



North Ranch Residential Development

Air Quality and Greenhouse Gas Study

prepared for

West Pointe Homes, Inc.
26500 West Agoura Road #652
Calabasas, California 91302

prepared by

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

January 2022



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1 Introduction

This study is an analysis of the potential air quality and greenhouse gas (GHG) emissions impacts of the proposed North Ranch Residential Development (the project) in Moorpark, California. The study has been prepared by Rincon Consultants, Inc. under contract to West Pointe Homes, Inc., and at the request of the City of Moorpark, for use in support of environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to evaluate the project's criteria air pollutant and GHG emissions and the associated impacts to regional air quality and climate change. The analysis herein is based partially on the Traffic Impact Analysis prepared by K2 Traffic Engineering, Inc. (2021).

2 Project Description

The project site is a 68-acre property in the City of Moorpark and is bounded by Gabbert Road to the east and residential uses to the north. Lands to the east and south are undeveloped. The project site is primarily undeveloped, but is occupied by two residential homes, paved driveways, and a tennis court.

The project would involve the construction of a residential development with 139 dwelling units and 5 estate lots in the northern portion of the project site. In addition, the project involves the construction of North Hill Parkway along the southern boundary of the site and a portion of North Village Road along the western boundary of the site. The remaining portions of North Village Drive, south of the intersection with North Hill Parkway and north of the northern project site boundary, would be constructed by developers of other parcels in the project site vicinity.

3 Air Quality Background

3.1 Local Climate and Meteorology

The project site is located in the South Central Coast Air Basin (SCCAB) and is under the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). Air quality in SCCAB is affected by the emission sources located in the region, as well as by three natural factors:

- A natural terrain barrier to emission dispersion north and east of the metropolitan Los Angeles area.
- A dominant onshore flow transports and disperses air pollution by driving air pollution originating in industrial areas along the coast toward the natural terrain barrier, limiting horizontal dispersion. The effect of this onshore flow is a gradual degradation of air quality from coastal to inland areas. The greatest impacts can be seen in the San Gabriel Valley and near Riverside at the foot of the San Gabriel Mountains.
- Atmospheric inversions limit dispersion of air pollution on a vertical scale. Temperature typically decreases with altitude. However, under inversion conditions, temperature begins to increase at some height above the ground. The temperature increase continues through an unspecified layer after which the temperature change with height returns to standard conditions. The inversion layer is typically very stable and acts as a cap to the vertical dispersions of pollutants.

3.2 Air Quality Regulation

Federal and State governments have established ambient air quality standards for the protection of public health. The United State Environmental Protection Agency (U.S. EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the State equivalent in the California EPA. County-level Air Pollution Control Districts (APCDs) provide local management of air quality. CARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. CARB has established 14 air basins statewide.

The U.S. EPA has set primary national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM₁₀, PM_{2.5}, and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and State standards for regulated pollutants.

Table 1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	Federal Attainment Status	California Standard	State Attainment Status
Ozone	1-Hour	---	Non-Attainment	0.09 ppm	Non-Attainment
	8-Hour	0.070 ppm		0.070 ppm	
Carbon Monoxide	8-Hour	9.0 ppm	Unclassified/Attainment	9.0 ppm	Attainment
	1-Hour	35.0 ppm		20.0 ppm	
Nitrogen Dioxide	Annual	0.053 ppm	Unclassified/Attainment	0.030 ppm	Attainment
	1-Hour	0.10 ppm		0.18 ppm	
Sulfur Dioxide	Annual	---	Unclassified/Attainment	---	Attainment
	24-Hour	0.14 ppm		0.04 ppm	
	1-Hour	0.075 ppm		0.25 ppm	
PM ₁₀	Annual	---	Unclassified	20 µg/m ³	Non-Attainment
	24-Hour	150 µg/m ³		50 µg/m ³	
PM _{2.5}	Annual	12 µg/m ³	Unclassified/Attainment	12 µg/m ³	Attainment
	24-Hour	35 µg/m ³		---	
Lead	30-Day Average	---	Unclassified/Attainment	1.5 µg/m ³	Attainment
	3-Month Average	0.15 µg/m ³		---	

ppm = parts per million
µg/m³ = micrograms per cubic meter
Source: CARB 2016 CARB 2021.

The VCAPCD is the local air quality management agency. The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the air basin is classified as being in “attainment” or “non-attainment.” The part of SCCAB within which the project site is located is in non-attainment for both the federal and State standards for ozone and State standards for particulate matter (PM₁₀) (CARB 2021). Thus, SCCAB currently exceeds several State and federal ambient air quality standards and VCAPCD is required to implement strategies to reduce the pollutant levels to recognized acceptable standards. Characteristics of ozone and suspended particulates are described below.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic gases (ROG). NO_x is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM₁₀ (which measures no more than 10 microns in diameter) and PM_{2.5} (a fine particulate measuring no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with PM₁₀ and PM_{2.5} can be different. Major man-made sources of PM₁₀ are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer, PM_{2.5} particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. PM_{2.5} is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

3.3 Current Air Quality

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.

Data on existing air quality in the Ventura County portion of the SCCAB are available for ozone and particulate matter emissions within the CARB's 2021 Annual Network Plan. The 2021 Annual Network Plan contains data for five monitoring locations throughout Ventura County. The monitoring station located closest to Moorpark and most representative of air quality at the project site is the Thousand Oaks-Moorpark Road station on the Thousand Oaks High School campus at 2323 Moorpark Road in Thousand Oaks approximately 5.6 miles southeast of the project site. However, the Thousand Oaks-Moorpark Road station does not record N₂O, CO, SO₂, or PM₁₀. The next closest location that does record N₂O, and PM₁₀ data is the Simi Valley-Cochran Street station. Therefore, data from that station has been used as the best available local data for these pollutants. CO and SO₂ are no longer monitored in Ventura County and therefore are not reported. Table 2 summarizes the annual air quality data from 2018 – 2020 in the local airshed for the criteria pollutants of greatest concern in Ventura County.

Table 2 Ambient Air Quality at the Simi Valley Monitoring Station

Pollutant	2018	2019	2020
Ozone ¹ , ppm – Worst Hour	0.080	0.082	0.097
Number of days State exceedances (>0.09 ppm)	0	0	1
Ozone ¹ , ppm – Worst 8 Hours	0.073	0.074	0.084
Number of days of State exceedances (>0.07 ppm)	1	2	7
Number of days Federal exceedances (>0.075 ppm)	1	1	7
Nitrogen Dioxide ² , ppm – Worst Hour	43.0	45.0	42.0
Number of days of State exceedances (>0.18 ppm)	0	0	0
Particulate Matter ² > 10 microns, ug/m ³ Worst 24 Hours	110.5	127.9	90.5
Estimated Number of Days of State exceedances (>50 ug/m ³)	6	4	6
Estimated Number of Days of Federal exceedances (>150 ug/m ³)	0	0	0
Particulate Matter ² <2.5 microns, ug/m ³ Worst 24 Hours*	41.5	24.5	36.3
Estimated Number of Days of Federal exceedances (>35 ug/m ³)	1	0	1

N/A = not measured

Source: CARB 2018, 2019, 2020 Annual Air Quality Data Summaries available at <http://www.arb.ca.gov/adam/topfour/topfour1.php>

¹ Thousand Oaks-Moorpark Road station

² Simi Valley-Cochran Street station

Note: California standards for ozone, carbon monoxide, and particulate matter are not to be exceeded. Federal standard for CO not to be exceeded more than once per year. Federal ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 ug/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

As shown in Table 2, the ozone concentrations at the Thousand Oaks-Moorpark Road monitoring station exceeded the one-hour State standard once in 2020 and exceeded the eight hour standard ten times between 2018 and 2020, and exceeded the federal eight hour standard nine times between 2018 and 2020. The PM₁₀ concentrations did not exceed the federal standards from 2018 to 2020. However, the PM₁₀ concentration exceeded State standards on a total of sixteen days from 2018 to 2020. PM_{2.5} concentrations exceeded State standards twice between 2018 and 2020. Information regarding CO and SO₂ concentrations is not available from any of the monitoring stations in the County. Monitoring ceased throughout Ventura County in 2004 because of the low levels of CO recorded (VCAPCD, 2007).

3.4 Air Quality Management Plan

Under State law, the VCAPCD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-attainment. In 2016, VCAPCD adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of State and federal air quality standards. As noted previously, Ventura County is not in attainment for the 2008 federal eight-hour ozone standard. The plan for Ventura County to meet the 2008 federal ozone standard, which has a deadline of 2020, is currently in development. While the 2016 AQMP contains some

additional local control measures, most of the emissions reductions that Ventura County needs to attain the federal eight hour ozone standard and continue progress to the State ozone standard will come from CARB's State Strategies. These strategies focus on reducing emissions from mobile sources, consumer products, and pesticides to substantially improve air quality.

3.5 Sensitive Receptors

Ambient air quality standards represent the levels of air quality considered sufficient, with an adequate 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 age 14, the elderly over age 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors that could potentially be affected by air quality impacts associated with project construction include the residential uses located to the north and east of the project site, approximately 150 feet from the project site boundary. In addition, Chaparral Middle School is located approximately 0.8 miles southwest of the project site. Because the project doesn't involve substantial new point sources of emissions on-site, air pollutant emissions associated with long-term use of the site would not be location-specific, but rather would be a contribution to the regional airshed.

4 Greenhouse Gas Emissions Background

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC 2014), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC 2014).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are usually by-products of fossil fuel combustion, and CH₄ results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (United States Environmental Protection Agency [U.S. EPA] 2020).

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 (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO₂e), 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 CO₂ on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).¹

The accumulation of GHGs in the atmosphere regulates Earth's temperature. Without the natural heat-trapping effect of GHGs, Earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2021). GHG emissions from human activities, particularly the

¹ 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 a GWP of 25.

consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

4.1 Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO₂e in 2010 (IPCC, 2014). CO₂ emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, carbon dioxide was the most abundant accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases account for 6 and 2 percent respectively (IPCC, 2014).

Total United States (U.S.) GHG emissions were 6,676.6 MMT CO₂e in 2018. Emissions increased by 2.9 percent from 2017 to 2018, and since 1990, total U.S. emissions have increased by an average annual rate of 0.13 percent for a total increase of 3.7 percent between 1990 and 2018. The increase from 2017 to 2018 was primarily driven by increased fossil fuel combustion because of multiple factors, including increased energy usage from greater heating and cooling needs due to a colder winter and hotter summer in 2018 as compared to 2017. In 2018, the transportation and industrial end-use sectors accounted for 36 percent and 26 percent, respectively, of nationwide GHG emissions while the residential and commercial end-use sectors accounted for 20 percent and 17 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (U.S. EPA 2020).

Based on CARB's California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT CO₂e in 2019. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the state's GHG emissions, while electric power accounts for approximately 14 percent (CARB 2021). 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, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT CO₂e (CARB 2021). The annual 2030 statewide target emissions level is 260 MMT CO₂e (CARB 2017).

4.2 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential 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 21st century than were observed during the 20th century. Long-term trends have found that each of the past four decades has been warmer than all the previous decades in the instrumental record, and the decade from 2011 through 2020 has been the warmest. The observed global mean surface temperature for the decade from 2011 to 2020 was approximately 1.09°C (0.95°C to 1.20°C) higher than the global mean surface temperature over the period from 1850 to 1900 (IPCC 2021). 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 three decades (IPCC 2014, 2018, and 2021).

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 (State of California 2018). In addition to statewide projections, *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 (State of California 2018). 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. Below is a summary of some of the potential effects that could be experienced in California because of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). 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 (State of California 2018). 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. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

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 western U.S., 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 U.S., 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 (State of California 2018). The Sierra 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 (State of California 2018). 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 (State of California 2018).

Hydrology and Sea Level Rise

As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snowpack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for saltwater intrusion. According to California Coastal Commission (CCC 2019), climate change has the potential to induce a sea level rise of up to 66 inches by 2100. The rising sea level increases the likelihood and risk of flooding. The rate of rising global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO], 2013). As a result, sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO, 2013; CCC 2019). Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report (2021) predicts a mean sea-level rise of 11-40 inches by 2100. This prediction is more than 50 percent higher than earlier projections of 7-23 inches, when comparing the same emissions scenarios and time periods. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to saltwater intrusion. In addition, increased CO₂ emissions can cause oceans to acidify due to the carbonic acid it forms. 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 CO₂ 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 (State of California 2018). 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 as a result of 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; State of California 2018).

4.3 Local Regulations and CEQA Requirements

California Regulations

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

The California Global Warming Solutions Act of 2006 (Assembly Bill [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 CO₂e, 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 (see below). 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 MTCO₂e by 2030 and 2 MTCO₂e 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 (CARB 2017).

SB 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Natural Resources Agency adopted amendments to the *CEQA Guidelines* for consistency in the analysis and mitigation of greenhouse gas emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

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, in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

On September 10, 2018, the governor 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.

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;² and
- All off-road vehicles and equipment to be zero-emission by 2035 where feasible.

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.

California Environmental Quality Act

Pursuant to the requirements of SB 97, the Natural Resources Agency has adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, a variety of air districts have adopted quantitative significance thresholds for GHGs.

² “Drayage trucks” are on-road, diesel-fueled, heavy-duty trucks that transport containers and bulk to and from the ports and intermodal railyards as well as to many other locations.

Local Regulations

SCAG adopted a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that applies to the County of Ventura in September 2020. The 2020-2045 RTP/SCS “builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path towards a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern California” (SCAG 2020).

The City of Moorpark has not yet adopted a Climate Action Plan. Likewise, the General Plan does not include any policies related to GHG emissions.

5 Significance Thresholds and Methodology

5.1 Air Quality Thresholds

To determine whether a project would have a significant impact to air quality, Appendix G of the CEQA Guidelines asks whether a project would:

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

The analysis presented in this report is based upon guidance found in the Ventura County Air Quality Assessment Guidelines (Guidelines), adopted by the VCAPCD in 2003. The VCAPCD's Guidelines recommend specific air emission criteria and threshold levels for determining whether a project may have a significant adverse impact on air quality within Ventura County. The project would have a significant impact if operational emissions exceed 25 pounds per day (lbs/day) of ROC or 25 lbs/day of NO_x. The 25 lbs/day thresholds for ROC and NO_x are not intended to be applied to construction emissions because such emissions are temporary. Nevertheless, the VCAPCD's Guidelines state that construction-related emissions should be mitigated if estimates of ROC or NO_x emissions from heavy-duty construction equipment exceed 25 lbs/day for either ROC or NO_x.

The VCAPCD has not established quantitative thresholds for particulate matter for either construction or operation. However, the VCAPCD indicates that a project that may generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or 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 applies to the generation of fugitive dust during construction grading and excavation activities. .

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above the State or national 1-hour or eight hour CO ambient air standards. Localized CO "hotspots" can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal AAQS of 35.0 parts per million (ppm) or the State AAQS of 20.0 ppm.

The VCAPCD has not established quantitative thresholds for CO for either construction or operation. However, the VCAPCD states a CO hotspot screening analysis should be conducted for any project with indirect CO emissions greater than the applicable ozone project significance thresholds (i.e., 25 lbs/day) that may significantly impact roadway intersections currently operating at, or that are expected to operate at, Level of Service (LOS) E or F. A CO hotspot screening analysis should also be conducted for any project-impacted roadway intersection at which a CO hotspot might occur

(VCAPCD 2003). If project emissions do not meet these criteria, then the project would have a less than significant impact related to CO hotspots. However, if project emissions exceed these criteria and the screening analysis demonstrates there may be a CO hotspot, the VCAPCD recommends use of the CALINE4 model to determine whether the project would create or contribute to an existing CO hotspot.

5.2 Greenhouse Gas Emissions Thresholds

To determine whether a project would have a significant impact to greenhouse gases, Appendix G of the CEQA Guidelines asks whether a project would:

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

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution toward an impact is 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 15355).

According to CEQA Guidelines Section 15183.5(b), 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. However, neither the City nor VCAPCD has formally adopted a Climate Action Plan or other GHG reduction plan to date. Thus, this approach is not currently feasible for this analysis.

Local air districts have developed significance thresholds, which are numeric mass emissions thresholds that identify the level at which additional analysis of project GHG emissions is necessary. If project emissions are equal to or below the significance threshold, with or without mitigation, the project's GHG emissions would be less than significant. VCAPCD has not established quantitative significance thresholds for evaluating GHG emissions in CEQA analyses, but it recommends using the California Air Pollution Control Officers Association (CAPCOA)'s 2008 CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act white paper and other resources when developing GHG evaluations (VCAPCD 2003). CAPCOA's paper provides a common platform of information and tools to support local governments and was prepared as a resource, not as a guidance document. CEQA Guidelines Section 15064.4 expressly provides a "lead agency shall have discretion to determine, in the context of a particular project," whether to "quantify GHG emissions resulting from a project" and/or "rely on a qualitative analysis or performance-based standards." Updates to CEQA Guidelines Section 15064.4 that took effect in December 2018 further state that a lead agency should "focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change" and that the analysis should "reasonably reflect evolving scientific knowledge and state regulatory schemes."

Considering that no specific GHG threshold or qualified GHG reduction plan has been recommended or adopted by the City or VCAPCD, it is appropriate to refer to guidance from other agencies when discussing GHG emissions. The VCAPCD generally refers to SCAQMD methodology for evaluating GHG emissions. Therefore, based on the report recommendations, the VCAPCD would continue to

evaluate and develop suitable interim GHG threshold options for Ventura County with preference for GHG threshold consistency with the SCAQMD and the SCAG region.

As an interim method of determining significance under CEQA until statewide significance thresholds are established, the SCAQMD developed a tiered flowchart in 2008 to determine GHG significance thresholds. The SCAQMD flowchart uses a tiered approach in which a proposed project is deemed to have a less than significant impact related to GHG emissions when specific conditions are met. Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan, including a Climate Action Plan (CAP). The City of Moorpark has not adopted a CAP. Therefore, for the purpose of this analysis, a significant GHG emissions impact would occur if the project-generated emissions exceed 3,000 MTCO₂e (SCAQMD, Proposed Tier 3 Threshold, September 2010).

5.3 Air Quality Analysis Methodology

Construction Emissions Estimates

The California Emissions Estimator Model (CalEEMod) version 2020.4.0 was used to estimate construction emissions. CalEEMod was developed by SCAQMD and is used by jurisdictions throughout the state to quantify criteria pollutant emissions. Maximum daily pollutant emissions during the construction phase include emissions from worker trips, hauling trips, construction vehicle emissions and fugitive dust from site preparation, grading, paving, building construction, and architectural coating phases. Emissions include worker trips, hauling trips, construction vehicle emissions, and fugitive dust. VCAPCD Rule 74.2, Architectural Coatings, was applied to CalEEMod and any non-residential volatile organic compounds (VOC) were assumed to be 150 grams per liter, while residential VOC were assumed to be 75 g/L for interior and 100 g/L for exterior architectural coatings, based on the defaults of CalEEMod. Additionally, Rule 55, Fugitive Dust, was applied to CalEEMod for watering the construction site twice a day. The CalEEMod default phase lengths were adjusted from the defaults to fit the anticipated construction length of approximately 30 months from July 1, 2022 to December 31, 2024. Detailed Assumptions are included in Appendix A.

Operational Emissions

CalEEMod was also used to estimate the project's operational emissions. Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of on-site development. Trip generation estimates were based on the Traffic Impact Analysis completed for the project by K2 Traffic Engineering, Inc. (K2 Traffic Engineering, Inc. 2021). Emissions attributed to energy use include natural gas consumption for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coating.

5.4 Greenhouse Gas Emissions Analysis Methodology

Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude of potential project impacts. The analysis focuses on CO₂, CH₄, and N₂O because these make up 98 percent of all GHG emissions by volume (IPCC, 2014) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF₆, were also considered for the

analysis. However, emissions of fluorinated gases are primarily associated with industrial processes; because the project involves a residential development, the quantity of fluorinated gases would be minimal. Emissions of all GHGs are converted into their CO₂e. Minimal amounts of other main GHGs (such as chlorofluorocarbons [CFCs]) would be emitted, and these other GHG emissions would not substantially add to the calculated CO₂e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (2009).

This analysis takes into account current State and federal measures that are intended to reduce GHG emissions. State and federal measures that are built into the emissions model calculation include Title 24 Energy Standards, Pavley (Clean Car Standards) and Low Carbon Fuel Standards, and the Renewable Energy Portfolio requirements.

Construction Emissions

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the CEQA and Climate Change white paper, “more study is needed to make this assessment or to develop separate thresholds for construction activity” (CAPCOA, 2008). As discussed above, following VCAPCD’s guidance this analysis follows SCAQMD’s recommended GHG thresholds. Therefore, construction-related emissions are amortized over a 30-year period, which is recommended by SCAQMD (2010). Due to the size and the nature of the development, it is possible for demolition, site preparation, grading, paving, and the initial phasing of building construction to occur on different parts of the site on the same day. Therefore, maximum emissions for 2022 take into account this potential conservative scenario. Also, there is the potential for building construction to overlap with both paving and architectural coating activities in future years. Therefore, years 2023 and 2024 assume those conservative scenarios.

On-Site Operational Emissions

CalEEMod provides operational emissions of CO₂, N₂O, and CH₄. Emissions from energy use include electricity and natural gas use. The emissions factors for natural gas combustion are based on EPA’s AP-42, (Compilation of Air Pollutant Emissions Factors) and CCAR. Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CalEEMod User Guide 2021). The default electricity consumption values in CalEEMod include the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and emission factor values provided by the local air district (CalEEMod User Guide 2021).

Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC’s methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide 2021). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

For mobile sources emissions were quantified in CalEEMod. The estimate of total daily trips associated with the project was based on the standard Institute of Transportation Engineers (ITE) vehicle trip rates, consistent with the traffic study, and was calculated and extrapolated to derive total annual mileage in CalEEMod.

6 Impact Analysis

6.1 Air Quality Impacts

AQMP Consistency

The VCAPCD Guidelines state that project consistency with the AQMP can be determined by comparing the actual population growth in Ventura County with the projected growth rates used in the AQMP. However, if there are more recent population forecasts that have been adopted by the Ventura Council of Governments (VCOG) where the total County population is lower than that included in the most recently adopted AQMP population forecasts, lead agencies may use the more recent VCOG forecasts for determining AQMP consistency.

The Ventura County 2020 population was estimated at 886,359 in the 2016 AQMP, with an estimated population of 905,574 by 2025 (project buildout). This represents an approximate 2 percent growth from 2020 and an 8.4 percent increase from 2012 (baseline for AQMP of 835,400) (VCAPCD 2017). The project involves the development of 144 single-family residential units. Using an average household size of 3.23 persons (DOF, 2021), the project would add about 465 residents to the City of Moorpark. The addition of 465 new residents would increase Ventura County's population to 906,039 residents, which falls within the population growth forecast for the County. The project would account for approximately 2.42 percent of Ventura County's forecast population growth through 2025. Therefore, the project would not generate growth that would exceed the VCAPCD's projected population growth forecast and would be consistent with the growth assumptions in the VCAPCD AQMP. No impacts would occur.

Construction Impacts

Construction of the project would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions from heavy duty construction vehicles and soil hauling trucks, in addition to ROG that would be released during the drying phase upon application of architectural coatings. Construction would generally consist of demolition, site preparation, grading, erection of the proposed buildings, paving, and architectural coating.

The site preparation and grading phases involve the greatest amount of heavy equipment and the greatest generation of fugitive dust. Table 3 summarizes maximum daily pollutant emissions from project construction (Appendix B).

Table 3 Construction Maximum Daily Air Pollutant Emissions (lbs/day)

Construction Year	Estimated Emissions (lbs/day)		
	ROC	NO _x	PM ₁₀
Unmitigated Construction Emissions			
2022 Maximum lbs/day	13	124	6
2023 Maximum lbs/day	38	26	1
2024 Maximum lbs/day	38	25	1
Maximum Emissions	38	124	6
VCAPCD Threshold	25	25	N/A
Threshold Exceeded	Yes	Yes	No
Mitigated Construction Emissions			
2022 Maximum lbs/day	3	12	14
2023 Maximum lbs/day	19	5	1
2024 Maximum lbs/day	19	5	1
Maximum Emissions	19	12	14
VCAPCD Threshold	25	25	N/A
Threshold Exceeded	No	No	No
<i>Notes: All calculations were made using CalEEMod. See the Appendix B for CalEEMod results.</i>			

As noted earlier, the VCAPCD's 25 lbs/day thresholds for ROC and NO_x do not apply to construction emissions because such emissions are temporary. Therefore, the project's air quality impacts would be less than significant. However, the VCAPCD recommends mitigation if ROC or NO_x emissions exceed 25 lbs/day during construction activities. As shown in Table 3, ROC and NO_x emissions generated during project construction would exceed 25 lbs/day. Implementation of Mitigation Measures AQ-1 and AQ-2 would be required to reduce ROC and NO_x emissions generated during construction activities.

Mitigation Measures

AQ-1: Tier 4 Equipment. The developer shall ensure that all onsite vehicles and equipment with horsepower greater than 50 shall meet, at a minimum, USEPA Tier IV final engine certification requirements. If Tier IV final equipment is not available, the contractor may apply other technologies available for construction equipment such that it would achieve a reduction in NO_x and PM emissions comparable to that of Tier IV final construction equipment. Where alternatives to USEPA Tier IV are utilized, the contractor shall be required to provide evidence that these alternative technologies would achieve comparable emissions reductions. Certifications or alternative reduction strategies shall be required prior to receiving a construction permit.

AQ-2: Extended Architectural Coating Activities. The developer shall ensure that the architectural coating activities shall be phased such that they extend for a minimum of 150 days over the duration of the project construction.

Operational Impacts

The long-term operational emissions associated with the project are shown in Table 4. The project would generate an estimated 11 lbs/day of ROG, which is below the VCAPCD threshold of 25 lbs/day. The project would generate an estimated 5 lbs/day of NO_x, which is also below the VCAPCD threshold of 25 lbs/day. Therefore, operational air quality impacts would be less than significant.

Table 4 Maximum Daily Operational Emissions (lbs/day)

Emission Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Project Emissions					
Area	7	<1	12	<1	<1
Energy	<1	1	<1	<1	<1
Mobile	4	4	36	8	2
Total Project Emissions	11	5	48	8	2
VCAPCD Thresholds	25	25	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A

Source: See the Appendix B for CalEEMod calculations.

Note: Totals may not add up due to rounding.

Carbon Monoxide Hotspot Analysis

Areas with high vehicle density, such as congested intersections, have the potential to create high concentrations of CO, known as CO hotspots. A project's localized air quality impact is considered significant if CO emissions create a hotspot where either the California one-hour standard of 20 ppm or the federal and State eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (level of service [LOS] E or worse). As stated in the Traffic Impact Analysis, existing conditions at all studied intersections currently operate at an LOS of C or better. At opening year, with cumulative projects and the proposed project, the LOS at the studied intersections would be a level D or better. These LOS do not represent a LOS of E or worse and therefore would not result in a CO hotspot for the proposed project.

The project would generate 1,359 vehicle trips per day and would generate the greatest increase of project-generated trips at the intersection of Gabbert Road and North Hills Parkway (34 percent). The existing average daily trip (ADT) volume past where the intersection of Gabbert Road and North Hills Parkway will be developed is 480 trips. The project would result in an additional 1,430 trips at this intersection. All other study intersections would result in increases in vehicular trips (ranging from 3.3 percent at the intersection of Moorpark Avenue at High Street to 27.1 percent at the intersection of Gabbert Rd/Tierra Rejada Rd at Los Angeles Avenue).

As mentioned earlier, the existing CO levels in the County have been historical low enough that VCAPCD monitoring stations throughout the County ceased monitoring ambient CO concentrations in March and July 2004. Because ambient CO concentrations in the County are relatively low, and because the project would not result in a substantial addition of traffic or congestion to any area intersection (especially not any high-volume or already-congested intersection), the project would not be expected to result in a CO hotspot. Impacts would be less than significant.

Toxic Air Contaminants

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005) recommends against siting sensitive receptors within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. The project site is not located within 500 feet of a freeway or urban road with 100,000 vehicles/day, or a rural road with 50,000 vehicles/day. State Route 23 (SR 23) is the nearest freeway and is located approximately 2.0 miles west of the project site with fewer than 49,500 vehicles/day (Caltrans 2020). The project site is also located approximately 0.25 miles (1,320 feet) north of State Route 118 (SR 118), which has approximately 68,000 average daily trips, which although is greater than 50,000 vehicles/day, is located more than twice the recommended siting distance from the roadway (Caltrans 2020). Therefore, the project would not site sensitive receptors within 500 feet of a freeway or an urban road with 100,000 vehicles/day or rural roads with 50,000 vehicles/day, and the project would not create a human health hazard by exposing sensitive receptors to substantial pollutant concentrations.

Odors

According to the SCAQMD CEQA Air Quality Handbook, land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project includes residential uses, which are not listed by the SCAQMD as a land use that produces objectionable odors. Other odors, including the smells of oil or diesel fuels, would be limited to project construction. All off-road construction equipment would be covered by the CARB anti-idling rule (SS2449(d)(2)), which limits idling to five minutes. Project construction would be temporary and would not produce odors long-term. Impacts would be less than significant.

6.2 Greenhouse Gas Emissions Impacts

Construction Emissions

Construction of the project would result in new GHG emissions, primarily due to the operation of diesel-powered heavy construction equipment. Based on CalEEMod results, construction activity would generate an estimated 1,140 metric tons (MT) of CO₂e, as shown in Table 5. Amortized over a 30-year period (the assumed lifetime of a project, based on SCAQMD recommendations), construction of the project would generate approximately 38 MT of CO₂e per year.

Table 5 Estimated Construction Emissions of Greenhouse Gases

Year	Annual Emissions MT CO ₂ e
2022	282
2023	383
2024	476
Total	1,140
<i>Amortized over 30 years</i>	<i>38</i>

Source: Calculations were made in CalEEMod, see the Appendix C for full model output.

Note: Total may not add up due to rounding.

Annual Operational Emissions

Operational GHG emissions associated with the project were also estimated using CalEEMod. Table 6 shows operational GHG emissions from the project, in combination with the amortized construction emissions.

Table 6 Long-Term Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions MT CO ₂ e
Amortized Construction	38
Operational	
Area	2
Energy	385
Mobile	1,210
Solid waste	96
Water/Wastewater	41
Total Project Emissions	1,772
SCAQMD Tier 3 Threshold	3,000
Threshold Exceeded?	No

Sources: See Appendix B for calculations.

Note: Total may not add up due to rounding.

As shown in Table 6, the combined annual emissions would total approximately 1,772 MT of CO₂e per year beginning in the first operational year (2025). The annual emissions would not exceed the applicable threshold of 3,000 MT CO₂e per year. Therefore, impacts would be less than significant.

Consistency with GHG Reduction Plans & Policies

The City of Moorpark has not adopted a Climate Action Plan or other qualified GHG reduction plan. The County of Ventura's 2040 General Plan includes an integrated Climate Action Plan. However, this plan applies to unincorporated areas of Ventura County and not incorporated cities such as the City of Moorpark. SCAG has incorporated sustainable community strategy into its RTP/SCS plan, which is designed to help the region achieve its SB 375 GHG emissions reduction target. The SCAG RTP/SCS demonstrates that the SCAG region would achieve its regional emissions reduction targets for the 2020 and 2035 target years. The project would not alter the basic population projections used in the plan and would be consistent with the City of Moorpark General Plan land use designation for the site.

The project would also be required to comply with existing state regulations, which includes The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards that help the state achieve the overall GHG emissions reduction goals identified in SB 32.

Because there is no locally adopted GHG Reduction Plan to reduce emissions from new development, because the project would be consistent with the applicable land use and zoning designations, and because the project would not conflict with any State regulations intended to reduce GHG emissions statewide, the project would be consistent with applicable plans and programs designed to reduce GHG emissions. Consistency with applicant State regulations would ensure that the project would not conflict with the State's GHG reduction goals. No impacts would occur.

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Appendix A

Assumptions

North Ranch Residential Development General Assumptions

CalEEMod Inputs that are not modeling defaults:

Project Location	County	Title: North Ranch - Construction and Operations
	Ventura	Date: 1/21/2022
Climate Zone	8	
Urbanization	Urban	
Operational Year (Buildout)	2025	
Construction Year	2022	
Utility Company	Southern California Edison	

Project Land Use	# Units	Acres
Single Family Residential	144	51.497
Single Family Homes	139	
Estate Lots	5	

Population Determination		
persons per dwelling unit	3.23 (DOF 2021)	State of California, Department of Finance, <i>E-5 Population and Housing Estimates for Cities, C</i>
Population	465	

Population

	2012	2020	2025	from 2012	Fromw 2020
2016 AQMP	835,400	886,359	905,574	70,174	19,215 growth
				8.40%	2.17% % growth
With Project			906,039	0.66%	2.42% % of growth

North Ranch Residential Development Construction Assumptions

Construction Activities:

Project Schedule:

Phase Name	Start Date	End Date	Days/Week	Adjusted	Default	
				Total Days	Total Days	
Demolition	7/1/2022	8/17/22	5	34	70	0.052632
Site Preparation	8/18/2022	9/14/22	5	20	40	0.030075
Grading	9/15/2022	11/29/22	5	54	110	0.082707
Building Construction	11/30/2022	12/31/24	5	545	1110	0.834586
Paving	9/18/2024	12/31/24	5	75	75	
Architectural Coating	9/18/2024	12/31/2024	5	75	75	
				653	1330	

Notes:

Demolition assumed due to existing structures onsite.

Phase length adjusted from default to fit projected project schedule.

Cour Paving and AC assumed to overlap almost completely with BC phase.

Trips and VMT

Use CalEEMod Defaults

Offroad Equipment

Uses CalEEMod Defaults

North Ranch Residential Development Construction Assumptions

Dust from Material Movement

Uses CalEEMod Defaults

Soil assumed to be balanced onsite

Uses "Mitigated" fugitive dust results to account for VCAPCD Dust control requirements

Demolition

buildings from google earth

1	800	sq ft	
2	600	sq ft	
3	600	sq ft	
4	2581	sq ft	
	4581	sq ft	(conservatively rounded to 5,000 square feet).

Assumes that all existing paving is repurposed onsite.

Onroad Fugitive Dust

Uses CalEEMod Defaults

Architectural Coatings

Uses CalEEMod Defaults

North Ranch Residential Development Operational Emissions

Mobile Sources

Vehicle Trips: Uses CalEEMod Defaults
Consistent with KD Traffic Impact Analysis, 2021.

Vehicle Emissions: Uses CalEEMod Defaults

Vehicle Fleet Mix: Uses CalEEMod Defaults

Road Dust: Uses CalEEMod Defaults

Area Sources

Hearths: Uses CalEEMod Defaults

Consumer Products: Uses CalEEMod Defaults

Architectural Coating: Uses CalEEMod Defaults

Landscape Equipment: Uses CalEEMod Defaults

Energy Use

Uses CalEEMod Defaults

North Ranch Residential Development Operational Emissions

Water/Wastewater

Water: Uses CalEEMod Defaults

Wastewater: Revised in updated analysis to remove emissions from septic.

Septic	Aerobic	Lagoons
10.33	87.46	2.21
	0.98	
	10.1234	0.2066
	97.58	2.42

Solid Waste

Uses CalEEMod Defaults

Off-Road Equipment None Anticipated due to residential land use development.

Stationary Sources None Anticipated due to SFR residential land use development.

Vegetation Not enough vegetation removed or added to result in a quantifiable change.

Appendix B

Calculations

North Ranch Residential Development Air Quality Emissions - Unmitigated

Estimated Construction Air Pollutant Emissions

	Estimated Construction Emissions (Pounds per Day)		
	ROG	NOx	PM10
2022	13	124	6
2023	38	26	1
2024	38	25	1
Max Daily	38	124	6
<i>VCAPCD Threshold</i>	25	25	-
Threshold Exceeded?	Yes	Yes	No

Estimated Operational Air Pollutant Emissions

Estimated Operational Emissions (lbs/day)						
	ROG	NOx	CO	PM10	PM2.5	
Area	7	0	12	0	0	
Energy	0	1	0	0	0	
Mobile	4	4	36	8	2	
Total	11	5	48	8	2	
<i>VCAPCD</i>	25	25	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	
Threshold Exceeded?	No	No	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	

North Ranch Residential Development

Air Quality Emissions - Mitigated

Estimated Construction Air Pollutant Emissions

	Estimated Construction Emissions (Pounds per Day)		
	ROG	NOx	PM10
2022	3	12	14
2023	19	5	1
2024	19	5	1
Max Daily	19	12	14
<i>VCAPCD Threshold</i>	25	25	-
Threshold Exceeded?	No	No	No

North Ranch Residential Development

Unmitigated CalEEMod - Winter

Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
<u>D,SP,G,BC,P</u>	2022	13	124	104	0	13	6	19	6	5	12
<u>BC,P, AC</u>	2023	38	26	35	0	1	1	2	0	1	1
<u>BC,P, AC</u>	2024	38	25	35	0	1	1	2	0	1	1

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Demolition	2022	3	26	21	0	0	1	1	0	1	1
Site Preparation	2022	3	33	20	0	9	2	10	4	1	6
Grading	2022	4	39	30	0	4	2	6	2	2	3
Building Construction	2022	2	16	18	0	1	1	1	0	1	1
Building Construction	2023	2	15	18	0	1	1	1	0	1	1
Building Construction	2024	2	14	18	0	1	1	1	0	1	1
Paving	2024	1	10	15	0	0	0	1	0	0	0
Architectural Coating	2024	35	1	2	0	0	0	0	0	0	0

North Ranch Residential Development

Unmitigated CalEEMod - Winter

Construction - Detailed by Phase

Demolition onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						0.0627	0	0.0627	9.49E-03	0	9.49E-03
Off-Road		2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553
Total		2.6392	25.7194	20.5941	0.0388	0.0627	1.2427	1.3054	0.00949	1.1553	1.16479

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		2.33E-03	0.1062	0.0252	4.00E-04	0.0118	8.70E-04	0.0127	3.23E-03	8.30E-04	4.06E-03
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.05	0.0351	0.4084	1.04E-03	0.1232	7.10E-04	0.1239	0.0327	6.50E-04	0.0333
Total		5.23E-02	1.41E-01	4.34E-01	1.44E-03	1.35E-01	1.58E-03	1.37E-01	3.59E-02	1.48E-03	3.74E-02

Site Preparation onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						8.4034	0	8.4034	4.3188	0	4.3188
Off-Road		3.1701	33.0835	19.6978	0.038		1.6126	1.6126		1.4836	1.4836
Total		3.1701	33.0835	19.6978	0.038	8.4034	1.6126	10.016	4.3188	1.4836	5.8024

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.06	0.0421	0.4901	1.25E-03	0.1479	8.50E-04	0.1487	0.0392	7.80E-04	0.04
Total		6.00E-02	4.21E-02	4.90E-01	1.25E-03	1.48E-01	8.50E-04	1.49E-01	3.92E-02	7.80E-04	4.00E-02

North Ranch Residential Development

Unmitigated CalEEMod - Winter

Grading onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						3.9345	0	3.9345	1.562	0	1.562
Off-Road		3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041
Total		3.6248	38.8435	29.0415	0.0621	3.9345	1.6349	5.5694	1.562	1.5041	3.0661

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0667	0.0468	0.5446	1.39E-03	0.1643	9.40E-04	0.1652	0.0436	8.70E-04	0.0445
Total		6.67E-02	4.68E-02	5.45E-01	1.39E-03	1.64E-01	9.40E-04	1.65E-01	4.36E-02	8.70E-04	4.45E-02

Building Construction onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		1.7062	15.6156	16.3634	0.0269		0.809	0.809		0.7612	0.7612
Total		1.7062	15.6156	16.3634	0.0269	0	0.809	0.809	0	0.7612	0.7612

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0247	0.7495	0.2357	2.91E-03	0.1015	8.26E-03	0.1098	0.0292	7.90E-03	0.0371
Worker		0.1733	0.1217	1.4158	3.60E-03	0.4272	2.45E-03	0.4296	0.1133	2.26E-03	0.1156
Total		1.98E-01	8.71E-01	1.65E+00	6.51E-03	5.29E-01	1.07E-02	5.39E-01	1.43E-01	1.02E-02	1.53E-01

North Ranch Residential Development

Unmitigated CALCEMod - Winter

Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		1.5728	14.3849	16.244	0.0269		0.6997	0.6997		0.6584	0.6584
Total		1.5728	14.3849	16.244	0.0269	0	0.6997	0.6997	0	0.6584	0.6584

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0143	0.5934	0.2084	2.78E-03	0.1015	3.40E-03	0.1049	0.0292	3.25E-03	0.0325
Worker		0.1616	0.1083	1.3106	3.49E-03	0.4272	2.31E-03	0.4295	0.1133	2.13E-03	0.1154
Total		1.76E-01	7.02E-01	1.52E+00	6.27E-03	5.29E-01	5.71E-03	5.34E-01	1.43E-01	5.38E-03	1.48E-01

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		1.4716	13.4438	16.1668	0.027		0.6133	0.6133		0.5769	0.5769
Total		1.4716	13.4438	16.1668	0.027	0	0.6133	0.6133	0	0.5769	0.5769

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.014	0.5907	0.2073	2.74E-03	0.1015	3.41E-03	0.1049	0.0292	3.26E-03	0.0325
Worker		0.1512	0.0972	1.2242	3.38E-03	0.4272	2.22E-03	0.4294	0.1133	2.04E-03	0.1153
Total		1.65E-01	6.88E-01	1.43E+00	6.12E-03	5.29E-01	5.63E-03	5.34E-01	1.43E-01	5.30E-03	1.48E-01

North Ranch Residential Development

Unmitigated CalEEMod - Winter

Paving onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Off-Road		0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.431	0.431
Paving		0					0	0		0	0
Total		0.9882	9.5246	14.6258	0.0228	0	0.4685	0.4685	0	0.431	0.431

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0436	0.028	0.3531	9.80E-04	0.1232	6.40E-04	0.1239	0.0327	5.90E-04	0.0333
Total		4.36E-02	2.80E-02	3.53E-01	9.80E-04	1.23E-01	6.40E-04	1.24E-01	3.27E-02	5.90E-04	3.33E-02

Architectural Coating onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Architectural Coating		35.1407					0	0		0	0
Off-Road		0.1808	1.2188	1.8101	2.97E-03		0.0609	0.0609		0.0609	0.0609
Total		35.3215	1.2188	1.8101	0.00297	0	0.0609	0.0609	0	0.0609	0.0609

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0291	0.0187	0.2354	6.50E-04	0.0822	4.30E-04	0.0826	0.0218	3.90E-04	0.0222
Total		2.91E-02	1.87E-02	2.35E-01	6.50E-04	8.22E-02	4.30E-04	8.26E-02	2.18E-02	3.90E-04	2.22E-02

North Ranch Residential Development

Unmitigated CalEEMod - Winter

Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Area		6.6253	0.1367	11.8689	6.30E-04		0.0659	0.0659		0.0659	0.0659
Energy		0.1017	0.8689	0.3697	5.55E-03		0.0703	0.0703		0.0703	0.0703
Mobile		3.7374	4.3956	35.552	0.0695	8.0004	0.0558	8.0561	2.1327	0.052	2.1847
Total		10.4644	5.4012	47.7906	0.07568	8.0004	0.192	8.1923	2.1327	0.1882	2.3209

North Ranch Residential Development
Mitigated CalEEMod - Winter

Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
<u>D,SP,G,BC</u>	2022	3	12	116	0	13	0	14	6	0	7
<u>BC</u>	2023	19	5	39	0	1	0	1	0	0	0
<u>BC,P, AC</u>	2024	19	5	39	0	1	0	1	0	0	0

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Demolition	2022	1	2	24	0	0	0	0	0	0	0
Site Preparation	2022	1	2	21	0	9	0	9	4	0	4
Grading	2022	1	3	34	0	4	0	4	2	0	2
Building Construction	2022	1	4	19	0	1	0	1	0	0	0
Building Construction	2023	1	3	19	0	1	0	1	0	0	0
Building Construction	2024	1	3	19	0	1	0	1	0	0	0
Paving	2024	0	1	18	0	0	0	0	0	0	0
Architectural Coating	2024	18	0	2	0	0	0	0	0	0	0

North Ranch Residential Development

Mitigated CalEEMod - Winter

Construction - Detailed by Phase

Demolition onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						0.0627	0	0.0627	9.49E-03	0	9.49E-03
Off-Road		0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616
Total		0.4623	2.0032	23.2798	0.0388	0.0627	0.0616	0.1243	0.00949	0.0616	0.07109

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		2.33E-03	0.1062	0.0252	4.00E-04	0.0118	8.70E-04	0.0127	3.23E-03	8.30E-04	4.06E-03
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.05	0.0351	0.4084	1.04E-03	0.1232	7.10E-04	0.1239	0.0327	6.50E-04	0.0333
Total		5.23E-02	1.41E-01	4.34E-01	1.44E-03	1.35E-01	1.58E-03	1.37E-01	3.59E-02	1.48E-03	3.74E-02

Site Preparation onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						8.4034	0	8.4034	4.3188	0	4.3188
Off-Road		0.4656	2.0175	20.869	0.038		0.0621	0.0621		0.0621	0.0621
Total		0.4656	2.0175	20.869	0.038	8.4034	0.0621	8.4655	4.3188	0.0621	4.3809

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.06	0.0421	0.4901	1.25E-03	0.1479	8.50E-04	0.1487	0.0392	7.80E-04	0.04
Total		6.00E-02	4.21E-02	4.90E-01	1.25E-03	1.48E-01	8.50E-04	1.49E-01	3.92E-02	7.80E-04	4.00E-02

North Ranch Residential Development

Mitigated CalEEMod - Winter

Grading onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust						3.9345	0	3.9345	1.562	0	1.562
Off-Road		0.7616	3.3	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015
Total		0.7616	3.3	32.9991	0.0621	3.9345	0.1015	4.036	1.562	0.1015	1.6635

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0667	0.0468	0.5446	1.39E-03	0.1643	9.40E-04	0.1652	0.0436	8.70E-04	0.0445
Total		6.67E-02	4.68E-02	5.45E-01	1.39E-03	1.64E-01	9.40E-04	1.65E-01	4.36E-02	8.70E-04	4.45E-02

Building Construction onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust											
Off-Road		0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018
Total		0.5608	2.6936	17.6592	0.0269	0	0.1018	0.1018	0	0.1018	0.1018

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0247	0.7495	0.2357	2.91E-03	0.1015	8.26E-03	0.1098	0.0292	7.90E-03	0.0371
Worker		0.1733	0.1217	1.4158	3.60E-03	0.4272	2.45E-03	0.4296	0.1133	2.26E-03	0.1156
Total		1.98E-01	8.71E-01	1.65E+00	6.51E-03	5.29E-01	1.07E-02	5.39E-01	1.43E-01	1.02E-02	1.53E-01

North Ranch Residential Development

Mitigated CalEEMod - Winter

Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust											
Off-Road		0.5385	2.6513	17.6413	0.0269		0.093	0.093		0.093	0.093
Total		0.5385	2.6513	17.6413	0.0269	0	0.093	0.093	0	0.093	0.093

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0143	0.5934	0.2084	2.78E-03	0.1015	3.40E-03	0.1049	0.0292	3.25E-03	0.0325
Worker		0.1616	0.1083	1.3106	3.49E-03	0.4272	2.31E-03	0.4295	0.1133	2.13E-03	0.1154
Total		1.76E-01	7.02E-01	1.52E+00	6.27E-03	5.29E-01	5.71E-03	5.34E-01	1.43E-01	5.38E-03	1.48E-01

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust											
Off-Road		0.5199	2.6115	17.6271	0.027		0.0853	0.0853		0.0853	0.0853
Total		0.5199	2.6115	17.6271	0.027	0	0.0853	0.0853	0	0.0853	0.0853

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.014	0.5907	0.2073	2.74E-03	0.1015	3.41E-03	0.1049	0.0292	3.26E-03	0.0325
Worker		0.1512	0.0972	1.2242	3.38E-03	0.4272	2.22E-03	0.4294	0.1133	2.04E-03	0.1153
Total		1.65E-01	6.88E-01	1.43E+00	6.12E-03	5.29E-01	5.63E-03	5.34E-01	1.43E-01	5.30E-03	1.48E-01

North Ranch Residential Development

Mitigated CalEEMod - Winter

Paving onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Off-Road		0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374
Paving		0					0	0		0	0
Total		0.2805	1.2154	17.2957	0.0228	0	0.0374	0.0374	0	0.0374	0.0374

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0436	0.028	0.3531	9.80E-04	0.1232	6.40E-04	0.1239	0.0327	5.90E-04	0.0333
Total		4.36E-02	2.80E-02	3.53E-01	9.80E-04	1.23E-01	6.40E-04	1.24E-01	3.27E-02	5.90E-04	3.33E-02

Architectural Coating onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Architectural Coating		35.1407					0	0		0	0
Off-Road		0.0297	0.1288	1.8324	2.97E-03		3.96E-03	3.96E-03		3.96E-03	3.96E-03
Total		35.1704	0.1288	1.8324	0.00297	0	0.00396	0.00396	0	0.00396	0.00396

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0291	0.0187	0.2354	6.50E-04	0.0822	4.30E-04	0.0826	0.0218	3.90E-04	0.0222
Total		2.91E-02	1.87E-02	2.35E-01	6.50E-04	8.22E-02	4.30E-04	8.26E-02	2.18E-02	3.90E-04	2.22E-02

North Ranch Residential Development

Mitigated CalEEMod - Winter

Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Area		5.6937	0.1226	10.4445	5.20E-04		0.0575	0.0575		0.0575	0.0575
Energy		0.1017	0.8689	0.3697	5.55E-03		0.0703	0.0703		0.0703	0.0703
Mobile		3.7374	4.3956	35.552	0.0695	8.0004	0.0558	8.0561	2.1327	0.052	2.1847
Total		9.5328	5.3871	46.3662	0.07557	8.0004	0.1836	8.1839	2.1327	0.1798	2.3125

North Ranch Residential Development
Unitigated CalEEMod - Summer

Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
<u>D,SP,G,BC</u>	2022	13	124	104	0	13	6	19	6	5	12
<u>BC</u>	2023	38	26	35	0	1	1	2	0	1	1
<u>BC,P, AC</u>	2024	38	25	35	0	1	1	2	0	1	1

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Demolition	2022	3	26	21	0	0	1	1	0	1	1
Site Preparation	2022	3	33	20	0	9	2	10	4	1	6
Grading	2022	4	39	30	0	4	2	6	2	2	3
Building Construction	2022	2	16	18	0	1	1	1	0	1	1
Building Construction	2023	2	15	18	0	1	1	1	0	1	1
Building Construction	2024	2	14	18	0	1	1	1	0	1	1
Paving	2024	1	10	15	0	0	0	1	0	0	0
Architectural Coating	2024	35	1	2	0	0	0	0	0	0	0

North Ranch Residential Development

Unitigated CalEEMod - Summer

Construction - Detailed by Phase

Demolition

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						0.0627	0	0.0627	9.49E-03	0	9.49E-03
Off-Road		2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553
Total		2.6392	25.7194	20.5941	0.0388	0.0627	1.2427	1.3054	0.00949	1.1553	1.16479

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		2.40E-03	0.1021	0.0248	4.00E-04	0.0118	8.60E-04	0.0127	3.23E-03	8.30E-04	4.06E-03
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0464	0.03	0.417	1.09E-03	0.1232	7.10E-04	0.1239	0.0327	6.50E-04	0.0333
Total		4.88E-02	1.32E-01	4.42E-01	1.49E-03	1.35E-01	1.57E-03	1.37E-01	3.59E-02	1.48E-03	3.74E-02

Site Preparation

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						8.4034	0	8.4034	4.3188	0	4.3188
Off-Road		3.1701	33.0835	19.6978	0.038		1.6126	1.6126		1.4836	1.4836
Total		3.1701	33.0835	19.6978	0.038	8.4034	1.6126	10.016	4.3188	1.4836	5.8024

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0557	0.036	0.5004	1.30E-03	0.1479	8.50E-04	0.1487	0.0392	7.80E-04	0.04
Total		5.57E-02	3.60E-02	5.00E-01	1.30E-03	1.48E-01	8.50E-04	1.49E-01	3.92E-02	7.80E-04	4.00E-02

North Ranch Residential Development

Unitigated CalEEMod - Summer

Grading

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust						3.9345	0	3.9345	1.562	0	1.562
Off-Road		3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041
Total		3.6248	38.8435	29.0415	0.0621	3.9345	1.6349	5.5694	1.562	1.5041	3.0661

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0619	0.04	0.556	1.45E-03	0.1643	9.40E-04	0.1652	0.0436	8.70E-04	0.0445
Total		6.19E-02	4.00E-02	5.56E-01	1.45E-03	1.64E-01	9.40E-04	1.65E-01	4.36E-02	8.70E-04	4.45E-02

Building Construction

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust											
Off-Road		1.7062	15.6156	16.3634	0.0269		0.809	0.809		0.7612	0.7612
Total		1.7062	15.6156	16.3634	0.0269	0	0.809	0.809	0	0.7612	0.7612

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0251	0.7208	0.2279	2.91E-03	0.1015	8.22E-03	0.1097	0.0292	7.87E-03	0.0371
Worker		0.1608	0.1039	1.4456	3.77E-03	0.4272	2.45E-03	0.4296	0.1133	2.26E-03	0.1156
Total		1.86E-01	8.25E-01	1.67E+00	6.68E-03	5.29E-01	1.07E-02	5.39E-01	1.43E-01	1.01E-02	1.53E-01

North Ranch Residential Development

Unitigated CalEEMod - Summer

Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		1.5728	14.3849	16.244	0.0269		0.6997	0.6997		0.6584	0.6584
Total		1.5728	14.3849	16.244	0.0269	0	0.6997	0.6997	0	0.6584	0.6584

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0149	0.5683	0.2019	2.78E-03	0.1015	3.38E-03	0.1049	0.0292	3.23E-03	0.0324
Worker		0.1496	0.0925	1.3351	3.64E-03	0.4272	2.31E-03	0.4295	0.1133	2.13E-03	0.1154
Total		1.65E-01	6.61E-01	1.54E+00	6.42E-03	5.29E-01	5.69E-03	5.34E-01	1.43E-01	5.36E-03	1.48E-01

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		1.4716	13.4438	16.1668	0.027		0.6133	0.6133		0.5769	0.5769
Total		1.4716	13.4438	16.1668	0.027	0	0.6133	0.6133	0	0.5769	0.5769

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0145	0.5656	0.2009	2.73E-03	0.1015	3.39E-03	0.1049	0.0292	3.24E-03	0.0325
Worker		0.1398	0.083	1.2446	3.53E-03	0.4272	2.22E-03	0.4294	0.1133	2.04E-03	0.1153
Total		1.54E-01	6.49E-01	1.45E+00	6.26E-03	5.29E-01	5.61E-03	5.34E-01	1.43E-01	5.28E-03	1.48E-01

North Ranch Residential Development

Unitigated CalEEMod - Summer

Paving

onsite

2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Off-Road		0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.431	0.431
Paving		0					0	0		0	0
Total		0.9882	9.5246	14.6258	0.0228	0	0.4685	0.4685	0	0.431	0.431

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0403	0.0239	0.359	1.02E-03	0.1232	6.40E-04	0.1239	0.0327	5.90E-04	0.0333
Total		4.03E-02	2.39E-02	3.59E-01	1.02E-03	1.23E-01	6.40E-04	1.24E-01	3.27E-02	5.90E-04	3.33E-02

Architectural Coating

onsite

2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Architectural Coating		35.1407					0	0		0	0
Off-Road		0.1808	1.2188	1.8101	2.97E-03		0.0609	0.0609		0.0609	0.0609
Total		35.3215	1.2188	1.8101	0.00297	0	0.0609	0.0609	0	0.0609	0.0609

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0269	0.016	0.2394	6.80E-04	0.0822	4.30E-04	0.0826	0.0218	3.90E-04	0.0222
Total		2.69E-02	1.60E-02	2.39E-01	6.80E-04	8.22E-02	4.30E-04	8.26E-02	2.18E-02	3.90E-04	2.22E-02

North Ranch Residential Development

Unitigated CalEEMod - Summer

Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Area		6.6253	0.1367	11.8689	6.30E-04		0.0659	0.0659		0.0659	0.0659
Energy		0.1017	0.8689	0.3697	5.55E-03		0.0703	0.0703		0.0703	0.0703
Mobile		3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.052	2.1847
Total		10.5727	4.988	45.7558	0.07808	8.0004	0.1919	8.1923	2.1327	0.1882	2.3209

**North Ranch Residential Development
Mitigated CalEEMod - Summer**

Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
<u>D,SP,G,BC</u>	2022	3	12	116	0	13	0	14	6	0	7
<u>BC</u>	2023	19	5	39	0	1	0	1	0	0	0
<u>BC,P, AC</u>	2024	19	5	39	0	1	0	1	0	0	0

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Demolition	2022	1	2	24	0	0	0	0	0	0	0
Site Preparation	2022	1	2	21	0	9	0	9	4	0	4
Grading	2022	1	3	34	0	4	0	4	2	0	2
Building Construction	2022	1	4	19	0	1	0	1	0	0	0
Building Construction	2023	1	3	19	0	1	0	1	0	0	0
Building Construction	2024	1	3	19	0	1	0	1	0	0	0
Paving	2024	0	1	18	0	0	0	0	0	0	0
Architectural Coating	2024	18	0	2	0	0	0	0	0	0	0

North Ranch Residential Development

Mitigated CalEEMod - Summer

Construction - Detailed by Phase

Demolition onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust						0.0627	0	0.0627	9.49E-03	0	9.49E-03
Off-Road		0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616
Total		0.4623	2.0032	23.2798	0.0388	0.0627	0.0616	0.1243	0.00949	0.0616	0.07109

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		2.40E-03	0.1021	0.0248	4.00E-04	0.0118	8.60E-04	0.0127	3.23E-03	8.30E-04	4.06E-03
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0464	0.03	0.417	1.09E-03	0.1232	7.10E-04	0.1239	0.0327	6.50E-04	0.0333
Total		4.88E-02	1.32E-01	4.42E-01	1.49E-03	1.35E-01	1.57E-03	1.37E-01	3.59E-02	1.48E-03	3.74E-02

Site Preparation onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Fugitive Dust						8.4034	0	8.4034	4.3188	0	4.3188
Off-Road		0.4656	2.0175	20.869	0.038		0.0621	0.0621		0.0621	0.0621
Total		0.4656	2.0175	20.869	0.038	8.4034	0.0621	8.4655	4.3188	0.0621	4.3809

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0557	0.036	0.5004	1.30E-03	0.1479	8.50E-04	0.1487	0.0392	7.80E-04	0.04
Total		5.57E-02	3.60E-02	5.00E-01	1.30E-03	1.48E-01	8.50E-04	1.49E-01	3.92E-02	7.80E-04	4.00E-02

North Ranch Residential Development

Mitigated CalEEMod - Summer

Grading

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust						3.9345	0	3.9345	1.562	0	1.562
Off-Road		0.7616	3.3	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015
Total		0.7616	3.3	32.9991	0.0621	3.9345	0.1015	4.036	1.562	0.1015	1.6635

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0619	0.04	0.556	1.45E-03	0.1643	9.40E-04	0.1652	0.0436	8.70E-04	0.0445
Total		6.19E-02	4.00E-02	5.56E-01	1.45E-03	1.64E-01	9.40E-04	1.65E-01	4.36E-02	8.70E-04	4.45E-02

Building Construction

onsite

2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018
Total		0.5608	2.6936	17.6592	0.0269	0	0.1018	0.1018	0	0.1018	0.1018

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0251	0.7208	0.2279	2.91E-03	0.1015	8.22E-03	0.1097	0.0292	7.87E-03	0.0371
Worker		0.1608	0.1039	1.4456	3.77E-03	0.4272	2.45E-03	0.4296	0.1133	2.26E-03	0.1156
Total		1.86E-01	8.25E-01	1.67E+00	6.68E-03	5.29E-01	1.07E-02	5.39E-01	1.43E-01	1.01E-02	1.53E-01

North Ranch Residential Development

Mitigated CalEEMod - Summer

Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		0.5385	2.6513	17.6413	0.0269		0.093	0.093		0.093	0.093
Total		0.5385	2.6513	17.6413	0.0269	0	0.093	0.093	0	0.093	0.093

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0149	0.5683	0.2019	2.78E-03	0.1015	3.38E-03	0.1049	0.0292	3.23E-03	0.0324
Worker		0.1496	0.0925	1.3351	3.64E-03	0.4272	2.31E-03	0.4295	0.1133	2.13E-03	0.1154
Total		1.65E-01	6.61E-01	1.54E+00	6.42E-03	5.29E-01	5.69E-03	5.34E-01	1.43E-01	5.36E-03	1.48E-01

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Fugitive Dust											
Off-Road		0.5199	2.6115	17.6271	0.027		0.0853	0.0853		0.0853	0.0853
Total		0.5199	2.6115	17.6271	0.027	0	0.0853	0.0853	0	0.0853	0.0853

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day										
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0.0145	0.5656	0.2009	2.73E-03	0.1015	3.39E-03	0.1049	0.0292	3.24E-03	0.0325
Worker		0.1398	0.083	1.2446	3.53E-03	0.4272	2.22E-03	0.4294	0.1133	2.04E-03	0.1153
Total		1.54E-01	6.49E-01	1.45E+00	6.26E-03	5.29E-01	5.61E-03	5.34E-01	1.43E-01	5.28E-03	1.48E-01

North Ranch Residential Development

Mitigated CalEEMod - Summer

Paving

onsite

2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Off-Road		0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374
Paving		0					0	0		0	0
Total		0.2805	1.2154	17.2957	0.0228	0	0.0374	0.0374	0	0.0374	0.0374

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0403	0.0239	0.359	1.02E-03	0.1232	6.40E-04	0.1239	0.0327	5.90E-04	0.0333
Total		4.03E-02	2.39E-02	3.59E-01	1.02E-03	1.23E-01	6.40E-04	1.24E-01	3.27E-02	5.90E-04	3.33E-02

Architectural Coating

onsite

2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Architectural Coating		35.1407					0	0		0	0
Off-Road		0.0297	0.1288	1.8324	2.97E-03		3.96E-03	3.96E-03		3.96E-03	3.96E-03
Total		35.1704	0.1288	1.8324	0.00297	0	0.00396	0.00396	0	0.00396	0.00396

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0.0269	0.016	0.2394	6.80E-04	0.0822	4.30E-04	0.0826	0.0218	3.90E-04	0.0222
Total		2.69E-02	1.60E-02	2.39E-01	6.80E-04	8.22E-02	4.30E-04	8.26E-02	2.18E-02	3.90E-04	2.22E-02

North Ranch Residential Development

Mitigated CalEEMod - Summer

Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		lb/day									
Area		5.6937	0.1226	10.4445	5.20E-04		0.0575	0.0575		0.0575	0.0575
Energy		0.1017	0.8689	0.3697	5.55E-03		0.0703	0.0703		0.0703	0.0703
Mobile		3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.052	2.1847
Total		9.6411	4.9739	44.3314	0.07797	8.0004	0.1835	8.1839	2.1327	0.1798	2.3125

North Ranch Residential Development CO Hotspot Analysis

Project Traffic

[illegible]

Existing Plus Project

Intersection #	Intersection	% Daily	Total Daily
1	Gabbert Rd at Poindexter Ave	5.16%	4,950
2	Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	31.52%	30,230
3	Moorpark Ave at High St	14.72%	14,120
4	Moorpark Ave at Poindexter Ave/First St	15.27%	14,650
5	Moorpark Ave at Los Angeles Ave	32.83%	31,490
6	Gabbert Road at North Hills Pkwy	0.50%	480
			95,920

Existing Plus Project

[illegible]

Cumulative No Project

[illegible]

Cumulative With Project

[illegible]

**North Ranch Residential Development
Unmitigated GHG Emissions**

Construction Emissions

Emission Source	Annual Emissions (MT CO₂e)
2022	282
2023	383
2024	476
Total	1,140
Amortized Emissions	
30 years	38

Operational Emissions

Emission Source	Annual Emissions (MT CO₂e)	% Emissions
Area	2	0.10%
Energy	385	21.75%
Mobile	1,210	68.26%
Waste	96	5.41%
Water	41	2.33%
Total	1,734	
Amortized Construction	38	2.14%
Total Operational Emissions	1,772	
Threshold	3,000	
Exceed Threshold?	No	

North Ranch Residential Development Mitigated GHG Emissions

Construction Emissions

Emission Source	Annual Emissions (MT CO ₂ e)
2022	282
2023	383
2024	488
Total	1,152
Amortized Emissions	
30 years	38

Operational Emissions

Emission Source	Annual Emissions (MT CO ₂ e)
Area	2
Energy	385
Mobile	1,210
Waste	96
Water	41
Total	1,734
Amortized Construction	38
Total Operational Emissions	1,772
Threshold	3,000
Exceed Threshold?	No

North Ranch Residential Development **Unmitigated CalEEMod - Annual**

Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day										tons/year					
<u>D,SP,G,BC</u>	2022	0	2	2	0	0	0	1	0	0	0	0	279	279	0	0	282
<u>BC</u>	2023	0	2	2	0	0	0	0	0	0	0	0	379	379	0	0	383
<u>BC,P, AC</u>	2024	2	2	3	0	0	0	0	0	0	0	0	471	471	0	0	476

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day										tons/year					
Demolition	2022	0	0	0	0	0	0	0	0	0	0	0	60	60	0	0	61
Site Preparation	2022	0	0	0	0	0	0	0	0	0	0	0	35	35	0	0	35
Grading	2022	0	1	1	0	0	0	0	0	0	0	0	151	151	0	0	152
Building Construction	2022	0	0	0	0	0	0	0	0	0	0	0	34	34	0	0	34
Building Construction	2023	0	2	2	0	0	0	0	0	0	0	0	379	379	0	0	383
Building Construction	2024	0	2	2	0	0	0	0	0	0	0	0	381	381	0	0	385
Paving	2024	0	0	1	0	0	0	0	0	0	0	0	79	79	0	0	79
Architectural Coating	2024	1	0	0	0	0	0	0	0	0	0	0	12	12	0	0	12

North Ranch Residential Development

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Construction - Detailed by Phase

Demolition onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust						2.49E-03	0	2.49E-03	3.80E-04	0	3.80E-04	0	0	0	0	0	0
Off-Road		0.0449	0.4372	0.3501	6.60E-04		0.0211	0.0211		0.0196	0.0196	0	57.7834	57.7834	0.0162	0	58.1892
Total		0.0449	0.4372	0.3501	0.00066	0.00249	0.0211	0.02359	0.00038	0.0196	0.01998	0	57.7834	57.7834	0.0162	0	58.1892

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		4.00E-05	1.81E-03	4.20E-04	1.00E-05	2.00E-04	1.00E-05	2.10E-04	5.00E-05	1.00E-05	7.00E-05	0	0.6848	0.6848	4.00E-05	1.10E-04	0.7184
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		7.80E-04	5.70E-04	6.86E-03	2.00E-05	2.06E-03	1.00E-05	2.07E-03	5.50E-04	1.00E-05	5.60E-04	0	1.6418	1.6418	6.00E-05	5.00E-05	1.6583
Total		8.20E-04	2.38E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33	2.33	0.00	0.00	2.38

Site Preparation onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust						0.1966	0	0.1966	0.101	0	0.101	0	0	0	0	0	0
Off-Road		0.0317	0.3308	0.197	3.80E-04		0.0161	0.0161		0.0148	0.0148	0	33.4394	33.4394	0.0108	0	33.7098
Total		0.0317	0.3308	0.197	0.00038	0.1966	0.0161	0.2127	0.101	0.0148	0.1158	0	33.4394	33.4394	0.0108	0	33.7098

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		5.50E-04	4.10E-04	4.84E-03	1.00E-05	1.45E-03	1.00E-05	1.46E-03	3.90E-04	1.00E-05	3.90E-04	0	1.159	1.159	4.00E-05	4.00E-05	1.1706
Total		5.50E-04	4.10E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	1.16	0.00	0.00	1.17

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Grading onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/year										tons/year					
Fugitive Dust						0.2485	0	0.2485	0.0987	0	0.0987	0	0	0	0	0	0
Off-Road		0.0979	1.0488	0.7841	1.68E-03		0.0441	0.0441		0.0406	0.0406	0	147.2434	147.2434	0.0476	0	148.434
Total		0.0979	1.0488	0.7841	0.00168	0.2485	0.0441	0.2926	0.0987	0.0406	0.1393	0	147.2434	147.2434	0.0476	0	148.434

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/year										tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.66E-03	1.22E-03	0.0145	4.00E-05	4.35E-03	3.00E-05	4.38E-03	1.16E-03	2.00E-05	1.18E-03	0	3.4768	3.4768	1.20E-04	1.10E-04	3.5118
Total		1.66E-03	1.22E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48	3.48	0.00	0.00	3.51

Building Construction onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/year										tons/year					
Fugitive Dust																	
Off-Road		0.0196	0.1796	0.1882	3.10E-04		9.30E-03	9.30E-03		8.75E-03	8.75E-03	0	26.6484	26.6484	6.38E-03	0	26.808
Total		0.0196	0.1796	0.1882	0.00031	0	0.0093	0.0093	0	0.00875	0.00875	0	26.6484	26.6484	0.00638	0	26.808

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/year										tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		2.90E-04	8.61E-03	2.66E-03	3.00E-05	1.15E-03	9.00E-05	1.24E-03	3.30E-04	9.00E-05	4.20E-04	0	3.2835	3.2835	1.30E-04	4.90E-04	3.4335
Worker		1.84E-03	1.35E-03	0.0161	4.00E-05	4.82E-03	3.00E-05	4.85E-03	1.28E-03	3.00E-05	1.31E-03	0	3.8503	3.8503	1.30E-04	1.20E-04	3.889
Total		2.13E-03	9.96E-03	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.13	7.13	0.00	0.00	7.32

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Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust																	
Off-Road		0.2045	1.87	2.1117	3.50E-03		0.091	0.091		0.0856	0.0856	0	301.3462	301.3462	0.0717	0	303.1383
Total		0.2045	1.87	2.1117	0.0035	0	0.091	0.091	0	0.0856	0.0856	0	301.3462	301.3462	0.0717	0	303.1383

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		1.90E-03	0.0768	0.0266	3.60E-04	0.013	4.40E-04	0.0134	3.75E-03	4.20E-04	4.17E-03	0	35.5705	35.5705	1.46E-03	5.33E-03	37.194
Worker		0.0193	0.0136	0.1682	4.60E-04	0.0545	3.00E-04	0.0548	0.0145	2.80E-04	0.0148	0	42.3875	42.3875	1.36E-03	1.24E-03	42.7923
Total		2.12E-02	9.04E-02	0.19	0.00	0.07	0.00	0.07	0.02	0.00	0.02	0.00	77.96	77.96	0.00	0.01	79.99

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust																	
Off-Road		0.1928	1.7611	2.1179	3.53E-03		0.0803	0.0803		0.0756	0.0756	0	303.7223	303.7223	0.0718	0	305.5179
Total		0.1928	1.7611	2.1179	0.00353	0	0.0803	0.0803	0	0.0756	0.0756	0	303.7223	303.7223	0.0718	0	305.5179

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		1.86E-03	0.077	0.0267	3.60E-04	0.0131	4.40E-04	0.0135	3.78E-03	4.30E-04	4.20E-03	0	35.3035	35.3035	1.51E-03	5.28E-03	36.9159
Worker		0.0182	0.0123	0.1582	4.50E-04	0.0549	2.90E-04	0.0552	0.0146	2.70E-04	0.0149	0	41.733	41.733	1.25E-03	1.17E-03	42.1127
Total		2.01E-02	8.93E-02	0.18	0.00	0.07	0.00	0.07	0.02	0.00	0.02	0.00	77.04	77.04	0.00	0.01	79.03

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Paving onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Off-Road		0.0371	0.3572	0.5485	8.60E-04		0.0176	0.0176		0.0162	0.0162	0	75.0995	75.0995	0.0243	0	75.7067
Paving		0					0	0		0	0	0	0	0	0	0	0
Total		0.0371	0.3572	0.5485	0.00086	0	0.0176	0.0176	0	0.0162	0.0162	0	75.0995	75.0995	0.0243	0	75.7067

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.50E-03	1.01E-03	0.0131	4.00E-05	4.54E-03	2.00E-05	4.56E-03	1.20E-03	2.00E-05	1.23E-03	0	3.4461	3.4461	1.00E-04	1.00E-04	3.4775
Total		1.50E-03	1.01E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.48

Architectural Coating onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Architectural Coating		1.3178					0	0		0	0	0	0	0	0	0	0
Off-Road		6.78E-03	0.0457	0.0679	1.10E-04		2.28E-03	2.28E-03		2.28E-03	2.28E-03	0	9.5747	9.5747	5.40E-04	0	9.5882
Total		1.32458	0.0457	0.0679	0.00011	0	0.00228	0.00228	0	0.00228	0.00228	0	9.5747	9.5747	0.00054	0	9.5882

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.00E-03	6.70E-04	8.71E-03	2.00E-05	3.02E-03	2.00E-05	3.04E-03	8.00E-04	1.00E-05	8.20E-04	0	2.2974	2.2974	7.00E-05	6.00E-05	2.3183
Total		1.00E-03	6.70E-04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	2.30	0.00	0.00	2.32

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Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category												MT/yr					
lb/day																	
Area		1.1762	0.0123	1.0682	6.00E-05		5.93E-03	5.93E-03		5.93E-03	5.93E-03	0	1.7466	1.7466	1.67E-03	0	1.7884
Energy		0.0186	0.1586	0.0675	1.01E-03		0.0128	0.0128		0.0128	0.0128	0	383.2961	383.2961	0.0204	5.41E-03	385.4174
Mobile		0.6673	0.7786	6.1807	0.0126	1.4166	0.01	1.4266	0.3782	9.37E-03	0.3876	0	1,191.04	1,191.04	0.0806	0.0558	1,209.68
Waste							0	0		0	0	38.7002	0	38.7002	2.2871	0	95.8782
Water							0	0		0	0	3.3194	33.3196	36.639	0.0968	7.56E-03	41.3104
Total		1.8621	0.9495	7.3164	0.01367	1.4166	0.02873	1.44533	0.3782	0.0281	0.40633	42.0196	1609.4001	1651.4197	2.48657	0.06877	1734.0745

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Construction

Summary by Year

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category												tons/year					
<u>D,SP,G,BC</u>	2022	0	0	2	0	0	0	0	0	0	0	0	279	279	0	0	282
<u>BC</u>	2023	0	0	2	0	0	0	0	0	0	0	0	379	379	0	0	383
<u>BC,P, AC</u>	2024	1	0	3	0	0	0	0	0	0	0	0	471	471	0	0	476

Summary by Phase

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category												tons/year					
Demolition	2022	0	0	0	0	0	0	0	0	0	0	0	60	60	0	0	61
Site Preparation	2022	0	0	0	0	0	0	0	0	0	0	0	35	35	0	0	35
Grading	2022	0	0	1	0	0	0	0	0	0	0	0	151	151	0	0	152
Building Construction	2022	0	0	0	0	0	0	0	0	0	0	0	34	34	0	0	34
Building Construction	2023	0	0	2	0	0	0	0	0	0	0	0	379	379	0	0	383
Building Construction	2024	0	0	2	0	0	0	0	0	0	0	0	381	381	0	0	385
Paving	2024	0	0	1	0	0	0	0	0	0	0	0	79	79	0	0	79
Architectural Coating	2024	1	0	0	0	0	0	0	0	0	0	0	12	12	0	0	12

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Construction - Detailed by Phase

Demolition onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust						1.07E-03	0	1.07E-03	1.60E-04	0	1.60E-04	0	0	0	0	0	0
Off-Road		7.86E-03	0.0341	0.3958	6.60E-04		1.05E-03	1.05E-03		1.05E-03	1.05E-03	0	57.7833	57.7833	0.0162	0	58.1891
Total		0.00786	0.0341	0.3958	0.00066	0.00107	0.00105	0.00212	0.00016	0.00105	0.00121	0	57.7833	57.7833	0.0162	0	58.1891

offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		4.00E-05	1.81E-03	4.20E-04	1.00E-05	2.00E-04	1.00E-05	2.10E-04	5.00E-05	1.00E-05	7.00E-05	0	0.6848	0.6848	4.00E-05	1.10E-04	0.7184
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		7.80E-04	5.70E-04	6.86E-03	2.00E-05	2.06E-03	1.00E-05	2.07E-03	5.50E-04	1.00E-05	5.60E-04	0	1.6418	1.6418	6.00E-05	5.00E-05	1.6583
Total		8.20E-04	2.38E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33	2.33	0.00	0.00	2.38

Site Preparation onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust						0.084	0	0.084	0.0432	0	0.0432	0	0	0	0	0	0
Off-Road		4.66E-03	0.0202	0.2087	3.80E-04		6.20E-04	6.20E-04		6.20E-04	6.20E-04	0	33.4394	33.4394	0.0108	0	33.7097
Total		0.00466	0.0202	0.2087	0.00038	0.084	0.00062	0.08462	0.0432	0.00062	0.04382	0	33.4394	33.4394	0.0108	0	33.7097

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		5.50E-04	4.10E-04	4.84E-03	1.00E-05	1.45E-03	1.00E-05	1.46E-03	3.90E-04	1.00E-05	3.90E-04	0	1.159	1.159	4.00E-05	4.00E-05	1.1706
Total		5.50E-04	4.10E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	1.16	0.00	0.00	1.17

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Grading onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust						0.1062	0	0.1062	0.0422	0	0.0422	0	0	0	0	0	0
Off-Road		0.0206	0.0891	0.891	1.68E-03		2.74E-03	2.74E-03		2.74E-03	2.74E-03	0	147.2432	147.2432	0.0476	0	148.4338
Total		0.0206	0.0891	0.891	0.00168	0.1062	0.00274	0.10894	0.0422	0.00274	0.04494	0	147.2432	147.2432	0.0476	0	148.4338

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.66E-03	1.22E-03	0.0145	4.00E-05	4.35E-03	3.00E-05	4.38E-03	1.16E-03	2.00E-05	1.18E-03	0	3.4768	3.4768	1.20E-04	1.10E-04	3.5118
Total		1.66E-03	1.22E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48	3.48	0.00	0.00	3.51

Building Construction onsite 2022

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust																	
Off-Road		6.45E-03	0.031	0.2031	3.10E-04		1.17E-03	1.17E-03		1.17E-03	1.17E-03	0	26.6484	26.6484	6.38E-03	0	26.808
Total		0.00645	0.031	0.2031	0.00031	0	0.00117	0.00117	0	0.00117	0.00117	0	26.6484	26.6484	0.00638	0	26.808

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		2.90E-04	8.61E-03	2.66E-03	3.00E-05	1.15E-03	9.00E-05	1.24E-03	3.30E-04	9.00E-05	4.20E-04	0	3.2835	3.2835	1.30E-04	4.90E-04	3.4335
Worker		1.84E-03	1.35E-03	0.0161	4.00E-05	4.82E-03	3.00E-05	4.85E-03	1.28E-03	3.00E-05	1.31E-03	0	3.8503	3.8503	1.30E-04	1.20E-04	3.889
Total		2.13E-03	9.96E-03	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.13	7.13	0.00	0.00	7.32

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Building Construction onsite 2023

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust																	
Off-Road		0.07	0.3447	2.2934	3.50E-03		0.0121	0.0121		0.0121	0.0121	0	301.3458	301.3458	0.0717	0	303.138
Total		0.07	0.3447	2.2934	0.0035	0	0.0121	0.0121	0	0.0121	0.0121	0	301.3458	301.3458	0.0717	0	303.138

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		1.90E-03	0.0768	0.0266	3.60E-04	0.013	4.40E-04	0.0134	3.75E-03	4.20E-04	4.17E-03	0	35.5705	35.5705	1.46E-03	5.33E-03	37.194
Worker		0.0193	0.0136	0.1682	4.60E-04	0.0545	3.00E-04	0.0548	0.0145	2.80E-04	0.0148	0	42.3875	42.3875	1.36E-03	1.24E-03	42.7923
Total		2.12E-02	9.04E-02	0.19	0.00	0.07	0.00	0.07	0.02	0.00	0.02	0.00	77.96	77.96	0.00	0.01	79.99

Building Construction onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Fugitive Dust																	
Off-Road		0.0681	0.3421	2.3092	3.53E-03		0.0112	0.0112		0.0112	0.0112	0	303.722	303.722	0.0718	0	305.5175
Total		0.0681	0.3421	2.3092	0.00353	0	0.0112	0.0112	0	0.0112	0.0112	0	303.722	303.722	0.0718	0	305.5175

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		1.86E-03	0.077	0.0267	3.60E-04	0.0131	4.40E-04	0.0135	3.78E-03	4.30E-04	4.20E-03	0	35.3035	35.3035	1.51E-03	5.28E-03	36.9159
Worker		0.0182	0.0123	0.1582	4.50E-04	0.0549	2.90E-04	0.0552	0.0146	2.70E-04	0.0149	0	41.733	41.733	1.25E-03	1.17E-03	42.1127
Total		2.01E-02	8.93E-02	0.18	0.00	0.07	0.00	0.07	0.02	0.00	0.02	0.00	77.04	77.04	0.00	0.01	79.03

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Paving onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Off-Road		0.0105	0.0456	0.6486	8.60E-04		1.40E-03	1.40E-03		1.40E-03	1.40E-03	0	75.0994	75.0994	0.0243	0	75.7066
Paving		0					0	0		0	0	0	0	0	0	0	0
Total		0.0105	0.0456	0.6486	0.00086	0	0.0014	0.0014	0	0.0014	0.0014	0	75.0994	75.0994	0.0243	0	75.7066

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.50E-03	1.01E-03	0.0131	4.00E-05	4.54E-03	2.00E-05	4.56E-03	1.20E-03	2.00E-05	1.23E-03	0	3.4461	3.4461	1.00E-04	1.00E-04	3.4775
Total		1.50E-03	1.01E-03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.48

Architectural Coating onsite 2024

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Architectural Coating		1.3178					0	0		0	0	0	0	0	0	0	0
Off-Road		1.11E-03	4.83E-03	0.0687	1.10E-04		1.50E-04	1.50E-04		1.50E-04	1.50E-04	0	9.5747	9.5747	5.40E-04	0	9.5882
Total		1.31891	0.00483	0.0687	0.00011	0	0.00015	0.00015	0	0.00015	0.00015	0	9.5747	9.5747	0.00054	0	9.5882

Offsite

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category tons/year												tons/year					
Hauling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker		1.00E-03	6.70E-04	8.71E-03	2.00E-05	3.02E-03	2.00E-05	3.04E-03	8.00E-04	1.00E-05	8.20E-04	0	2.2974	2.2974	7.00E-05	6.00E-05	2.3183
Total		1.00E-03	6.70E-04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	2.30	0.00	0.00	2.32

**North Ranch Residential Development
Mitigated CalEEMod - Annual**

Operational Emissions

2025

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day										tons/year					
Area		1.0139	0.011	0.94	5.00E-05		5.17E-03	5.17E-03		5.17E-03	5.17E-03	0	1.4844	1.4844	1.27E-03	0	1.5162
Energy		0.0186	0.1586	0.0675	1.01E-03		0.0128	0.0128		0.0128	0.0128	0	383.2961	383.2961	0.0204	5.41E-03	385.4174
Mobile		0.6673	0.7786	6.1807	0.0126	1.4166	0.01	1.4266	0.3782	9.37E-03	0.3876	0	1,191.04	1,191.04	0.0806	0.0558	1,209.68
Waste							0	0		0	0	38.7002	0	38.7002	2.2871	0	95.8782
Water							0	0		0	0	3.3194	33.3196	36.639	0.0968	7.56E-03	41.3104
Total		1.6998	0.9482	7.1882	0.01366	1.4166	0.02797	1.44457	0.3782	0.02734	0.40557	42.0196	1609.1379	1651.1575	2.48617	0.06877	1733.8023

North Ranch Residential Development

[Traffic Census Program | Caltrans](#)

DISTRICT	ROUTE	RTE_SFX	COUNTY	PM_PFX	PM	PM_SFX	DESCRIPTION	BACK_PEAK_HOUR	BACK_PEAK_MADT	BACK_AADT	AHEAD_PEAK_HOUR	AHEAD_PEAK_MADT	AHEAD_AADT
07	023	VEN	R	11.432			MOORPARK, JCT. RTE. 118	4400	57000	49500	1850	24300	21000
07	023	VEN	T	12.260			MOORPARK, JCT. RTE. 118	1850	24300	21000			
07	023	VEN	R	12.900			MOORPARK, JCT. RTE. 118				690	9000	7800
07	118	VEN		14.686			GRIMES CANYON ROAD	1450	20200	16200	1550	20900	16800
07	118	VEN	R	17.494			MOORPARK, W JCT. RTE. 23	2200	30000	24100	2850	39000	31500
07	118	VEN	R	17.905			MOORPARK, EAST JCT. RTE. 23	2850	39000	31500	6200	85000	68000

Appendix C

CalEEMod Output

North Ranch - Construction and Operations - Ventura County, Winter

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

North Ranch - Construction and Operations

Ventura County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	144.00	Dwelling Unit	51.50	259,200.00	465

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Water And Wastewater - See Assumptions

Construction Off-road Equipment Mitigation - See Assumptions

Area Mitigation - See Assumptions

Vehicle Trips - See Assumptions

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	75	10

North Ranch - Construction and Operations - Ventura County, Winter

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	1,110.00	545.00
tblConstructionPhase	NumDays	70.00	34.00

North Ranch - Construction and Operations - Ventura County, Winter

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

tblConstructionPhase	NumDays	110.00	54.00
tblConstructionPhase	NumDays	40.00	20.00
tblConstructionPhase	PhaseEndDate	3/2/2028	12/31/2024
tblConstructionPhase	PhaseEndDate	8/5/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	10/6/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	5/4/2023	11/29/2022
tblConstructionPhase	PhaseEndDate	11/18/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	12/1/2022	9/14/2022
tblConstructionPhase	PhaseStartDate	11/19/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	5/5/2023	11/30/2022
tblConstructionPhase	PhaseStartDate	12/2/2022	9/15/2022
tblConstructionPhase	PhaseStartDate	8/6/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	10/7/2022	8/18/2022
tblLandUse	LotAcreage	46.75	51.50
tblLandUse	Population	441.00	465.00
tblVehicleTrips	SU_TR	8.55	9.44
tblWater	AerobicPercent	87.46	97.58
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.42
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

North Ranch - Construction and Operations - Ventura County, 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					
2022	3.6915	38.8903	29.5861	0.0635	19.8049	1.6358	21.4183	10.1417	1.5050	11.6260	0.0000	6,152.352 7	6,152.352 7	1.9493	0.0589	6,202.423 3
2023	1.7487	15.0865	17.7630	0.0332	0.5287	0.7055	1.2341	0.1425	0.6638	0.8063	0.0000	3,213.953 0	3,213.953 0	0.6321	0.0560	3,246.453 8
2024	38.0191	24.9217	34.6227	0.0605	0.7341	1.1494	1.8835	0.1970	1.0751	1.2721	0.0000	5,858.344 2	5,858.344 2	1.3629	0.0595	5,910.139 0
Maximum	38.0191	38.8903	34.6227	0.0635	19.8049	1.6358	21.4183	10.1417	1.5050	11.6260	0.0000	6,152.352 7	6,152.352 7	1.9493	0.0595	6,202.423 3

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					
2022	0.8282	3.5648	33.5437	0.0635	8.5512	0.1125	8.6142	4.3580	0.1119	4.4209	0.0000	6,152.352 7	6,152.352 7	1.9493	0.0589	6,202.423 3
2023	0.7144	3.3529	19.1603	0.0332	0.5287	0.0987	0.6274	0.1425	0.0984	0.2409	0.0000	3,213.953 0	3,213.953 0	0.6321	0.0560	3,246.453 8
2024	36.2087	4.6902	38.7752	0.0605	0.7341	0.1334	0.8674	0.1970	0.1330	0.3300	0.0000	5,858.344 2	5,858.344 2	1.3629	0.0595	5,910.139 0
Maximum	36.2087	4.6902	38.7752	0.0635	8.5512	0.1334	8.6142	4.3580	0.1330	4.4209	0.0000	6,152.352 7	6,152.352 7	1.9493	0.0595	6,202.423 3

North Ranch - Construction and Operations - Ventura County, 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	13.13	85.29	-11.60	0.00	53.42	90.13	58.80	55.18	89.42	63.58	0.00	0.00	0.00	0.00	0.00	0.00

North Ranch - Construction and Operations - Ventura County, 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	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037
Energy	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Mobile	3.7374	4.3956	35.5520	0.0695	8.0004	0.0558	8.0561	2.1327	0.0520	2.1847		7,249.5787	7,249.5787	0.5089	0.3471	7,365.7403
Total	10.4643	5.4012	47.7907	0.0757	8.0004	0.1919	8.1923	2.1327	0.1881	2.3208	0.0000	8,380.1647	8,380.1647	0.5506	0.3675	8,503.4299

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703
Energy	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Mobile	3.7374	4.3956	35.5520	0.0695	8.0004	0.0558	8.0561	2.1327	0.0520	2.1847		7,249.5787	7,249.5787	0.5089	0.3471	7,365.7403
Total	9.5328	5.3871	46.3663	0.0756	8.0004	0.1835	8.1839	2.1327	0.1798	2.3124	0.0000	8,376.9533	8,376.9533	0.5457	0.3675	8,500.0965

North Ranch - Construction and Operations - Ventura County, 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	8.90	0.26	2.98	0.15	0.00	4.37	0.10	0.00	4.45	0.36	0.00	0.04	0.04	0.88	0.00	0.04

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2022	8/17/2022	5	34	
2	Site Preparation	Site Preparation	8/18/2022	9/14/2022	5	20	
3	Grading	Grading	9/15/2022	11/29/2022	5	54	
4	Building Construction	Building Construction	11/30/2022	12/31/2024	5	545	
5	Paving	Paving	9/18/2024	12/31/2024	5	75	
6	Architectural Coating	Architectural Coating	9/18/2024	12/31/2024	5	75	

Acres of Grading (Site Preparation Phase): 30**Acres of Grading (Grading Phase): 162****Acres of Paving: 0****Residential Indoor: 524,880; Residential Outdoor: 174,960; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38

North Ranch - Construction and Operations - Ventura County, Winter

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

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

North Ranch - Construction and Operations - Ventura County, 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 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1466	0.0000	0.1466	0.0222	0.0000	0.0222			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.781 2	3,746.781 2	1.0524		3,773.092 0
Total	2.6392	25.7194	20.5941	0.0388	0.1466	1.2427	1.3892	0.0222	1.1553	1.1775		3,746.781 2	3,746.781 2	1.0524		3,773.092 0

North Ranch - Construction and Operations - Ventura County, Winter

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

3.2 Demolition - 2022

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	2.3300e-003	0.1062	0.0252	4.0000e-004	0.0118	8.7000e-004	0.0127	3.2300e-003	8.3000e-004	4.0600e-003		44.4123	44.4123	2.8300e-003	7.0700e-003	46.5888
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	0.0500	0.0351	0.4084	1.0400e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		105.7066	105.7066	3.7900e-003	3.3700e-003	106.8056
Total	0.0523	0.1413	0.4336	1.4400e-003	0.1350	1.5800e-003	0.1366	0.0359	1.4800e-003	0.0374		150.1190	150.1190	6.6200e-003	0.0104	153.3944

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					0.0627	0.0000	0.0627	9.4900e-003	0.0000	9.4900e-003			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	0.4623	2.0032	23.2798	0.0388	0.0627	0.0616	0.1243	9.4900e-003	0.0616	0.0711	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920

North Ranch - Construction and Operations - Ventura County, Winter

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

3.2 Demolition - 2022

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	2.3300e-003	0.1062	0.0252	4.0000e-004	0.0118	8.7000e-004	0.0127	3.2300e-003	8.3000e-004	4.0600e-003		44.4123	44.4123	2.8300e-003	7.0700e-003	46.5888
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	0.0500	0.0351	0.4084	1.0400e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		105.7066	105.7066	3.7900e-003	3.3700e-003	106.8056
Total	0.0523	0.1413	0.4336	1.4400e-003	0.1350	1.5800e-003	0.1366	0.0359	1.4800e-003	0.0374		150.1190	150.1190	6.6200e-003	0.0104	153.3944

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****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	0.0600	0.0421	0.4901	1.2500e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		126.8480	126.8480	4.5500e-003	4.0400e-003	128.1667
Total	0.0600	0.0421	0.4901	1.2500e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		126.8480	126.8480	4.5500e-003	4.0400e-003	128.1667

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					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	0.4656	2.0175	20.8690	0.0380	8.4034	0.0621	8.4655	4.3188	0.0621	4.3809	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

North Ranch - Construction and Operations - Ventura County, Winter

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

3.3 Site Preparation - 2022

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	0.0600	0.0421	0.4901	1.2500e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		126.8480	126.8480	4.5500e-003	4.0400e-003	128.1667
Total	0.0600	0.0421	0.4901	1.2500e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		126.8480	126.8480	4.5500e-003	4.0400e-003	128.1667

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****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	0.0667	0.0468	0.5446	1.3900e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		140.9422	140.9422	5.0500e-003	4.4900e-003	142.4075
Total	0.0667	0.0468	0.5446	1.3900e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		140.9422	140.9422	5.0500e-003	4.4900e-003	142.4075

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					3.9345	0.0000	3.9345	1.5620	0.0000	1.5620			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	0.7616	3.3000	32.9991	0.0621	3.9345	0.1015	4.0361	1.5620	0.1015	1.6635	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****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	0.0667	0.0468	0.5446	1.3900e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		140.9422	140.9422	5.0500e-003	4.4900e-003	142.4075
Total	0.0667	0.0468	0.5446	1.3900e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		140.9422	140.9422	5.0500e-003	4.4900e-003	142.4075

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

North Ranch - Construction and Operations - Ventura County, Winter

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

3.5 Building Construction - 2022

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	0.0247	0.7495	0.2357	2.9100e-003	0.1015	8.2600e-003	0.1098	0.0292	7.9000e-003	0.0371		314.8148	314.8148	0.0125	0.0472	329.2011
Worker	0.1733	0.1217	1.4158	3.6000e-003	0.4272	2.4500e-003	0.4296	0.1133	2.2600e-003	0.1156		366.4496	366.4496	0.0131	0.0117	370.2595
Total	0.1980	0.8712	1.6515	6.5100e-003	0.5287	0.0107	0.5394	0.1425	0.0102	0.1527		681.2645	681.2645	0.0256	0.0589	699.4606

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

North Ranch - Construction and Operations - Ventura County, Winter

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

3.5 Building Construction - 2022

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	0.0247	0.7495	0.2357	2.9100e-003	0.1015	8.2600e-003	0.1098	0.0292	7.9000e-003	0.0371		314.8148	314.8148	0.0125	0.0472	329.2011
Worker	0.1733	0.1217	1.4158	3.6000e-003	0.4272	2.4500e-003	0.4296	0.1133	2.2600e-003	0.1156		366.4496	366.4496	0.0131	0.0117	370.2595
Total	0.1980	0.8712	1.6515	6.5100e-003	0.5287	0.0107	0.5394	0.1425	0.0102	0.1527		681.2645	681.2645	0.0256	0.0589	699.4606

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

North Ranch - Construction and Operations - Ventura County, Winter

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0143	0.5934	0.2084	2.7800e-003	0.1015	3.4000e-003	0.1049	0.0292	3.2500e-003	0.0325		301.8635	301.8635	0.0124	0.0452	315.6425
Worker	0.1616	0.1083	1.3106	3.4900e-003	0.4272	2.3100e-003	0.4295	0.1133	2.1300e-003	0.1154		356.8795	356.8795	0.0119	0.0108	360.4052
Total	0.1759	0.7016	1.5190	6.2700e-003	0.5287	5.7100e-003	0.5344	0.1425	5.3800e-003	0.1479		658.7430	658.7430	0.0243	0.0560	676.0477

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

North Ranch - Construction and Operations - Ventura County, Winter

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0143	0.5934	0.2084	2.7800e-003	0.1015	3.4000e-003	0.1049	0.0292	3.2500e-003	0.0325		301.8635	301.8635	0.0124	0.0452	315.6425
Worker	0.1616	0.1083	1.3106	3.4900e-003	0.4272	2.3100e-003	0.4295	0.1133	2.1300e-003	0.1154		356.8795	356.8795	0.0119	0.0108	360.4052
Total	0.1759	0.7016	1.5190	6.2700e-003	0.5287	5.7100e-003	0.5344	0.1425	5.3800e-003	0.1479		658.7430	658.7430	0.0243	0.0560	676.0477

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0140	0.5907	0.2073	2.7400e-003	0.1015	3.4100e-003	0.1049	0.0292	3.2600e-003	0.0325		297.3193	297.3193	0.0127	0.0445	310.8997
Worker	0.1512	0.0972	1.2242	3.3800e-003	0.4272	2.2200e-003	0.4294	0.1133	2.0400e-003	0.1153		348.6909	348.6909	0.0109	0.0101	351.9732
Total	0.1652	0.6878	1.4315	6.1200e-003	0.5287	5.6300e-003	0.5343	0.1425	5.3000e-003	0.1478		646.0102	646.0102	0.0235	0.0546	662.8729

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	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

North Ranch - Construction and Operations - Ventura County, Winter

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0140	0.5907	0.2073	2.7400e-003	0.1015	3.4100e-003	0.1049	0.0292	3.2600e-003	0.0325		297.3193	297.3193	0.0127	0.0445	310.8997
Worker	0.1512	0.0972	1.2242	3.3800e-003	0.4272	2.2200e-003	0.4294	0.1133	2.0400e-003	0.1153		348.6909	348.6909	0.0109	0.0101	351.9732
Total	0.1652	0.6878	1.4315	6.1200e-003	0.5287	5.6300e-003	0.5343	0.1425	5.3000e-003	0.1478		646.0102	646.0102	0.0235	0.0546	662.8729

3.6 Paving - 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

North Ranch - Construction and Operations - Ventura County, Winter

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

3.6 Paving - 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
Total	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

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

North Ranch - Construction and Operations - Ventura County, Winter

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

3.6 Paving - 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
Total	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

3.7 Architectural Coating - 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					
Archit. Coating	35.1407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	35.3215	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

North Ranch - Construction and Operations - Ventura County, Winter

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

3.7 Architectural Coating - 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	0.0291	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
Total	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.1407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	35.1704	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 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	0.0291	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
Total	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

North Ranch - Construction and Operations - Ventura County, 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	3.7374	4.3956	35.5520	0.0695	8.0004	0.0558	8.0561	2.1327	0.0520	2.1847		7,249.578 7	7,249.578 7	0.5089	0.3471	7,365.740 3
Unmitigated	3.7374	4.3956	35.5520	0.0695	8.0004	0.0558	8.0561	2.1327	0.0520	2.1847		7,249.578 7	7,249.578 7	0.5089	0.3471	7,365.740 3

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,359.36	1,373.76	1,359.36	3,761,694	3,761,694
Total	1,359.36	1,373.76	1,359.36	3,761,694	3,761,694

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3

4.4 Fleet Mix

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

North Ranch - Construction and Operations - Ventura County, 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	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
NaturalGas Unmitigated	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	9428.15	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Total		0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

North Ranch - Construction and Operations - Ventura County, 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					
Single Family Housing	9.42815	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Total		0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Cleaning Supplies

North Ranch - Construction and Operations - Ventura County, 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
Category	lb/day										lb/day					
Mitigated	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703
Unmitigated	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037

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	0.7221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5469					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3564	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659		21.3915	21.3915	0.0205		21.9037
Total	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037

North Ranch - Construction and Operations - Ventura County, 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	0.2888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2727	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575		18.1802	18.1802	0.0156		18.5703
Total	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703

7.0 Water Detail

7.1 Mitigation Measures Water

North Ranch - Construction and Operations - Ventura County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**North Ranch - Construction and Operations****Ventura County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	144.00	Dwelling Unit	51.50	259,200.00	465

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Water And Wastewater - See Assumptions

Construction Off-road Equipment Mitigation - See Assumptions

Area Mitigation - See Assumptions

Vehicle Trips - See Assumptions

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	75	10

North Ranch - Construction and Operations - Ventura County, Summer

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	1,110.00	545.00
tblConstructionPhase	NumDays	70.00	34.00

North Ranch - Construction and Operations - Ventura County, Summer

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

tblConstructionPhase	NumDays	110.00	54.00
tblConstructionPhase	NumDays	40.00	20.00
tblConstructionPhase	PhaseEndDate	3/2/2028	12/31/2024
tblConstructionPhase	PhaseEndDate	8/5/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	10/6/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	5/4/2023	11/29/2022
tblConstructionPhase	PhaseEndDate	11/18/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	12/1/2022	9/14/2022
tblConstructionPhase	PhaseStartDate	11/19/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	5/5/2023	11/30/2022
tblConstructionPhase	PhaseStartDate	12/2/2022	9/15/2022
tblConstructionPhase	PhaseStartDate	8/6/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	10/7/2022	8/18/2022
tblLandUse	LotAcreage	46.75	51.50
tblLandUse	Population	441.00	465.00
tblVehicleTrips	SU_TR	8.55	9.44
tblWater	AerobicPercent	87.46	97.58
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.42
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

North Ranch - Construction and Operations - Ventura County, 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					
2022	3.6867	38.8834	29.5975	0.0635	19.8049	1.6358	21.4183	10.1417	1.5050	11.6260	0.0000	6,158.744 3	6,158.744 3	1.9489	0.0577	6,208.669 8
2023	1.7373	15.0457	17.7811	0.0334	0.5287	0.7054	1.2341	0.1425	0.6638	0.8063	0.0000	3,229.663 1	3,229.663 1	0.6312	0.0548	3,261.786 6
2024	38.0027	24.8757	34.6466	0.0607	0.7341	1.1494	1.8835	0.1970	1.0751	1.2721	0.0000	5,881.215 9	5,881.215 9	1.3617	0.0579	5,932.502 5
Maximum	38.0027	38.8834	34.6466	0.0635	19.8049	1.6358	21.4183	10.1417	1.5050	11.6260	0.0000	6,158.744 3	6,158.744 3	1.9489	0.0579	6,208.669 8

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					
2022	0.8234	3.5183	33.5551	0.0635	8.5512	0.1124	8.6142	4.3580	0.1119	4.4209	0.0000	6,158.744 3	6,158.744 3	1.9489	0.0577	6,208.669 8
2023	0.7030	3.3121	19.1784	0.0334	0.5287	0.0987	0.6274	0.1425	0.0984	0.2409	0.0000	3,229.663 1	3,229.663 1	0.6312	0.0548	3,261.786 6
2024	36.1923	4.6441	38.7991	0.0607	0.7341	0.1334	0.8674	0.1970	0.1330	0.3299	0.0000	5,881.215 9	5,881.215 9	1.3617	0.0579	5,932.502 5
Maximum	36.1923	4.6441	38.7991	0.0635	8.5512	0.1334	8.6142	4.3580	0.1330	4.4209	0.0000	6,158.744 3	6,158.744 3	1.9489	0.0579	6,208.669 8

North Ranch - Construction and Operations - Ventura County, 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	13.14	85.44	-11.59	0.00	53.42	90.13	58.80	55.18	89.42	63.58	0.00	0.00	0.00	0.00	0.00	0.00

North Ranch - Construction and Operations - Ventura County, 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	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037
Energy	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Mobile	3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.0520	2.1847		7,500.8910	7,500.8910	0.4704	0.3246	7,609.3673
Total	10.5727	4.9880	45.7559	0.0781	8.0004	0.1918	8.1922	2.1327	0.1881	2.3208	0.0000	8,631.4770	8,631.4770	0.5121	0.3449	8,747.0568

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703
Energy	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Mobile	3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.0520	2.1847		7,500.8910	7,500.8910	0.4704	0.3246	7,609.3673
Total	9.6411	4.9739	44.3315	0.0780	8.0004	0.1835	8.1838	2.1327	0.1797	2.3124	0.0000	8,628.2657	8,628.2657	0.5072	0.3449	8,743.7235

North Ranch - Construction and Operations - Ventura County, 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	8.81	0.28	3.11	0.14	0.00	4.37	0.10	0.00	4.45	0.36	0.00	0.04	0.04	0.95	0.00	0.04

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2022	8/17/2022	5	34	
2	Site Preparation	Site Preparation	8/18/2022	9/14/2022	5	20	
3	Grading	Grading	9/15/2022	11/29/2022	5	54	
4	Building Construction	Building Construction	11/30/2022	12/31/2024	5	545	
5	Paving	Paving	9/18/2024	12/31/2024	5	75	
6	Architectural Coating	Architectural Coating	9/18/2024	12/31/2024	5	75	

Acres of Grading (Site Preparation Phase): 30**Acres of Grading (Grading Phase): 162****Acres of Paving: 0****Residential Indoor: 524,880; Residential Outdoor: 174,960; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38

North Ranch - Construction and Operations - Ventura County, Summer

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

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

North Ranch - Construction and Operations - Ventura County, 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 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1466	0.0000	0.1466	0.0222	0.0000	0.0222			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.781 2	3,746.781 2	1.0524		3,773.092 0
Total	2.6392	25.7194	20.5941	0.0388	0.1466	1.2427	1.3892	0.0222	1.1553	1.1775		3,746.781 2	3,746.781 2	1.0524		3,773.092 0

North Ranch - Construction and Operations - Ventura County, Summer

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

3.2 Demolition - 2022

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	2.4000e-003	0.1021	0.0248	4.0000e-004	0.0118	8.6000e-004	0.0127	3.2300e-003	8.3000e-004	4.0600e-003		44.3962	44.3962	2.8400e-003	7.0600e-003	46.5719
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	0.0464	0.0300	0.4170	1.0900e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		110.5003	110.5003	3.4900e-003	3.0300e-003	111.4905
Total	0.0488	0.1321	0.4418	1.4900e-003	0.1350	1.5700e-003	0.1366	0.0359	1.4800e-003	0.0374		154.8965	154.8965	6.3300e-003	0.0101	158.0624

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					0.0627	0.0000	0.0627	9.4900e-003	0.0000	9.4900e-003			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	0.4623	2.0032	23.2798	0.0388	0.0627	0.0616	0.1243	9.4900e-003	0.0616	0.0711	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920

North Ranch - Construction and Operations - Ventura County, Summer

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

3.2 Demolition - 2022

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	2.4000e-003	0.1021	0.0248	4.0000e-004	0.0118	8.6000e-004	0.0127	3.2300e-003	8.3000e-004	4.0600e-003		44.3962	44.3962	2.8400e-003	7.0600e-003	46.5719
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	0.0464	0.0300	0.4170	1.0900e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		110.5003	110.5003	3.4900e-003	3.0300e-003	111.4905
Total	0.0488	0.1321	0.4418	1.4900e-003	0.1350	1.5700e-003	0.1366	0.0359	1.4800e-003	0.0374		154.8965	154.8965	6.3300e-003	0.0101	158.0624

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

North Ranch - Construction and Operations - Ventura County, Summer

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

3.3 Site Preparation - 2022

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	0.0557	0.0360	0.5004	1.3000e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		132.6004	132.6004	4.1900e-003	3.6400e-003	133.7886
Total	0.0557	0.0360	0.5004	1.3000e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		132.6004	132.6004	4.1900e-003	3.6400e-003	133.7886

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					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	0.4656	2.0175	20.8690	0.0380	8.4034	0.0621	8.4655	4.3188	0.0621	4.3809	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****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	0.0557	0.0360	0.5004	1.3000e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		132.6004	132.6004	4.1900e-003	3.6400e-003	133.7886
Total	0.0557	0.0360	0.5004	1.3000e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		132.6004	132.6004	4.1900e-003	3.6400e-003	133.7886

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****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	0.0619	0.0400	0.5560	1.4500e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		147.3338	147.3338	4.6500e-003	4.0400e-003	148.6540
Total	0.0619	0.0400	0.5560	1.4500e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		147.3338	147.3338	4.6500e-003	4.0400e-003	148.6540

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					3.9345	0.0000	3.9345	1.5620	0.0000	1.5620			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	0.7616	3.3000	32.9991	0.0621	3.9345	0.1015	4.0361	1.5620	0.1015	1.6635	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****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	0.0619	0.0400	0.5560	1.4500e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		147.3338	147.3338	4.6500e-003	4.0400e-003	148.6540
Total	0.0619	0.0400	0.5560	1.4500e-003	0.1643	9.4000e-004	0.1652	0.0436	8.7000e-004	0.0445		147.3338	147.3338	4.6500e-003	4.0400e-003	148.6540

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

North Ranch - Construction and Operations - Ventura County, Summer

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

3.5 Building Construction - 2022

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	0.0251	0.7208	0.2279	2.9100e-003	0.1015	8.2200e-003	0.1097	0.0292	7.8700e-003	0.0371		314.6664	314.6664	0.0125	0.0472	329.0363
Worker	0.1608	0.1039	1.4456	3.7700e-003	0.4272	2.4500e-003	0.4296	0.1133	2.2600e-003	0.1156		383.0678	383.0678	0.0121	0.0105	386.5003
Total	0.1859	0.8247	1.6735	6.6800e-003	0.5287	0.0107	0.5393	0.1425	0.0101	0.1526		697.7342	697.7342	0.0246	0.0577	715.5366

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

North Ranch - Construction and Operations - Ventura County, Summer

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

3.5 Building Construction - 2022

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	0.0251	0.7208	0.2279	2.9100e-003	0.1015	8.2200e-003	0.1097	0.0292	7.8700e-003	0.0371		314.6664	314.6664	0.0125	0.0472	329.0363
Worker	0.1608	0.1039	1.4456	3.7700e-003	0.4272	2.4500e-003	0.4296	0.1133	2.2600e-003	0.1156		383.0678	383.0678	0.0121	0.0105	386.5003
Total	0.1859	0.8247	1.6735	6.6800e-003	0.5287	0.0107	0.5393	0.1425	0.0101	0.1526		697.7342	697.7342	0.0246	0.0577	715.5366

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

North Ranch - Construction and Operations - Ventura County, Summer

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0149	0.5683	0.2019	2.7800e-003	0.1015	3.3800e-003	0.1049	0.0292	3.2300e-003	0.0324		301.4320	301.4320	0.0124	0.0451	315.1824
Worker	0.1496	0.0925	1.3351	3.6400e-003	0.4272	2.3100e-003	0.4295	0.1133	2.1300e-003	0.1154		373.0212	373.0212	0.0109	9.7400e-003	376.1981
Total	0.1645	0.6608	1.5371	6.4200e-003	0.5287	5.6900e-003	0.5344	0.1425	5.3600e-003	0.1479		674.4532	674.4532	0.0233	0.0548	691.3805

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

North Ranch - Construction and Operations - Ventura County, Summer

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0149	0.5683	0.2019	2.7800e-003	0.1015	3.3800e-003	0.1049	0.0292	3.2300e-003	0.0324		301.4320	301.4320	0.0124	0.0451	315.1824
Worker	0.1496	0.0925	1.3351	3.6400e-003	0.4272	2.3100e-003	0.4295	0.1133	2.1300e-003	0.1154		373.0212	373.0212	0.0109	9.7400e-003	376.1981
Total	0.1645	0.6608	1.5371	6.4200e-003	0.5287	5.6900e-003	0.5344	0.1425	5.3600e-003	0.1479		674.4532	674.4532	0.0233	0.0548	691.3805

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0145	0.5656	0.2009	2.7300e-003	0.1015	3.3900e-003	0.1049	0.0292	3.2400e-003	0.0325		296.8802	296.8802	0.0127	0.0444	310.4326
Worker	0.1398	0.0830	1.2446	3.5300e-003	0.4272	2.2200e-003	0.4294	0.1133	2.0400e-003	0.1153		364.4333	364.4333	9.9700e-003	9.0900e-003	367.3912
Total	0.1543	0.6486	1.4456	6.2600e-003	0.5287	5.6100e-003	0.5343	0.1425	5.2800e-003	0.1478		661.3135	661.3135	0.0227	0.0535	677.8238

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	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

North Ranch - Construction and Operations - Ventura County, Summer

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0145	0.5656	0.2009	2.7300e-003	0.1015	3.3900e-003	0.1049	0.0292	3.2400e-003	0.0325		296.8802	296.8802	0.0127	0.0444	310.4326
Worker	0.1398	0.0830	1.2446	3.5300e-003	0.4272	2.2200e-003	0.4294	0.1133	2.0400e-003	0.1153		364.4333	364.4333	9.9700e-003	9.0900e-003	367.3912
Total	0.1543	0.6486	1.4456	6.2600e-003	0.5287	5.6100e-003	0.5343	0.1425	5.2800e-003	0.1478		661.3135	661.3135	0.0227	0.0535	677.8238

3.6 Paving - 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 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
Total	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

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 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
Total	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

3.7 Architectural Coating - 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					
Archit. Coating	35.1407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	35.3215	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

North Ranch - Construction and Operations - Ventura County, Summer

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

3.7 Architectural Coating - 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	0.0269	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
Total	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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.1407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	35.1704	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 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	0.0269	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
Total	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

North Ranch - Construction and Operations - Ventura County, 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	3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.0520	2.1847		7,500.8910	7,500.8910	0.4704	0.3246	7,609.3673
Unmitigated	3.8457	3.9824	33.5172	0.0719	8.0004	0.0557	8.0561	2.1327	0.0520	2.1847		7,500.8910	7,500.8910	0.4704	0.3246	7,609.3673

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,359.36	1,373.76	1,359.36	3,761,694	3,761,694
Total	1,359.36	1,373.76	1,359.36	3,761,694	3,761,694

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3

4.4 Fleet Mix

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

North Ranch - Construction and Operations - Ventura County, 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	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
NaturalGas Unmitigated	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	9428.15	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Total		0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

North Ranch - Construction and Operations - Ventura County, 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					
Single Family Housing	9.42815	0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859
Total		0.1017	0.8689	0.3697	5.5500e-003		0.0703	0.0703		0.0703	0.0703		1,109.1945	1,109.1945	0.0213	0.0203	1,115.7859

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Cleaning Supplies

North Ranch - Construction and Operations - Ventura County, 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
Category	lb/day										lb/day					
Mitigated	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703
Unmitigated	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037

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	0.7221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5469					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3564	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659		21.3915	21.3915	0.0205		21.9037
Total	6.6253	0.1367	11.8689	6.3000e-004		0.0659	0.0659		0.0659	0.0659	0.0000	21.3915	21.3915	0.0205	0.0000	21.9037

North Ranch - Construction and Operations - Ventura County, 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	0.2888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2727	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575		18.1802	18.1802	0.0156		18.5703
Total	5.6937	0.1226	10.4445	5.2000e-004		0.0575	0.0575		0.0575	0.0575	0.0000	18.1802	18.1802	0.0156	0.0000	18.5703

7.0 Water Detail

7.1 Mitigation Measures Water

North Ranch - Construction and Operations - Ventura County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

North Ranch - Construction and Operations - Ventura County, Annual

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

North Ranch - Construction and Operations

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	144.00	Dwelling Unit	51.50	259,200.00	465

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Water And Wastewater - See Assumptions

Construction Off-road Equipment Mitigation - See Assumptions

Area Mitigation - See Assumptions

Vehicle Trips - See Assumptions

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	75	10

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	1,110.00	545.00
tblConstructionPhase	NumDays	70.00	34.00

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

tblConstructionPhase	NumDays	110.00	54.00
tblConstructionPhase	NumDays	40.00	20.00
tblConstructionPhase	PhaseEndDate	3/2/2028	12/31/2024
tblConstructionPhase	PhaseEndDate	8/5/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	10/6/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	5/4/2023	11/29/2022
tblConstructionPhase	PhaseEndDate	11/18/2027	12/31/2024
tblConstructionPhase	PhaseEndDate	12/1/2022	9/14/2022
tblConstructionPhase	PhaseStartDate	11/19/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	5/5/2023	11/30/2022
tblConstructionPhase	PhaseStartDate	12/2/2022	9/15/2022
tblConstructionPhase	PhaseStartDate	8/6/2027	9/18/2024
tblConstructionPhase	PhaseStartDate	10/7/2022	8/18/2022
tblLandUse	LotAcreage	46.75	51.50
tblLandUse	Population	441.00	465.00
tblVehicleTrips	SU_TR	8.55	9.44
tblWater	AerobicPercent	87.46	97.58
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.42
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

North Ranch - Construction and Operations - Ventura County, 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					
2022	0.1992	2.0104	1.5648	3.1800e-003	0.4616	0.0909	0.5525	0.2038	0.0840	0.2878	0.0000	279.2107	279.2107	0.0816	9.1000e-004	281.5224
2023	0.2257	1.9604	2.3066	4.3200e-003	0.0675	0.0917	0.1592	0.0182	0.0863	0.1045	0.0000	379.3042	379.3042	0.0745	6.5700e-003	383.1246
2024	1.5770	2.2550	2.9409	5.3600e-003	0.0756	0.1010	0.1766	0.0204	0.0948	0.1151	0.0000	471.1766	471.1766	0.0996	6.6100e-003	475.6371
Maximum	1.5770	2.2550	2.9409	5.3600e-003	0.4616	0.1010	0.5525	0.2038	0.0948	0.2878	0.0000	471.1766	471.1766	0.0996	6.6100e-003	475.6371

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					
2022	0.0447	0.1883	1.7439	3.1800e-003	0.2054	5.7600e-003	0.2111	0.0893	5.7500e-003	0.0950	0.0000	279.2104	279.2104	0.0816	9.1000e-004	281.5221
2023	0.0912	0.4350	2.4882	4.3200e-003	0.0675	0.0128	0.0803	0.0182	0.0128	0.0310	0.0000	379.3038	379.3038	0.0745	6.5700e-003	383.1242
2024	1.4201	0.4835	3.2332	5.3600e-003	0.0756	0.0135	0.0891	0.0204	0.0135	0.0338	0.0000	471.1761	471.1761	0.0996	6.6100e-003	475.6367
Maximum	1.4201	0.4835	3.2332	5.3600e-003	0.2054	0.0135	0.2111	0.0893	0.0135	0.0950	0.0000	471.1761	471.1761	0.0996	6.6100e-003	475.6367

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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	22.27	82.22	-9.59	0.00	42.38	88.68	57.16	47.24	87.93	68.50	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	7-1-2022	9-30-2022	1.0960	0.0949
2	10-1-2022	12-31-2022	1.1226	0.1389
3	1-1-2023	3-31-2023	0.5411	0.1307
4	4-1-2023	6-30-2023	0.5454	0.1305
5	7-1-2023	9-30-2023	0.5514	0.1319
6	10-1-2023	12-31-2023	0.5532	0.1336
7	1-1-2024	3-31-2024	0.5125	0.1295
8	4-1-2024	6-30-2024	0.5108	0.1279
9	7-1-2024	9-30-2024	0.7354	0.3006
		Highest	1.1226	0.3006

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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	1.1762	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884
Energy	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	383.2961	383.2961	0.0204	5.4100e-003	385.4174
Mobile	0.6673	0.7786	6.1807	0.0126	1.4166	0.0100	1.4266	0.3782	9.3700e-003	0.3876	0.0000	1,191.0378	1,191.0378	0.0806	0.0558	1,209.6801
Waste						0.0000	0.0000		0.0000	0.0000	38.7002	0.0000	38.7002	2.2871	0.0000	95.8782
Water						0.0000	0.0000		0.0000	0.0000	3.3194	33.3196	36.6390	0.0968	7.5600e-003	41.3104
Total	1.8621	0.9495	7.3163	0.0137	1.4166	0.0288	1.4454	0.3782	0.0281	0.4063	42.0197	1,609.4000	1,651.4197	2.4865	0.0688	1,734.0744

North Ranch - Construction and Operations - Ventura County, Annual

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	1.0139	0.0110	0.9400	5.0000e-005		5.1700e-003	5.1700e-003		5.1700e-003	5.1700e-003	0.0000	1.4844	1.4844	1.2700e-003	0.0000	1.5162
Energy	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	383.2961	383.2961	0.0204	5.4100e-003	385.4174
Mobile	0.6673	0.7786	6.1807	0.0126	1.4166	0.0100	1.4266	0.3782	9.3700e-003	0.3876	0.0000	1,191.0378	1,191.0378	0.0806	0.0558	1,209.6801
Waste						0.0000	0.0000		0.0000	0.0000	38.7002	0.0000	38.7002	2.2871	0.0000	95.8782
Water						0.0000	0.0000		0.0000	0.0000	3.3194	33.3196	36.6390	0.0968	7.5600e-003	41.3104
Total	1.6998	0.9482	7.1882	0.0136	1.4166	0.0280	1.4446	0.3782	0.0274	0.4055	42.0197	1,609.1378	1,651.1575	2.4861	0.0688	1,733.8022

	ROG	NOx	CO	SO2	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	8.72	0.13	1.75	0.07	0.00	2.64	0.05	0.00	2.70	0.19	0.00	0.02	0.02	0.02	0.00	0.02

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2022	8/17/2022	5	34	
2	Site Preparation	Site Preparation	8/18/2022	9/14/2022	5	20	
3	Grading	Grading	9/15/2022	11/29/2022	5	54	

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

4	Building Construction	Building Construction	11/30/2022	12/31/2024	5	545
5	Paving	Paving	9/18/2024	12/31/2024	5	75
6	Architectural Coating	Architectural Coating	9/18/2024	12/31/2024	5	75

Acres of Grading (Site Preparation Phase): 30**Acres of Grading (Grading Phase): 162****Acres of Paving: 0****Residential Indoor: 524,880; Residential Outdoor: 174,960; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	23.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

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 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4900e-003	0.0000	2.4900e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0449	0.4372	0.3501	6.6000e-004		0.0211	0.0211		0.0196	0.0196	0.0000	57.7834	57.7834	0.0162	0.0000	58.1892
Total	0.0449	0.4372	0.3501	6.6000e-004	2.4900e-003	0.0211	0.0236	3.8000e-004	0.0196	0.0200	0.0000	57.7834	57.7834	0.0162	0.0000	58.1892

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	4.0000e-005	1.8100e-003	4.2000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6848	0.6848	4.0000e-005	1.1000e-004	0.7184
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.7000e-004	6.8600e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6418	1.6418	6.0000e-005	5.0000e-005	1.6583
Total	8.2000e-004	2.3800e-003	7.2800e-003	3.0000e-005	2.2600e-003	2.0000e-005	2.2800e-003	6.0000e-004	2.0000e-005	6.3000e-004	0.0000	2.3266	2.3266	1.0000e-004	1.6000e-004	2.3767

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8600e-003	0.0341	0.3958	6.6000e-004		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	57.7833	57.7833	0.0162	0.0000	58.1891
Total	7.8600e-003	0.0341	0.3958	6.6000e-004	1.0700e-003	1.0500e-003	2.1200e-003	1.6000e-004	1.0500e-003	1.2100e-003	0.0000	57.7833	57.7833	0.0162	0.0000	58.1891

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	4.0000e-005	1.8100e-003	4.2000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6848	0.6848	4.0000e-005	1.1000e-004	0.7184
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.7000e-004	6.8600e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6418	1.6418	6.0000e-005	5.0000e-005	1.6583
Total	8.2000e-004	2.3800e-003	7.2800e-003	3.0000e-005	2.2600e-003	2.0000e-005	2.2800e-003	6.0000e-004	2.0000e-005	6.3000e-004	0.0000	2.3266	2.3266	1.0000e-004	1.6000e-004	2.3767

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

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	0.0317	0.3308	0.1970	3.8000e-004	0.1966	0.0161	0.2127	0.1010	0.0148	0.1159	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	4.8400e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1590	1.1590	4.0000e-005	4.0000e-005	1.1706
Total	5.5000e-004	4.1000e-004	4.8400e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1590	1.1590	4.0000e-005	4.0000e-005	1.1706

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

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0840	0.0000	0.0840	0.0432	0.0000	0.0432	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0202	0.2087	3.8000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	4.6600e-003	0.0202	0.2087	3.8000e-004	0.0840	6.2000e-004	0.0847	0.0432	6.2000e-004	0.0438	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	4.8400e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1590	1.1590	4.0000e-005	4.0000e-005	1.1706
Total	5.5000e-004	4.1000e-004	4.8400e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1590	1.1590	4.0000e-005	4.0000e-005	1.1706

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

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2485	0.0000	0.2485	0.0987	0.0000	0.0987	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0979	1.0488	0.7841	1.6800e-003		0.0441	0.0441		0.0406	0.0406	0.0000	147.2434	147.2434	0.0476	0.0000	148.4340
Total	0.0979	1.0488	0.7841	1.6800e-003	0.2485	0.0441	0.2926	0.0987	0.0406	0.1393	0.0000	147.2434	147.2434	0.0476	0.0000	148.4340

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	1.6600e-003	1.2200e-003	0.0145	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	2.0000e-005	1.1800e-003	0.0000	3.4768	3.4768	1.2000e-004	1.1000e-004	3.5118
Total	1.6600e-003	1.2200e-003	0.0145	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	2.0000e-005	1.1800e-003	0.0000	3.4768	3.4768	1.2000e-004	1.1000e-004	3.5118

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

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1062	0.0000	0.1062	0.0422	0.0000	0.0422	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0206	0.0891	0.8910	1.6800e-003		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	147.2432	147.2432	0.0476	0.0000	148.4338
Total	0.0206	0.0891	0.8910	1.6800e-003	0.1062	2.7400e-003	0.1090	0.0422	2.7400e-003	0.0449	0.0000	147.2432	147.2432	0.0476	0.0000	148.4338

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	1.6600e-003	1.2200e-003	0.0145	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	2.0000e-005	1.1800e-003	0.0000	3.4768	3.4768	1.2000e-004	1.1000e-004	3.5118
Total	1.6600e-003	1.2200e-003	0.0145	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	2.0000e-005	1.1800e-003	0.0000	3.4768	3.4768	1.2000e-004	1.1000e-004	3.5118

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3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0196	0.1796	0.1882	3.1000e-004		9.3000e-003	9.3000e-003		8.7500e-003	8.7500e-003	0.0000	26.6484	26.6484	6.3800e-003	0.0000	26.8080
Total	0.0196	0.1796	0.1882	3.1000e-004		9.3000e-003	9.3000e-003		8.7500e-003	8.7500e-003	0.0000	26.6484	26.6484	6.3800e-003	0.0000	26.8080

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	2.9000e-004	8.6100e-003	2.6600e-003	3.0000e-005	1.1500e-003	9.0000e-005	1.2400e-003	3.3000e-004	9.0000e-005	4.2000e-004	0.0000	3.2835	3.2835	1.3000e-004	4.9000e-004	3.4335
Worker	1.8400e-003	1.3500e-003	0.0161	4.0000e-005	4.8200e-003	3.0000e-005	4.8500e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	3.8503	3.8503	1.3000e-004	1.2000e-004	3.8890
Total	2.1300e-003	9.9600e-003	0.0188	7.0000e-005	5.9700e-003	1.2000e-004	6.0900e-003	1.6100e-003	1.2000e-004	1.7300e-003	0.0000	7.1337	7.1337	2.6000e-004	6.1000e-004	7.3225

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3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4500e-003	0.0310	0.2031	3.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	26.6484	26.6484	6.3800e-003	0.0000	26.8080
Total	6.4500e-003	0.0310	0.2031	3.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	26.6484	26.6484	6.3800e-003	0.0000	26.8080

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	2.9000e-004	8.6100e-003	2.6600e-003	3.0000e-005	1.1500e-003	9.0000e-005	1.2400e-003	3.3000e-004	9.0000e-005	4.2000e-004	0.0000	3.2835	3.2835	1.3000e-004	4.9000e-004	3.4335
Worker	1.8400e-003	1.3500e-003	0.0161	4.0000e-005	4.8200e-003	3.0000e-005	4.8500e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	3.8503	3.8503	1.3000e-004	1.2000e-004	3.8890
Total	2.1300e-003	9.9600e-003	0.0188	7.0000e-005	5.9700e-003	1.2000e-004	6.0900e-003	1.6100e-003	1.2000e-004	1.7300e-003	0.0000	7.1337	7.1337	2.6000e-004	6.1000e-004	7.3225

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3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-003	0.0768	0.0266	3.6000e-004	0.0130	4.4000e-004	0.0134	3.7500e-003	4.2000e-004	4.1700e-003	0.0000	35.5705	35.5705	1.4600e-003	5.3300e-003	37.1940
Worker	0.0193	0.0136	0.1682	4.6000e-004	0.0545	3.0000e-004	0.0548	0.0145	2.8000e-004	0.0148	0.0000	42.3875	42.3875	1.3600e-003	1.2400e-003	42.7923
Total	0.0212	0.0903	0.1949	8.2000e-004	0.0675	7.4000e-004	0.0683	0.0182	7.0000e-004	0.0189	0.0000	77.9580	77.9580	2.8200e-003	6.5700e-003	79.9863

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3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0700	0.3447	2.2934	3.5000e-003		0.0121	0.0121		0.0121	0.0121	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.0700	0.3447	2.2934	3.5000e-003		0.0121	0.0121		0.0121	0.0121	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-003	0.0768	0.0266	3.6000e-004	0.0130	4.4000e-004	0.0134	3.7500e-003	4.2000e-004	4.1700e-003	0.0000	35.5705	35.5705	1.4600e-003	5.3300e-003	37.1940
Worker	0.0193	0.0136	0.1682	4.6000e-004	0.0545	3.0000e-004	0.0548	0.0145	2.8000e-004	0.0148	0.0000	42.3875	42.3875	1.3600e-003	1.2400e-003	42.7923
Total	0.0212	0.0903	0.1949	8.2000e-004	0.0675	7.4000e-004	0.0683	0.0182	7.0000e-004	0.0189	0.0000	77.9580	77.9580	2.8200e-003	6.5700e-003	79.9863

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3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0770	0.0267	3.6000e-004	0.0131	4.4000e-004	0.0135	3.7800e-003	4.3000e-004	4.2000e-003	0.0000	35.3035	35.3035	1.5100e-003	5.2800e-003	36.9159
Worker	0.0182	0.0123	0.1582	4.5000e-004	0.0549	2.9000e-004	0.0552	0.0146	2.7000e-004	0.0149	0.0000	41.7330	41.7330	1.2500e-003	1.1700e-003	42.1127
Total	0.0201	0.0893	0.1849	8.1000e-004	0.0680	7.3000e-004	0.0688	0.0184	7.0000e-004	0.0191	0.0000	77.0366	77.0366	2.7600e-003	6.4500e-003	79.0286

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3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0681	0.3421	2.3092	3.5300e-003		0.0112	0.0112		0.0112	0.0112	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.0681	0.3421	2.3092	3.5300e-003		0.0112	0.0112		0.0112	0.0112	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0770	0.0267	3.6000e-004	0.0131	4.4000e-004	0.0135	3.7800e-003	4.3000e-004	4.2000e-003	0.0000	35.3035	35.3035	1.5100e-003	5.2800e-003	36.9159
Worker	0.0182	0.0123	0.1582	4.5000e-004	0.0549	2.9000e-004	0.0552	0.0146	2.7000e-004	0.0149	0.0000	41.7330	41.7330	1.2500e-003	1.1700e-003	42.1127
Total	0.0201	0.0893	0.1849	8.1000e-004	0.0680	7.3000e-004	0.0688	0.0184	7.0000e-004	0.0191	0.0000	77.0366	77.0366	2.7600e-003	6.4500e-003	79.0286

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0371	0.3572	0.5485	8.6000e-004		0.0176	0.0176		0.0162	0.0162	0.0000	75.0995	75.0995	0.0243	0.0000	75.7067
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0371	0.3572	0.5485	8.6000e-004		0.0176	0.0176		0.0162	0.0162	0.0000	75.0995	75.0995	0.0243	0.0000	75.7067

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	1.5000e-003	1.0100e-003	0.0131	4.0000e-005	4.5400e-003	2.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.4461	3.4461	1.0000e-004	1.0000e-004	3.4775
Total	1.5000e-003	1.0100e-003	0.0131	4.0000e-005	4.5400e-003	2.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.4461	3.4461	1.0000e-004	1.0000e-004	3.4775

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3.6 Paving - 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	0.0105	0.0456	0.6486	8.6000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0994	75.0994	0.0243	0.0000	75.7066
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0105	0.0456	0.6486	8.6000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0994	75.0994	0.0243	0.0000	75.7066

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	1.5000e-003	1.0100e-003	0.0131	4.0000e-005	4.5400e-003	2.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.4461	3.4461	1.0000e-004	1.0000e-004	3.4775
Total	1.5000e-003	1.0100e-003	0.0131	4.0000e-005	4.5400e-003	2.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.4461	3.4461	1.0000e-004	1.0000e-004	3.4775

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3.7 Architectural Coating - 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					
Archit. Coating	1.3178					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7800e-003	0.0457	0.0679	1.1000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	9.5747	9.5747	5.4000e-004	0.0000	9.5882
Total	1.3246	0.0457	0.0679	1.1000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	9.5747	9.5747	5.4000e-004	0.0000	9.5882

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	1.0000e-003	6.7000e-004	8.7100e-003	2.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.2000e-004	0.0000	2.2974	2.2974	7.0000e-005	6.0000e-005	2.3183
Total	1.0000e-003	6.7000e-004	8.7100e-003	2.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.2000e-004	0.0000	2.2974	2.2974	7.0000e-005	6.0000e-005	2.3183

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3.7 Architectural Coating - 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					
Archit. Coating	1.3178					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.4000e-004	0.0000	9.5882
Total	1.3189	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.4000e-004	0.0000	9.5882

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	1.0000e-003	6.7000e-004	8.7100e-003	2.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.2000e-004	0.0000	2.2974	2.2974	7.0000e-005	6.0000e-005	2.3183
Total	1.0000e-003	6.7000e-004	8.7100e-003	2.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.2000e-004	0.0000	2.2974	2.2974	7.0000e-005	6.0000e-005	2.3183

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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	0.6673	0.7786	6.1807	0.0126	1.4166	0.0100	1.4266	0.3782	9.3700e-003	0.3876	0.0000	1,191.0378	1,191.0378	0.0806	0.0558	1,209.6801
Unmitigated	0.6673	0.7786	6.1807	0.0126	1.4166	0.0100	1.4266	0.3782	9.3700e-003	0.3876	0.0000	1,191.0378	1,191.0378	0.0806	0.0558	1,209.6801

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,359.36	1,373.76	1359.36	3,761,694	3,761,694
Total	1,359.36	1,373.76	1,359.36	3,761,694	3,761,694

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.553410	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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	199.6565	199.6565	0.0169	2.0400e-003	200.6865
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	199.6565	199.6565	0.0169	2.0400e-003	200.6865
NaturalGas Mitigated	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309
NaturalGas Unmitigated	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309

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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

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	3.44128e+006	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309
Total		0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	3.44128e+006	0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309
Total		0.0186	0.1586	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.6396	183.6396	3.5200e-003	3.3700e-003	184.7309

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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			
Single Family Housing	1.1258e+006	199.6565	0.0169	2.0400e-003	200.6865
Total		199.6565	0.0169	2.0400e-003	200.6865

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.1258e+006	199.6565	0.0169	2.0400e-003	200.6865
Total		199.6565	0.0169	2.0400e-003	200.6865

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Electric Lawnmower

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

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0139	0.0110	0.9400	5.0000e-005		5.1700e-003	5.1700e-003		5.1700e-003	5.1700e-003	0.0000	1.4844	1.4844	1.2700e-003	0.0000	1.5162
Unmitigated	1.1762	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884

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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	tons/yr										MT/yr					
Architectural Coating	0.1318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0321	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884
Total	1.1762	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0527					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0246	0.0110	0.9400	5.0000e-005		5.1700e-003	5.1700e-003		5.1700e-003	5.1700e-003	0.0000	1.4844	1.4844	1.2700e-003	0.0000	1.5162
Total	1.0139	0.0110	0.9400	5.0000e-005		5.1700e-003	5.1700e-003		5.1700e-003	5.1700e-003	0.0000	1.4844	1.4844	1.2700e-003	0.0000	1.5162

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	36.6390	0.0968	7.5600e-003	41.3104
Unmitigated	36.6390	0.0968	7.5600e-003	41.3104

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	9.38218 / 5.91485	36.6390	0.0968	7.5600e-003	41.3104
Total		36.6390	0.0968	7.5600e-003	41.3104

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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			
Single Family Housing	9.38218 / 5.91485	36.6390	0.0968	7.5600e-003	41.3104
Total		36.6390	0.0968	7.5600e-003	41.3104

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	38.7002	2.2871	0.0000	95.8782
Unmitigated	38.7002	2.2871	0.0000	95.8782

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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			
Single Family Housing	190.65	38.7002	2.2871	0.0000	95.8782
Total		38.7002	2.2871	0.0000	95.8782

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	190.65	38.7002	2.2871	0.0000	95.8782
Total		38.7002	2.2871	0.0000	95.8782

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

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
