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Greenhouse Gas Impact Analysis
Rodeo Property Project
City of Salinas, Monterey County, California

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Table of Contents

List of Tables

List of Exhibits

List of Figures

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMBAG	Association of Monterey Bay Area Governments
AQI	air quality index
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
ARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
EPA	Environmental Protection Agency
ft^2	square feet
GHG	greenhouse gases
gpm	gallons per minute
IPCC	Intergovernmental Panel on Climate Change
lb/MWh	pounds per megawatt hour
LEV	low emission vehicle
MBARD	Monterey Bay Air Resources District
MCAP	Municipal Climate Action Plan
MMT CO_2e	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MT CO_2e	metric tons of carbon dioxide equivalent
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
NCCAB	North Central Coast Air Basin
NHTSA	National Highway Transportation Safety Administration
ppb	parts per billion
ppm	parts per million
psi	pounds per square inch
SB	Senate Bill
SIP	state implementation plan

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SECTION 1: EXECUTIVE SUMMARY

1.1 - Purpose and Methods of Analysis

The following analysis was prepared to evaluate whether the Project would cause significant greenhouse gas impacts. This assessment follows the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows Monterey Bay Air Resources District (MBARD) recommendations for quantification of emissions and evaluation of air quality impacts.

Greenhouse gas emissions are evaluated in comparison to targets for local governments suggested in the California Air Resources Board's (ARB) Assembly Bill (AB) 32 Scoping Plan (the Scoping Plan). The analysis will demonstrate consistency with AB 32 reduction targets.

1.2 - Project Summary

1.2.1 - Site Location

The Rodeo Property Project is located at 295 Sun Way, south and west of US 101 in the central part of the City of Salinas, Monterey County, California (see Exhibit 1). North and south of the Project site are existing warehouse/light industrial uses. To the north of the Project site is Security Public Storage; to the south at 10 Simas Street is Celebration Church and at 34 Simas Street is a light industrial building containing an ambulance dispatch business and an electrical supply company. To the southwest of the Project at 8 Sun Street is Sun Street Centers Men's Residential Program. Adjacent to and west of the Project is open space; however, there is a mix of land uses further west of the Project, including St. James CME Church located at 285 Calle Cebu, Haciendas Place multi-family residential located at 245 Calle Cebu, and the Rancho Salinas Mobile Park located at 150 Sherwood Drive. The Project site is bounded by Sun Street and Sun Way to the west, US 101 to the east, Security Public Storage to the north, and light industrial uses to the south (see Exhibit 2).

1.2.2 - Project Description

The project is a General Plan amendment and Rezone that would allow development of industrial and commercial uses on a 6.8-acre site located on Sun Street adjacent to US 101. The proposed land use designation would allow the site to be developed at a floor area ratio of 0.4, which would allow for the development of up to 118,600 square feet (sq.ft.) of industrial floor space. For purpose of this analysis, 4 percent of the floor space (4,700 sq.ft.) was assumed to be occupied by support office space which is categorized as general office space. The remaining floor area (113,900 sq.ft.) was modeled as light industrial space. The site is designated in the General Plan as Open Space. Access to the site is provided via Sun Street and its connections to Calle Cebu and E. Market Street.

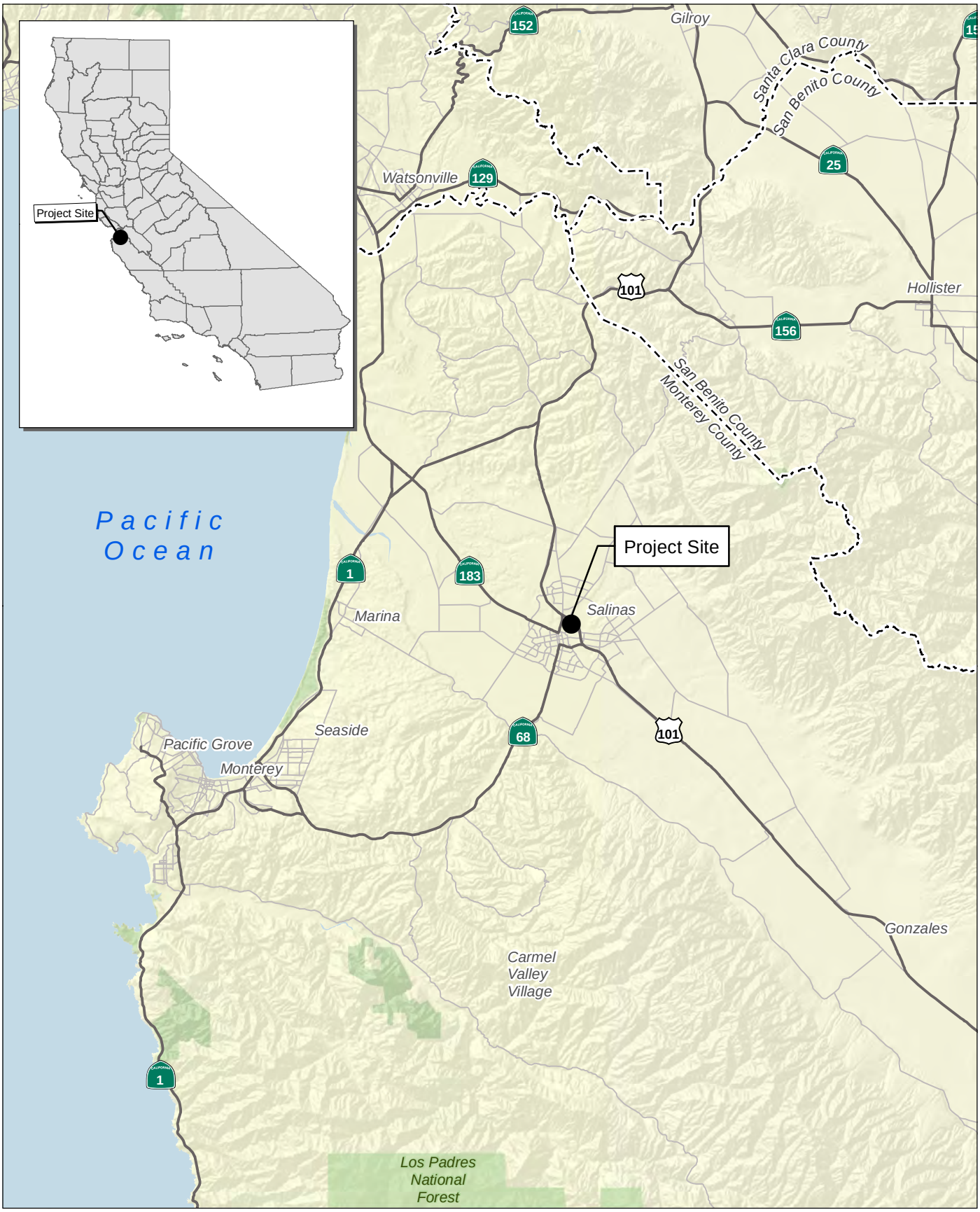
1.3 - Summary of Analysis Results

Impact GHG-1: The Project would not generate direct and indirect greenhouse gas emissions that would result in a significant impact on the environment.

Less than significant impact.

Impact GHG-2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.

Less than significant impact.



Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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Source: ESRI Imagery

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1,000 500 0 1,000
Feet

Exhibit 2
Local Vicinity Map
Aerial Base

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SECTION 2: CLIMATE CHANGE SETTING

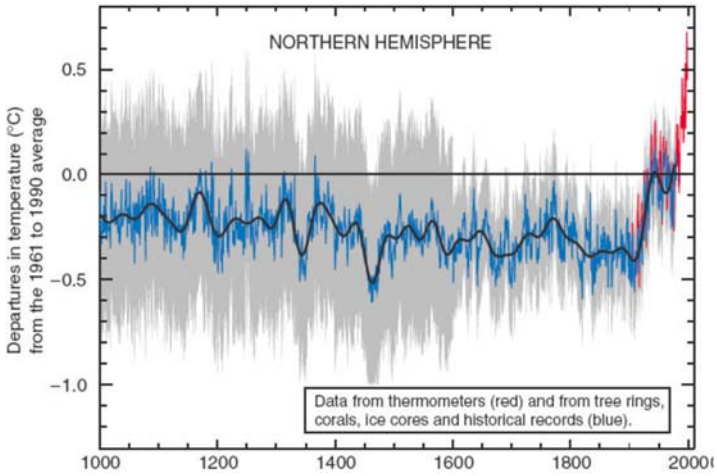
2.1 - Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases (GHGs) needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

Some question the validity of the temperature graph used by the IPCC in some form in the Third and Fourth Assessment Reports (see Figure 1). The figure shows that temperatures are relatively stable until 1900, when the temperature increases rapidly. Some scientists have had trouble duplicating the data used for the graph (McIntyre and McKitrick 2003) and indicated that if the data are correctly handled, then it "shows the 20th century climate to be unexceptional compared to earlier centuries" (McKitrick 2005). Hans von Storch, a German climate scientist, claimed that the methods used by Mann et al. probably underestimated the temperature fluctuations in the past by a factor of two or more (Von Storch et al. 2004).

Figure 1: Historical Temperature Changes



Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (CCCC 2006; Moser et al. 2009):

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

2.2 - Greenhouse Gases

Gases that trap heat in the atmosphere are GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous

oxides (N_2O), chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Emissions from human activities, such as electricity production and vehicle use, have likely elevated the concentration of some of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming.

The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. Individual GHG compounds have varying global warming potential and atmospheric lifetimes. The global warming potential of a GHG is a measure of how much a given mass of a GHG contributes to global warming. Essentially, the global warming potential of a GHG is a measurement of the radiative forcing of that GHG compared with the reference gas, CO_2. Carbon dioxide has a global warming potential of one.

To describe how much global warming a given type and amount of GHG may cause, the carbon dioxide equivalent (CO_2e) is used. The calculation of the CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas (carbon dioxide). For example, methane's warming potential of 21 indicates that CH_4 has 21 times greater warming affect than CO_2 on a molecule per molecule basis. A CO_2e is a mass emission of an individual GHG multiplied by its global warming potential.

Greenhouse gases defined by AB 32 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 1.

Table 1: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide (N_2O)	Nitrous oxide is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane (CH_4)	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Table 1 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide (CO_2)	Carbon dioxide is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production.
Hydrofluorocarbons	Hydrofluorocarbons are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: Compiled from a variety of sources, primarily IPCC 2007a and 2007b.		

Other GHGs include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived GHGs; global warming potentials for short-lived GHGs are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week, and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light.

Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, as opposed to other GHGs that can remain in the atmosphere for years. When black carbon deposits on snow it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

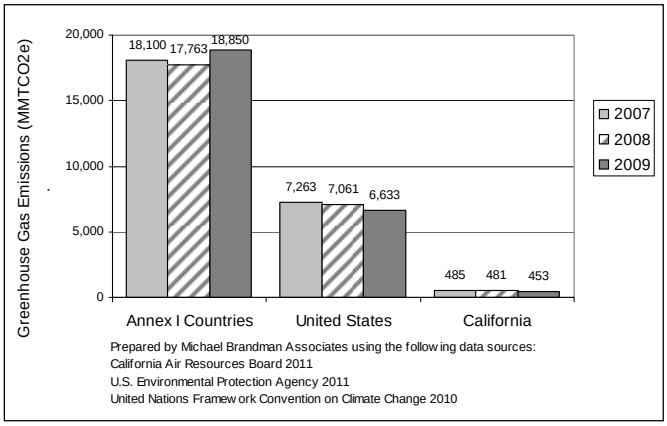
The Project would emit black carbon through emissions of diesel particulate matter (DPM) during construction. However, procedures to quantify changes due to black carbon emissions have not been widely accepted or thoroughly researched (IPCC 2007; Wilson and Walters 2012). Therefore, impacts to climate change from black carbon are speculative at this time and no further discussion is necessary.

Although there could be health effects resulting from changes in the climate and the consequences that it can bring about, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), CO_2, CH_4, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen (Center for Disease Control 2010; Occupational Safety and Health Administration 2003).

2.3 - Emissions Inventories

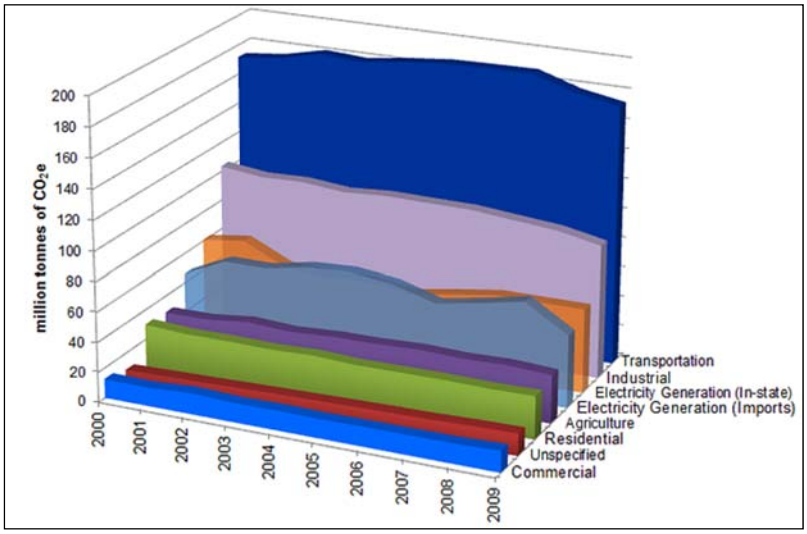
Emissions worldwide were approximately 49,000 million metric tons of carbon dioxide equivalents (MMT CO_2e) in 2004 (IPCC 2007b). Greenhouse gas emissions in 2007, 2008, and 2009 are shown in Figure 2. Annex I parties refer to countries that joined the United Nations Framework Convention on Climate Change.

Figure 2: Greenhouse Gas Emissions Trends



As shown in Figure 3, the main contribution of GHG emissions in California between the years 2000 and 2009 was transportation. The second highest sector was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output.

Figure 3: Greenhouse Gas Emission Trends by Sector in California



Source: ARB 2011a.

2.4 - Regulatory Setting

2.4.1 - International

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of 5 percent against 1990 levels over the five-year period 2008-2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over

the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The United States has not entered into force of the Kyoto Protocol. However, other countries have entered, such as Australia, Canada, China, the European Union (Belgium, Denmark, Germany, the Hellenic Republic, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, Great Britain, and Northern Ireland), Japan, Mexico, and New Zealand.

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2°C above pre-industrial levels, subject to a review in 2015. The United Nations Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

2.4.2 - National

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States (U.S.) Supreme Court on November 29, 2006, in which it was petitioned that the Environmental Protection Agency (EPA) regulate four GHGs, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act (CAA). A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the CAA. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations; and
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below.

The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas.

In September 2011, the EPA Office of Inspector General evaluated the EPA's compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a federal appeals court rejected a lawsuit by thirteen states against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations IPCC rather than doing its own research or testing data according to federal standards. The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah. Virginia intends to petition the Supreme Court to review the case.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). On August 28, 2012, EPA and NHTSA issued a joint Final Rulemaking to extend the National Program of harmonized GHG and fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model years 2017-2025 standards, this program is projected to save approximately 4 billion barrels of oil and 2 billion metric tons of GHG emissions, with net benefits up to $451 billion.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce GHG emissions and improve fuel efficiency of *heavy-duty trucks and buses*. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20-percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10-percent reduction for gasoline vehicles and 15-percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards

starting in the 2014 model year, which would achieve up to a 10-percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_x (oxides of nitrogen) Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap and trade program is estimated to be fully implemented in 2015.

2.4.3 - California

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels; and
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal established an aggressive, but achievable, mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an

increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 GHG emissions level of 427 MMT CO_2e on December 6, 2007 (ARB 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMT CO_2e. Emissions in 2020 in a "business as usual" scenario were previously estimated to be 596 MMT CO_2e. However, the most recent estimate for year 2020 business as usual is 545 MMT CO_2e (ARB 2010). Therefore, a 21.7-percent reduction from the year 2020 business as usual forecast is required to achieve the year 1990 emissions target.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations will result in reductions of at least 42 MMT CO_2e by 2020.

The Scoping Plan contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (ARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[1]

On May 22, 2014 the ARB approved the First Update to the Scoping Plan. The update builds upon the Initial Scoping Plan with new strategies and recommendations.

Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its

[1] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of the ARB Scoping Plan for the implementation of AB 32, the Court enjoined ARB from further rulemaking under AB 32 until ARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, ARB filed an appeal. On June 24, 2011, the Court of Appeal granted ARB's petition staying the trail court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, ARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. The ARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued EPA to challenge its granting of the waiver to California for its standards. California assisted EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The Pavley I standards are phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant. Pavley II was incorporated into Amendments to the Low-Emission Vehicle Program referred to as Low Emissions Vehicles (LEV) III. The amendments, effective August 7, 2012, apply to vehicles for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025.

Low Carbon Fuel Standard—Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates a statewide goal established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan (SIP) for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011 included a preliminary injunction against ARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the ARB to continue to implement and enforce the regulation. The Renewable Fuels Association and Growth Energy filed a petition to the US Supreme Court on March 20, 2014 challenging the Court of Appeals decision.

SB 1368. In 2006, the State Legislature adopted Senate Bill (SB) 1368, subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined-cycle plants. Accordingly, the new law will effectively prevent

California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will dramatically lower GHG emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for GHG emissions required by SB 1368. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007.

Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

Title 24. During operation, the project is required to comply with Title 24 of the California Code of Regulations (CCR) established by the Energy Commission regarding energy conservation standards. Although these regulations do not specifically reduce GHGs, they increase energy efficiency for new buildings, thus indirectly reducing GHG emissions. CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

The current version of Title 24 (2016 Title 24 Standards) became effective on January 1, 2017. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. According to the California Energy Commission, single-family homes built to the 2016 standards will use about 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards. In 30 years, California will have saved enough energy to power 2.2 million homes, reducing the need to build 12 additional power plants.

Title 20. CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold, or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

California Green Building Standards. The Project is also required to comply with the California Green Building Standards, which is Part 11 of Title 24 of the California Code of Regulations. The

most recent 2016 Green Building Standards Code went into effect on January 1, 2017. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- Construction waste. A minimum 65-percent diversion of construction and demolition waste from landfills. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled;
- Water Efficiency and Conservation [Indoor Water Use (4.303.1)]. Fixtures and fixture fittings reducing the overall use of potable water within the building by at least 20 percent shall be provided. The 20-percent reduction shall be demonstrated by one of the following methods:
  1. Prescriptive Method: Showerheads (≤ 2.0 gallons per minute [gpm] @ 80 pounds per square inch [psi]); Residential Lavatory Faucets (≤ 1.2 gpm @ 60 psi); Nonresidential Lavatory Faucets (≤ 0.5 gpm @ 60 psi); Kitchen Faucets (≤ 1.8 gpm @ 60 psi); Toilets (≤ 1.28 gallons/flush); floor-mounted urinals (≤ 0.5 gallons/flush); wall-mounted urinals ≤ 0.125 gallons/flush) and
  2. Performance Method: Provide a calculation demonstrating a 20% reduction of indoor potable water using the baseline values set forth in Table 4.303.1. The calculation will be limited to the total water usage of showerheads, lavatory faucets, water closets and urinals within the dwelling.
- Water Efficiency and Conservation [Outdoor Water Use (4.304.1)]. After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet must either comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent; or, projects with aggregate landscape areas of less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.
- Materials pollution control. Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard; and
- Building commissioning. Mandatory inspections of energy systems (e.g., heat furnace, air conditioner, mechanical equipment) are required for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

Cap-and-Trade. California's Cap-and-Trade Regulation (Regulation) took effect on January 1, 2012, with amendments to the Regulation effective September 1, 2012. The enforceable compliance obligation began on January 1, 2013. Cap-and-trade is a market-based regulation designed to reduce GHGs from multiple sources. Cap-and-trade sets a firm limit or "cap" on GHGs and minimize the compliance costs of achieving AB 32 goals. The cap will decline approximately 3 percent each year beginning in 2013. Trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies. With a carbon market, a price on carbon is established for GHGs. Market forces spur technological innovation and investments in clean energy.

SB 375. SB 375 passed the Senate on August 30, 2008 and signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

- Is in an area with an approved sustainable community's strategy, or an alternative planning strategy, that the ARB accepts as achieving the GHG reduction targets;
- Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and
- Incorporates the mitigation measures required by an applicable prior environmental document.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of

its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the " . . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15 established an interim year GHG emissions reduction target of 40 percent below 1990 levels by year 2030. The reduction target provides a mid-term goal between the original AB 32 target (achieve 1990 levels by year 2020) and the Executive Order S-03-05 target (achieve 80 percent below 1990 levels by year 2020)**.** ARB's second update of the AB 32 Scoping Plan is focused on achieving Executive Order B-30-15 through a more intensive framework of policies, regulations, planning efforts, and infrastructure investments.

SB 32. The Governor signed SB 32 in September of 2016, giving ARB the statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states that "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
   - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
   - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard (LCFS)
   - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
   - Maintaining existing GHG standards for light- and heavy-duty vehicles.
   - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
   - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
   - Improve freight system efficiency.
   - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
   - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
   - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
   - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.

6. SB 375 Sustainable Communities Strategies
   - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
   - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
   - ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

2.4.4 - Monterey Bay Air Resources District

CEQA Greenhouse Gas Guidance

The Monterey Bay Air Resources District (MBARD) 2008 CEQA Guidelines do not define the amount of GHG emissions that would result in a significant impact on the environment. On February 6, 2014, the MBARD held a meeting to present the MBARD GHG threshold development to the MBARD Advisory Committee. This meeting is recorded as Agenda Item No. 10. During the meeting, the following thresholds were under consideration for adoption:

- Stationary Sources: 10,000 metric tons (MT) of CO_{2e} per year.
- Land-use projects apply one of the following:
  - Bright line of 2,000 MT CO_{2e} per year or
  - Incorporate mitigation measures to reduce GHG emissions by 16%, or
  - Compliance with adopted Climate Action Plan
  - A threshold of 2,000 MT CO_{2e} per year corresponds to a residential project with approximately 130 single family homes.

The MBARD's goal has been to strike a balance between (1) the unique economic viability of our area; (2) differences in land-use development between inland and coastal cities; and (3) achieving statewide goals to reduce GHG emissions.

During the discussion, it mentioned that the bright-line threshold of 2,000 metric tons of carbon dioxide equivalent (MT CO_2e) per year for small land use projects might increase additional costs to prepare an EIR or incorporate additional mitigation measures to address significance GHG emissions. Although the MBARD has not formally adopted any GHG emission related thresholds, the 2,000 MT CO_2e per year is the only standard the MBARD has proposed and is the most region-specific threshold available at the time of this analysis.

2.4.5 - The Association of Monterey Bay Area Governments

2040 Metropolitan Transportation Plan/Sustainable Communities Strategy

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated Metropolitan Planning Organization (MPO) for the tri-county Monterey Bay Region, including Monterey County. AMBAG works with several organizations, including the Transportation Agency for Monterey County, Monterey Salinas Transit, the MBARD, and state and federal governments to develop transportation planning and programming for the region. The AMBAG Board of Directors adopted the Final 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) on June 13, 2018.

2.4.6 - Local

The City of Salinas has not adopted any GHG reduction plan or Climate Action Plan.

The County of Monterey drafted a Monterey County Municipal Climate Action Plan (CAP) in April 2013. The draft CAP aims to provide a description of the steps being taken by the County to reduce GHG emissions associated with its municipal operations, describe three potential paths towards the County's goal of reducing GHG emissions to a level that is 15 percent below the 2005 emissions level before 2020, and serve as one component of the County's larger, community-wide CAP, which addresses GHG emissions from the community at large. The draft CAP was prepared in response to the ARB's AB 32 Scoping Plan recommendation of establishing GHG reduction goals for both their municipal operations and the community to be consistent with those of the state. Three GHG reduction scenarios were provided in the CAP, and each scenario estimated the total GHG reduction by the year 2020. The draft CAP assumed the County will implement scenario 3 and provided an implementation plan to help achieve the GHG emission reduction goal. When estimating GHG emission reductions, several sectors were included in the CAP. The emission reduction measures that related to the proposed Project are listed below:

- Energy use—Buildings and Facilities: BM-1 Building Energy Management Systems at Major Facilities
- Vehicle fleet & Employee commute
  - S-4 Other Vehicle Fuel Efficiency Measures

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SECTION 3: MODELING PARAMETERS AND ASSUMPTIONS

3.1 - Model Selection and Guidance

The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to estimate the project's construction and operation-related GHG emissions. CalEEMod was developed in cooperation with air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential GHG emissions associated with construction and operation from a variety of land uses.

3.2 - Construction

Construction-related GHG emissions can vary substantially from day to day, depending on the level of activity, and the specific type of operation. Construction emissions result from on-site and off-site activities. On-site GHG emissions principally consist of exhaust emissions from heavy-duty construction equipment. Off-site GHG emissions would occur from motor vehicle exhaust from material delivery vehicles and construction worker traffic.

The construction equipment assumed for the project is shown in the CalEEMod output contained in Appendix A. The CalEEMod default construction equipment fleet mix was used in the analysis.

3.3 - Operation

Operational emissions are those emissions that occur during operation of the project. The major sources are summarized below.

3.3.1 - Motor Vehicles

Motor vehicle emissions refer to exhaust emissions from the automobiles that would travel to and from the project site. Rodeo property general plan amendment & rezoning traffic impact analysis prepared by Mott Macdonald (April 2018) utilized the trip rates from the Institute of Transportation Engineers (ITE) publication Trip Generation Manual, 10th Edition.

The vehicle fleet mix is the mix of motor vehicle classes that are associated with the project's daily operational trip. Emission factors from ARB's EMFAC model are assigned to the expected vehicle mix that account for the vehicles' vehicle class, speed, and fuel use (gasoline and diesel-powered vehicles). The vehicle fleet mix for light industrial traffic was a combination of CalEEMod default assumption and study of Fontana trip generation rates and truck percentage for industrial and warehouse uses (Fontana 2003). The CalEEMod default vehicle fleet mix was used for trips generated by the general office operation.

3.3.2 - Landscape Equipment

The landscaping equipment (leaf blowers, chain saws, mowers) would generate GHG emissions as a result of fuel combustion assumptions in the CalEEMod model.

3.3.3 - Electricity

Pacific Gas & Electric (PG&E) provides estimates of its emission factor per megawatt hour of electricity delivered to its customers. PG&E emissions factor for 2020 for CO_2 is provided below. The rates for methane and nitrous oxide are based on compliance with the Renewable Portfolio Standard. The factors listed below were applied in estimating project emissions for the year 2020.

- Carbon dioxide: 491.65 lbs./MWh
- Methane: 0.022 lb/MWh
- Nitrous oxide: 0.005 lb/MWh

3.3.4 - Title 24

CalEEMod has three categories for electricity consumption: electricity that is impacted by Title 24 regulations; non-Title 24 electricity; and lighting. The Title 24 uses are defined as the major building envelope systems covered by California's Building Code Title 24 Part 6, such as space heating, space cooling, water heating, and ventilation. Lighting is separate since it can be both part and not part of Title 24. Since lighting is not part of the building envelope energy budget, CalEEMod does not consider lighting to have any further association with Title 24 references in the program. Non-Title 24 includes everything else such as appliances and electronics. To properly divide the total electricity consumption into the three categories, the percentage for each category is determined by using percentages derived from the CalEEMod default electricity intensity. The percentages are applied to the electricity consumption to obtain the values used in the analysis.

In addition, the 2016 Title 24 standards became effective on January 1, 2017. Default values from the 2016 version of CalEEMod were used.

3.3.5 - Natural Gas

There would be emissions from the combustion of natural gas used for the project (water heaters, heat, etc.). CalEEMod has two categories for natural gas consumption: Title 24 and non-Title 24. CalEEMod default natural gas consumption rates were used, based on the proposed land use types.

3.3.6 - Water and Wastewater

There would be GHG emissions from the use of electricity to pump potable water to the project and to treat wastewater. CalEEMod defaults were used for these sources.

3.3.7 - Solid Waste

Greenhouse gas emissions would be generated from the decomposition of solid waste generated by the project. CalEEMod was used to estimate the GHG emissions from this source. The CalEEMod default solid waste generation rates were used, based on the proposed land use types.

SECTION 4: THRESHOLDS OF SIGNIFICANCE

As described above, although the MBARD has not formally adopted any GHG emission thresholds of significance, the bright line thresholds proposed during the Agenda Item No. 10 meeting is the latest and most applicable threshold for the MBARD. Therefore, this analysis was developed by using the MBARD's project-level land use bright line operational GHG emission thresholds.

For construction-related GHG emissions, Agenda Item No. 10 does not provide any standards. Therefore, for the purposes of a conservative analysis, the Project's construction GHG emissions are amortized over an assumed project lifetime of 30 years and are included in the operational emissions to compare against the threshold.

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SECTION 5: GREENHOUSE GAS IMPACT ANALYSIS

5.1 - CEQA Guidelines

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

(b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

5.2 - Impact Analysis

5.2.1 - Greenhouse Gas Inventory

Impact GHG-1:	**The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

Construction Emissions

The Project would generate GHG emissions during construction activities resulting from emission sources such as construction equipment, haul trucks, and construction worker vehicles. Although these emissions would be temporary and short-term in nature, they could represent a substantial contribution of GHG emissions. Construction emissions were modeled using CalEEMod and the assumptions described above in Section 3 (Modeling Parameters and Assumptions). See Appendix A for detailed CalEEMod outputs and assumptions.

Table 2 presents the project's total construction emissions, which are amortized over the assumed lifetime of the project and added with annual operational emissions.

Table 2: Estimated Construction-Related Greenhouse Gas Emissions

Construction Phase	Total Emissions MT CO_2e
Demolition	37

Table 2 (cont.): Estimated Construction-Related Greenhouse Gas Emissions

Construction Phase	Total Emissions MT CO_2e
Site Preparation	18
Grading	29
Building Construction	538
Asphalt Paving	22
Architectural Coating	5
Total Construction Emissions	648
Amortized over 30 years[1]	22

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Totals may not appear to sum exactly due to rounding.
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (see Appendix A).

Operational Emissions

Following construction of the project, long-term operational emissions would be generated by the sources described in Section 3 (Modeling Parameters and Assumptions). Table 3 presents the estimated annual GHG emissions from the project's operational activities.

Table 3: Estimated Operational Greenhouse Gas Emissions

Source	Total Emissions MT CO_2e
Area	<1
Energy	395
Mobile	1087
Waste	73
Water	70
Amortized Construction	22
Total	1,647
Threshold of Significance	2,000
Exceed thresholds?	No

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Source of thresholds: MBARD "Receive a Presentation on District GHG Thresholds Development." Feb. 2014.
CalEEMod output file. See Appendix.

Conclusions

As shown in Table 3, the project's amortized construction and annual operational GHG emissions would not exceed the applicable threshold of significance. Thus, the project's construction and operational GHG emissions would not result in a significant impact on climate change.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less than significant impact.

5.2.2 - Greenhouse Gas Reduction Plans

Impact GHG-2	**The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

The Monterey County has an adopted a Municipal Climate Action Plan (MCAP) that was approved by the County Council in April 2013. Projects that are consistent with the adopted MCAP would have a less than significant impact related to GHG emissions. However, the MCAP has been developed primarily with recommended programs for the City to implement, rather than measures, strategies, and requirements for individual land use development projects. Thus, this analysis attempts to evaluate the recommended MCAP programs with which the project is consistent, but it also evaluates the project's consistency with the statewide AB 32 Scoping Plan and AMBAG's 2040 MTP/SCS.

With respect to the MCAP's recommended measures, the Project would be consistent with Energy Use-Buildings and Facilities: BM-1 Building Energy Management Systems at Major Facilities which would reduce the GHG emissions from area source and energy source. Although it is not clear if the proposed Project would install any on-site renewable energy production systems at this time, the building would be constructed to meet the most current Title 24 standards.

AB 32 Scoping Plan

The ARB's adopted AB 32 Scoping Plan (Scoping Plan) states, "The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 GHG emissions reduction goal represents the level scientists believe is necessary to reach levels that would stabilize climate" (ARB 2009). The year 2020 GHG emission reduction goal of AB 32 corresponds with the mid-term target established by Executive Order S-3-05, which aims to reduce California's fair-share contribution of GHGs in 2050 to levels that would stabilize the climate.

The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. The following analysis in Table 4 evaluates the AB 32 Scoping Plan emission reduction measures with the Project's design features to determine consistency with the applicable GHG reduction plan.

Table 4: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not applicable.** Although the cap-and-trade system has begun, the project is not one targeted by the cap-and-trade system regulations and therefore this measure does not apply to the project.
2. California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, the standards would be applicable to the light-duty vehicles that access the project site.
3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Consistent.** This is a measure for the State to increase its energy efficiency standards in new buildings. The Project is required to build to the new standards and would increase its energy efficiency through compliance.
4. Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. Pacific Gas & Electric is required to increase its percent of power supply from renewable sources to 33 percent by the year 2020 pursuant to various regulations. The Project would purchase power that comprises a greater amount of renewable sources and could install renewable solar power systems that will assist the utility in achieving the mandate.
5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. All fuel consumption associated with the project's construction and operational activities would use fuel that meets these standards.

Table 4 (cont.): Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
6. Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Not applicable.** The Project is not related to developing GHG emission reduction targets.
7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not applicable.** When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not applicable.** The Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The Project would comply with Title 24, which requires new buildings to be "solar ready." The Project would not preclude the implementation of this strategy.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive CH_4 emissions and reduce flaring at refineries.	**Not applicable.** This measure would apply to the direct GHG emissions at major industrial facilities emitting more than 500,000 $MTCO_2e$ per year. The Project is a small industrial land use that would generate less than 2,000 MT CO_2e per year.
12. High Speed Rail. Support implementation of a high-speed rail system.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. The proposed Project would not preclude the implementation of this strategy.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** The Project would comply with the California Energy Code and thus incorporate applicable energy efficiency features designed to reduce project energy consumption.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Consistent.** This measure is applicable to the high global warming potential gases that would be used by sources with large equipment (such as in air conditioning and commercial refrigerators). The Project would include refrigeration or air conditioning equipment and would be required to comply with all ARB requirements for the Stationary Equipment Refrigerant Management Program.

Greenhouse Gas Impact Analysis

Table 4 (cont.): Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
15. Recycling and Waste. Reduce CH_4 emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero waste.	**Consistent**. The Project would utilize City of Salinas recycling services.
16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not applicable.** The Project site is not forested; therefore, no preservation is possible.
17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** The Project would comply with the California Energy Code and the California Updated Model Landscape Ordinance. With adherence to these regulations, the Project will consume energy and water in an efficient manner.
18. Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not applicable.** The Project site is not designated or in use for agriculture purposes. No grazing, feedlot, or other agricultural activities that generate manure occur on-site or are proposed to be implemented by the Project.
Source of ARB Scoping Plan Reduction Measure: California Air Resources Board 2008. Source of Project Consistency or Applicability: FirstCarbon Solutions.	

2040 Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2040 MTP/SCS is a planning document that contains a compilation of the projects proposed in the regional transportation plans for the tri-county Monterey Bay Region (including the regional plan prepared by the Transportation Agency for Monterey County) and a SCS, pursuant to the requirements of SB 375. SB 375 includes the following primary findings related to the MTP/SCS development process:

- ARB developed regional GHG emission reduction targets for cars and light trucks for each of the 18 MPOs in California, including AMBAG. The ARB-approved target for AMBAG is a per capita reduction in GHG emissions from passenger vehicle travel of zero percent by 2020 and five percent by 2035 relative to 2005 levels. Relative to 2005 levels, the 2040 MTP/SCS achieves a three percent per capita reduction for 2020 and a six percent per capita reduction for 2040.
- AMBAG is required to prepare an SCS that specifies how the GHG emission reduction target set by ARB will be achieved. If the target cannot be met through the SCS, then an Alternative Planning Strategy (APS) shall be prepared. Chapter 4 of the 2040 MTP/SCS includes the SCS, which demonstrates how the region will meet or exceed the GHG emission reduction targets set forth by ARB.
- Streamlines CEQA requirements for qualifying development projects that meet statutory criteria and are consistent with the 2040 MTP/SCS.

The 2040 MTP/SCS envisions an increase in development density via infill development and mixed use in existing commercial corridors. Increased density, accessible transit, and complete streets would encourage fewer and shorter trips and more trips by transit, walking, and bicycling. The GHG emission reduction targets adopted to comply with SB 375 and implemented through the 2040 MTP/SCS only consider GHG emissions from passenger cars and light-duty trucks. Furthermore, 2040 MTP/SCS was based on a Regional Growth Forecast based on data from the 2010 Census, data from the California Employment Development Department and InfoUSA, as well as updated 2015 population and household data from the California Department of Finance. As discussed in the 2040 MTP/SCS, the Regional Growth Forecast was further refined through meetings with local jurisdictions. The City of Salinas is expected to experience an eighteen percent increase in employment from 2015 to 2040 and a sixteen percent increase in population over the same time period. Therefore, the Project would provide infill development in an existing commercial corridor that is reasonably consistent with the growth projections in the 2040 MTP/SCS. The Project is not within an SCS priority area and so is not subject to requirements applicable to those areas. Considering this information, the Project would not conflict with the 2040 MTP/SCS.

Summary

As shown in Table 4, the project is consistent with the strategies, or the strategies are not applicable to the Project. Therefore, the Project is consistent with the applicable strategies and would not conflict with the recommendations of AB 32 in achieving a statewide reduction in GHG emissions. Furthermore, the Project would not conflict with the MCAP or the 2040 MTP/SCS. In addition, as shown in Table 3, the Project's construction and operational GHG emissions would not exceed the recommended thresholds of significance, which are developed as allowable limits so they do not impede the region from achieving GHG reduction goals. Therefore, the Project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce GHG emissions. The impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None.

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SECTION 6: REFERENCES

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Appendix A:
CalEEMod Output

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CalEEMod Output

Table of Contents

Rodeo GPA

Monterey County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	113.90	1000sqft	2.61	113,900.00	0
General Office Building	4.70	1000sqft	0.11	4,700.00	0
Other Non-Asphalt Surfaces	177.60	1000sqft	4.08	177,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	491.65	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utilitiy information ajusted based on Renewable Portofolio Standard

Land Use - info from Rodeo GPA TIA 041318. The project site is 6.8 acres. Therefore, the remaining area would be considered as non-asphalt surfaces.

Construction Phase - assume operation year is 2020. CalEEMod default schedule is applied.

Grading - assume balance onsite (old Rodeo project info, GPA does not specify if there would have cut and fill)

Demolition - infro from client RFI response 5/26/2017

Vehicle Trips - Rodeo GPA TIA 041318 ITE 10th edition trip rates.

Fleet Mix - fleet mix adjusted based on CalEEMod default and San Bernadino 2003 study for truck percentages for industrial and warehouse uses

Energy Use -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.03	0.13
tblFleetMix	LDA	0.53	0.44
tblFleetMix	LDT1	0.03	0.03
tblFleetMix	LDT2	0.20	0.17
tblFleetMix	LHD1	0.02	0.07
tblFleetMix	LHD2	6.0270e-003	0.02
tblFleetMix	MCY	7.8900e-003	0.00
tblFleetMix	MDV	0.14	0.12
tblFleetMix	MH	9.0500e-004	0.00
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	4.1500e-003	0.00
tblFleetMix	SBUS	1.2530e-003	0.00
tblFleetMix	UBUS	2.9590e-003	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	641.35	491.65
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	1.32	1.99
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	SU_TR	0.68	5.00
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	11.03	9.74

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1558	1.4931	0.9789	1.8500e-003	0.1830	0.0761	0.2591	0.0906	0.0708	0.1615	0.0000	167.7018	167.7018	0.0364	0.0000	168.6118
2019	1.1943	2.9175	2.5259	5.3000e-003	0.1300	0.1406	0.2706	0.0353	0.1321	0.1674	0.0000	477.2599	477.2599	0.0734	0.0000	479.0939
Maximum	**1.1943**	**2.9175**	**2.5259**	**5.3000e-003**	**0.1830**	**0.1406**	**0.2706**	**0.0906**	**0.1321**	**0.1674**	**0.0000**	**477.2599**	**477.2599**	**0.0734**	**0.0000**	**479.0939**

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					
2018	0.1558	1.4931	0.9789	1.8500e-003	0.0970	0.0761	0.1732	0.0448	0.0708	0.1156	0.0000	167.7017	167.7017	0.0364	0.0000	168.6117
2019	1.1943	2.9175	2.5259	5.3000e-003	0.1300	0.1406	0.2706	0.0353	0.1321	0.1674	0.0000	477.2596	477.2596	0.0734	0.0000	479.0936
Maximum	**1.1943**	**2.9175**	**2.5259**	**5.3000e-003**	**0.1300**	**0.1406**	**0.2706**	**0.0448**	**0.1321**	**0.1674**	**0.0000**	**477.2596**	**477.2596**	**0.0734**	**0.0000**	**479.0936**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**27.46**	**0.00**	**16.23**	**36.42**	**0.00**	**13.95**	**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	9-3-2018	12-2-2018	1.2800	1.2800
2	12-3-2018	3-2-2019	1.0507	1.0507
3	3-3-2019	6-2-2019	1.0333	1.0333
4	6-3-2019	9-2-2019	1.0303	1.0303
5	9-3-2019	9-30-2019	0.2980	0.2980
		Highest	1.2800	1.2800

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5612	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003
Energy	0.0166	0.1511	0.1269	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	392.9451	392.9451	0.0134	5.3400e-003	394.8704
Mobile	0.2571	3.0905	2.9026	0.0117	0.6102	0.0174	0.6276	0.1651	0.0165	0.1816	0.0000	1,085.9409	1,085.9409	0.0494	0.0000	1,087.1765
Waste						0.0000	0.0000		0.0000	0.0000	29.5575	0.0000	29.5575	1.7468	0.0000	73.2275
Water						0.0000	0.0000		0.0000	0.0000	8.6213	33.1914	41.8127	0.8870	0.0213	70.3183
Total	**0.8349**	**3.2416**	**3.0333**	**0.0126**	**0.6102**	**0.0289**	**0.6390**	**0.1651**	**0.0280**	**0.1931**	**38.1788**	**1,512.0847**	**1,550.2635**	**2.6966**	**0.0266**	**1,625.6005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5612	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003
Energy	0.0166	0.1511	0.1269	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	392.9451	392.9451	0.0134	5.3400e-003	394.8704
Mobile	0.2571	3.0905	2.9026	0.0117	0.6102	0.0174	0.6276	0.1651	0.0165	0.1816	0.0000	1,085.9409	1,085.9409	0.0494	0.0000	1,087.1765
Waste						0.0000	0.0000		0.0000	0.0000	29.5575	0.0000	29.5575	1.7468	0.0000	73.2275
Water						0.0000	0.0000		0.0000	0.0000	8.6213	33.1914	41.8127	0.8870	0.0213	70.3183
Total	**0.8349**	**3.2416**	**3.0333**	**0.0126**	**0.6102**	**0.0289**	**0.6390**	**0.1651**	**0.0280**	**0.1931**	**38.1788**	**1,512.0847**	**1,550.2635**	**2.6966**	**0.0266**	**1,625.6005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/3/2018	9/28/2018	5	20	
2	Site Preparation	Site Preparation	9/29/2018	10/12/2018	5	10	
3	Grading	Grading	10/13/2018	11/9/2018	5	20	
4	Building Construction	Building Construction	11/10/2018	9/27/2019	5	230	
5	Paving	Paving	9/28/2019	10/25/2019	5	20	
6	Architectural Coating	Architectural Coating	10/26/2019	11/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 4.08

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 177,900; Non-Residential Outdoor: 59,300; Striped Parking Area: 10,656 (Architectural Coating – sqft)

OffRoad Equipment

Rodeo GPA - Monterey County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	49.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

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					4.6000e-004	0.0000	4.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1241	35.1241	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**	**4.6000e-004**	**0.0194**	**0.0199**	**7.0000e-005**	**0.0181**	**0.0181**	**0.0000**	**35.1241**	**35.1241**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.0000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1587	0.1587	1.0000e-005	0.0000	0.1588
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	7.9000e-004	6.9900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.2032	1.2032	6.0000e-005	0.0000	1.2048
Total	**8.3000e-004**	**1.4900e-003**	**7.1300e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3619**	**1.3619**	**7.0000e-005**	**0.0000**	**1.3637**

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					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1240	35.1240	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**	**2.1000e-004**	**0.0194**	**0.0196**	**3.0000e-005**	**0.0181**	**0.0181**	**0.0000**	**35.1240**	**35.1240**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.0000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1587	0.1587	1.0000e-005	0.0000	0.1588
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	7.9000e-004	6.9900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.2032	1.2032	6.0000e-005	0.0000	1.2048
Total	**8.3000e-004**	**1.4900e-003**	**7.1300e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3619**	**1.3619**	**7.0000e-005**	**0.0000**	**1.3637**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0903**	**0.0129**	**0.1032**	**0.0497**	**0.0119**	**0.0615**	**0.0000**	**17.3800**	**17.3800**	**5.4100e-003**	**0.0000**	**17.5152**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	4.7000e-004	4.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.7219	0.7219	4.0000e-005	0.0000	0.7229
Total	**4.9000e-004**	**4.7000e-004**	**4.1900e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7219**	**0.7219**	**4.0000e-005**	**0.0000**	**0.7229**

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0407**	**0.0129**	**0.0535**	**0.0223**	**0.0119**	**0.0342**	**0.0000**	**17.3799**	**17.3799**	**5.4100e-003**	**0.0000**	**17.5152**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	4.7000e-004	4.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.7219	0.7219	4.0000e-005	0.0000	0.7229
Total	**4.9000e-004**	**4.7000e-004**	**4.1900e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7219**	**0.7219**	**4.0000e-005**	**0.0000**	**0.7229**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.3067	0.1658	3.0000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	27.1069	27.1069	8.4400e-003	0.0000	27.3178
Total	**0.0277**	**0.3067**	**0.1658**	**3.0000e-004**	**0.0655**	**0.0155**	**0.0810**	**0.0337**	**0.0143**	**0.0479**	**0.0000**	**27.1069**	**27.1069**	**8.4400e-003**	**0.0000**	**27.3178**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	7.9000e-004	6.9900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.2032	1.2032	6.0000e-005	0.0000	1.2048
Total	**8.1000e-004**	**7.9000e-004**	**6.9900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.2032**	**1.2032**	**6.0000e-005**	**0.0000**	**1.2048**

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					0.0295	0.0000	0.0295	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.3067	0.1658	3.0000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	27.1068	27.1068	8.4400e-003	0.0000	27.3178
Total	**0.0277**	**0.3067**	**0.1658**	**3.0000e-004**	**0.0295**	**0.0155**	**0.0450**	**0.0152**	**0.0143**	**0.0294**	**0.0000**	**27.1068**	**27.1068**	**8.4400e-003**	**0.0000**	**27.3178**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	7.9000e-004	6.9900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.2032	1.2032	6.0000e-005	0.0000	1.2048
Total	**8.1000e-004**	**7.9000e-004**	**6.9900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.2032**	**1.2032**	**6.0000e-005**	**0.0000**	**1.2048**

3.5 Building Construction - 2018

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	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602
Total	**0.0482**	**0.4210**	**0.3165**	**4.8000e-004**		**0.0270**	**0.0270**		**0.0254**	**0.0254**	**0.0000**	**42.7981**	**42.7981**	**0.0105**	**0.0000**	**43.0602**

3.5 Building Construction - 2018

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	5.6300e-003	0.1267	0.0389	2.5000e-004	5.8000e-003	1.1500e-003	6.9500e-003	1.6800e-003	1.1000e-003	2.7800e-003	0.0000	24.1015	24.1015	1.2600e-003	0.0000	24.1331
Worker	0.0121	0.0117	0.1040	2.0000e-004	0.0177	1.7000e-004	0.0179	4.7200e-003	1.6000e-004	4.8700e-003	0.0000	17.9042	17.9042	9.5000e-004	0.0000	17.9280
Total	**0.0177**	**0.1384**	**0.1429**	**4.5000e-004**	**0.0235**	**1.3200e-003**	**0.0249**	**6.4000e-003**	**1.2600e-003**	**7.6500e-003**	**0.0000**	**42.0057**	**42.0057**	**2.2100e-003**	**0.0000**	**42.0611**

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	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602
Total	**0.0482**	**0.4210**	**0.3165**	**4.8000e-004**		**0.0270**	**0.0270**		**0.0254**	**0.0254**	**0.0000**	**42.7981**	**42.7981**	**0.0105**	**0.0000**	**43.0602**

3.5 Building Construction - 2018

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	5.6300e-003	0.1267	0.0389	2.5000e-004	5.8000e-003	1.1500e-003	6.9500e-003	1.6800e-003	1.1000e-003	2.7800e-003	0.0000	24.1015	24.1015	1.2600e-003	0.0000	24.1331
Worker	0.0121	0.0117	0.1040	2.0000e-004	0.0177	1.7000e-004	0.0179	4.7200e-003	1.6000e-004	4.8700e-003	0.0000	17.9042	17.9042	9.5000e-004	0.0000	17.9280
Total	**0.0177**	**0.1384**	**0.1429**	**4.5000e-004**	**0.0235**	**1.3200e-003**	**0.0249**	**6.4000e-003**	**1.2600e-003**	**7.6500e-003**	**0.0000**	**42.0057**	**42.0057**	**2.2100e-003**	**0.0000**	**42.0611**

3.5 Building Construction - 2019

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	0.2290	2.0446	1.6649	2.6100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	228.0511	228.0511	0.0556	0.0000	229.4400
Total	**0.2290**	**2.0446**	**1.6649**	**2.6100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**228.0511**	**228.0511**	**0.0556**	**0.0000**	**229.4400**

3.5 Building Construction - 2019

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	0.0263	0.6449	0.1855	1.3600e-003	0.0313	5.0100e-003	0.0363	9.0400e-003	4.7900e-003	0.0138	0.0000	129.3235	129.3235	6.4400e-003	0.0000	129.4846
Worker	0.0582	0.0554	0.4941	1.0400e-003	0.0956	8.9000e-004	0.0965	0.0254	8.2000e-004	0.0262	0.0000	93.7395	93.7395	4.5200e-003	0.0000	93.8525
Total	**0.0845**	**0.7002**	**0.6795**	**2.4000e-003**	**0.1269**	**5.9000e-003**	**0.1328**	**0.0345**	**5.6100e-003**	**0.0401**	**0.0000**	**223.0630**	**223.0630**	**0.0110**	**0.0000**	**223.3371**

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	0.2290	2.0446	1.6649	2.6100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	228.0508	228.0508	0.0556	0.0000	229.4397
Total	**0.2290**	**2.0446**	**1.6649**	**2.6100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**228.0508**	**228.0508**	**0.0556**	**0.0000**	**229.4397**

3.5 Building Construction - 2019

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	0.0263	0.6449	0.1855	1.3600e-003	0.0313	5.0100e-003	0.0363	9.0400e-003	4.7900e-003	0.0138	0.0000	129.3235	129.3235	6.4400e-003	0.0000	129.4846
Worker	0.0582	0.0554	0.4941	1.0400e-003	0.0956	8.9000e-004	0.0965	0.0254	8.2000e-004	0.0262	0.0000	93.7395	93.7395	4.5200e-003	0.0000	93.8525
Total	**0.0845**	**0.7002**	**0.6795**	**2.4000e-003**	**0.1269**	**5.9000e-003**	**0.1328**	**0.0345**	**5.6100e-003**	**0.0401**	**0.0000**	**223.0630**	**223.0630**	**0.0110**	**0.0000**	**223.3371**

3.6 Paving - 2019

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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	6.9000e-004	6.1600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1690	1.1690	6.0000e-005	0.0000	1.1704
Total	**7.3000e-004**	**6.9000e-004**	**6.1600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.1690**	**1.1690**	**6.0000e-005**	**0.0000**	**1.1704**

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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	6.9000e-004	6.1600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1690	1.1690	6.0000e-005	0.0000	1.1704
Total	**7.3000e-004**	**6.9000e-004**	**6.1600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.1690**	**1.1690**	**6.0000e-005**	**0.0000**	**1.1704**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**0.8643**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.7 Architectural Coating - 2019

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	1.2100e-003	1.1500e-003	0.0103	2.0000e-005	1.9900e-003	2.0000e-005	2.0000e-003	5.3000e-004	2.0000e-005	5.5000e-004	0.0000	1.9484	1.9484	9.0000e-005	0.0000	1.9507
Total	**1.2100e-003**	**1.1500e-003**	**0.0103**	**2.0000e-005**	**1.9900e-003**	**2.0000e-005**	**2.0000e-003**	**5.3000e-004**	**2.0000e-005**	**5.5000e-004**	**0.0000**	**1.9484**	**1.9484**	**9.0000e-005**	**0.0000**	**1.9507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**0.8643**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.7 Architectural Coating - 2019

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	1.2100e-003	1.1500e-003	0.0103	2.0000e-005	1.9900e-003	2.0000e-005	2.0000e-003	5.3000e-004	2.0000e-005	5.5000e-004	0.0000	1.9484	1.9484	9.0000e-005	0.0000	1.9507
Total	**1.2100e-003**	**1.1500e-003**	**0.0103**	**2.0000e-005**	**1.9900e-003**	**2.0000e-005**	**2.0000e-003**	**5.3000e-004**	**2.0000e-005**	**5.5000e-004**	**0.0000**	**1.9484**	**1.9484**	**9.0000e-005**	**0.0000**	**1.9507**

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	0.2571	3.0905	2.9026	0.0117	0.6102	0.0174	0.6276	0.1651	0.0165	0.1816	0.0000	1,085.9409	1,085.9409	0.0494	0.0000	1,087.1765
Unmitigated	0.2571	3.0905	2.9026	0.0117	0.6102	0.0174	0.6276	0.1651	0.0165	0.1816	0.0000	1,085.9409	1,085.9409	0.0494	0.0000	1,087.1765

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	564.94	226.66	569.50	1,510,172	1,510,172
General Office Building	45.78	10.39	3.29	82,811	82,811
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	610.72	237.05	572.79	1,592,983	1,592,983

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.436895	0.025303	0.166081	0.115721	0.067659	0.016341	0.046000	0.126000	0.000000	0.000000	0.000000	0.000000	0.000000
General Office Building	0.533135	0.030877	0.202665	0.141212	0.024955	0.006027	0.018072	0.025901	0.004150	0.002959	0.007890	0.001253	0.000905
Other Non-Asphalt Surfaces	0.533135	0.030877	0.202665	0.141212	0.024955	0.006027	0.018072	0.025901	0.004150	0.002959	0.007890	0.001253	0.000905

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	228.4981	228.4981	0.0102	2.3200e-003	229.4462
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.4981	228.4981	0.0102	2.3200e-003	229.4462
NaturalGas Mitigated	0.0166	0.1511	0.1269	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.4470	164.4470	3.1500e-003	3.0100e-003	165.4243
NaturalGas Unmitigated	0.0166	0.1511	0.1269	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.4470	164.4470	3.1500e-003	3.0100e-003	165.4243

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.00468e+006	0.0162	0.1473	0.1237	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.3413	160.3413	3.0700e-003	2.9400e-003	161.2941
General Office Building	76939	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1058	4.1058	8.0000e-005	8.0000e-005	4.1302
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0166**	**0.1511**	**0.1269**	**9.0000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.4470**	**164.4470**	**3.1500e-003**	**3.0200e-003**	**165.4243**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.00468e+006	0.0162	0.1473	0.1237	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.3413	160.3413	3.0700e-003	2.9400e-003	161.2941
General Office Building	76939	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1058	4.1058	8.0000e-005	8.0000e-005	4.1302
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0166**	**0.1511**	**0.1269**	**9.0000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.4470**	**164.4470**	**3.1500e-003**	**3.0200e-003**	**165.4243**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	940814	209.8097	9.3900e-003	2.1300e-003	210.6803
General Office Building	83801	18.6884	8.4000e-004	1.9000e-004	18.7659
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**228.4981**	**0.0102**	**2.3200e-003**	**229.4462**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	940814	209.8097	9.3900e-003	2.1300e-003	210.6803
General Office Building	83801	18.6884	8.4000e-004	1.9000e-004	18.7659
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**228.4981**	**0.0102**	**2.3200e-003**	**229.4462**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5612	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003
Unmitigated	0.5612	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0862					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003
Total	**0.5612**	**4.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3500e-003**	**7.3500e-003**	**2.0000e-005**	**0.0000**	**7.8400e-003**

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	0.0862					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	4.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3500e-003	7.3500e-003	2.0000e-005	0.0000	7.8400e-003
Total	**0.5612**	**4.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3500e-003**	**7.3500e-003**	**2.0000e-005**	**0.0000**	**7.8400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	41.8127	0.8870	0.0213	70.3183
Unmitigated	41.8127	0.8870	0.0213	70.3183

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	26.3394 / 0	40.1400	0.8597	0.0206	67.7677
General Office Building	0.835349 / 0.511988	1.6727	0.0273	6.6000e-004	2.5505
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**41.8126**	**0.8870**	**0.0213**	**70.3183**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	26.3394 / 0	40.1400	0.8597	0.0206	67.7677
General Office Building	0.835349 / 0.511988	1.6727	0.0273	6.6000e-004	2.5505
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**41.8126**	**0.8870**	**0.0213**	**70.3183**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.5575	1.7468	0.0000	73.2275
Unmitigated	29.5575	1.7468	0.0000	73.2275

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	141.24	28.6704	1.6944	0.0000	71.0298
General Office Building	4.37	0.8871	0.0524	0.0000	2.1977
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**29.5575**	**1.7468**	**0.0000**	**73.2275**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	141.24	28.6704	1.6944	0.0000	71.0298
General Office Building	4.37	0.8871	0.0524	0.0000	2.1977
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**29.5575**	**1.7468**	**0.0000**	**73.2275**

9.0 Operational Offroad

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

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation