</b>	<b>5.8000e-004</b>	<b>5.2000e-004</b>	<b>21.1957</b>

**3.3 Installation - Pipe-in-a-Bridge - 2024**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0720	0.7241	1.1178	1.5600e-003		0.0332	0.0332		0.0306	0.0306		150.8834	150.8834	0.0488		152.1033
<b>Total</b>	<b>0.0720</b>	<b>0.7241</b>	<b>1.1178</b>	<b>1.5600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0306</b>	<b>0.0306</b>		<b>150.8834</b>	<b>150.8834</b>	<b>0.0488</b>		<b>152.1033</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0281	1.6647	0.4925	7.7400e-003	0.2444	0.0124	0.2568	0.0670	0.0119	0.0788		861.8252	861.8252	0.0614	0.1374	904.2973
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1491</b>	<b>1.7365</b>	<b>1.5696</b>	<b>0.0108</b>	<b>0.6141</b>	<b>0.0143</b>	<b>0.6284</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,177.2002</b>	<b>1,177.2002</b>	<b>0.0700</b>	<b>0.1452</b>	<b>1,222.2321</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0720	0.7241	1.1178	1.5600e-003		0.0332	0.0332		0.0306	0.0306	0.0000	150.8834	150.8834	0.0488		152.1033
<b>Total</b>	<b>0.0720</b>	<b>0.7241</b>	<b>1.1178</b>	<b>1.5600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0306</b>	<b>0.0306</b>	<b>0.0000</b>	<b>150.8834</b>	<b>150.8834</b>	<b>0.0488</b>		<b>152.1033</b>



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Installation - Pipe-in-a-Bridge - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0281	1.6647	0.4925	7.7400e-003	0.2444	0.0124	0.2568	0.0670	0.0119	0.0788		861.8252	861.8252	0.0614	0.1374	904.2973
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1491</b>	<b>1.7365</b>	<b>1.5696</b>	<b>0.0108</b>	<b>0.6141</b>	<b>0.0143</b>	<b>0.6284</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,177.2002</b>	<b>1,177.2002</b>	<b>0.0700</b>	<b>0.1452</b>	<b>1,222.2321</b>

**3.4 Excavation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6106	4.8080	7.4244	0.0146		0.2114	0.2114		0.2056	0.2056		1,392.5655	1,392.5655	0.2380		1,398.5156
<b>Total</b>	<b>0.6106</b>	<b>4.8080</b>	<b>7.4244</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.2114</b>	<b>0.2114</b>	<b>0.0000</b>	<b>0.2056</b>	<b>0.2056</b>		<b>1,392.5655</b>	<b>1,392.5655</b>	<b>0.2380</b>		<b>1,398.5156</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Excavation - Trenchless - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6481	0.4876	7.6700e-003	0.2420	0.0123	0.2543	0.0663	0.0117	0.0780		853.2537	853.2537	0.0608	0.1360	895.3034
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
Worker	0.0269	0.0160	0.2394	6.8000e-004	0.0822	4.3000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.0833	70.0833	1.9200e-003	1.7500e-003	70.6522
<b>Total</b>	<b>0.0547</b>	<b>1.6641</b>	<b>0.7270</b>	<b>8.3500e-003</b>	<b>0.3242</b>	<b>0.0127</b>	<b>0.3368</b>	<b>0.0881</b>	<b>0.0121</b>	<b>0.1002</b>		<b>923.3370</b>	<b>923.3370</b>	<b>0.0627</b>	<b>0.1378</b>	<b>965.9556</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6106	4.8080	7.4244	0.0146		0.2114	0.2114		0.2056	0.2056	0.0000	1,392.5655	1,392.5655	0.2380		1,398.5156
<b>Total</b>	<b>0.6106</b>	<b>4.8080</b>	<b>7.4244</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.2114</b>	<b>0.2114</b>	<b>0.0000</b>	<b>0.2056</b>	<b>0.2056</b>	<b>0.0000</b>	<b>1,392.5655</b>	<b>1,392.5655</b>	<b>0.2380</b>		<b>1,398.5156</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Excavation - Trenchless - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6481	0.4876	7.6700e-003	0.2420	0.0123	0.2543	0.0663	0.0117	0.0780		853.2537	853.2537	0.0608	0.1360	895.3034
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
Worker	0.0269	0.0160	0.2394	6.8000e-004	0.0822	4.3000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.0833	70.0833	1.9200e-003	1.7500e-003	70.6522
<b>Total</b>	<b>0.0547</b>	<b>1.6641</b>	<b>0.7270</b>	<b>8.3500e-003</b>	<b>0.3242</b>	<b>0.0127</b>	<b>0.3368</b>	<b>0.0881</b>	<b>0.0121</b>	<b>0.1002</b>		<b>923.3370</b>	<b>923.3370</b>	<b>0.0627</b>	<b>0.1378</b>	<b>965.9556</b>

**3.5 Installation - Trenchless - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5322	4.5316	3.5798	0.0116		0.1707	0.1707		0.1603	0.1603		1,090.3680	1,090.3680	0.3157		1,098.2608
<b>Total</b>	<b>0.5322</b>	<b>4.5316</b>	<b>3.5798</b>	<b>0.0116</b>		<b>0.1707</b>	<b>0.1707</b>		<b>0.1603</b>	<b>0.1603</b>		<b>1,090.3680</b>	<b>1,090.3680</b>	<b>0.3157</b>		<b>1,098.2608</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0274	1.6250	0.4808	7.5600e-003	0.2386	0.0121	0.2507	0.0654	0.0116	0.0769		841.3056	841.3056	0.0599	0.1341	882.7664
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1484</b>	<b>1.6969</b>	<b>1.5579</b>	<b>0.0106</b>	<b>0.6083</b>	<b>0.0140</b>	<b>0.6223</b>	<b>0.1634</b>	<b>0.0133</b>	<b>0.1768</b>		<b>1,156.6805</b>	<b>1,156.6805</b>	<b>0.0686</b>	<b>0.1420</b>	<b>1,200.7012</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5322	4.5316	3.5798	0.0116		0.1707	0.1707		0.1603	0.1603	0.0000	1,090.3680	1,090.3680	0.3157		1,098.2608
<b>Total</b>	<b>0.5322</b>	<b>4.5316</b>	<b>3.5798</b>	<b>0.0116</b>		<b>0.1707</b>	<b>0.1707</b>		<b>0.1603</b>	<b>0.1603</b>	<b>0.0000</b>	<b>1,090.3680</b>	<b>1,090.3680</b>	<b>0.3157</b>		<b>1,098.2608</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0274	1.6250	0.4808	7.5600e-003	0.2386	0.0121	0.2507	0.0654	0.0116	0.0769		841.3056	841.3056	0.0599	0.1341	882.7664
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1484</b>	<b>1.6969</b>	<b>1.5579</b>	<b>0.0106</b>	<b>0.6083</b>	<b>0.0140</b>	<b>0.6223</b>	<b>0.1634</b>	<b>0.0133</b>	<b>0.1768</b>		<b>1,156.6805</b>	<b>1,156.6805</b>	<b>0.0686</b>	<b>0.1420</b>	<b>1,200.7012</b>

**3.6 Installation/Backfill - Open Trench - 2024**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1150	1.0622	1.5288	2.2500e-003		0.0477	0.0477		0.0443	0.0443		210.1538	210.1538	0.0632		211.7347
<b>Total</b>	<b>0.1150</b>	<b>1.0622</b>	<b>1.5288</b>	<b>2.2500e-003</b>		<b>0.0477</b>	<b>0.0477</b>		<b>0.0443</b>	<b>0.0443</b>		<b>210.1538</b>	<b>210.1538</b>	<b>0.0632</b>		<b>211.7347</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0281	1.6636	0.4922	7.7400e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		861.2517	861.2517	0.0614	0.1373	903.6955
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1491</b>	<b>1.7354</b>	<b>1.5693</b>	<b>0.0108</b>	<b>0.6139</b>	<b>0.0143</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,176.6266</b>	<b>1,176.6266</b>	<b>0.0700</b>	<b>0.1452</b>	<b>1,221.6303</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1150	1.0622	1.5288	2.2500e-003		0.0477	0.0477		0.0443	0.0443	0.0000	210.1538	210.1538	0.0632		211.7347
<b>Total</b>	<b>0.1150</b>	<b>1.0622</b>	<b>1.5288</b>	<b>2.2500e-003</b>		<b>0.0477</b>	<b>0.0477</b>		<b>0.0443</b>	<b>0.0443</b>	<b>0.0000</b>	<b>210.1538</b>	<b>210.1538</b>	<b>0.0632</b>		<b>211.7347</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0281	1.6636	0.4922	7.7400e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		861.2517	861.2517	0.0614	0.1373	903.6955
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
Worker	0.1210	0.0718	1.0771	3.0600e-003	0.3697	1.9200e-003	0.3716	0.0981	1.7600e-003	0.0998		315.3750	315.3750	8.6300e-003	7.8700e-003	317.9347
<b>Total</b>	<b>0.1491</b>	<b>1.7354</b>	<b>1.5693</b>	<b>0.0108</b>	<b>0.6139</b>	<b>0.0143</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0136</b>	<b>0.1786</b>		<b>1,176.6266</b>	<b>1,176.6266</b>	<b>0.0700</b>	<b>0.1452</b>	<b>1,221.6303</b>

**3.6 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6353	0.5042	7.5600e-003	0.2443	0.0124	0.2567	0.0669	0.0118	0.0788		844.1088	844.1088	0.0633	0.1347	885.8186
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
Worker	0.1133	0.0648	1.0068	2.9500e-003	0.3697	1.8300e-003	0.3715	0.0981	1.6800e-003	0.0997		307.5490	307.5490	7.8400e-003	7.3700e-003	309.9402
<b>Total</b>	<b>0.1411</b>	<b>1.7001</b>	<b>1.5109</b>	<b>0.0105</b>	<b>0.6140</b>	<b>0.0142</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0135</b>	<b>0.1785</b>		<b>1,151.6578</b>	<b>1,151.6578</b>	<b>0.0711</b>	<b>0.1420</b>	<b>1,195.7588</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>



Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6353	0.5042	7.5600e-003	0.2443	0.0124	0.2567	0.0669	0.0118	0.0788		844.1088	844.1088	0.0633	0.1347	885.8186
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
Worker	0.1133	0.0648	1.0068	2.9500e-003	0.3697	1.8300e-003	0.3715	0.0981	1.6800e-003	0.0997		307.5490	307.5490	7.8400e-003	7.3700e-003	309.9402
<b>Total</b>	<b>0.1411</b>	<b>1.7001</b>	<b>1.5109</b>	<b>0.0105</b>	<b>0.6140</b>	<b>0.0142</b>	<b>0.6282</b>	<b>0.1650</b>	<b>0.0135</b>	<b>0.1785</b>		<b>1,151.6578</b>	<b>1,151.6578</b>	<b>0.0711</b>	<b>0.1420</b>	<b>1,195.7588</b>

**3.7 Excavation - Open Trench - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9200	7.2785	9.8679	0.0210		0.3109	0.3109		0.3011	0.3011		2,005.5518	2,005.5518	0.3736		2,014.8920
<b>Total</b>	<b>0.9200</b>	<b>7.2785</b>	<b>9.8679</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.3109</b>	<b>0.3109</b>	<b>0.0000</b>	<b>0.3011</b>	<b>0.3011</b>		<b>2,005.5518</b>	<b>2,005.5518</b>	<b>0.3736</b>		<b>2,014.8920</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0403	0.0239	0.3590	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		105.1250	105.1250	2.8800e-003	2.6200e-003	105.9782
<b>Total</b>	<b>0.0403</b>	<b>0.0239</b>	<b>0.3590</b>	<b>1.0200e-003</b>	<b>0.1232</b>	<b>6.4000e-004</b>	<b>0.1239</b>	<b>0.0327</b>	<b>5.9000e-004</b>	<b>0.0333</b>		<b>105.1250</b>	<b>105.1250</b>	<b>2.8800e-003</b>	<b>2.6200e-003</b>	<b>105.9782</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9200	7.2785	9.8679	0.0210		0.3109	0.3109		0.3011	0.3011	0.0000	2,005.5518	2,005.5518	0.3736		2,014.8920
<b>Total</b>	<b>0.9200</b>	<b>7.2785</b>	<b>9.8679</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.3109</b>	<b>0.3109</b>	<b>0.0000</b>	<b>0.3011</b>	<b>0.3011</b>	<b>0.0000</b>	<b>2,005.5518</b>	<b>2,005.5518</b>	<b>0.3736</b>		<b>2,014.8920</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0403	0.0239	0.3590	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		105.1250	105.1250	2.8800e-003	2.6200e-003	105.9782
<b>Total</b>	<b>0.0403</b>	<b>0.0239</b>	<b>0.3590</b>	<b>1.0200e-003</b>	<b>0.1232</b>	<b>6.4000e-004</b>	<b>0.1239</b>	<b>0.0327</b>	<b>5.9000e-004</b>	<b>0.0333</b>		<b>105.1250</b>	<b>105.1250</b>	<b>2.8800e-003</b>	<b>2.6200e-003</b>	<b>105.9782</b>

**3.7 Excavation - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0378	0.0216	0.3356	9.8000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		102.5163	102.5163	2.6100e-003	2.4600e-003	103.3134
<b>Total</b>	<b>0.0378</b>	<b>0.0216</b>	<b>0.3356</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>102.5163</b>	<b>102.5163</b>	<b>2.6100e-003</b>	<b>2.4600e-003</b>	<b>103.3134</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Excavation - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0378	0.0216	0.3356	9.8000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		102.5163	102.5163	2.6100e-003	2.4600e-003	103.3134
<b>Total</b>	<b>0.0378</b>	<b>0.0216</b>	<b>0.3356</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>102.5163</b>	<b>102.5163</b>	<b>2.6100e-003</b>	<b>2.4600e-003</b>	<b>103.3134</b>

**3.8 Paving - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701		1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6498					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0837</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>		<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0327	0.0187	0.2908	8.5000e-004	0.1068	5.3000e-004	0.1073	0.0283	4.9000e-004	0.0288		88.8475	88.8475	2.2600e-003	2.1300e-003	89.5383
<b>Total</b>	<b>0.0327</b>	<b>0.0187</b>	<b>0.2908</b>	<b>8.5000e-004</b>	<b>0.1068</b>	<b>5.3000e-004</b>	<b>0.1073</b>	<b>0.0283</b>	<b>4.9000e-004</b>	<b>0.0288</b>		<b>88.8475</b>	<b>88.8475</b>	<b>2.2600e-003</b>	<b>2.1300e-003</b>	<b>89.5383</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701	0.0000	1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6498					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0837</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>	<b>0.0000</b>	<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.8 Paving - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0327	0.0187	0.2908	8.5000e-004	0.1068	5.3000e-004	0.1073	0.0283	4.9000e-004	0.0288		88.8475	88.8475	2.2600e-003	2.1300e-003	89.5383
<b>Total</b>	<b>0.0327</b>	<b>0.0187</b>	<b>0.2908</b>	<b>8.5000e-004</b>	<b>0.1068</b>	<b>5.3000e-004</b>	<b>0.1073</b>	<b>0.0283</b>	<b>4.9000e-004</b>	<b>0.0288</b>		<b>88.8475</b>	<b>88.8475</b>	<b>2.2600e-003</b>	<b>2.1300e-003</b>	<b>89.5383</b>

Calleguas SMP Phase 3- AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**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	1.6400e-003	6.6000e-004	5.1200e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2319	0.2319	1.2000e-004	6.0000e-005	0.2531
Unmitigated	1.6400e-003	6.6000e-004	5.1200e-003	0.0000	9.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	3.0000e-005		0.2319	0.2319	1.2000e-004	6.0000e-005	0.2531

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.08	0.00	0.00	31	31
Total	1.08	0.00	0.00	31	31

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.11	7.30	7.30	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553410	0.058491	0.170447	0.127855	0.026791	0.007507	0.012149	0.006212	0.000674	0.000390	0.028812	0.000632	0.006629



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
Unmitigated	0.0475	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	8.2300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0100e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
<b>Total</b>	<b>0.0475</b>	<b>1.0000e-004</b>	<b>0.0110</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0236</b>	<b>0.0236</b>	<b>6.0000e-005</b>		<b>0.0252</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.2300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0100e-003	1.0000e-004	0.0110	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0236	0.0236	6.0000e-005		0.0252
<b>Total</b>	<b>0.0475</b>	<b>1.0000e-004</b>	<b>0.0110</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0236</b>	<b>0.0236</b>	<b>6.0000e-005</b>		<b>0.0252</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 4 - AQ  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	196.00	1000sqft	4.50	196,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (49,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant information, such as 80 feet installation for open trench per day, 400 LF of trenchless activity, and paving would occur after excavation and installation operation. 4 feet trenchless activity per day.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Grading -

Vehicle Trips - Based on applicant provided information, maintenance and inspection trips would occur once per year, one worker trips for one day, and would travel from the district's office to the end of the pipeline and back.

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	8.00	68.00
tblConstructionPhase	NumDays	8.00	608.00
tblConstructionPhase	NumDays	230.00	608.00
tblConstructionPhase	NumDays	230.00	28.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,505.00
tblTripsAndVMT	HaulingTripNumber	0.00	952.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblVehicleTrips	CW_TL	9.50	0.06
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0659	0.5192	0.7717	1.9800e-003	0.0443	0.0179	0.0622	0.0119	0.0173	0.0292	0.0000	179.8501	179.8501	0.0254	7.1200e-003	182.6067
2026	0.1692	1.3220	1.8890	5.2000e-003	0.1490	0.0440	0.1930	0.0399	0.0423	0.0822	0.0000	475.2136	475.2136	0.0665	0.0213	483.2370
2027	0.1578	1.2101	1.7952	4.7200e-003	0.1334	0.0415	0.1750	0.0357	0.0400	0.0757	0.0000	430.2168	430.2168	0.0610	0.0171	436.8395
2028	0.0190	0.1060	0.1566	3.8000e-004	8.6100e-003	4.0400e-003	0.0127	2.3000e-003	3.8300e-003	6.1300e-003	0.0000	34.4013	34.4013	6.4500e-003	9.8000e-004	34.8533
<b>Maximum</b>	<b>0.1692</b>	<b>1.3220</b>	<b>1.8890</b>	<b>5.2000e-003</b>	<b>0.1490</b>	<b>0.0440</b>	<b>0.1930</b>	<b>0.0399</b>	<b>0.0423</b>	<b>0.0822</b>	<b>0.0000</b>	<b>475.2136</b>	<b>475.2136</b>	<b>0.0665</b>	<b>0.0213</b>	<b>483.2370</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**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					
2025	0.0659	0.5192	0.7717	1.9800e-003	0.0443	0.0179	0.0622	0.0119	0.0173	0.0292	0.0000	179.8499	179.8499	0.0254	7.1200e-003	182.6066
2026	0.1692	1.3220	1.8890	5.2000e-003	0.1490	0.0440	0.1930	0.0399	0.0423	0.0822	0.0000	475.2133	475.2133	0.0665	0.0213	483.2366
2027	0.1578	1.2101	1.7952	4.7200e-003	0.1334	0.0415	0.1750	0.0357	0.0400	0.0757	0.0000	430.2165	430.2165	0.0610	0.0171	436.8392
2028	0.0190	0.1060	0.1566	3.8000e-004	8.6100e-003	4.0400e-003	0.0127	2.3000e-003	3.8300e-003	6.1300e-003	0.0000	34.4013	34.4013	6.4500e-003	9.8000e-004	34.8532
<b>Maximum</b>	<b>0.1692</b>	<b>1.3220</b>	<b>1.8890</b>	<b>5.2000e-003</b>	<b>0.1490</b>	<b>0.0440</b>	<b>0.1930</b>	<b>0.0399</b>	<b>0.0423</b>	<b>0.0822</b>	<b>0.0000</b>	<b>475.2133</b>	<b>475.2133</b>	<b>0.0665</b>	<b>0.0213</b>	<b>483.2366</b>

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-23-2025	12-22-2025	0.5254	0.5254
2	12-23-2025	3-22-2026	0.4738	0.4738
3	3-23-2026	6-22-2026	0.3440	0.3440
4	6-23-2026	9-22-2026	0.3437	0.3437
5	9-23-2026	12-22-2026	0.3432	0.3432
6	12-23-2026	3-22-2027	0.3379	0.3379
7	3-23-2027	6-22-2027	0.3421	0.3421
8	6-23-2027	9-22-2027	0.3418	0.3418

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9	9-23-2027	12-22-2027	0.3412	0.3412
10	12-23-2027	3-22-2028	0.1568	0.1568
		Highest	0.5254	0.5254

**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	0.0156	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0000e-004	1.4000e-004	1.2700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0388	0.0388	2.0000e-005	1.0000e-005	0.0430
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0159</b>	<b>1.6000e-004</b>	<b>3.0700e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0423</b>	<b>0.0423</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0467</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0156	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0000e-004	1.4000e-004	1.2700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0388	0.0388	2.0000e-005	1.0000e-005	0.0430
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0159</b>	<b>1.6000e-004</b>	<b>3.0700e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0423</b>	<b>0.0423</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0467</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation - Trenchless	Grading	9/24/2025	12/26/2025	5	68	
2	Excavation - Open Trench	Grading	9/24/2025	1/21/2028	5	608	
3	Installation/Backfill - Open Trench	Building Construction	9/24/2025	1/21/2028	5	608	

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4	Installation - Trenchless	Building Construction	12/29/2025	2/4/2026	5	28
5	Paving - Open Trench	Paving	1/24/2028	2/16/2028	5	18

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

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

**Acres of Paving: 4.5**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Excavators	0	8.00	158	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48
Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation/Backfill - Open Trench	Cranes	0	7.00	231	0.29

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Installation/Backfill - Open Trench	Forklifts	0	8.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38
Installation - Trenchless	Forklifts	0	8.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42
Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30
Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Trenchless	4	10.00	0.00	392.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	82.00	0.00	8,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	82.00	0.00	952.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.1495	0.2516	5.0000e-004		6.1400e-003	6.1400e-003		5.9700e-003	5.9700e-003	0.0000	42.9489	42.9489	7.2600e-003	0.0000	43.1303
<b>Total</b>	<b>0.0195</b>	<b>0.1495</b>	<b>0.2516</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>6.1400e-003</b>	<b>6.1400e-003</b>	<b>0.0000</b>	<b>5.9700e-003</b>	<b>5.9700e-003</b>	<b>0.0000</b>	<b>42.9489</b>	<b>42.9489</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>43.1303</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0239	7.1000e-003	1.1000e-004	3.3700e-003	1.7000e-004	3.5400e-003	9.2000e-004	1.7000e-004	1.0900e-003	0.0000	10.7321	10.7321	8.0000e-004	1.7100e-003	11.2624
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	5.5000e-004	7.3900e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.0314	2.0314	6.0000e-005	5.0000e-005	2.0491
<b>Total</b>	<b>1.2300e-003</b>	<b>0.0244</b>	<b>0.0145</b>	<b>1.3000e-004</b>	<b>6.1100e-003</b>	<b>1.8000e-004</b>	<b>6.3000e-003</b>	<b>1.6500e-003</b>	<b>1.8000e-004</b>	<b>1.8300e-003</b>	<b>0.0000</b>	<b>12.7636</b>	<b>12.7636</b>	<b>8.6000e-004</b>	<b>1.7600e-003</b>	<b>13.3116</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.1495	0.2516	5.0000e-004		6.1400e-003	6.1400e-003		5.9700e-003	5.9700e-003	0.0000	42.9488	42.9488	7.2600e-003	0.0000	43.1303
<b>Total</b>	<b>0.0195</b>	<b>0.1495</b>	<b>0.2516</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>6.1400e-003</b>	<b>6.1400e-003</b>	<b>0.0000</b>	<b>5.9700e-003</b>	<b>5.9700e-003</b>	<b>0.0000</b>	<b>42.9488</b>	<b>42.9488</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>43.1303</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0239	7.1000e-003	1.1000e-004	3.3700e-003	1.7000e-004	3.5400e-003	9.2000e-004	1.7000e-004	1.0900e-003	0.0000	10.7321	10.7321	8.0000e-004	1.7100e-003	11.2624
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	5.5000e-004	7.3900e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.0314	2.0314	6.0000e-005	5.0000e-005	2.0491
<b>Total</b>	<b>1.2300e-003</b>	<b>0.0244</b>	<b>0.0145</b>	<b>1.3000e-004</b>	<b>6.1100e-003</b>	<b>1.8000e-004</b>	<b>6.3000e-003</b>	<b>1.6500e-003</b>	<b>1.8000e-004</b>	<b>1.8300e-003</b>	<b>0.0000</b>	<b>12.7636</b>	<b>12.7636</b>	<b>8.6000e-004</b>	<b>1.7600e-003</b>	<b>13.3116</b>

**3.3 Excavation - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2312	0.3488	7.4000e-004		9.3200e-003	9.3200e-003		9.0300e-003	9.0300e-003	0.0000	64.5871	64.5871	0.0119	0.0000	64.8854
<b>Total</b>	<b>0.0305</b>	<b>0.2312</b>	<b>0.3488</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>9.3200e-003</b>	<b>9.3200e-003</b>	<b>0.0000</b>	<b>9.0300e-003</b>	<b>9.0300e-003</b>	<b>0.0000</b>	<b>64.5871</b>	<b>64.5871</b>	<b>0.0119</b>	<b>0.0000</b>	<b>64.8854</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	0.0116	3.0000e-005	4.2900e-003	2.0000e-005	4.3200e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.1816	3.1816	9.0000e-005	9.0000e-005	3.2093
<b>Total</b>	<b>1.3300e-003</b>	<b>8.6000e-004</b>	<b>0.0116</b>	<b>3.0000e-005</b>	<b>4.2900e-003</b>	<b>2.0000e-005</b>	<b>4.3200e-003</b>	<b>1.1400e-003</b>	<b>2.0000e-005</b>	<b>1.1600e-003</b>	<b>0.0000</b>	<b>3.1816</b>	<b>3.1816</b>	<b>9.0000e-005</b>	<b>9.0000e-005</b>	<b>3.2093</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2312	0.3488	7.4000e-004		9.3200e-003	9.3200e-003		9.0300e-003	9.0300e-003	0.0000	64.5871	64.5871	0.0119	0.0000	64.8854
<b>Total</b>	<b>0.0305</b>	<b>0.2312</b>	<b>0.3488</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>9.3200e-003</b>	<b>9.3200e-003</b>	<b>0.0000</b>	<b>9.0300e-003</b>	<b>9.0300e-003</b>	<b>0.0000</b>	<b>64.5871</b>	<b>64.5871</b>	<b>0.0119</b>	<b>0.0000</b>	<b>64.8854</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	0.0116	3.0000e-005	4.2900e-003	2.0000e-005	4.3200e-003	1.1400e-003	2.0000e-005	1.1600e-003	0.0000	3.1816	3.1816	9.0000e-005	9.0000e-005	3.2093
<b>Total</b>	<b>1.3300e-003</b>	<b>8.6000e-004</b>	<b>0.0116</b>	<b>3.0000e-005</b>	<b>4.2900e-003</b>	<b>2.0000e-005</b>	<b>4.3200e-003</b>	<b>1.1400e-003</b>	<b>2.0000e-005</b>	<b>1.1600e-003</b>	<b>0.0000</b>	<b>3.1816</b>	<b>3.1816</b>	<b>9.0000e-005</b>	<b>9.0000e-005</b>	<b>3.2093</b>

**3.3 Excavation - Open Trench - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1122	0.8498	1.2823	2.7300e-003		0.0343	0.0343		0.0332	0.0332	0.0000	237.4259	237.4259	0.0439	0.0000	238.5225
<b>Total</b>	<b>0.1122</b>	<b>0.8498</b>	<b>1.2823</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>0.0343</b>	<b>0.0343</b>	<b>0.0000</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>237.4259</b>	<b>237.4259</b>	<b>0.0439</b>	<b>0.0000</b>	<b>238.5225</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

**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	4.6100e-003	2.8900e-003	0.0401	1.2000e-004	0.0158	8.0000e-005	0.0159	4.1900e-003	7.0000e-005	4.2600e-003	0.0000	11.4195	11.4195	3.0000e-004	3.0000e-004	11.5154
<b>Total</b>	<b>4.6100e-003</b>	<b>2.8900e-003</b>	<b>0.0401</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>8.0000e-005</b>	<b>0.0159</b>	<b>4.1900e-003</b>	<b>7.0000e-005</b>	<b>4.2600e-003</b>	<b>0.0000</b>	<b>11.4195</b>	<b>11.4195</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>11.5154</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1122	0.8498	1.2823	2.7300e-003		0.0343	0.0343		0.0332	0.0332	0.0000	237.4256	237.4256	0.0439	0.0000	238.5222
<b>Total</b>	<b>0.1122</b>	<b>0.8498</b>	<b>1.2823</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>0.0343</b>	<b>0.0343</b>	<b>0.0000</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>237.4256</b>	<b>237.4256</b>	<b>0.0439</b>	<b>0.0000</b>	<b>238.5222</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

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	4.6100e-003	2.8900e-003	0.0401	1.2000e-004	0.0158	8.0000e-005	0.0159	4.1900e-003	7.0000e-005	4.2600e-003	0.0000	11.4195	11.4195	3.0000e-004	3.0000e-004	11.5154
<b>Total</b>	<b>4.6100e-003</b>	<b>2.8900e-003</b>	<b>0.0401</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>8.0000e-005</b>	<b>0.0159</b>	<b>4.1900e-003</b>	<b>7.0000e-005</b>	<b>4.2600e-003</b>	<b>0.0000</b>	<b>11.4195</b>	<b>11.4195</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>11.5154</b>

**3.3 Excavation - Open Trench - 2027**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1122	0.8498	1.2823	2.7300e-003		0.0343	0.0343		0.0332	0.0332	0.0000	237.4259	237.4259	0.0439	0.0000	238.5225
<b>Total</b>	<b>0.1122</b>	<b>0.8498</b>	<b>1.2823</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>0.0343</b>	<b>0.0343</b>	<b>0.0000</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>237.4259</b>	<b>237.4259</b>	<b>0.0439</b>	<b>0.0000</b>	<b>238.5225</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	4.3300e-003	2.6400e-003	0.0379	1.2000e-004	0.0158	7.0000e-005	0.0159	4.1900e-003	7.0000e-005	4.2600e-003	0.0000	11.1699	11.1699	2.7000e-004	2.8000e-004	11.2606
<b>Total</b>	<b>4.3300e-003</b>	<b>2.6400e-003</b>	<b>0.0379</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>7.0000e-005</b>	<b>0.0159</b>	<b>4.1900e-003</b>	<b>7.0000e-005</b>	<b>4.2600e-003</b>	<b>0.0000</b>	<b>11.1699</b>	<b>11.1699</b>	<b>2.7000e-004</b>	<b>2.8000e-004</b>	<b>11.2606</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1122	0.8498	1.2823	2.7300e-003		0.0343	0.0343		0.0332	0.0332	0.0000	237.4256	237.4256	0.0439	0.0000	238.5222
<b>Total</b>	<b>0.1122</b>	<b>0.8498</b>	<b>1.2823</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>0.0343</b>	<b>0.0343</b>	<b>0.0000</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>237.4256</b>	<b>237.4256</b>	<b>0.0439</b>	<b>0.0000</b>	<b>238.5222</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	4.3300e-003	2.6400e-003	0.0379	1.2000e-004	0.0158	7.0000e-005	0.0159	4.1900e-003	7.0000e-005	4.2600e-003	0.0000	11.1699	11.1699	2.7000e-004	2.8000e-004	11.2606
<b>Total</b>	<b>4.3300e-003</b>	<b>2.6400e-003</b>	<b>0.0379</b>	<b>1.2000e-004</b>	<b>0.0158</b>	<b>7.0000e-005</b>	<b>0.0159</b>	<b>4.1900e-003</b>	<b>7.0000e-005</b>	<b>4.2600e-003</b>	<b>0.0000</b>	<b>11.1699</b>	<b>11.1699</b>	<b>2.7000e-004</b>	<b>2.8000e-004</b>	<b>11.2606</b>

**3.3 Excavation - Open Trench - 2028**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0488	0.0737	1.6000e-004		1.9700e-003	1.9700e-003		1.9100e-003	1.9100e-003	0.0000	13.6452	13.6452	2.5200e-003	0.0000	13.7082
<b>Total</b>	<b>6.4500e-003</b>	<b>0.0488</b>	<b>0.0737</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.9700e-003</b>	<b>1.9700e-003</b>	<b>0.0000</b>	<b>1.9100e-003</b>	<b>1.9100e-003</b>	<b>0.0000</b>	<b>13.6452</b>	<b>13.6452</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>13.7082</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.4000e-004	2.0700e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.6293	0.6293	1.0000e-005	2.0000e-005	0.6342
<b>Total</b>	<b>2.3000e-004</b>	<b>1.4000e-004</b>	<b>2.0700e-003</b>	<b>1.0000e-005</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>9.1000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.6293</b>	<b>0.6293</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6342</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0488	0.0737	1.6000e-004		1.9700e-003	1.9700e-003		1.9100e-003	1.9100e-003	0.0000	13.6452	13.6452	2.5200e-003	0.0000	13.7082
<b>Total</b>	<b>6.4500e-003</b>	<b>0.0488</b>	<b>0.0737</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.9700e-003</b>	<b>1.9700e-003</b>	<b>0.0000</b>	<b>1.9100e-003</b>	<b>1.9100e-003</b>	<b>0.0000</b>	<b>13.6452</b>	<b>13.6452</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>13.7082</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.4000e-004	2.0700e-003	1.0000e-005	9.1000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.6293	0.6293	1.0000e-005	2.0000e-005	0.6342
<b>Total</b>	<b>2.3000e-004</b>	<b>1.4000e-004</b>	<b>2.0700e-003</b>	<b>1.0000e-005</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>9.1000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.6293</b>	<b>0.6293</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6342</b>

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8200e-003	0.0352	0.0541	8.0000e-005		1.4200e-003	1.4200e-003		1.3200e-003	1.3200e-003	0.0000	6.7738	6.7738	2.0400e-003	0.0000	6.8248
<b>Total</b>	<b>3.8200e-003</b>	<b>0.0352</b>	<b>0.0541</b>	<b>8.0000e-005</b>		<b>1.4200e-003</b>	<b>1.4200e-003</b>		<b>1.3200e-003</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>6.7738</b>	<b>6.7738</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>6.8248</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.6000e-004	0.0605	0.0180	2.7000e-004	8.5300e-003	4.4000e-004	8.9700e-003	2.3400e-003	4.2000e-004	2.7600e-003	0.0000	27.1913	27.1913	2.0400e-003	4.3400e-003	28.5348
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2900e-003	4.7300e-003	0.0633	1.8000e-004	0.0235	1.2000e-004	0.0236	6.2300e-003	1.1000e-004	6.3400e-003	0.0000	17.3927	17.3927	4.8000e-004	4.7000e-004	17.5442
<b>Total</b>	<b>8.2500e-003</b>	<b>0.0652</b>	<b>0.0813</b>	<b>4.5000e-004</b>	<b>0.0320</b>	<b>5.6000e-004</b>	<b>0.0326</b>	<b>8.5700e-003</b>	<b>5.3000e-004</b>	<b>9.1000e-003</b>	<b>0.0000</b>	<b>44.5839</b>	<b>44.5839</b>	<b>2.5200e-003</b>	<b>4.8100e-003</b>	<b>46.0791</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8200e-003	0.0352	0.0541	8.0000e-005		1.4200e-003	1.4200e-003		1.3200e-003	1.3200e-003	0.0000	6.7738	6.7738	2.0400e-003	0.0000	6.8248
<b>Total</b>	<b>3.8200e-003</b>	<b>0.0352</b>	<b>0.0541</b>	<b>8.0000e-005</b>		<b>1.4200e-003</b>	<b>1.4200e-003</b>		<b>1.3200e-003</b>	<b>1.3200e-003</b>	<b>0.0000</b>	<b>6.7738</b>	<b>6.7738</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>6.8248</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.6000e-004	0.0605	0.0180	2.7000e-004	8.5300e-003	4.4000e-004	8.9700e-003	2.3400e-003	4.2000e-004	2.7600e-003	0.0000	27.1913	27.1913	2.0400e-003	4.3400e-003	28.5348
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2900e-003	4.7300e-003	0.0633	1.8000e-004	0.0235	1.2000e-004	0.0236	6.2300e-003	1.1000e-004	6.3400e-003	0.0000	17.3927	17.3927	4.8000e-004	4.7000e-004	17.5442
<b>Total</b>	<b>8.2500e-003</b>	<b>0.0652</b>	<b>0.0813</b>	<b>4.5000e-004</b>	<b>0.0320</b>	<b>5.6000e-004</b>	<b>0.0326</b>	<b>8.5700e-003</b>	<b>5.3000e-004</b>	<b>9.1000e-003</b>	<b>0.0000</b>	<b>44.5839</b>	<b>44.5839</b>	<b>2.5200e-003</b>	<b>4.8100e-003</b>	<b>46.0791</b>

**3.4 Installation/Backfill - Open Trench - 2026**

**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	0.0141	0.1294	0.1990	2.9000e-004		5.2100e-003	5.2100e-003		4.8600e-003	4.8600e-003	0.0000	24.9010	24.9010	7.4900e-003	0.0000	25.0883
<b>Total</b>	<b>0.0141</b>	<b>0.1294</b>	<b>0.1990</b>	<b>2.9000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>	<b>0.0000</b>	<b>24.9010</b>	<b>24.9010</b>	<b>7.4900e-003</b>	<b>0.0000</b>	<b>25.0883</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	3.4900e-003	0.2183	0.0676	9.6000e-004	0.0314	1.6000e-003	0.0330	8.6100e-003	1.5300e-003	0.0101	0.0000	97.9039	97.9039	7.7100e-003	0.0156	102.7546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0158	0.2190	6.6000e-004	0.0863	4.1000e-004	0.0867	0.0229	3.8000e-004	0.0233	0.0000	62.4265	62.4265	1.6300e-003	1.6200e-003	62.9506
<b>Total</b>	<b>0.0287</b>	<b>0.2341</b>	<b>0.2866</b>	<b>1.6200e-003</b>	<b>0.1177</b>	<b>2.0100e-003</b>	<b>0.1197</b>	<b>0.0315</b>	<b>1.9100e-003</b>	<b>0.0334</b>	<b>0.0000</b>	<b>160.3304</b>	<b>160.3304</b>	<b>9.3400e-003</b>	<b>0.0173</b>	<b>165.7053</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0141	0.1294	0.1990	2.9000e-004		5.2100e-003	5.2100e-003		4.8600e-003	4.8600e-003	0.0000	24.9010	24.9010	7.4900e-003	0.0000	25.0883
<b>Total</b>	<b>0.0141</b>	<b>0.1294</b>	<b>0.1990</b>	<b>2.9000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>	<b>0.0000</b>	<b>24.9010</b>	<b>24.9010</b>	<b>7.4900e-003</b>	<b>0.0000</b>	<b>25.0883</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	3.4900e-003	0.2183	0.0676	9.6000e-004	0.0314	1.6000e-003	0.0330	8.6100e-003	1.5300e-003	0.0101	0.0000	97.9039	97.9039	7.7100e-003	0.0156	102.7546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0158	0.2190	6.6000e-004	0.0863	4.1000e-004	0.0867	0.0229	3.8000e-004	0.0233	0.0000	62.4265	62.4265	1.6300e-003	1.6200e-003	62.9506
<b>Total</b>	<b>0.0287</b>	<b>0.2341</b>	<b>0.2866</b>	<b>1.6200e-003</b>	<b>0.1177</b>	<b>2.0100e-003</b>	<b>0.1197</b>	<b>0.0315</b>	<b>1.9100e-003</b>	<b>0.0334</b>	<b>0.0000</b>	<b>160.3304</b>	<b>160.3304</b>	<b>9.3400e-003</b>	<b>0.0173</b>	<b>165.7053</b>

**3.4 Installation/Backfill - Open Trench - 2027**

**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	0.0141	0.1294	0.1990	2.9000e-004		5.2100e-003	5.2100e-003		4.8600e-003	4.8600e-003	0.0000	24.9010	24.9010	7.4900e-003	0.0000	25.0883
<b>Total</b>	<b>0.0141</b>	<b>0.1294</b>	<b>0.1990</b>	<b>2.9000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>	<b>0.0000</b>	<b>24.9010</b>	<b>24.9010</b>	<b>7.4900e-003</b>	<b>0.0000</b>	<b>25.0883</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

**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	3.4500e-003	0.2139	0.0687	9.4000e-004	0.0314	1.5900e-003	0.0330	8.6100e-003	1.5200e-003	0.0101	0.0000	95.6582	95.6582	7.9000e-003	0.0153	100.4103
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0145	0.2072	6.4000e-004	0.0863	3.9000e-004	0.0867	0.0229	3.6000e-004	0.0233	0.0000	61.0618	61.0618	1.4900e-003	1.5400e-003	61.5578
<b>Total</b>	<b>0.0271</b>	<b>0.2283</b>	<b>0.2760</b>	<b>1.5800e-003</b>	<b>0.1177</b>	<b>1.9800e-003</b>	<b>0.1196</b>	<b>0.0315</b>	<b>1.8800e-003</b>	<b>0.0334</b>	<b>0.0000</b>	<b>156.7200</b>	<b>156.7200</b>	<b>9.3900e-003</b>	<b>0.0168</b>	<b>161.9681</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0141	0.1294	0.1990	2.9000e-004		5.2100e-003	5.2100e-003		4.8600e-003	4.8600e-003	0.0000	24.9010	24.9010	7.4900e-003	0.0000	25.0883
<b>Total</b>	<b>0.0141</b>	<b>0.1294</b>	<b>0.1990</b>	<b>2.9000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8600e-003</b>	<b>4.8600e-003</b>	<b>0.0000</b>	<b>24.9010</b>	<b>24.9010</b>	<b>7.4900e-003</b>	<b>0.0000</b>	<b>25.0883</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

**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	3.4500e-003	0.2139	0.0687	9.4000e-004	0.0314	1.5900e-003	0.0330	8.6100e-003	1.5200e-003	0.0101	0.0000	95.6582	95.6582	7.9000e-003	0.0153	100.4103
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0145	0.2072	6.4000e-004	0.0863	3.9000e-004	0.0867	0.0229	3.6000e-004	0.0233	0.0000	61.0618	61.0618	1.4900e-003	1.5400e-003	61.5578
<b>Total</b>	<b>0.0271</b>	<b>0.2283</b>	<b>0.2760</b>	<b>1.5800e-003</b>	<b>0.1177</b>	<b>1.9800e-003</b>	<b>0.1196</b>	<b>0.0315</b>	<b>1.8800e-003</b>	<b>0.0334</b>	<b>0.0000</b>	<b>156.7200</b>	<b>156.7200</b>	<b>9.3900e-003</b>	<b>0.0168</b>	<b>161.9681</b>

**3.4 Installation/Backfill - Open Trench - 2028**

**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	8.1000e-004	7.4400e-003	0.0114	2.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	1.4311	1.4311	4.3000e-004	0.0000	1.4419
<b>Total</b>	<b>8.1000e-004</b>	<b>7.4400e-003</b>	<b>0.0114</b>	<b>2.0000e-005</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>1.4311</b>	<b>1.4311</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>1.4419</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	0.0121	4.0200e-003	5.0000e-005	1.8000e-003	9.0000e-005	1.8900e-003	4.9000e-004	9.0000e-005	5.8000e-004	0.0000	5.3736	5.3736	4.7000e-004	8.6000e-004	5.6413
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	7.7000e-004	0.0113	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.4401	3.4401	8.0000e-005	8.0000e-005	3.4672
<b>Total</b>	<b>1.4800e-003</b>	<b>0.0129</b>	<b>0.0154</b>	<b>9.0000e-005</b>	<b>6.7600e-003</b>	<b>1.1000e-004</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>1.1000e-004</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>8.8137</b>	<b>8.8137</b>	<b>5.5000e-004</b>	<b>9.4000e-004</b>	<b>9.1085</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1000e-004	7.4400e-003	0.0114	2.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	1.4311	1.4311	4.3000e-004	0.0000	1.4419
<b>Total</b>	<b>8.1000e-004</b>	<b>7.4400e-003</b>	<b>0.0114</b>	<b>2.0000e-005</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>1.4311</b>	<b>1.4311</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>1.4419</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	0.0121	4.0200e-003	5.0000e-005	1.8000e-003	9.0000e-005	1.8900e-003	4.9000e-004	9.0000e-005	5.8000e-004	0.0000	5.3736	5.3736	4.7000e-004	8.6000e-004	5.6413
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	7.7000e-004	0.0113	4.0000e-005	4.9600e-003	2.0000e-005	4.9800e-003	1.3200e-003	2.0000e-005	1.3400e-003	0.0000	3.4401	3.4401	8.0000e-005	8.0000e-005	3.4672
<b>Total</b>	<b>1.4800e-003</b>	<b>0.0129</b>	<b>0.0154</b>	<b>9.0000e-005</b>	<b>6.7600e-003</b>	<b>1.1000e-004</b>	<b>6.8700e-003</b>	<b>1.8100e-003</b>	<b>1.1000e-004</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>8.8137</b>	<b>8.8137</b>	<b>5.5000e-004</b>	<b>9.4000e-004</b>	<b>9.1085</b>

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6000e-004	6.4100e-003	5.3200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.2000e-004	2.2000e-004	0.0000	1.4837	1.4837	4.3000e-004	0.0000	1.4944
<b>Total</b>	<b>7.6000e-004</b>	<b>6.4100e-003</b>	<b>5.3200e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>1.4837</b>	<b>1.4837</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>1.4944</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	6.2100e-003	1.8500e-003	3.0000e-005	8.8000e-004	5.0000e-005	9.2000e-004	2.4000e-004	4.0000e-005	2.8000e-004	0.0000	2.7926	2.7926	2.1000e-004	4.5000e-004	2.9305
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.6700e-003	1.0000e-005	9.9000e-004	0.0000	1.0000e-003	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7349	0.7349	2.0000e-005	2.0000e-005	0.7413
<b>Total</b>	<b>4.1000e-004</b>	<b>6.4100e-003</b>	<b>4.5200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>5.0000e-005</b>	<b>1.9200e-003</b>	<b>5.0000e-004</b>	<b>4.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>3.5275</b>	<b>3.5275</b>	<b>2.3000e-004</b>	<b>4.7000e-004</b>	<b>3.6718</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6000e-004	6.4100e-003	5.3200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.2000e-004	2.2000e-004	0.0000	1.4837	1.4837	4.3000e-004	0.0000	1.4944
<b>Total</b>	<b>7.6000e-004</b>	<b>6.4100e-003</b>	<b>5.3200e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>1.4837</b>	<b>1.4837</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>1.4944</b>

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**3.5 Installation - Trenchless - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	6.2100e-003	1.8500e-003	3.0000e-005	8.8000e-004	5.0000e-005	9.2000e-004	2.4000e-004	4.0000e-005	2.8000e-004	0.0000	2.7926	2.7926	2.1000e-004	4.5000e-004	2.9305
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.6700e-003	1.0000e-005	9.9000e-004	0.0000	1.0000e-003	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7349	0.7349	2.0000e-005	2.0000e-005	0.7413
<b>Total</b>	<b>4.1000e-004</b>	<b>6.4100e-003</b>	<b>4.5200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>5.0000e-005</b>	<b>1.9200e-003</b>	<b>5.0000e-004</b>	<b>4.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>3.5275</b>	<b>3.5275</b>	<b>2.3000e-004</b>	<b>4.7000e-004</b>	<b>3.6718</b>

**3.5 Installation - Trenchless - 2026**

**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	6.3700e-003	0.0534	0.0443	1.4000e-004		1.9800e-003	1.9800e-003		1.8600e-003	1.8600e-003	0.0000	12.3639	12.3639	3.5700e-003	0.0000	12.4531
<b>Total</b>	<b>6.3700e-003</b>	<b>0.0534</b>	<b>0.0443</b>	<b>1.4000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.8600e-003</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>12.3639</b>	<b>12.3639</b>	<b>3.5700e-003</b>	<b>0.0000</b>	<b>12.4531</b>

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**3.5 Installation - Trenchless - 2026**

**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	8.1000e-004	0.0508	0.0157	2.2000e-004	7.3000e-003	3.7000e-004	7.6800e-003	2.0000e-003	3.6000e-004	2.3600e-003	0.0000	22.7933	22.7933	1.7900e-003	3.6400e-003	23.9226
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	2.4100e-003	1.5100e-003	0.0210	6.0000e-005	8.2600e-003	4.0000e-005	8.3000e-003	2.2000e-003	4.0000e-005	2.2300e-003	0.0000	5.9796	5.9796	1.6000e-004	1.6000e-004	6.0298
<b>Total</b>	<b>3.2200e-003</b>	<b>0.0523</b>	<b>0.0367</b>	<b>2.8000e-004</b>	<b>0.0156</b>	<b>4.1000e-004</b>	<b>0.0160</b>	<b>4.2000e-003</b>	<b>4.0000e-004</b>	<b>4.5900e-003</b>	<b>0.0000</b>	<b>28.7729</b>	<b>28.7729</b>	<b>1.9500e-003</b>	<b>3.8000e-003</b>	<b>29.9524</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3700e-003	0.0534	0.0443	1.4000e-004		1.9800e-003	1.9800e-003		1.8600e-003	1.8600e-003	0.0000	12.3639	12.3639	3.5700e-003	0.0000	12.4531
<b>Total</b>	<b>6.3700e-003</b>	<b>0.0534</b>	<b>0.0443</b>	<b>1.4000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.8600e-003</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>12.3639</b>	<b>12.3639</b>	<b>3.5700e-003</b>	<b>0.0000</b>	<b>12.4531</b>

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**3.5 Installation - Trenchless - 2026**

**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	8.1000e-004	0.0508	0.0157	2.2000e-004	7.3000e-003	3.7000e-004	7.6800e-003	2.0000e-003	3.6000e-004	2.3600e-003	0.0000	22.7933	22.7933	1.7900e-003	3.6400e-003	23.9226
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	2.4100e-003	1.5100e-003	0.0210	6.0000e-005	8.2600e-003	4.0000e-005	8.3000e-003	2.2000e-003	4.0000e-005	2.2300e-003	0.0000	5.9796	5.9796	1.6000e-004	1.6000e-004	6.0298
<b>Total</b>	<b>3.2200e-003</b>	<b>0.0523</b>	<b>0.0367</b>	<b>2.8000e-004</b>	<b>0.0156</b>	<b>4.1000e-004</b>	<b>0.0160</b>	<b>4.2000e-003</b>	<b>4.0000e-004</b>	<b>4.5900e-003</b>	<b>0.0000</b>	<b>28.7729</b>	<b>28.7729</b>	<b>1.9500e-003</b>	<b>3.8000e-003</b>	<b>29.9524</b>

**3.6 Paving - Open Trench - 2028**

**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	3.9100e-003	0.0366	0.0519	1.1000e-004		1.6600e-003	1.6600e-003		1.5300e-003	1.5300e-003	0.0000	9.2277	9.2277	2.9300e-003	0.0000	9.3009
Paving	5.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.8100e-003</b>	<b>0.0366</b>	<b>0.0519</b>	<b>1.1000e-004</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>		<b>1.5300e-003</b>	<b>1.5300e-003</b>	<b>0.0000</b>	<b>9.2277</b>	<b>9.2277</b>	<b>2.9300e-003</b>	<b>0.0000</b>	<b>9.3009</b>

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**3.6 Paving - Open Trench - 2028**

**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	2.4000e-004	1.5000e-004	2.1600e-003	1.0000e-005	9.4000e-004	0.0000	9.5000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.6545	0.6545	2.0000e-005	2.0000e-005	0.6596
<b>Total</b>	<b>2.4000e-004</b>	<b>1.5000e-004</b>	<b>2.1600e-003</b>	<b>1.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.6545</b>	<b>0.6545</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6596</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9100e-003	0.0366	0.0519	1.1000e-004		1.6600e-003	1.6600e-003		1.5300e-003	1.5300e-003	0.0000	9.2277	9.2277	2.9300e-003	0.0000	9.3009
Paving	5.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.8100e-003</b>	<b>0.0366</b>	<b>0.0519</b>	<b>1.1000e-004</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>		<b>1.5300e-003</b>	<b>1.5300e-003</b>	<b>0.0000</b>	<b>9.2277</b>	<b>9.2277</b>	<b>2.9300e-003</b>	<b>0.0000</b>	<b>9.3009</b>

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**3.6 Paving - Open Trench - 2028**

**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	2.4000e-004	1.5000e-004	2.1600e-003	1.0000e-005	9.4000e-004	0.0000	9.5000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.6545	0.6545	2.0000e-005	2.0000e-005	0.6596
<b>Total</b>	<b>2.4000e-004</b>	<b>1.5000e-004</b>	<b>2.1600e-003</b>	<b>1.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>9.5000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.6545</b>	<b>0.6545</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6596</b>

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**4.0 Operational Detail - Mobile**

**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	3.0000e-004	1.4000e-004	1.2700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0388	0.0388	2.0000e-005	1.0000e-005	0.0430
Unmitigated	3.0000e-004	1.4000e-004	1.2700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0388	0.0388	2.0000e-005	1.0000e-005	0.0430

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.96	0.00	0.00	31	31
Total	1.96	0.00	0.00	31	31

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.06	7.30	7.30	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.564931	0.058891	0.167885	0.120679	0.025398	0.007381	0.013024	0.006272	0.000657	0.000386	0.028170	0.000621	0.005705



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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



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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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0156	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-003
Unmitigated	0.0156	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-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	2.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0127					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-003
<b>Total</b>	<b>0.0156</b>	<b>2.0000e-005</b>	<b>1.8000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.5000e-003</b>	<b>3.5000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.7300e-003</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0127					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5000e-003	3.5000e-003	1.0000e-005	0.0000	3.7300e-003
<b>Total</b>	<b>0.0156</b>	<b>2.0000e-005</b>	<b>1.8000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.5000e-003</b>	<b>3.5000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.7300e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 4 - AQ  
Ventura County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	196.00	1000sqft	4.50	196,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (49,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant information, such as 80 feet installation for open trench per day, 400 LF of trenchless activity, and paving would occur after excavation and installation operation. 4 feet trenchless activity per day.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Grading -

Vehicle Trips - Based on applicant provided information, maintenance and inspection trips would occur once per year, one worker trips for one day, and would travel from the district's office to the end of the pipeline and back.

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	8.00	68.00
tblConstructionPhase	NumDays	8.00	608.00
tblConstructionPhase	NumDays	230.00	608.00
tblConstructionPhase	NumDays	230.00	28.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,505.00
tblTripsAndVMT	HaulingTripNumber	0.00	952.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblVehicleTrips	CW_TL	9.50	0.06
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

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Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	2.0234	17.6452	21.8555	0.0725	2.3084	0.5110	2.8194	0.6196	0.4880	1.1075	0.0000	7,424.821 3	7,424.821 3	0.9968	0.4912	7,596.113 5
2026	1.9953	17.5185	20.4329	0.0715	2.3085	0.5103	2.8188	0.6196	0.4873	1.1069	0.0000	7,336.386 6	7,336.386 6	1.0005	0.4804	7,504.556 1
2027	1.2108	9.1918	13.8052	0.0364	1.0412	0.3182	1.3594	0.2783	0.3065	0.5848	0.0000	3,656.579 3	3,656.579 3	0.5147	0.1433	3,712.138 1
2028	1.1978	9.1553	13.7217	0.0360	1.0412	0.3179	1.3590	0.2783	0.3062	0.5845	0.0000	3,625.857 0	3,625.857 0	0.5152	0.1398	3,680.396 7
<b>Maximum</b>	<b>2.0234</b>	<b>17.6452</b>	<b>21.8555</b>	<b>0.0725</b>	<b>2.3085</b>	<b>0.5110</b>	<b>2.8194</b>	<b>0.6196</b>	<b>0.4880</b>	<b>1.1075</b>	<b>0.0000</b>	<b>7,424.821 3</b>	<b>7,424.821 3</b>	<b>1.0005</b>	<b>0.4912</b>	<b>7,596.113 5</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.5500e-003	1.0400e-003	8.2000e-003	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3287	0.3287	1.8000e-004	1.0000e-004	0.3618
<b>Total</b>	<b>0.0887</b>	<b>1.2200e-003</b>	<b>0.0282</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>1.0000e-004</b>		<b>0.3716</b>	<b>0.3716</b>	<b>2.9000e-004</b>	<b>1.0000e-004</b>	<b>0.4074</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.5500e-003	1.0400e-003	8.2000e-003	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3287	0.3287	1.8000e-004	1.0000e-004	0.3618
<b>Total</b>	<b>0.0887</b>	<b>1.2200e-003</b>	<b>0.0282</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>1.0000e-004</b>		<b>0.3716</b>	<b>0.3716</b>	<b>2.9000e-004</b>	<b>1.0000e-004</b>	<b>0.4074</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Excavation - Trenchless	Grading	9/24/2025	12/26/2025	5	68	
2	Excavation - Open Trench	Grading	9/24/2025	1/21/2028	5	608	
3	Installation/Backfill - Open Trench	Building Construction	9/24/2025	1/21/2028	5	608	
4	Installation - Trenchless	Building Construction	12/29/2025	2/4/2026	5	28	
5	Paving - Open Trench	Paving	1/24/2028	2/16/2028	5	18	

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

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

**Acres of Paving: 4.5**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Excavators	0	8.00	158	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48
Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation/Backfill - Open Trench	Cranes	0	7.00	231	0.29
Installation/Backfill - Open Trench	Forklifts	0	8.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38
Installation - Trenchless	Forklifts	0	8.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42
Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37
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**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Trenchless	4	10.00	0.00	392.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	82.00	0.00	8,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	82.00	0.00	952.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5748	4.3955	7.3987	0.0146		0.1807	0.1807		0.1756	0.1756		1,392.4427	1,392.4427	0.2353		1,398.3249
<b>Total</b>	<b>0.5748</b>	<b>4.3955</b>	<b>7.3987</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.1807</b>	<b>0.1807</b>	<b>0.0000</b>	<b>0.1756</b>	<b>0.1756</b>		<b>1,392.4427</b>	<b>1,392.4427</b>	<b>0.2353</b>		<b>1,398.3249</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0115	0.6738	0.2077	3.1200e-003	0.1007	5.0900e-003	0.1058	0.0276	4.8700e-003	0.0325		347.8057	347.8057	0.0261	0.0555	364.9917
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
Worker	0.0252	0.0144	0.2237	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.7000e-004	0.0222		68.3442	68.3442	1.7400e-003	1.6400e-003	68.8756
<b>Total</b>	<b>0.0366</b>	<b>0.6882</b>	<b>0.4315</b>	<b>3.7800e-003</b>	<b>0.1828</b>	<b>5.5000e-003</b>	<b>0.1883</b>	<b>0.0494</b>	<b>5.2400e-003</b>	<b>0.0546</b>		<b>416.1499</b>	<b>416.1499</b>	<b>0.0278</b>	<b>0.0571</b>	<b>433.8673</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5748	4.3955	7.3987	0.0146		0.1807	0.1807		0.1756	0.1756	0.0000	1,392.4427	1,392.4427	0.2353		1,398.3249
<b>Total</b>	<b>0.5748</b>	<b>4.3955</b>	<b>7.3987</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.1807</b>	<b>0.1807</b>	<b>0.0000</b>	<b>0.1756</b>	<b>0.1756</b>	<b>0.0000</b>	<b>1,392.4427</b>	<b>1,392.4427</b>	<b>0.2353</b>		<b>1,398.3249</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0115	0.6738	0.2077	3.1200e-003	0.1007	5.0900e-003	0.1058	0.0276	4.8700e-003	0.0325		347.8057	347.8057	0.0261	0.0555	364.9917
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
Worker	0.0252	0.0144	0.2237	6.6000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.7000e-004	0.0222		68.3442	68.3442	1.7400e-003	1.6400e-003	68.8756
<b>Total</b>	<b>0.0366</b>	<b>0.6882</b>	<b>0.4315</b>	<b>3.7800e-003</b>	<b>0.1828</b>	<b>5.5000e-003</b>	<b>0.1883</b>	<b>0.0494</b>	<b>5.2400e-003</b>	<b>0.0546</b>		<b>416.1499</b>	<b>416.1499</b>	<b>0.0278</b>	<b>0.0571</b>	<b>433.8673</b>

**3.3 Excavation - Open Trench - 2025**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0378	0.0216	0.3356	9.8000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		102.5163	102.5163	2.6100e-003	2.4600e-003	103.3134
<b>Total</b>	<b>0.0378</b>	<b>0.0216</b>	<b>0.3356</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>102.5163</b>	<b>102.5163</b>	<b>2.6100e-003</b>	<b>2.4600e-003</b>	<b>103.3134</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0378	0.0216	0.3356	9.8000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		102.5163	102.5163	2.6100e-003	2.4600e-003	103.3134
<b>Total</b>	<b>0.0378</b>	<b>0.0216</b>	<b>0.3356</b>	<b>9.8000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>102.5163</b>	<b>102.5163</b>	<b>2.6100e-003</b>	<b>2.4600e-003</b>	<b>103.3134</b>

**3.3 Excavation - Open Trench - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

**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	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
Worker	0.0355	0.0197	0.3157	9.5000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		100.0902	100.0902	2.3800e-003	2.3200e-003	100.8402
<b>Total</b>	<b>0.0355</b>	<b>0.0197</b>	<b>0.3157</b>	<b>9.5000e-004</b>	<b>0.1232</b>	<b>5.8000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.3000e-004</b>	<b>0.0332</b>		<b>100.0902</b>	<b>100.0902</b>	<b>2.3800e-003</b>	<b>2.3200e-003</b>	<b>100.8402</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

**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	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
Worker	0.0355	0.0197	0.3157	9.5000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		100.0902	100.0902	2.3800e-003	2.3200e-003	100.8402
<b>Total</b>	<b>0.0355</b>	<b>0.0197</b>	<b>0.3157</b>	<b>9.5000e-004</b>	<b>0.1232</b>	<b>5.8000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.3000e-004</b>	<b>0.0332</b>		<b>100.0902</b>	<b>100.0902</b>	<b>2.3800e-003</b>	<b>2.3200e-003</b>	<b>100.8402</b>

**3.3 Excavation - Open Trench - 2027**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	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
Worker	0.0334	0.0180	0.2985	9.2000e-004	0.1232	5.4000e-004	0.1238	0.0327	5.0000e-004	0.0332		97.8991	97.8991	2.1800e-003	2.2000e-003	98.6088
<b>Total</b>	<b>0.0334</b>	<b>0.0180</b>	<b>0.2985</b>	<b>9.2000e-004</b>	<b>0.1232</b>	<b>5.4000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.0000e-004</b>	<b>0.0332</b>		<b>97.8991</b>	<b>97.8991</b>	<b>2.1800e-003</b>	<b>2.2000e-003</b>	<b>98.6088</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	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
Worker	0.0334	0.0180	0.2985	9.2000e-004	0.1232	5.4000e-004	0.1238	0.0327	5.0000e-004	0.0332		97.8991	97.8991	2.1800e-003	2.2000e-003	98.6088
<b>Total</b>	<b>0.0334</b>	<b>0.0180</b>	<b>0.2985</b>	<b>9.2000e-004</b>	<b>0.1232</b>	<b>5.4000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.0000e-004</b>	<b>0.0332</b>		<b>97.8991</b>	<b>97.8991</b>	<b>2.1800e-003</b>	<b>2.2000e-003</b>	<b>98.6088</b>

**3.3 Excavation - Open Trench - 2028**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**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	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
Worker	0.0314	0.0166	0.2840	9.0000e-004	0.1232	5.1000e-004	0.1237	0.0327	4.7000e-004	0.0332		95.9662	95.9662	2.0100e-003	2.1000e-003	96.6418
<b>Total</b>	<b>0.0314</b>	<b>0.0166</b>	<b>0.2840</b>	<b>9.0000e-004</b>	<b>0.1232</b>	<b>5.1000e-004</b>	<b>0.1237</b>	<b>0.0327</b>	<b>4.7000e-004</b>	<b>0.0332</b>		<b>95.9662</b>	<b>95.9662</b>	<b>2.0100e-003</b>	<b>2.1000e-003</b>	<b>96.6418</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**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	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
Worker	0.0314	0.0166	0.2840	9.0000e-004	0.1232	5.1000e-004	0.1237	0.0327	4.7000e-004	0.0332		95.9662	95.9662	2.0100e-003	2.1000e-003	96.6418
<b>Total</b>	<b>0.0314</b>	<b>0.0166</b>	<b>0.2840</b>	<b>9.0000e-004</b>	<b>0.1232</b>	<b>5.1000e-004</b>	<b>0.1237</b>	<b>0.0327</b>	<b>4.7000e-004</b>	<b>0.0332</b>		<b>95.9662</b>	<b>95.9662</b>	<b>2.0100e-003</b>	<b>2.1000e-003</b>	<b>96.6418</b>

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6350	0.5041	7.5600e-003	0.2443	0.0124	0.2566	0.0669	0.0118	0.0787		843.9763	843.9763	0.0633	0.1346	885.6796
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
Worker	0.2065	0.1181	1.8345	5.3800e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		560.4226	560.4226	0.0143	0.0134	564.7799
<b>Total</b>	<b>0.2343</b>	<b>1.7532</b>	<b>2.3386</b>	<b>0.0129</b>	<b>0.9179</b>	<b>0.0157</b>	<b>0.9336</b>	<b>0.2456</b>	<b>0.0149</b>	<b>0.2605</b>		<b>1,404.3988</b>	<b>1,404.3988</b>	<b>0.0776</b>	<b>0.1481</b>	<b>1,450.4595</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0278	1.6350	0.5041	7.5600e-003	0.2443	0.0124	0.2566	0.0669	0.0118	0.0787		843.9763	843.9763	0.0633	0.1346	885.6796
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
Worker	0.2065	0.1181	1.8345	5.3800e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		560.4226	560.4226	0.0143	0.0134	564.7799
<b>Total</b>	<b>0.2343</b>	<b>1.7532</b>	<b>2.3386</b>	<b>0.0129</b>	<b>0.9179</b>	<b>0.0157</b>	<b>0.9336</b>	<b>0.2456</b>	<b>0.0149</b>	<b>0.2605</b>		<b>1,404.3988</b>	<b>1,404.3988</b>	<b>0.0776</b>	<b>0.1481</b>	<b>1,450.4595</b>

**3.4 Installation/Backfill - Open Trench - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	0.0275	1.6049	0.5153	7.3800e-003	0.2443	0.0123	0.2566	0.0669	0.0117	0.0787		826.6372	826.6372	0.0651	0.1320	867.5940
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
Worker	0.1941	0.1075	1.7256	5.2100e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		547.1598	547.1598	0.0130	0.0127	551.2596
<b>Total</b>	<b>0.2216</b>	<b>1.7124</b>	<b>2.2410</b>	<b>0.0126</b>	<b>0.9179</b>	<b>0.0154</b>	<b>0.9333</b>	<b>0.2456</b>	<b>0.0146</b>	<b>0.2603</b>		<b>1,373.7969</b>	<b>1,373.7969</b>	<b>0.0782</b>	<b>0.1446</b>	<b>1,418.8537</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	0.0275	1.6049	0.5153	7.3800e-003	0.2443	0.0123	0.2566	0.0669	0.0117	0.0787		826.6372	826.6372	0.0651	0.1320	867.5940
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
Worker	0.1941	0.1075	1.7256	5.2100e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		547.1598	547.1598	0.0130	0.0127	551.2596
<b>Total</b>	<b>0.2216</b>	<b>1.7124</b>	<b>2.2410</b>	<b>0.0126</b>	<b>0.9179</b>	<b>0.0154</b>	<b>0.9333</b>	<b>0.2456</b>	<b>0.0146</b>	<b>0.2603</b>		<b>1,373.7969</b>	<b>1,373.7969</b>	<b>0.0782</b>	<b>0.1446</b>	<b>1,418.8537</b>

**3.4 Installation/Backfill - Open Trench - 2027**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

**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	0.0272	1.5721	0.5240	7.1900e-003	0.2443	0.0121	0.2565	0.0669	0.0116	0.0786		807.6679	807.6679	0.0668	0.1290	847.7920
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
Worker	0.1825	0.0984	1.6316	5.0600e-003	0.6736	2.9800e-003	0.6766	0.1787	2.7400e-003	0.1814		535.1815	535.1815	0.0119	0.0120	539.0615
<b>Total</b>	<b>0.2097</b>	<b>1.6705</b>	<b>2.1556</b>	<b>0.0123</b>	<b>0.9179</b>	<b>0.0151</b>	<b>0.9331</b>	<b>0.2456</b>	<b>0.0144</b>	<b>0.2600</b>		<b>1,342.8494</b>	<b>1,342.8494</b>	<b>0.0787</b>	<b>0.1411</b>	<b>1,386.8535</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

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	0.0272	1.5721	0.5240	7.1900e-003	0.2443	0.0121	0.2565	0.0669	0.0116	0.0786		807.6679	807.6679	0.0668	0.1290	847.7920
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
Worker	0.1825	0.0984	1.6316	5.0600e-003	0.6736	2.9800e-003	0.6766	0.1787	2.7400e-003	0.1814		535.1815	535.1815	0.0119	0.0120	539.0615
<b>Total</b>	<b>0.2097</b>	<b>1.6705</b>	<b>2.1556</b>	<b>0.0123</b>	<b>0.9179</b>	<b>0.0151</b>	<b>0.9331</b>	<b>0.2456</b>	<b>0.0144</b>	<b>0.2600</b>		<b>1,342.8494</b>	<b>1,342.8494</b>	<b>0.0787</b>	<b>0.1411</b>	<b>1,386.8535</b>

**3.4 Installation/Backfill - Open Trench - 2028**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**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	0.0270	1.5448	0.5342	7.0100e-003	0.2443	0.0120	0.2564	0.0669	0.0115	0.0785		789.4449	789.4449	0.0684	0.1262	828.7705
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
Worker	0.1717	0.0907	1.5524	4.9200e-003	0.6736	2.7800e-003	0.6764	0.1787	2.5600e-003	0.1812		524.6151	524.6151	0.0110	0.0115	528.3085
<b>Total</b>	<b>0.1987</b>	<b>1.6354</b>	<b>2.0866</b>	<b>0.0119</b>	<b>0.9180</b>	<b>0.0148</b>	<b>0.9328</b>	<b>0.2456</b>	<b>0.0141</b>	<b>0.2597</b>		<b>1,314.0599</b>	<b>1,314.0599</b>	<b>0.0794</b>	<b>0.1377</b>	<b>1,357.0791</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**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	0.0270	1.5448	0.5342	7.0100e-003	0.2443	0.0120	0.2564	0.0669	0.0115	0.0785		789.4449	789.4449	0.0684	0.1262	828.7705
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
Worker	0.1717	0.0907	1.5524	4.9200e-003	0.6736	2.7800e-003	0.6764	0.1787	2.5600e-003	0.1812		524.6151	524.6151	0.0110	0.0115	528.3085
<b>Total</b>	<b>0.1987</b>	<b>1.6354</b>	<b>2.0866</b>	<b>0.0119</b>	<b>0.9180</b>	<b>0.0148</b>	<b>0.9328</b>	<b>0.2456</b>	<b>0.0141</b>	<b>0.2597</b>		<b>1,314.0599</b>	<b>1,314.0599</b>	<b>0.0794</b>	<b>0.1377</b>	<b>1,357.0791</b>

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490		1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>		<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0675	3.9740	1.2253	0.0184	0.5937	0.0300	0.6237	0.1627	0.0287	0.1914		2,051.3437	2,051.3437	0.1538	0.3272	2,152.7064
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
Worker	0.2065	0.1181	1.8345	5.3800e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		560.4226	560.4226	0.0143	0.0134	564.7799
<b>Total</b>	<b>0.2741</b>	<b>4.0922</b>	<b>3.0598</b>	<b>0.0238</b>	<b>1.2673</b>	<b>0.0334</b>	<b>1.3007</b>	<b>0.3413</b>	<b>0.0318</b>	<b>0.3731</b>		<b>2,611.7662</b>	<b>2,611.7662</b>	<b>0.1681</b>	<b>0.3407</b>	<b>2,717.4863</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490	0.0000	1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>	<b>0.0000</b>	<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0675	3.9740	1.2253	0.0184	0.5937	0.0300	0.6237	0.1627	0.0287	0.1914		2,051.3437	2,051.3437	0.1538	0.3272	2,152.7064
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
Worker	0.2065	0.1181	1.8345	5.3800e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		560.4226	560.4226	0.0143	0.0134	564.7799
<b>Total</b>	<b>0.2741</b>	<b>4.0922</b>	<b>3.0598</b>	<b>0.0238</b>	<b>1.2673</b>	<b>0.0334</b>	<b>1.3007</b>	<b>0.3413</b>	<b>0.0318</b>	<b>0.3731</b>		<b>2,611.7662</b>	<b>2,611.7662</b>	<b>0.1681</b>	<b>0.3407</b>	<b>2,717.4863</b>

**3.5 Installation - Trenchless - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490		1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>		<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2026**

**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	0.0668	3.9007	1.2526	0.0179	0.5938	0.0298	0.6236	0.1627	0.0285	0.1912		2,009.1998	2,009.1998	0.1583	0.3208	2,108.7482
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
Worker	0.1941	0.1075	1.7256	5.2100e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		547.1598	547.1598	0.0130	0.0127	551.2596
<b>Total</b>	<b>0.2609</b>	<b>4.0082</b>	<b>2.9782</b>	<b>0.0232</b>	<b>1.2674</b>	<b>0.0330</b>	<b>1.3004</b>	<b>0.3413</b>	<b>0.0314</b>	<b>0.3728</b>		<b>2,556.3595</b>	<b>2,556.3595</b>	<b>0.1713</b>	<b>0.3334</b>	<b>2,660.0079</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490	0.0000	1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>	<b>0.0000</b>	<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2026**

**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	0.0668	3.9007	1.2526	0.0179	0.5938	0.0298	0.6236	0.1627	0.0285	0.1912		2,009.1998	2,009.1998	0.1583	0.3208	2,108.7482
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
Worker	0.1941	0.1075	1.7256	5.2100e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		547.1598	547.1598	0.0130	0.0127	551.2596
<b>Total</b>	<b>0.2609</b>	<b>4.0082</b>	<b>2.9782</b>	<b>0.0232</b>	<b>1.2674</b>	<b>0.0330</b>	<b>1.3004</b>	<b>0.3413</b>	<b>0.0314</b>	<b>0.3728</b>		<b>2,556.3595</b>	<b>2,556.3595</b>	<b>0.1713</b>	<b>0.3334</b>	<b>2,660.0079</b>

**3.6 Paving - Open Trench - 2028**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701		1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0889</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>		<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - Open Trench - 2028**

**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	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
Worker	0.0272	0.0144	0.2461	7.8000e-004	0.1068	4.4000e-004	0.1072	0.0283	4.1000e-004	0.0287		83.1707	83.1707	1.7400e-003	1.8200e-003	83.7562
<b>Total</b>	<b>0.0272</b>	<b>0.0144</b>	<b>0.2461</b>	<b>7.8000e-004</b>	<b>0.1068</b>	<b>4.4000e-004</b>	<b>0.1072</b>	<b>0.0283</b>	<b>4.1000e-004</b>	<b>0.0287</b>		<b>83.1707</b>	<b>83.1707</b>	<b>1.7400e-003</b>	<b>1.8200e-003</b>	<b>83.7562</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701	0.0000	1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0889</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>	<b>0.0000</b>	<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - Open Trench - 2028**

**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	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
Worker	0.0272	0.0144	0.2461	7.8000e-004	0.1068	4.4000e-004	0.1072	0.0283	4.1000e-004	0.0287		83.1707	83.1707	1.7400e-003	1.8200e-003	83.7562
<b>Total</b>	<b>0.0272</b>	<b>0.0144</b>	<b>0.2461</b>	<b>7.8000e-004</b>	<b>0.1068</b>	<b>4.4000e-004</b>	<b>0.1072</b>	<b>0.0283</b>	<b>4.1000e-004</b>	<b>0.0287</b>		<b>83.1707</b>	<b>83.1707</b>	<b>1.7400e-003</b>	<b>1.8200e-003</b>	<b>83.7562</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**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	2.5500e-003	1.0400e-003	8.2000e-003	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3287	0.3287	1.8000e-004	1.0000e-004	0.3618
Unmitigated	2.5500e-003	1.0400e-003	8.2000e-003	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3287	0.3287	1.8000e-004	1.0000e-004	0.3618

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.96	0.00	0.00	31	31
Total	1.96	0.00	0.00	31	31

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.06	7.30	7.30	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.564931	0.058891	0.167885	0.120679	0.025398	0.007381	0.013024	0.006272	0.000657	0.000386	0.028170	0.000621	0.005705

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Unmitigated	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8400e-003	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
<b>Total</b>	<b>0.0862</b>	<b>1.8000e-004</b>	<b>0.0200</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0429</b>	<b>0.0429</b>	<b>1.1000e-004</b>		<b>0.0457</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8400e-003	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
<b>Total</b>	<b>0.0862</b>	<b>1.8000e-004</b>	<b>0.0200</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0429</b>	<b>0.0429</b>	<b>1.1000e-004</b>		<b>0.0457</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Calleguas SMP Phase 4 - AQ  
Ventura County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	196.00	1000sqft	4.50	196,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -

Land Use - Total Disturbance area (49,000 linear feet by 4 foot-wide trench)

Construction Phase - Based on applicant information, such as 80 feet installation for open trench per day, 400 LF of trenchless activity, and paving would occur after excavation and installation operation. 4 feet trenchless activity per day.

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Off-road Equipment - Construction equipment provided by the applicant

Trips and VMT - 14 hauling trips per day according to the applicant.

Grading -

Vehicle Trips - Based on applicant provided information, maintenance and inspection trips would occur once per year, one worker trips for one day, and would travel from the district's office to the end of the pipeline and back.

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Construction Off-road Equipment Mitigation - Information provided by the applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	8.00	68.00
tblConstructionPhase	NumDays	8.00	608.00
tblConstructionPhase	NumDays	230.00	608.00
tblConstructionPhase	NumDays	230.00	28.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblTripsAndVMT	HaulingTripNumber	0.00	392.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,505.00
tblTripsAndVMT	HaulingTripNumber	0.00	952.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblTripsAndVMT	VendorTripNumber	32.00	0.00
tblVehicleTrips	CW_TL	9.50	0.06
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

**2.0 Emissions Summary**

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Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	2.0550	17.9297	21.8291	0.0720	2.3084	0.5111	2.8195	0.6196	0.4880	1.1076	0.0000	7,374.8550	7,374.8550	0.9993	0.4949	7,547.3165
2026	2.0254	17.7957	20.4039	0.0710	2.3085	0.5104	2.8189	0.6196	0.4874	1.1070	0.0000	7,287.7381	7,287.7381	1.0028	0.4839	7,457.0150
2027	1.2279	9.2797	13.7880	0.0361	1.0412	0.3182	1.3594	0.2783	0.3065	0.5848	0.0000	3,630.1523	3,630.1523	0.5160	0.1450	3,686.2505
2028	1.2141	9.2407	13.7076	0.0358	1.0412	0.3179	1.3591	0.2783	0.3062	0.5845	0.0000	3,599.9762	3,599.9762	0.5164	0.1414	3,655.0309
<b>Maximum</b>	<b>2.0550</b>	<b>17.9297</b>	<b>21.8291</b>	<b>0.0720</b>	<b>2.3085</b>	<b>0.5111</b>	<b>2.8195</b>	<b>0.6196</b>	<b>0.4880</b>	<b>1.1076</b>	<b>0.0000</b>	<b>7,374.8550</b>	<b>7,374.8550</b>	<b>1.0028</b>	<b>0.4949</b>	<b>7,547.3165</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2800e-003	1.1700e-003	0.0108	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3316	0.3316	2.1000e-004	1.1000e-004	0.3687
<b>Total</b>	<b>0.0885</b>	<b>1.3500e-003</b>	<b>0.0307</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>1.0000e-004</b>		<b>0.3745</b>	<b>0.3745</b>	<b>3.2000e-004</b>	<b>1.1000e-004</b>	<b>0.4144</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2800e-003	1.1700e-003	0.0108	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3316	0.3316	2.1000e-004	1.1000e-004	0.3687
<b>Total</b>	<b>0.0885</b>	<b>1.3500e-003</b>	<b>0.0307</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>1.0000e-004</b>		<b>0.3745</b>	<b>0.3745</b>	<b>3.2000e-004</b>	<b>1.1000e-004</b>	<b>0.4144</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Excavation - Trenchless	Grading	9/24/2025	12/26/2025	5	68	
2	Excavation - Open Trench	Grading	9/24/2025	1/21/2028	5	608	
3	Installation/Backfill - Open Trench	Building Construction	9/24/2025	1/21/2028	5	608	
4	Installation - Trenchless	Building Construction	12/29/2025	2/4/2026	5	28	
5	Paving - Open Trench	Paving	1/24/2028	2/16/2028	5	18	

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

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

**Acres of Paving: 4.5**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation - Trenchless	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Trenchless	Excavators	0	8.00	158	0.38
Excavation - Trenchless	Excavators	1	5.00	158	0.38
Excavation - Trenchless	Generator Sets	1	5.00	84	0.74
Excavation - Trenchless	Graders	0	8.00	187	0.41
Excavation - Trenchless	Off-Highway Trucks	1	2.00	402	0.38

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Excavation - Trenchless	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Trenchless	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Excavation - Open Trench	Air Compressors	1	5.00	78	0.48
Excavation - Open Trench	Concrete/Industrial Saws	1	5.00	81	0.73
Excavation - Open Trench	Excavators	1	5.00	158	0.38
Excavation - Open Trench	Generator Sets	1	5.00	84	0.74
Excavation - Open Trench	Graders	0	8.00	187	0.41
Excavation - Open Trench	Off-Highway Trucks	1	2.00	402	0.38
Excavation - Open Trench	Rubber Tired Dozers	0	8.00	247	0.40
Excavation - Open Trench	Rubber Tired Loaders	1	5.00	203	0.36
Excavation - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation/Backfill - Open Trench	Cranes	0	7.00	231	0.29
Installation/Backfill - Open Trench	Forklifts	0	8.00	89	0.20
Installation/Backfill - Open Trench	Generator Sets	0	8.00	84	0.74
Installation/Backfill - Open Trench	Plate Compactors	1	5.00	8	0.43
Installation/Backfill - Open Trench	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Installation/Backfill - Open Trench	Welders	0	8.00	46	0.45
Installation - Trenchless	Bore/Drill Rigs	1	5.00	221	0.50
Installation - Trenchless	Cranes	1	5.00	231	0.29
Installation - Trenchless	Dumpers/Tenders	1	5.00	16	0.38
Installation - Trenchless	Forklifts	0	8.00	89	0.20
Installation - Trenchless	Generator Sets	0	8.00	84	0.74
Installation - Trenchless	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation - Trenchless	Welders	1	5.00	46	0.45
Paving - Open Trench	Cement and Mortar Mixers	1	5.00	9	0.56
Paving - Open Trench	Pavers	1	5.00	130	0.42
Paving - Open Trench	Paving Equipment	1	5.00	132	0.36
Paving - Open Trench	Rollers	1	5.00	80	0.38
Paving - Open Trench	Surfacing Equipment	1	5.00	263	0.30



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving - Open Trench	Tractors/Loaders/Backhoes	0	8.00	97	0.37
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**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation - Trenchless	4	10.00	0.00	392.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation - Open Trench	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation/Backfill - Open Trench	2	82.00	0.00	8,505.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Installation - Trenchless	4	82.00	0.00	952.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Open Trench	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5748	4.3955	7.3987	0.0146		0.1807	0.1807		0.1756	0.1756		1,392.4427	1,392.4427	0.2353		1,398.3249
<b>Total</b>	<b>0.5748</b>	<b>4.3955</b>	<b>7.3987</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.1807</b>	<b>0.1807</b>	<b>0.0000</b>	<b>0.1756</b>	<b>0.1756</b>		<b>1,392.4427</b>	<b>1,392.4427</b>	<b>0.2353</b>		<b>1,398.3249</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7027	0.2103	3.1200e-003	0.1007	5.1000e-003	0.1058	0.0276	4.8800e-003	0.0325		348.1396	348.1396	0.0260	0.0555	365.3410
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
Worker	0.0273	0.0169	0.2204	6.3000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.7000e-004	0.0222		65.3975	65.3975	1.9000e-003	1.8200e-003	65.9871
<b>Total</b>	<b>0.0380</b>	<b>0.7196</b>	<b>0.4308</b>	<b>3.7500e-003</b>	<b>0.1828</b>	<b>5.5100e-003</b>	<b>0.1883</b>	<b>0.0494</b>	<b>5.2500e-003</b>	<b>0.0546</b>		<b>413.5371</b>	<b>413.5371</b>	<b>0.0279</b>	<b>0.0574</b>	<b>431.3281</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5748	4.3955	7.3987	0.0146		0.1807	0.1807		0.1756	0.1756	0.0000	1,392.4427	1,392.4427	0.2353		1,398.3249
<b>Total</b>	<b>0.5748</b>	<b>4.3955</b>	<b>7.3987</b>	<b>0.0146</b>	<b>0.0000</b>	<b>0.1807</b>	<b>0.1807</b>	<b>0.0000</b>	<b>0.1756</b>	<b>0.1756</b>	<b>0.0000</b>	<b>1,392.4427</b>	<b>1,392.4427</b>	<b>0.2353</b>		<b>1,398.3249</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Excavation - Trenchless - 2025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7027	0.2103	3.1200e-003	0.1007	5.1000e-003	0.1058	0.0276	4.8800e-003	0.0325		348.1396	348.1396	0.0260	0.0555	365.3410
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
Worker	0.0273	0.0169	0.2204	6.3000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.7000e-004	0.0222		65.3975	65.3975	1.9000e-003	1.8200e-003	65.9871
<b>Total</b>	<b>0.0380</b>	<b>0.7196</b>	<b>0.4308</b>	<b>3.7500e-003</b>	<b>0.1828</b>	<b>5.5100e-003</b>	<b>0.1883</b>	<b>0.0494</b>	<b>5.2500e-003</b>	<b>0.0546</b>		<b>413.5371</b>	<b>413.5371</b>	<b>0.0279</b>	<b>0.0574</b>	<b>431.3281</b>

**3.3 Excavation - Open Trench - 2025**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0409	0.0253	0.3307	9.4000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		98.0962	98.0962	2.8600e-003	2.7300e-003	98.9806
<b>Total</b>	<b>0.0409</b>	<b>0.0253</b>	<b>0.3307</b>	<b>9.4000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>98.0962</b>	<b>98.0962</b>	<b>2.8600e-003</b>	<b>2.7300e-003</b>	<b>98.9806</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	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
Worker	0.0409	0.0253	0.3307	9.4000e-004	0.1232	6.1000e-004	0.1238	0.0327	5.6000e-004	0.0333		98.0962	98.0962	2.8600e-003	2.7300e-003	98.9806
<b>Total</b>	<b>0.0409</b>	<b>0.0253</b>	<b>0.3307</b>	<b>9.4000e-004</b>	<b>0.1232</b>	<b>6.1000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.6000e-004</b>	<b>0.0333</b>		<b>98.0962</b>	<b>98.0962</b>	<b>2.8600e-003</b>	<b>2.7300e-003</b>	<b>98.9806</b>

**3.3 Excavation - Open Trench - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

**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	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
Worker	0.0386	0.0230	0.3115	9.1000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		95.7804	95.7804	2.6100e-003	2.5700e-003	96.6125
<b>Total</b>	<b>0.0386</b>	<b>0.0230</b>	<b>0.3115</b>	<b>9.1000e-004</b>	<b>0.1232</b>	<b>5.8000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.3000e-004</b>	<b>0.0332</b>		<b>95.7804</b>	<b>95.7804</b>	<b>2.6100e-003</b>	<b>2.5700e-003</b>	<b>96.6125</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2026**

**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	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
Worker	0.0386	0.0230	0.3115	9.1000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		95.7804	95.7804	2.6100e-003	2.5700e-003	96.6125
<b>Total</b>	<b>0.0386</b>	<b>0.0230</b>	<b>0.3115</b>	<b>9.1000e-004</b>	<b>0.1232</b>	<b>5.8000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.3000e-004</b>	<b>0.0332</b>		<b>95.7804</b>	<b>95.7804</b>	<b>2.6100e-003</b>	<b>2.5700e-003</b>	<b>96.6125</b>

**3.3 Excavation - Open Trench - 2027**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	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
Worker	0.0363	0.0211	0.2949	8.9000e-004	0.1232	5.4000e-004	0.1238	0.0327	5.0000e-004	0.0332		93.6870	93.6870	2.4000e-003	2.4400e-003	94.4744
<b>Total</b>	<b>0.0363</b>	<b>0.0211</b>	<b>0.2949</b>	<b>8.9000e-004</b>	<b>0.1232</b>	<b>5.4000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.0000e-004</b>	<b>0.0332</b>		<b>93.6870</b>	<b>93.6870</b>	<b>2.4000e-003</b>	<b>2.4400e-003</b>	<b>94.4744</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2027**

**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	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
Worker	0.0363	0.0211	0.2949	8.9000e-004	0.1232	5.4000e-004	0.1238	0.0327	5.0000e-004	0.0332		93.6870	93.6870	2.4000e-003	2.4400e-003	94.4744
<b>Total</b>	<b>0.0363</b>	<b>0.0211</b>	<b>0.2949</b>	<b>8.9000e-004</b>	<b>0.1232</b>	<b>5.4000e-004</b>	<b>0.1238</b>	<b>0.0327</b>	<b>5.0000e-004</b>	<b>0.0332</b>		<b>93.6870</b>	<b>93.6870</b>	<b>2.4000e-003</b>	<b>2.4400e-003</b>	<b>94.4744</b>

**3.3 Excavation - Open Trench - 2028**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544		2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>		<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**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	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
Worker	0.0342	0.0194	0.2809	8.6000e-004	0.1232	5.1000e-004	0.1237	0.0327	4.7000e-004	0.0332		91.8390	91.8390	2.2100e-003	2.3300e-003	92.5886
<b>Total</b>	<b>0.0342</b>	<b>0.0194</b>	<b>0.2809</b>	<b>8.6000e-004</b>	<b>0.1232</b>	<b>5.1000e-004</b>	<b>0.1237</b>	<b>0.0327</b>	<b>4.7000e-004</b>	<b>0.0332</b>		<b>91.8390</b>	<b>91.8390</b>	<b>2.2100e-003</b>	<b>2.3300e-003</b>	<b>92.5886</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8601	6.5118	9.8260	0.0210		0.2626	0.2626		0.2544	0.2544	0.0000	2,005.4964	2,005.4964	0.3705		2,014.7589
<b>Total</b>	<b>0.8601</b>	<b>6.5118</b>	<b>9.8260</b>	<b>0.0210</b>	<b>0.0000</b>	<b>0.2626</b>	<b>0.2626</b>	<b>0.0000</b>	<b>0.2544</b>	<b>0.2544</b>	<b>0.0000</b>	<b>2,005.4964</b>	<b>2,005.4964</b>	<b>0.3705</b>		<b>2,014.7589</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Excavation - Open Trench - 2028**

**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	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
Worker	0.0342	0.0194	0.2809	8.6000e-004	0.1232	5.1000e-004	0.1237	0.0327	4.7000e-004	0.0332		91.8390	91.8390	2.2100e-003	2.3300e-003	92.5886
<b>Total</b>	<b>0.0342</b>	<b>0.0194</b>	<b>0.2809</b>	<b>8.6000e-004</b>	<b>0.1232</b>	<b>5.1000e-004</b>	<b>0.1237</b>	<b>0.0327</b>	<b>4.7000e-004</b>	<b>0.0332</b>		<b>91.8390</b>	<b>91.8390</b>	<b>2.2100e-003</b>	<b>2.3300e-003</b>	<b>92.5886</b>

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7052	0.5103	7.5700e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		844.7867	844.7867	0.0632	0.1348	886.5270
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
Worker	0.2238	0.1383	1.8076	5.1500e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		536.2594	536.2594	0.0156	0.0149	541.0942
<b>Total</b>	<b>0.2498</b>	<b>1.8434</b>	<b>2.3179</b>	<b>0.0127</b>	<b>0.9179</b>	<b>0.0157</b>	<b>0.9336</b>	<b>0.2456</b>	<b>0.0149</b>	<b>0.2605</b>		<b>1,381.046 1</b>	<b>1,381.046 1</b>	<b>0.0788</b>	<b>0.1497</b>	<b>1,427.621 2</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0260	1.7052	0.5103	7.5700e-003	0.2443	0.0124	0.2567	0.0669	0.0119	0.0788		844.7867	844.7867	0.0632	0.1348	886.5270
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
Worker	0.2238	0.1383	1.8076	5.1500e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		536.2594	536.2594	0.0156	0.0149	541.0942
<b>Total</b>	<b>0.2498</b>	<b>1.8434</b>	<b>2.3179</b>	<b>0.0127</b>	<b>0.9179</b>	<b>0.0157</b>	<b>0.9336</b>	<b>0.2456</b>	<b>0.0149</b>	<b>0.2605</b>		<b>1,381.046 1</b>	<b>1,381.046 1</b>	<b>0.0788</b>	<b>0.1497</b>	<b>1,427.621 2</b>

**3.4 Installation/Backfill - Open Trench - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	0.0257	1.6740	0.5215	7.3900e-003	0.2443	0.0123	0.2566	0.0669	0.0118	0.0787		827.4482	827.4482	0.0650	0.1321	868.4421
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
Worker	0.2107	0.1258	1.7027	4.9800e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		523.5994	523.5994	0.0143	0.0141	528.1482
<b>Total</b>	<b>0.2364</b>	<b>1.7998</b>	<b>2.2242</b>	<b>0.0124</b>	<b>0.9179</b>	<b>0.0155</b>	<b>0.9334</b>	<b>0.2456</b>	<b>0.0147</b>	<b>0.2603</b>		<b>1,351.0475</b>	<b>1,351.0475</b>	<b>0.0793</b>	<b>0.1462</b>	<b>1,396.5903</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2026**

**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	0.0257	1.6740	0.5215	7.3900e-003	0.2443	0.0123	0.2566	0.0669	0.0118	0.0787		827.4482	827.4482	0.0650	0.1321	868.4421
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
Worker	0.2107	0.1258	1.7027	4.9800e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		523.5994	523.5994	0.0143	0.0141	528.1482
<b>Total</b>	<b>0.2364</b>	<b>1.7998</b>	<b>2.2242</b>	<b>0.0124</b>	<b>0.9179</b>	<b>0.0155</b>	<b>0.9334</b>	<b>0.2456</b>	<b>0.0147</b>	<b>0.2603</b>		<b>1,351.0475</b>	<b>1,351.0475</b>	<b>0.0793</b>	<b>0.1462</b>	<b>1,396.5903</b>

**3.4 Installation/Backfill - Open Trench - 2027**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

**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	0.0254	1.6402	0.5302	7.2000e-003	0.2443	0.0122	0.2565	0.0669	0.0117	0.0786		808.4789	808.4789	0.0667	0.1292	848.6402
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
Worker	0.1985	0.1152	1.6119	4.8400e-003	0.6736	2.9800e-003	0.6766	0.1787	2.7400e-003	0.1814		512.1554	512.1554	0.0131	0.0134	516.4601
<b>Total</b>	<b>0.2239</b>	<b>1.7553</b>	<b>2.1420</b>	<b>0.0120</b>	<b>0.9179</b>	<b>0.0152</b>	<b>0.9331</b>	<b>0.2456</b>	<b>0.0144</b>	<b>0.2600</b>		<b>1,320.6344</b>	<b>1,320.6344</b>	<b>0.0798</b>	<b>0.1425</b>	<b>1,365.1003</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2027**

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	0.0254	1.6402	0.5302	7.2000e-003	0.2443	0.0122	0.2565	0.0669	0.0117	0.0786		808.4789	808.4789	0.0667	0.1292	848.6402
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
Worker	0.1985	0.1152	1.6119	4.8400e-003	0.6736	2.9800e-003	0.6766	0.1787	2.7400e-003	0.1814		512.1554	512.1554	0.0131	0.0134	516.4601
<b>Total</b>	<b>0.2239</b>	<b>1.7553</b>	<b>2.1420</b>	<b>0.0120</b>	<b>0.9179</b>	<b>0.0152</b>	<b>0.9331</b>	<b>0.2456</b>	<b>0.0144</b>	<b>0.2600</b>		<b>1,320.6344</b>	<b>1,320.6344</b>	<b>0.0798</b>	<b>0.1425</b>	<b>1,365.1003</b>

**3.4 Installation/Backfill - Open Trench - 2028**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372		210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>		<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**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	0.0252	1.6119	0.5402	7.0200e-003	0.2443	0.0121	0.2564	0.0669	0.0115	0.0785		790.2530	790.2530	0.0683	0.1264	829.6158
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
Worker	0.1870	0.1061	1.5354	4.7100e-003	0.6736	2.7800e-003	0.6764	0.1787	2.5600e-003	0.1812		502.0532	502.0532	0.0121	0.0127	506.1507
<b>Total</b>	<b>0.2122</b>	<b>1.7180</b>	<b>2.0756</b>	<b>0.0117</b>	<b>0.9180</b>	<b>0.0148</b>	<b>0.9328</b>	<b>0.2456</b>	<b>0.0141</b>	<b>0.2597</b>		<b>1,292.3062</b>	<b>1,292.3062</b>	<b>0.0804</b>	<b>0.1391</b>	<b>1,335.7665</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1076	0.9915	1.5251	2.2500e-003		0.0399	0.0399		0.0372	0.0372	0.0000	210.3345	210.3345	0.0633		211.9169
<b>Total</b>	<b>0.1076</b>	<b>0.9915</b>	<b>1.5251</b>	<b>2.2500e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0372</b>	<b>0.0372</b>	<b>0.0000</b>	<b>210.3345</b>	<b>210.3345</b>	<b>0.0633</b>		<b>211.9169</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Installation/Backfill - Open Trench - 2028**

**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	0.0252	1.6119	0.5402	7.0200e-003	0.2443	0.0121	0.2564	0.0669	0.0115	0.0785		790.2530	790.2530	0.0683	0.1264	829.6158
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
Worker	0.1870	0.1061	1.5354	4.7100e-003	0.6736	2.7800e-003	0.6764	0.1787	2.5600e-003	0.1812		502.0532	502.0532	0.0121	0.0127	506.1507
<b>Total</b>	<b>0.2122</b>	<b>1.7180</b>	<b>2.0756</b>	<b>0.0117</b>	<b>0.9180</b>	<b>0.0148</b>	<b>0.9328</b>	<b>0.2456</b>	<b>0.0141</b>	<b>0.2597</b>		<b>1,292.3062</b>	<b>1,292.3062</b>	<b>0.0804</b>	<b>0.1391</b>	<b>1,335.7665</b>

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490		1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>		<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0632	4.1445	1.2404	0.0184	0.5937	0.0301	0.6238	0.1627	0.0288	0.1914		2,053.313 4	2,053.313 4	0.1535	0.3276	2,154.766 2
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
Worker	0.2238	0.1383	1.8076	5.1500e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		536.2594	536.2594	0.0156	0.0149	541.0942
<b>Total</b>	<b>0.2870</b>	<b>4.2828</b>	<b>3.0480</b>	<b>0.0235</b>	<b>1.2673</b>	<b>0.0334</b>	<b>1.3007</b>	<b>0.3413</b>	<b>0.0319</b>	<b>0.3732</b>		<b>2,589.572 8</b>	<b>2,589.572 8</b>	<b>0.1691</b>	<b>0.3425</b>	<b>2,695.860 3</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490	0.0000	1,090.309 0	1,090.309 0	0.3148		1,098.178 6
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>	<b>0.0000</b>	<b>1,090.309 0</b>	<b>1,090.309 0</b>	<b>0.3148</b>		<b>1,098.178 6</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0632	4.1445	1.2404	0.0184	0.5937	0.0301	0.6238	0.1627	0.0288	0.1914		2,053.313 4	2,053.313 4	0.1535	0.3276	2,154.766 2
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
Worker	0.2238	0.1383	1.8076	5.1500e-003	0.6736	3.3300e-003	0.6769	0.1787	3.0700e-003	0.1817		536.2594	536.2594	0.0156	0.0149	541.0942
<b>Total</b>	<b>0.2870</b>	<b>4.2828</b>	<b>3.0480</b>	<b>0.0235</b>	<b>1.2673</b>	<b>0.0334</b>	<b>1.3007</b>	<b>0.3413</b>	<b>0.0319</b>	<b>0.3732</b>		<b>2,589.572 8</b>	<b>2,589.572 8</b>	<b>0.1691</b>	<b>0.3425</b>	<b>2,695.860 3</b>

**3.5 Installation - Trenchless - 2026**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490		1,090.309 0	1,090.309 0	0.3148		1,098.178 6
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>		<b>1,090.309 0</b>	<b>1,090.309 0</b>	<b>0.3148</b>		<b>1,098.178 6</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2026**

**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	0.0625	4.0688	1.2675	0.0180	0.5938	0.0299	0.6237	0.1627	0.0286	0.1913		2,011.1709	2,011.1709	0.1580	0.3211	2,110.8096
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
Worker	0.2107	0.1258	1.7027	4.9800e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		523.5994	523.5994	0.0143	0.0141	528.1482
<b>Total</b>	<b>0.2732</b>	<b>4.1946</b>	<b>2.9702</b>	<b>0.0229</b>	<b>1.2674</b>	<b>0.0331</b>	<b>1.3004</b>	<b>0.3413</b>	<b>0.0315</b>	<b>0.3729</b>		<b>2,534.7702</b>	<b>2,534.7702</b>	<b>0.1723</b>	<b>0.3352</b>	<b>2,638.9578</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5096	4.2750	3.5470	0.0116		0.1588	0.1588		0.1490	0.1490	0.0000	1,090.3090	1,090.3090	0.3148		1,098.1786
<b>Total</b>	<b>0.5096</b>	<b>4.2750</b>	<b>3.5470</b>	<b>0.0116</b>		<b>0.1588</b>	<b>0.1588</b>		<b>0.1490</b>	<b>0.1490</b>	<b>0.0000</b>	<b>1,090.3090</b>	<b>1,090.3090</b>	<b>0.3148</b>		<b>1,098.1786</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Installation - Trenchless - 2026**

**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	0.0625	4.0688	1.2675	0.0180	0.5938	0.0299	0.6237	0.1627	0.0286	0.1913		2,011.1709	2,011.1709	0.1580	0.3211	2,110.8096
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
Worker	0.2107	0.1258	1.7027	4.9800e-003	0.6736	3.1700e-003	0.6768	0.1787	2.9100e-003	0.1816		523.5994	523.5994	0.0143	0.0141	528.1482
<b>Total</b>	<b>0.2732</b>	<b>4.1946</b>	<b>2.9702</b>	<b>0.0229</b>	<b>1.2674</b>	<b>0.0331</b>	<b>1.3004</b>	<b>0.3413</b>	<b>0.0315</b>	<b>0.3729</b>		<b>2,534.7702</b>	<b>2,534.7702</b>	<b>0.1723</b>	<b>0.3352</b>	<b>2,638.9578</b>

**3.6 Paving - Open Trench - 2028**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701		1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0889</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>		<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - Open Trench - 2028**

**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	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
Worker	0.0297	0.0168	0.2434	7.5000e-004	0.1068	4.4000e-004	0.1072	0.0283	4.1000e-004	0.0287		79.5938	79.5938	1.9100e-003	2.0200e-003	80.2434
<b>Total</b>	<b>0.0297</b>	<b>0.0168</b>	<b>0.2434</b>	<b>7.5000e-004</b>	<b>0.1068</b>	<b>4.4000e-004</b>	<b>0.1072</b>	<b>0.0283</b>	<b>4.1000e-004</b>	<b>0.0287</b>		<b>79.5938</b>	<b>79.5938</b>	<b>1.9100e-003</b>	<b>2.0200e-003</b>	<b>80.2434</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4339	4.0658	5.7647	0.0118		0.1841	0.1841		0.1701	0.1701	0.0000	1,130.1965	1,130.1965	0.3586		1,139.1614
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0889</b>	<b>4.0658</b>	<b>5.7647</b>	<b>0.0118</b>		<b>0.1841</b>	<b>0.1841</b>		<b>0.1701</b>	<b>0.1701</b>	<b>0.0000</b>	<b>1,130.1965</b>	<b>1,130.1965</b>	<b>0.3586</b>		<b>1,139.1614</b>



Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - Open Trench - 2028**

**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	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
Worker	0.0297	0.0168	0.2434	7.5000e-004	0.1068	4.4000e-004	0.1072	0.0283	4.1000e-004	0.0287		79.5938	79.5938	1.9100e-003	2.0200e-003	80.2434
<b>Total</b>	<b>0.0297</b>	<b>0.0168</b>	<b>0.2434</b>	<b>7.5000e-004</b>	<b>0.1068</b>	<b>4.4000e-004</b>	<b>0.1072</b>	<b>0.0283</b>	<b>4.1000e-004</b>	<b>0.0287</b>		<b>79.5938</b>	<b>79.5938</b>	<b>1.9100e-003</b>	<b>2.0200e-003</b>	<b>80.2434</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**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	2.2800e-003	1.1700e-003	0.0108	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3316	0.3316	2.1000e-004	1.1000e-004	0.3687
Unmitigated	2.2800e-003	1.1700e-003	0.0108	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005		0.3316	0.3316	2.1000e-004	1.1000e-004	0.3687

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.96	0.00	0.00	31	31
Total	1.96	0.00	0.00	31	31

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.06	7.30	7.30	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.564931	0.058891	0.167885	0.120679	0.025398	0.007381	0.013024	0.006272	0.000657	0.000386	0.028170	0.000621	0.005705

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
Unmitigated	0.0862	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8400e-003	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
<b>Total</b>	<b>0.0862</b>	<b>1.8000e-004</b>	<b>0.0200</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0429</b>	<b>0.0429</b>	<b>1.1000e-004</b>		<b>0.0457</b>

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0149					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8400e-003	1.8000e-004	0.0200	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0429	0.0429	1.1000e-004		0.0457
<b>Total</b>	<b>0.0862</b>	<b>1.8000e-004</b>	<b>0.0200</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0429</b>	<b>0.0429</b>	<b>1.1000e-004</b>		<b>0.0457</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Calleguas SMP Phase 4 - AQ - Ventura County APCD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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# Appendix B

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Energy Calculations



# Calleguas SMP - Phase 3

Last Updated: 1/20/2023

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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*Values above are expressed in gallons per horsepower-hour/BSFC.*

## CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Load Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Excavators	1	4	158	0.38	Excavation - Pipe in a Bridge	127
Tractors/Loaders/Backhoes	1	4	97	0.37	Installation - Pipe in a Bridge	84
Concrete/Industrial Saws	1	5	81	0.73	Excavation - Trenchless	1,373
Excavators	1	5	158	0.38	Excavation - Trenchless	1,254
Generator Sets	1	5	84	0.74	Excavation - Trenchless	1,443
Off-Highway Trucks	1	2	402	0.38	Excavation - Trenchless	1,276
Air Compressors	1	5	78	0.48	Excavation - Open Trench	3,542
Concrete/Industrial Saws	1	5	81	0.73	Excavation - Open Trench	5,594
Excavators	1	5	158	0.38	Excavation - Open Trench	5,110
Generator Sets	1	5	84	0.74	Excavation - Open Trench	5,881
Off-Highway Trucks	1	2	402	0.38	Excavation - Open Trench	5,200
Rubber Tired Loaders	1	5	203	0.36	Excavation - Open Trench	6,219
Bore/Drill Rigs	1	5	221	0.5	Installation - Trenchless	964
Cranes	1	5	231	0.29	Installation - Trenchless	584
Dumpers/Tenders	1	5	16	0.38	Installation - Trenchless	59
Welders	1	5	46	0.45	Installation - Trenchless	201
Plate Compactors	1	5	8	0.43	Installation/Backfill - Open Trench	325
Tractors/Loaders/Backhoes	1	5	97	0.37	Installation/Backfill - Open Trench	3,396
Cement and Mortar Mixers	1	5	9	0.56	Paving - Open Trench	15
Pavers	1	5	130	0.42	Paving - Open Trench	144
Paving Equipment	1	5	132	0.36	Paving - Open Trench	126
Rollers	1	5	80	0.38	Paving - Open Trench	89
Surfacing Equipment	1	5	263	0.3	Paving - Open Trench	209
<b>Total Fuel Used</b>						<b>43,214</b>
						<b>(Gallons)</b>

Construction Phase	Days of Operation
Excavation - Pipe in a Bridge	10
Installation - Pipe in a Bridge	10
Excavation - Trenchless	79
Excavation - Open Trench	322
Installation - Trenchless	33
Installation/Backfill - Open Trench	322
Paving - Open Trench	10
<b>Total Days</b>	<b>786</b>

## WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
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Excavation - Pipe in a Bridge	24.1	3	10.8	13.44
Installation - Pipe in a Bridge	24.1	45	10.8	201.66
Excavation - Trenchless	24.1	10	10.8	354.02
Excavation - Open Trench	24.1	15	10.8	2164.48
Installation - Trenchless	24.1	45	10.8	665.48
Installation/Backfill - Open Trench	24.1	45	10.8	6493.44
Paving - Open Trench	24.1	13	10.8	58.26
<b>Total Fuel Used</b>				<b>9,950.79</b>

<b>HAULING AND VENDOR TRIPS</b>				
<b>Trip Class</b>	<b>MPG [2]</b>	<b>Trips</b>	<b>Trip Length (miles)</b>	<b>(gallons)</b>
<b>HAULING TRIPS</b>				
Excavation - Pipe in a Bridge	7.5	0	20.0	0.00
Installation - Pipe in a Bridge	7.5	140	20.0	373.33
Excavation - Trenchless	7.5	1095	20.0	2920.00
Excavation - Open Trench	7.5	0	20.0	0.00
Installation - Trenchless	7.5	451	20.0	1202.67
Installation/Backfill - Open Trench	7.5	4505	20.0	12013.33
<b>Total Fuel Used</b>				<b>16,509.33</b>
<b>VENDOR TRIPS</b>				
Excavation - Pipe in a Bridge	7.5	0	14.7	0.00
Installation - Pipe in a Bridge	7.5	0	14.7	0.00
Excavation - Trenchless	7.5	0	14.7	0.00
Excavation - Open Trench	7.5	0	14.7	0.00
Installation - Trenchless	7.5	0	14.7	0.00
Installation/Backfill - Open Trench	7.5	0	14.7	0.00
<b>Total Fuel Used</b>				<b>-</b>

<b>Total Gasoline Consumption (gallons)</b>	<b>9,951</b>
<b>Total Diesel Consumption (gallons)</b>	<b>59,723</b>

**Sources:**

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

# Calleguas SMP - Phase 4

Last Updated: 1/20/2023

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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*Values above are expressed in gallons per horsepower-hour/BSFC.*

## CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per		Load Factor	Construction Phase	Fuel Used (gallons)
		Day	Horsepower			
Concrete/Industrial Saws	1	5	81	0.73	Excavation - Trenchless	1,181
Excavators	1	5	158	0.38	Excavation - Trenchless	1,079
Generator Sets	1	5	84	0.74	Excavation - Trenchless	1,242
Off-Highway Trucks	1	2	402	0.38	Excavation - Trenchless	1,098
Air Compressors	1	5	78	0.48	Excavation - Open Trench	6,688
Concrete/Industrial Saws	1	5	81	0.73	Excavation - Open Trench	10,563
Excavators	1	5	158	0.38	Excavation - Open Trench	9,648
Generator Sets	1	5	84	0.74	Excavation - Open Trench	11,104
Off-Highway Trucks	1	2	402	0.38	Excavation - Open Trench	9,819
Rubber Tired Loaders	1	5	203	0.36	Excavation - Open Trench	11,743
Bore/Drill Rigs	1	5	221	0.5	Installation - Trenchless	818
Cranes	1	5	231	0.29	Installation - Trenchless	496
Dumpers/Tenders	1	5	16	0.38	Installation - Trenchless	50
Welders	1	5	46	0.45	Installation - Trenchless	170
Plate Compactors	1	5	8	0.43	Installation/Backfill - Open Trench	615
Tractors/Loaders/Backhoes	1	5	97	0.37	Installation/Backfill - Open Trench	6,412
Cement and Mortar Mixers	1	5	9	0.56	Paving - Open Trench	27
Pavers	1	5	130	0.42	Paving - Open Trench	260
Paving Equipment	1	5	132	0.36	Paving - Open Trench	226
Rollers	1	5	80	0.38	Paving - Open Trench	161
Surfacing Equipment	1	5	263	0.3	Paving - Open Trench	375
<b>Total Fuel Used</b>						<b>73,775</b>

(Gallons)

Construction Phase	Days of Operation
Excavation - Trenchless	68
Excavation - Open Trench	608
Installation - Trenchless	28
Installation/Backfill - Open Trench	608
Paving - Open Trench	18
<b>Total Days</b>	<b>1330</b>

## WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Excavation - Trenchless	24.1	10	10.8	304.73
Excavation - Open Trench	24.1	15	10.8	4086.97
Installation - Trenchless	24.1	82	10.8	1028.91
Installation/Backfill - Open Trench	24.1	82	10.8	22342.11
Paving - Open Trench	24.1	13	10.8	104.86

<b>Total Fuel Used</b>	<b>27,867.59</b>
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**HAULING AND VENDOR TRIPS**

<b>Trip Class</b>	<b>MPG [2]</b>	<b>Trips</b>	<b>Trip Length (miles)</b>	<b>(gallons)</b>
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<b>HAULING TRIPS</b>				
Excavation - Trenchless	7.5	392	20.0	1045.33
Excavation - Open Trench	7.5	0	20.0	0.00
Installation - Trenchless	7.5	952	20.0	2538.67
Installation/Backfill - Open Trench	7.5	8505	20.0	22680.00
Paving - Open Trench	7.5	0	20.0	0.00

<b>Total Fuel Used</b>	<b>26,264.00</b>
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<b>VENDOR TRIPS</b>				
Excavation - Trenchless	7.5	0	14.7	0.00
Excavation - Open Trench	7.5	0	14.7	0.00
Installation - Trenchless	7.5	0	14.7	0.00
Installation/Backfill - Open Trench	7.5	0	14.7	0.00
Paving - Open Trench	7.5	0	14.7	0.00

<b>Total Fuel Used</b>	<b>-</b>
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<b>Total Gasoline Consumption (gallons)</b>	<b>27,868</b>
<b>Total Diesel Consumption (gallons)</b>	<b>100,039</b>

**Sources:**

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.