

Winchester Road and Newport Road Project
Air Quality, Greenhouse Gas,
Toxic Air Contaminant & Energy Impact Analysis
County of Riverside, CA

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CalEEMod Daily Emission Output

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CalEEMod Annual Emission Output

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GLOSSARY OF TERMS

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF ₆	Sulfur hexafluoride
SIP	State Implementation Plan
SO _x	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This air quality, greenhouse gas (GHG), toxic air contaminant (TAC) and energy analysis was prepared to evaluate whether the estimated criteria pollutants, TAC and GHG emissions generated from the project and energy use would cause a significant impact to the air and energy resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Project Summary

1.2.1 Site Location

The project site is located west of Winchester Road (SR-74) and south of Newport Road, in the County of Riverside, California, as shown in Exhibit A. The site's land use is currently classified as Commercial Retail (CR) Rural Commercial District. The project is surrounded by medium density residential uses to the west, with open space to the north and rural mountainous/medium density residential uses to the south and commercial tourist uses to the east.

1.2.2 Project Description

The project proposes to be developed with a 16 fueling-position, 6,380 square foot gas station/convenience market/car wash, a 40-space parking lot and 81,432 square feet of mini-warehouse land use. Exhibit B demonstrates the site plan for the project.

Construction activities within the Project area will consist of site preparation, grading, building, paving, and architectural coating. Table 1 summarizes the land use description for the Project Site.

Table 1: Land Use Summary

Land Use	Unit Amount	Size Metric
Unrefrigerated Warehouse - No Rail ¹	81.43	TSF
Other Non-Asphalt Surfaces (Landscaping)	65.71	TSF
Parking Lot	40.00	space
Convenience Market with Gas Pumps	16.00	pump

¹ CalEEMod does not have a self-storage facility land use in its database. Therefore, per other similar projects, the self-storage use was modeled as Unrefrigerated Warehouse – No Rail (ITE 152).

1.2.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc.).

The closest existing sensitive receptor (to the site area) is the residential use located approximately 203 feet (62 meters) west of the project site. Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

1.3 Executive Summary of Findings and Mitigation Measures

The following is a summary of the analyses results:

Construction-Source Emissions

Project construction-source emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

Operational-Source Emissions

The project operational-sourced emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. Project operational-source emissions would not result in or cause a significant localized air quality or toxic air contaminant (TAC)-related impacts. Additionally, project-related traffic will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO “hotspots”). Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

Project operational-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less-than significant.

GHG Emissions

Project-related GHG emissions meet the Riverside County Climate Action Plan screening threshold/SCAQMD draft threshold. Therefore, GHG emissions are considered to be less than significant and would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Energy

The project will not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; nor will it conflict with or obstruct a state local plan for renewable energy or energy efficiency.

Mitigation Measures

A. Construction Measures

Adherence to SCAQMD Rule 403 is required.

No construction measures are required.

B. Operational Measures

No operational measures are required.



Exhibit A

Location Map

Winchester Road & Newport Road Project
Air Quality, Greenhouse Gas, TAC and Energy Analysis

Source: Google Earth, 2021

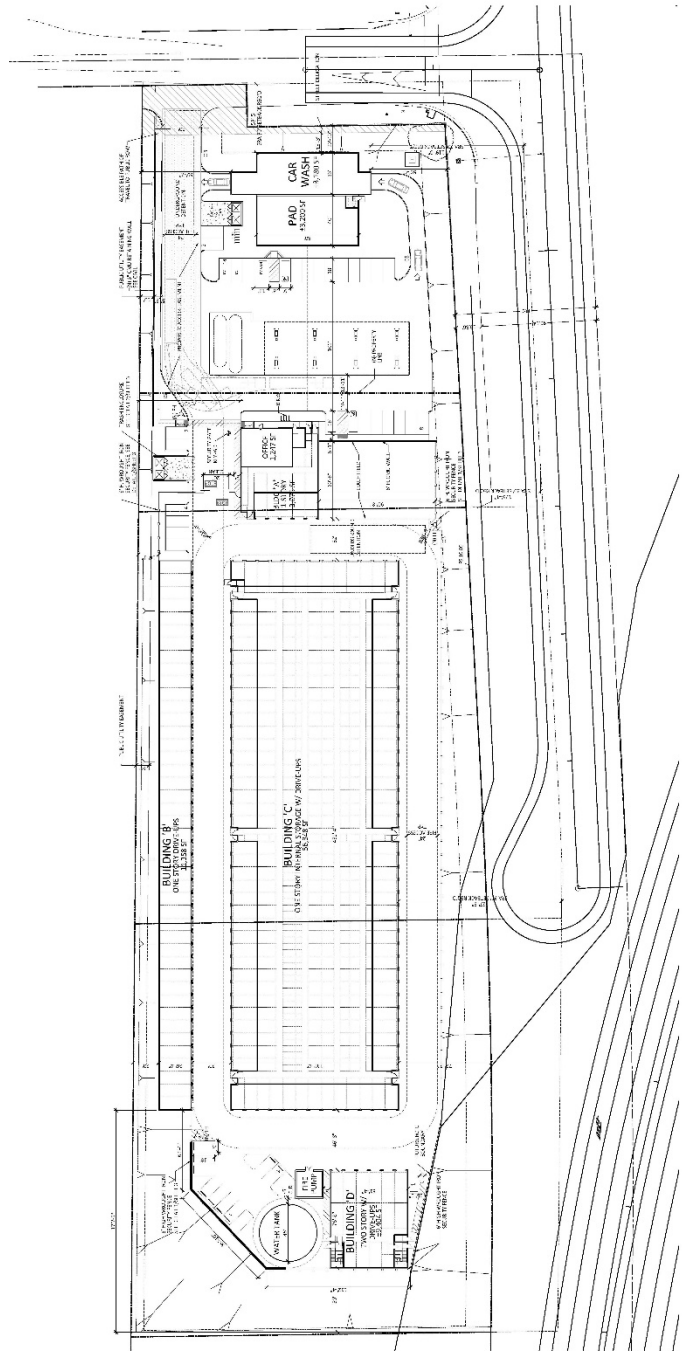


Exhibit B Site Plan

Winchester Road & Newport Road Project
Air Quality, Greenhouse Gas, TAC and Energy Analysis



2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

2.1.1 National and State

The EPA is responsible for global, international, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Air Quality Standards, also known as federal standards. There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. See <http://www.arb.ca.gov/research/aaqs/aaqs.htm> for additional information on criteria pollutants and air quality standards.

The federal and state ambient air quality standards are summarized in Table 2 and can also be found at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Table 2: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentrations ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10) ⁸	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µ/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		--		
Fine Particulate Matter (PM2.5) ⁸	24-Hour	--	--	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m³)	--	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m³)		9 ppm (10 µg/m³)	--	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m³)		--	--	
Nitrogen Dioxide (NO ₂) ⁹	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	--	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (357 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹⁰	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	--	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	--		--	0.5 ppm (1300 mg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas) ¹⁰	--	
	Annual Arithmetic Mean	--		0.130ppm (for certain areas) ¹⁰	--	
Lead ^{11,12}	30 Day Average	1.5 µg/m³	Atomic Absorption	--	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Qtr	--		1.5 µg/m³ (for certain areas) ¹²		
	Rolling 3-Month Average	--		0.15 µg/m³		
Visibility Reducing Particles ¹³	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹¹	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
10. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.1.2 South Coast Air Quality Management District

The agency for air pollution control for the South Coast Air Basin (basin) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon.

South Coast AQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley. To support the development of mobile source strategies for the 2022 AQMP, South Coast AQMD, in conjunction with California Air Resources Board, has established Mobile Source Working Groups which are open to all interested parties.

On March 23, 2017 CARB approved the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes federally enforceable.

The 2012 AQMP built upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilized revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as liquid propane gas (LPG) transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

South Coast Air Quality Management District Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Some of the rules and regulations that apply to this Project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable suppression techniques are indicated below and include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas in active for 10 days or more).
- Water active sites at least three times daily.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114.
- Pave construction access roads at least 100 feet onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

Idling Diesel Vehicle Trucks – Idling for more than 5 minutes in any one location is prohibited within California borders.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within

environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a federal cap and trade program.

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change 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. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas 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.

The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020; a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

2.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

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 Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas 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 carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide 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). The second phase of the national program would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas 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.

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The following link provides more information on the EPA Plan: <https://www.epa.gov/arc-x/planning-climate-change-adaptation>

2.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established 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 efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The following links provide more information on Title 24, Part 11:

<https://www.dgs.ca.gov/BSC/Codes>

https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2019 CalGreen Code includes the following changes and/or additional regulations:

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity

generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades¹.

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require post-construction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of post-construction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELo), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13.

¹ https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

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 that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official. The following link provides more on CalGreen Building Standards:

<http://www.bsc.ca.gov/Home/CALGreen.aspx>

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

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

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. 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 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO₂e.

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 considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB’s Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas 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. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;

- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

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 greenhouse gas emission reductions.⁴

Senate Bill 100. Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan

/ Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as “transit priority projects.”

Assembly Bill 939 and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

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 Resource Agency 2009) was adopted, which is the “... first statewide, multi-sector, region-specific, and information-based 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, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State’s adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

2.2.4 South Coast Air Quality Management District

The Project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.

- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has established recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000 metric ton of CO₂e per year for stationary/industrial sources and 3,000 metric tons of CO₂e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use types: residential is 3,500 MTCO₂e per year; commercial is 1,400 MTCO₂e per year; and mixed use is 3,000 MTCO₂e per year
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans

- Tier 5 involves mitigation offsets to achieve target significance threshold.

2.2.5 County of Riverside

County of Riverside General Plan

Local jurisdictions, such as the County of Riverside, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the 2016 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the County does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the County and region will meet federal and state standards. Instead, the County relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The Air Quality Element of the County of Riverside General Plan summarizes air quality issues in the Basin, air quality-related plans and programs administered by federal, state, and special purpose agencies, and establishes goals and policies to improve air quality. These goals and policies in the Air Quality Element that relate to the proposed project include:

Multi-jurisdictional Cooperation:

AQ 1.1 Promote and participate with regional and local agencies, both public and private, to protect and improve air quality. (AI 111)

AQ 1.2 Support the Southern California Association of Government's (SCAG) Regional Growth Management Plan by developing intergovernmental agreements with appropriate governmental entities such as the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Governments (CVAG), sanitation districts, water districts, and those subregional entities identified in the Regional Growth Management Plan. (AI 111)

AQ 1.3 Participate in the development and update of those regional air quality management plans required under federal and state law, and meet all standards established for clean air in these plans. (AI 110)

AQ 1.4 Coordinate with the SCAQMD and MDAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced. (AI 111)

AQ 1.5 Establish and implement air quality, land use and circulation measures that improve not only the County's environment but the entire regions. (AI 111)

AQ 1.6 Establish a level playing field by working with local jurisdictions to simultaneously adopt policies similar to those in this Air Quality Element.

AQ 1.7 Support legislation which promotes cleaner industry, clean fuel vehicles and more efficient burning engines and fuels. (AI 113)

AQ 1.8 Support the introduction of federal, state or regional enabling legislation to permit the County to promote inventive air quality programs, which otherwise could not be implemented. (AI 113)

AQ 1.9 Encourage, publicly recognize and reward innovative approaches that improve air quality. (AI 113)

AQ 1.10 Work with regional and local agencies to evaluate the feasibility of implementing a system of charges (e.g., pollution charges, user fees, congestion pricing and toll roads) that requires individuals who undertake polluting activities to bear the economic cost of their actions where possible. (AI 111)

AQ 1.11 Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.

Sensitive Receptors:

AQ 2.1 The County land use planning efforts shall assure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.

AQ 2.2 Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.

AQ 2.3 Encourage the use of pollution control measures such as landscaping, vegetation and other materials, which trap particulate matter or control pollution.

Stationary Pollution Sources:

AQ 4.1 Encourage the use of building materials/methods which reduce emissions.

AQ 4.2 Require the use of all feasible efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units.

AQ 4.3 Require centrally heated facilities to utilize automated time clocks or occupant sensors to control heating where feasible.

AQ 4.5 Require stationary pollution sources to minimize the release of toxic pollutants through:

- Design features;

- Operating procedures;
- Preventive maintenance;
- Operator training; and
- Emergency response planning

AQ 4.6 Require stationary air pollution sources to comply with applicable air district rules and control measures.

AQ 4.7 To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SOCAB, the Environmental Protection Agency and the California Air Resources Board.

AQ 4.8 Expand, as appropriate, measures contained in the County's Fugitive Dust Reduction Program for the Coachella Valley to the entire County.

AQ 4.9 Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.

AQ 4.10 Coordinate with the SCAQMD and MDAQMD to create a communications plan to alert those conducting grading operations in the County of first, second, and third stage smog alerts, and when wind speeds exceed 25 miles per hour. During these instances all grading operations should be suspended. (AI 111)

Energy Efficiency and Conservation:

AQ 5.1 Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

AQ 5.4 Encourage the incorporation of energy-efficient design elements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.

Particulate Matter:

AQ 15.1 Identify and monitor sources, enforce existing regulations, and promote stronger controls to reduce particulate matter.

Multi-jurisdictional Cooperation:

AQ 16.1 Cooperate with local, regional, state and federal jurisdictions to better control particulate matter.

Control Measures:

- AQ 17.1 Reduce particulate matter from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way, and off-road vehicles to the extent possible. (AI 123)
- AQ 17.3 Identify and create a control plan for areas within the County prone to wind erosion of soil.
- AQ 17.4 Adopt incentives, regulations and/or procedures to manage paved and unpaved roads and parking lots so they produce the minimum practicable level of particulates. (AI 111)
- AQ 17.5 Adopt incentives and/or procedures to limit dust from agricultural lands and operations, where applicable. (AI 123)
- AQ 17.6 Reduce emissions from building materials and methods that generate excessive pollutants, through incentives and/or regulations.

County of Riverside Climate Action Planning

The County of Riverside's Climate Action Plan Update (CAP) was completed in November 2019. The CAP Update describes Riverside County's GHG emissions for the year 2017, projects how these emissions will increase into 2020, 2030, and 2050, and includes strategies to reduce emissions to a level consistent with the State of California's emissions reduction targets. The CAP Update sets a target to reduce community-wide GHG emission emissions by 15 percent from 2008 levels by 2020, 49 percent by 2030, and 83 percent by 2050.

Appendix D of the Riverside County CAP Update also states that project's that do not exceed the CAP's screening threshold of 3,000 MTCO₂e per year are considered to have less than significant GHG emissions and are in compliance with the County's CAP Update. Projects that do not exceed emissions of 3,000 MTCO₂e per year are also required to include the following efficiency measures:

- Energy efficiency matching or exceeding the Title 24 requirements in effect as of January 2017, and
- Water conservation measures that match the California Green Building Code in effect as of January 2017.

Projects that exceed emissions of 3,000 MTCO₂e per year are also required to use Screening Tables. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the County's CAP Update. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions. Those projects that do not garner 100 points using the Screening Tables will need to provide additional analysis to determine the significance of GHG emissions.

Therefore, to determine whether the project's GHG emissions are significant, this analysis uses the Riverside County CAP/SCAQMD draft local agency tier 3 screening threshold of 3,000 MTCO₂e per year for all land use types.

The project will be subject to the latest requirements of the California Green Building and Title 24 Energy Efficiency Standards (currently 2019) which would reduce project-related greenhouse gas emissions.

2.3 Energy Regulations

2.3.2 Regulatory Background

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

Federal Regulations

Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.²

Intermodal Surface transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway

² <https://www.nhtsa.gov/lawsregulations/corporate-average-fuel-economy>.

safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State Regulations

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The recently-approved 2017 Integrated Energy Policy Report Updated (2017 IEPR) was published in April 2018, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2016 IEPR focuses on a variety of topics such as implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.³

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

³ California Energy Commission. Final 2017 Integrated Energy Policy Report. April 16, 2018. https://www.energy.ca.gov/2017_energy/policy/

California Building Standards Code (Title 24)

The California Building Standards Code Title 24 was previously discussed above in this report.

California Building Energy Efficiency Standards (Title 24, Part 6)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020. The 2019 Title 24 standards include efficiency improvements to the lighting and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers. For example, window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1. Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regard to sunlight provided through skylights and overhangs.

All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Building Energy Efficiency Standards (Title 24, Part 11)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development;

energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

As previously discussed above in this report, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 350

As previously discussed above in this report, Senate Bill 350 (SB 350) was signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources.

Assembly Bill 32

As discussed above in this report, in 2006 the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective. Please see Section 4 for further detail on AB 32.

Assembly Bill 1493/Pavley Regulations

As discussed above in this report, California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO₂ and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

Executive Order S-1-07/Low Carbon Fuel Standard

As discussed above in this report, Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of

transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are “back-loaded”, with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today’s fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

California Air Resources Board

CARB’s Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions control program was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.¹⁵ The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.⁴

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross

⁴ California Air Resources Board, California’s Advanced Clean Cars Program, January 18, 2017. www.arb.ca.gov/msprog/acc/acc.htm.

vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NOX) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission-controlled models would use petroleum-based fuel in a more efficient manner.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32.

As previously stated above in this report, Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018. On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than \$638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

3.0 Setting

3.1 Existing Physical Setting

The project site is located in the Winchester community of Riverside County, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

3.1.1 Local Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthy air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high

enough to pass over the mountains and ultimately dilute the smog cloudtrap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the Sun Valley/Winchester area, the closest monitoring station to the project site, are in Table 3. Table 3 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3: Meteorological Summary

Month	Temperature (°F)		Average Total Precipitation (inches)
	Average Max	Average Min	
January	66.7	36.3	2.29
February	68.1	38.9	3.08
March	71.1	41.6	1.95
April	77.2	45.1	0.79
May	83.2	50.1	0.31
June	91.8	54.5	0.07
July	97.6	58.6	0.04
August	98.6	60.1	0.22
September	93.5	57.4	0.10
October	84.2	49.3	0.45
November	71.2	39.4	0.71
December	66.9	35.4	1.33
Annual	81.1	47.4	11.3
Notes:			
¹ Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8655			

3.1.2 Local Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the Winchester area; however, ambient air quality data was utilized from the Winchester and Lake Elsinore monitoring stations, which are located in Riverside County and cover the Perris Valley area. The nearest air monitoring station to the project site is the Winchester-33700 Borel Road (Winchester Station). The Winchester Station is located approximately 6.88 miles south of the project site; however, this location does not provide all ambient weather data. Therefore, additional data for nitrogen dioxide and PM-10 was pulled from the next closest station, Lake Elsinore-W. Flint Street (Elsinore Station), located at 506 W. Flint Street, approximately 14 miles west of the project site. SCAQMD historical data for the Perris Valley (Area 24) was used for carbon monoxide to provide the existing levels. Table 4 presents the monitored pollutant levels within the vicinity. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

Table 4: Local Area Air Quality Levels from the Winchester-33700 Borel Road Air Monitoring Station¹

Pollutant (Standard) ²	Year		
	2017	2018	2019
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.104	0.107	0.091
Days > CAAQS (0.09 ppm)	4	2	0
Maximum 8-Hour Concentration (ppm)	0.088	0.085	0.079
Days > CAAQS/NAAQS (0.07 ppm)	47	15	6
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	-- ³	-- ³	-- ³
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	-- ³	-- ³	-- ³
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.049	0.041	0.038
Days > NAAQS (0.25 ppm)	0	0	0
Sulfur Dioxide:			
Maximum 24-Hour Concentration (ppm)	-- ³	-- ³	-- ³
Days > CAAQS (0.04 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (µg/m ³)	134.1	105.3	93.8

Days > NAAQS (150 µg /m ³)	0	0	0
Days > CAAQS (50 µg /m ³)	-- ³	-- ³	-- ³
Annual Average (µg /m ³)	23.6	23.3	19.7
Annual > NAAQS (50 µg /m ³)	No	No	No
Annual > CAAQS (20 µg /m ³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (µg /m ³)	21.6	26.5	17.0
Days > NAAQS (35 µg /m ³)	-- ³	-- ³	-- ³
Annual Average (µg /m ³)	10	7.1	1.6
Annual > NAAQS (15 µg /m ³)	No	No	No
Annual > CAAQS (12 µg /m ³)	No	No	No
¹ Source: obtained from https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year for SRA 24 and /or https://www.arb.ca.gov/adam/topfour/topfour1.php . Nitrogen dioxide and PM-10 data obtained from the Lake Elsinore - W. Flint Street Station. ² CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million ³ No data available.			

The monitoring data presented in Table 4 shows that ozone and particulate matter (PM10) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

During the 2017 to 2019 monitoring period, the State 1-hour concentration standard for ozone was exceeded for four days in 2017, two days in 2018, and was not exceeded in 2019 at the Winchester Station. The State/Federal 8-hour ozone standard has been exceeded for 47 days in 2017, 15 days in 2018, and six days in 2019 at the Winchester Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Perris Valley Area did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The Elsinore Station did not record an exceedance of the State or Federal NO₂ standards for the last three years.

Sulfur Dioxide

The Winchester Station did not record an exceedance of the State SO₂ standards for the last three years.

Particulate Matter

During the 2017 to 2019 monitoring period, there was insufficient data for the State 24-hour concentration standard for PM₁₀ at the Lake Elsinore Station. Over the same time period the Federal 24-hour and annual standards for PM₁₀ have not been exceeded at the Elsinore Station.

There was insufficient data for the Federal 24-hour standard for PM_{2.5} during the 2017 to 2019 monitoring period at the Winchester Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

3.1.3 Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or ‘form’ of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard. Table 5 lists the attainment status for the criteria pollutants in the basin.

<Table 5 on next page>

Table 5: South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Maintenance (Serious)
Nitrogen dioxide	Attainment	Maintenance (Primary)
Sulfur dioxide	Attainment	Attainment/Unclassified
PM10	Nonattainment	Maintenance (Serious)
PM2.5	Nonattainment	Nonattainment (Moderate)

Source (Federal and State Status): California Air Resources Board (2020)
<https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations> & US EPA (2020)
<https://www.epa.gov/green-book>.

3.2 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 39.7 percent of the State's greenhouse gas emissions, followed by industrial, then electricity generation. Emissions of CO₂ and nitrous oxide (NO₂) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 6 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: <https://www.arb.ca.gov/cc/inventory/data/data.htm>

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N ₂ O), also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N ₂ O.
Methane	Methane (CH ₄) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	A natural source of CH ₄ is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. 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	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. 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; therefore, their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases 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 (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF ₆) 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 for leak detection.
Notes: 1. Sources: Intergovernmental Panel on Climate Change 2014a and Intergovernmental Panel on Climate Change 2014b. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html		

3.3 Energy

Overview

California's estimated annual energy use as of 2019 included:

- Approximately 277,704 gigawatt hours of electricity;⁵
- Approximately 2,154,030 million cubic feet of natural gas per year⁶; and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015)⁷

As of 2018, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 39.1 percent transportation;
- Approximately 23.5 percent industrial;
- Approximately 18.3 percent residential; and
- Approximately 19.2 percent commercial.⁸

California's electricity in-state generation system generates approximately 200,475 gigawatt-hours each year. In 2019, California produced approximately 72 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 9 percent) and the U.S. Southwest (approximately 19 percent). Natural gas is the main source for electricity generation at approximately 42.97 percent of the total in-state electric generation system power as shown in Table 7.

A summary of and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2018.

⁵California Energy Commission. Energy Almanac. Total Electric Generation. [Online] 2020.

<https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation>.

⁶Natural Gas Consumption by End Use. U.S. Energy Information Administration. [Online] August 31, 2020.

https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.

⁷ California Energy Commission. Revised Transportation Energy Demand Forecast 2018-2030. [Online] April 19, 2018.

<https://www.energy.ca.gov/assessments/>

⁸ U.S. Energy Information Administration. California Energy Consumption by End-Use Sector.

California State Profile and Energy Estimates.[Online] January 16, 2020 <https://www.eia.gov/state/?sid=CA#tabs-2>

- California's total energy consumption is the second-highest in the nation, but, in 2018, the State's per capita energy consumption ranked the fourth-lowest, due in part to its mild climate and its energy efficiency programs.
- In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.
- In 2018, large- and small-scale solar PV and solar thermal installations provided 19% of California's net electricity generation.⁹

Table 7: Total Electricity System Power (California 2019)¹

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	248	0.12%	219	7,765	8,233	2.96%
Large Hydro	86,136	42.97%	62	8,859	95,057	34.23%
Natural Gas	16,163	8.06%	39	8,743	24,945	8.98%
Nuclear	36	0.02%	0	0	36	0.01%
Oil	411	0.20%	0	11	422	0.15%
Other (Petroleum Coke/Waste Heat)	33,145	16.53%	6,387	1,071	40,603	14.62%
Renewables	0	0.00%	6,609	13,767	20,376	7.34%
Biomass	64,336	32.09%	10,615	13,081	88,032	31.70%
Geothermal	5,851	2.92%	903	33	6,787	2.44%
Small Hydro	10,943	5.46%	99	2,218	13,260	4.77%
Solar	5,349	2.67%	292	4	5,646	2.03%
Wind	28,513	14.22%	282	5,295	34,090	12.28%
Unspecified Sources of Power	13,680	6.82%	9,038	5,531	28,249	10.17%
Total	200,475	100.00%	23,930	53,299	277,704	100.00%

Notes:

(1) California Energy Commission. 2019 Total System electric Generation. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation>

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed project, the

⁹State Profile and Energy Estimates. Independent Statistics and Analysis. [Online] [Cited: January 16, 2020.] <http://www.eia.gov/state/?sid=CA#tabs2>.

remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas, and transportation fuel for vehicle trips associated with the proposed project.

Electricity

Electricity would be provided to the project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons, within a service area encompassing approximately 50,000 square miles.¹⁰ SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.¹¹

Table 7 above identifies SCE’s specific proportional shares of electricity sources in 2019. As shown in Table 8, the 2019 SCE Power Mix has renewable energy at 35 percent of the overall energy resources, of which biomass and waste is at 1 percent, geothermal is at 8 percent, eligible hydroelectric is at 1 percent, solar energy is at 16 percent, and wind power is at 12 percent; other energy sources include large hydroelectric at 8 percent, natural gas at 16 percent, nuclear at 8 percent and unspecified sources at 33 percent.

Table 8: SCE 2019 Power Content Mix¹

Energy Resources	2019 SCE Power Mix
Eligible Renewable	35%
Biomass & Waste	1%
Geothermal	6%
Eligible Hydroelectric	1%
Solar	16%
Wind	12%
Coal	0%
Large Hydroelectric	8%
Natural Gas	16%
Nuclear	8%
Other	0%
Unspecified Sources of power*	33%
Total	100%

Notes:

(1) https://www.sce.com/sites/default/files/inline-files/SCE_2019PowerContentLabel.pdf

*Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources.

¹⁰ <https://www.sce.com/about-us/who-we-are/leadership/our-service-territory>

¹¹ California Energy Commission. Utility Energy Supply plans from 2015. https://www.energy.ca.gov/almanac/electricity_data/supply_forms.html

Natural Gas

Natural gas would be provided to the project by Southern California Gas (SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

The CPUC regulates natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38% of their natural gas supply from basins located in the U.S. Southwest, 27% from Canada, 27% from the U.S. Rocky Mountain area, and 8% from production located in California."¹²

Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially-provided commodities and would be available to the project patrons and employees via commercial outlets.

The most recent data available shows the transportation sector emits 40 percent of the total greenhouse gases in the state and about 84 percent of smog-forming oxides of nitrogen (NOx).^{13,14} About 28 percent of total United States energy consumption in 2019 was for transporting people and goods from one place to another. In 2019, petroleum comprised about 91 percent of all transportation energy use, excluding

¹²California Public Utilities Commission. Natural Gas and California. http://www.cpuc.ca.gov/natural_gas/

¹³ CARB. California Greenhouse Gas Emissions Inventory – 2020 Edition. <https://www.arb.ca.gov/cc/inventory/data/data.htm>

¹⁴ CARB. 2016 SIP Emission Projection Data. https://www.arb.ca.gov/app/emsmv/2017/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA

fuel consumed for aviation and most marine vessels.¹⁵ In 2020, about 123.49 billion gallons (or about 2.94 billion barrels) of finished motor gasoline were consumed in the United States, an average of about 337 million gallons (or about 8.03 million barrels) per day.¹⁶

¹⁵ US Energy Information Administration. Use of Energy in the United States Explained: Energy Use for Transportation. https://www.eia.gov/energyexplained/?page=us_energy_transportation

¹⁶ <https://www.eia.gov/tools/faqs/faq.php?id=23&t=10>

4.0 Modeling Parameters and Assumptions

4.1 Construction

Typical emission rates from construction activities were obtained from CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for Riverside County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions were calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

The analysis assesses the emissions associated with the construction of the proposed project as indicated in Table 1. As stated above, in Table 1, CalEEMod does not have a self-storage facility land use in its database. Therefore, per other similar projects, the self-storage use was modeled as Unrefrigerated Warehouse – No Rail (ITE 152). Per the project applicant, the proposed project is to be operational in 2023 and construction is estimated to start no sooner than April 2022 and last approximately 11 months. The project will import approximately 7,823 cubic yards (CY) of dirt during grading. The phases of the construction activities which have been analyzed below are: 1) site preparation, 2) grading, 3) building construction, 4) paving, and 5) architectural coating. For details on construction modeling and construction equipment for each phase, please see Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 5.71 net acres) and the fact that the project won't import more than 5,000 cubic yards of material per day, a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required. Water trucks were added as vendor trips to the site preparation and grading phases.

4.2 Operations

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating, hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project are based upon the trip generation rates given in the Diamon Traffic Impact Analysis (Kunzman, 2021). The trip generation rate of 168.44 trips/thousand square feet (TSF) for the convenience market with gas pumps/car wash includes the 15 percent reduction for pass-by trips. The trip generation rate of 1.65 trips/TSF for the mini-storage land use was obtained from the traffic study (TIA). The Saturday rate of 1.95 trips/TSF and the Sunday rate of 1.89 trips/TSF for the mini-storage land use were obtained from the 10th Edition ITE Trip Generation Manual for ITE land use code 151.

The program then applies the emission factors for each trip which is provided by the EMFAC2017 model to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. Please see CalEEMod output comments sections in Appendix A and B for details.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings applied to buildings after January 1, 2014 are limited to an average of 50 grams per liter or less and the CalEEMod model has been adjusted accordingly.

Energy Usage

2020.4.0 CalEEMod defaults were utilized.

Gasoline Dispensing Facility

The emissions from the gasoline dispensing facility were calculated with the use of an annual throughput of an estimated 4 million gallons and the emissions factors for loading, breathing, refueling, hose permeation, and spillage identified in Table X-1 of the SCAQMD Risk Assessment Procedures for Rules

1401, 1401.1 and 212.¹⁷ Please see further details regarding the gasoline dispensing facility operational emissions in the Toxic Air Contaminant (TAC) Analysis section below.

4.3 Localized Construction Analysis

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were based on the Perris Valley source receptor area (SRA 24) and a disturbance of 5 acres per day (as the project site is approximately 5.71 net acres) at a distance of 50 meters (164 feet); as the closest sensitive receptor is located approximately 203 feet (62 meters) west of the project site.

4.4 Localized Operational Analysis

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptor that may be impacted by the proposed project is the residential use located approximately 203 feet (62 meters) west of the project site.

The local air quality emissions from on-site operations were analyzed according to the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Per SCAQMD staff, the 5-acre Look-up Table, which is the largest site available, can be used as a conservative screening analysis for on-site operational emissions to determine whether more-detailed dispersion modeling would be necessary. The proposed project was analyzed based on the Perris Valley source receptor area (SRA) 24 and as the site is 5.71 net acres, the thresholds for a five-acre project site were used.

¹⁷ <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

The 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 air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

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

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. There are daily emission thresholds for construction and operation of a proposed project in the basin.

5.1.2 Regional Significance Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions are established for the Basin:

- 75 pounds per day (lbs/day) of VOC
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of SO₂

Projects in the basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under SCAQMD guidelines.

5.1.3 Regional Significance Thresholds for Operational Emissions

The daily operational emissions significance thresholds for the basin are as follows:

- 55 pounds per day (lbs/day) of VOC
- 55 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of SO₂

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

5.1.4 Thresholds for Localized Significance

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The emission thresholds were calculated based on the Perris Valley source receptor area (SRA 24) and a disturbance of 5 acres per day at a distance of 50 meters (164 feet), for construction and operation.

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

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 greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas 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.

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency. As previously discussed, (Section 2.2.4 of this report), SCAQMD has drafted interim thresholds and the County of Riverside has a CAP Screening Threshold of 3,000 MTCO₂e/year. Therefore, the Riverside County CAP and SCAQMD screening threshold of 3,000 MTCO₂e per year for all land uses was used in this analysis.

5.3 Energy Thresholds of Significance

5.3.1 CEQA Guidelines for Energy

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 energy resources, the type, level, and impact of energy use by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on January 1, 2019. A significant impact would occur if the project would:

- (a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; or
- (b) Conflict with or obstruct a state local plan for renewable energy or energy efficiency.

6.0 Air Quality Emissions Impact

6.1 Construction Air Quality Emissions Impact

The latest version of CalEEMod was used to estimate the onsite and offsite construction emissions. The emissions incorporate Rules 402, 403 and 1113. Rule 402 and 403 (fugitive dust) and 1113 are not considered mitigation measures as the project by default is required to incorporate these rules during construction.

6.1.1 Regional Construction Emissions

The construction emissions for the project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 9, and therefore would be considered less than significant.

Table 9: Regional Significance - Construction Emissions¹

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Site Preparation						
On-Site ²	3.17	33.08	19.70	0.04	9.28	5.42
Off-Site ³	0.07	0.14	0.75	0.00	0.22	0.06
Total	3.24	33.22	20.44	0.04	9.50	5.48
Grading						
On-Site ²	1.95	20.86	15.27	0.03	3.72	2.20
Off-Site ³	0.22	6.72	2.02	0.03	1.11	0.35
Total	2.17	27.57	17.29	0.06	4.83	2.56
Building Construction						
On-Site ²	1.71	15.62	16.36	0.03	0.81	0.76
Off-Site ³	0.33	1.44	3.24	0.01	0.99	0.28
Total	2.03	17.05	19.61	0.04	1.80	1.04
Paving						
On-Site ²	1.33	10.19	14.58	0.02	0.51	0.47
Off-Site ³	0.05	0.04	0.55	0.00	0.17	0.05
Total	1.39	10.23	15.13	0.02	0.68	0.51
Architectural Coating⁴						
On-Site ²	20.76	1.30	1.81	0.00	0.07	0.07
Off-Site ³	0.05	0.03	0.51	0.00	0.16	0.04
Total	20.82	1.34	2.32	0.00	0.23	0.11
Total of overlapping phases⁵	24.23	28.61	37.06	0.07	2.71	1.67
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	No	No	No	No	No	No
Notes: ¹ Source: CalEEMod Version 2020.4.0 ² On-site emissions from equipment operated on-site that is not operated on public roads. ³ Off-site emissions from equipment operated on public roads. ⁴ Architectural coating includes adherence to SCAQMD Rule 1113 limiting architectural coatings to 50 g/L VOC for buildings and 100 g/L VOC for parking lot striping. ⁵ Construction, architectural coatings and paving phases may overlap.						

6.1.2 Localized Construction Emissions

The data provided in Table 10 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 10: Localized Significance - Construction¹

Phase	On-Site Pollutant Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Site Preparation	33.08	19.70	9.28	5.42
Grading	20.86	15.27	3.72	2.20
Building Construction	15.62	16.36	0.81	0.76
Paving	10.19	14.58	0.51	0.47
Architectural Coating	1.30	1.81	0.07	0.07
Total of overlapping phases	27.11	32.76	1.39	1.30
SCAQMD Local Significance Threshold²	302	2,178	40	10
Exceeds Threshold?	No	No	No	No
Notes: ¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Perris Valley Receptor Area (SRA 24). Project is 5.71 net acres. ² The nearest sensitive receptors is the residential use located approximately 203 feet (62 meters) west of the project site; therefore, the 50 meter threshold was used.				

6.1.3 Other Emissions (Odors)

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from gasoline dispensing and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 and 461 no significant impact related to odors would occur during the on-going operations of the proposed project.

6.1.4 Construction-Related Toxic Air Contaminant Impact

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the relatively limited number of heavy-duty construction equipment and 11-month construction schedule, the proposed project would not result in a long-term substantial source of toxic air containment emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

6.2 Operational Air Quality Emissions Impact

6.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The operating emissions were based on year 2023, which is the anticipated opening year for the project. The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 11.

<Table 11 next page>

Table 11: Regional Significance - Operational Emissions

Activity	Pollutant Emissions (pounds/day) ¹					
	VOC	NOx	CO	SO2	PM10	PM2.5
Area Sources ²	1.88	0.00	0.02	0.00	0.00	0.00
Energy Usage ³	0.01	0.05	0.04	0.00	0.00	0.00
Mobile Sources ⁴	7.62	8.57	57.90	0.12	11.75	3.20
Gasoline Dispensing Facility ⁵	8.17	--	--	--	--	--
Total Emissions	17.68	8.62	57.96	0.12	11.75	3.20
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Notes: ¹ Source: CalEEMod Version 2020.4.0 ² Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment. ³ Energy usage consists of emissions from on-site natural gas usage. ⁴ Mobile sources consist of emissions from vehicles and road dust. ⁵ Calculated with the use of an annual throughput of 4 million gallons and the emissions factors for loading, breathing, refueling, hose permeation, and spillage identified in Table X-1 of the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1 and 212 (http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12).						

Table 11 provides the project's unmitigated operational emissions. Table 11 shows that the project does not exceed the SCAQMD daily emission threshold and regional operational emissions are considered to be less than significant.

6.2.2 Localized Operational Emissions

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

Table 12 shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to approximately 10 percent of the project-related new mobile sources.¹⁸ The data provided in Table 12 shows that the on-going operations of the proposed project would not exceed SCAQMD local operational thresholds of significance discussed above. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

¹⁸ The project site is approximately 0.2 miles in length at its longest point; therefore the on-site mobile source emissions represent approximately 1/34th of the shortest CalEEMod default distance of 6.9 miles. Therefore, to be conservative, 1/10th the distance (dividing the mobile source emissions by 10) was used to represent the portion of the overall mobile source emissions that would occur on-site.

Table 12: Local Operational Emissions at the Nearest Receptors

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Area Sources ²	0.00	0.02	0.00	0.00
Energy Usage ³	0.05	0.04	0.00	0.00
Vehicle Emissions ⁴	0.86	5.79	1.18	0.32
Total Emissions	0.90	5.85	1.18	0.32
SCAQMD Local Significance Thresholds ⁵	302	2,178	10	3
Exceeds Threshold?	No	No	No	No
Notes: (1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres. (2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment. (3) Energy usage consists of emissions from on-site natural gas usage. (4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust. (5) The nearest sensitive receptor is the residential use located approximately 203 feet (62 meters) west of the project site; therefore, the 50-meter threshold was used.				

6.3 Toxic Air Contaminant (TAC) Analysis

The ARB Air Quality and Land Use Handbook (ARB Handbook) provides an advisory recommendation that a 50-foot separation be provided between sensitive receptors and typical gasoline dispensing facilities. The project includes the construction and operation of a 16-fuel pump gas station which is not anticipated to exceed 4 million gallons of throughput annually¹⁹. The closest sensitive receptors to the proposed gas station are located at a distance of approximately 280 feet (~85 meters) from the gas station canopy.

The fuel pump-portion of the project will be permitted by SCAQMD and fuel-related emissions will be regulated by the SCAQMD Rule 461 and be required to obtain a Permit To Operate. Gasoline dispensing facilities are required to use Phase I/II EVR (enhanced vapor recovery) systems. Phase II EVR have an average efficiency of 95.1 percent and Phase I EVR have an average efficiency of 98 percent. Therefore, the potential for fugitive VOC or TAC emissions from the gasoline pumps is negligible.

Assuming 4 million gallons per year of throughput for this gasoline-dispensing facility, using the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1 and 212²⁰ and the SCAQMD Permit Application

¹⁹ Per personal communication with the applicant.

²⁰ <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>

Package “N”²¹ and a downwind distance of 75 meters, to be conservative, in the Riverside/Lake Elsinore area,²² the residential cancer risk for the closest residential receptors is 5.15 in a million.²³

In addition, the fugitive VOC emissions from the gasoline-dispensing facility were calculated with the use of a throughput of 4 million gallons and the emissions factors for loading, breathing, refueling, hose permeation, and spillage identified in Table X-1 of the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1 and 212.²⁴ The calculated VOC emissions from the gasoline-dispensing facility is approximately 8.17 pounds per day. As shown in Table 11, even with incorporation of the VOC emissions generated by the gasoline-dispensing facility, the proposed project would not exceed the SCAQMD thresholds for VOCs. As such, the project will not be a significant source of TACs or fugitive VOC emissions and sensitive receptors would not be exposed to toxic sources of air pollution. Therefore, the project will not result in significant Localized Operational emissions-related impacts.

6.4 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented in above in Section 5.0.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above in Section 5.0, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” potentially can occur at high traffic volume intersections with a Level of Service (LOS) E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no “hot spots” anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere in Riverside County. If the worst-case intersections in the air basin have no “hot spot” potential, any local impacts will be below thresholds.

²¹ <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf?sfvrsn=4>

²² The closest station to site with the requisite data for the gas station TAC analysis is Riverside for the throughput and Lake Elsinore for the storage tank.

²³ Assumption of one million gallons of throughput for Riverside at a distance of 80 meters per Table 3 of the SCAQMD Emissions Inventory and Risk Assessment Guidelines (https://www.aqmd.gov/docs/default-source/planning/risk-assessment/gas_station_hra.pdf?sfvrsn=0) and as part of the MICR calculations for an underground storage tank (UST) in Lake Elsinore at 75 meters the screening tables 12.1 A and 12.2 A on pages 90-93 of SCAQMD Permit Application Package “N” (<http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf?sfvrsn=4>). The values for 1 million gallons were multiplied by 4 and added together to obtain the overall residential cancer risk for the gasoline pumps and the UST.

²⁴ <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>

The Traffic Impact Analysis shows that for the opening year (2023) with project scenario, the lowest level of service, LOS C would occur at the intersections of Winchester Road (SR-79) at Route 74 (EW) and Winchester Road at Domenigoni Parkway. The project would not contribute to any high traffic volume intersections with a Level of Service (LOS) E or worse. Therefore, no CO "hot spot" modeling is necessary and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

6.5 Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM10 particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. The project does not exceed any of the thresholds of significance and therefore is considered less than significant.

6.6 Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies

and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, neither short-term construction impacts, nor long-term operations will result in significant impacts based on the SCAQMD regional and local thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the County of Riverside General Plan Land Use Plan defines the assumptions that are represented in the AQMP.

The proposed project is located within the Commercial Retail Land Use designation in the Rural Commercial District of the Harvest Valley/Winchester Area Plan. The project proposes to develop the site with a mini warehouse/self-storage and gas station/convenience mart/car wash facility, which is compatible with commercial retail uses. Therefore, the proposed project would not result in an inconsistency with the land use designation in the City's General Plan. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions Impact

The greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 13. The emissions are from all phases of construction. The total construction emissions amortized over a period of 30 years are estimated at 16.56 metric tons of CO₂e per year. Annual CalEEMod output calculations are provided in Appendix B.

Table 13: Construction Greenhouse Gas Emissions

Activity	Emissions (MTCO ₂ e) ¹		
	Onsite	Offsite	Total
Site Preparation	16.9	1.0	17.8
Grading	26.3	30.2	56.5
Building Construction	268.1	129.3	397.4
Paving	20.2	1.3	21.5
Architectural Coating	2.6	1.2	3.8
Total	334.0	162.9	496.9
Averaged over 30 years²	11	5	16.56
Notes: ¹ . MTCO ₂ e=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane and nitrous oxide). ² . The emissions are averaged over 30 years because the average is added to the operational emissions, pursuant to SCAQMD. * CalEEMod output (Appendix B)			

7.2 Operational Greenhouse Gas Emissions Impact

Operational emissions occur over the life of the project. As shown in Table 14, the unmitigated operational emissions for the project are 2,120.35 metric tons of CO₂e per year. Therefore, the project's GHG emissions do not exceed the Riverside County CAP/SCAQMD draft threshold of 3,000 metric tons CO₂e per year for all land uses. Therefore, the proposed project's GHG emissions are considered to be less than significant.

<Table 14 next page>

Table 14: Opening Year Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year) ¹					
	Bio-CO ₂	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area Sources ²	0.00	0.01	0.01	0.00	0.00	0.01
Energy Usage ³	0.00	57.72	57.72	0.00	0.00	58.02
Mobile Sources ⁴	0.00	1,902.43	1,902.43	0.12	0.11	1,937.11
Solid Waste ⁵	15.54	0.00	15.54	0.92	0.00	38.49
Water ⁶	6.03	44.07	50.10	0.62	0.02	70.16
Construction ⁷	0.00	16.35	16.35	0.00	0.00	16.56
Total Emissions	21.56	2,020.57	2,042.13	1.67	0.12	2,120.35
Riverside County CAP and SCAQMD Draft Screening Threshold						3,000
Exceeds Threshold?						No
Notes: ¹ Source: CalEEMod Version 2020.4.0 ² Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment. ³ Energy usage consist of GHG emissions from electricity and natural gas usage. ⁴ Mobile sources consist of GHG emissions from vehicles. ⁵ Solid waste includes the CO ₂ and CH ₄ emissions created from the solid waste placed in landfills. ⁶ Water includes GHG emissions from electricity used for transport of water and processing of wastewater. ⁷ Construction GHG emissions based on a 30-year amortization rate.						

7.3 Greenhouse Gas Plan Consistency

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Appendix D of the Riverside County CAP Update also states that project's that do not exceed the CAP's screening threshold of 3,000 MTCO₂e per year are considered to have less than significant GHG emissions and are in compliance with the County's CAP Update. Projects that do not exceed emissions of 3,000 MTCO₂e per year are also required to include the following efficiency measures:

- Energy efficiency matching or exceeding the Title 24 requirements in effect as of January 2017, and
- Water conservation measures that match the California Green Building Code in effect as of January 2017.

At a level of 2,120.35 MTCO₂e per year, the project's GHG emissions do not exceed the Riverside County CAP's screening threshold. Therefore, the project is in compliance with the reduction goals of the goals of the County of Riverside CAP, AB-32 and SB-32. Furthermore, the project will comply with: efficiency measures detailed above, applicable Green Building Standards and County of Riverside's policies regarding sustainability (as dictated by the County's General Plan). Impacts are considered to be less than significant.

8.0 Energy Analysis

8.1 Energy Analysis Evaluation Criteria

In compliance with Appendix G of the State CEQA Guidelines, this report analyzes the project's anticipated energy use to determine if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Methodology

Information from the CalEEMod 2020.4.0 Daily and Annual Outputs contained in Appendix A and B, utilized for air quality and greenhouse gas analyses in Sections 6 and 7 of this report, were also utilized for this analysis. The CalEEMod outputs detail project related construction equipment, transportation energy demands, and facility energy demands.

Construction Energy Demands

The construction schedule is anticipated to occur no sooner than April 2022 and the end of approximately March 2023 and be completed in one phase. Staging of construction vehicles and equipment will occur on-site. The approximately 11-month schedule is relatively short and the project site is approximately 5.71 net acres.

Construction Equipment Electricity Usage Estimates

As stated previously, Electrical service will be provided by Southern California Edison. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed project. Based on the 2017 National Construction Estimator, Richard Pray (2017)²⁵, the typical power cost per 1,000 square feet of building construction per month is estimated to be \$2.32. The project plans to construct and operate 6,308 SF of

²⁵ Pray, Richard. 2017 National Construction Estimator. Carlsbad : Craftsman Book Company, 2017.

gas station/convenience market/car wash and 81,432 SF of mini-warehouse; for a total of 87,812 SF of building space.

Table 15: Project Construction Power Cost and Electricity Usage

Power Cost (per 1,000 square foot of building per month of construction)	Total Building Size (1,000 Square Foot)	Construction Duration (months)	Total Project Construction Power Cost
\$2.32	87.812	11	\$2,240.96

Based on Table 15, the total power cost of the on-site electricity usage during the construction of the proposed project is estimated to be approximately \$2,240.96.

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Fuel consumed by construction equipment was evaluated with the following assumptions:

- Construction schedule of ~nine months
- All construction equipment was assumed to run on diesel fuel
- Typical daily use of 8 hours, with some equipment operating from ~6-7 hours
- Aggregate fuel consumption rate for all equipment was estimated at 18.5 hp-hr/day (from CARB's 2017 Emissions Factors Tables and fuel consumption rate factors as shown in Table D-21 of the Moyer Guidelines: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf).
- Diesel fuel would be the responsibility of the equipment operators/contractors and would be sources within the region.
- Project construction represents a "single-event" for diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources during long term operation.

Using the CalEEMod data input for the air quality and greenhouse gas analyses (Sections 6 and 7 of this report), the project's construction phase would consume electricity and fossil fuels as a single energy demand, that is, once construction is completed their use would cease. CARB's 2014 Emissions Factors Tables show that on average aggregate fuel consumption (gasoline and diesel fuel) would be approximately 18.5 hp-hr-gal. Table 18 shows the results of the analysis of construction equipment.

As presented in Table 16, project construction activities would consume an estimated 35,522 gallons of diesel fuel. As stated previously, project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

Table 16: Construction Equipment Fuel Consumption Estimates

Phase	Number of Days	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	HP hrs/day	Total Fuel Consumption (gal diesel fuel) ¹
Site Preparation	10	Rubber Tired Dozers	3	8	247	0.4	2371	1282
	10	Tractors/Loaders/Backhoes	4	8	97	0.37	1148	621
Grading	20	Graders	1	8	187	0.41	613	663
	20	Rubber Tired Dozers	1	8	247	0.4	790	854
	20	Tractors/Loaders/Backhoes	3	7	97	0.37	754	815
Building Construction	230	Cranes	1	7	231	0.29	469	5,830
	230	Forklifts	3	8	89	0.2	427	5,311
	230	Generator Sets	1	8	84	0.74	497	6,182
	230	Tractors/Loaders/Backhoes	3	7	97	0.37	754	9,370
	230	Welders	1	8	46	0.45	166	2,059
Paving	20	Pavers	2	8	130	0.42	874	944
	20	Paving Equipment	2	8	132	0.36	760	822
	20	Rollers	2	8	80	0.38	486	526
Architectural Coating	20	Air Compressors	1	6	78	0.48	225	243
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								35,522

Notes:

- (1) Using Carl Moyer Guidelines Table D-21 Fuel consumption rate factors (bhp-hr/gal) for engines less than 750 hp.
(Source: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf)

Construction Worker Fuel Estimates

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated VMT, the construction worker trips would generate an estimated 255,633 VMT. Data regarding project related construction worker trips were based on CalEEMod 2020.4.0 model defaults.

Vehicle fuel efficiencies for construction workers were estimated in the air quality and greenhouse gas analyses (Sections 6 and 7 of this report) using information generated using CARB's 2021 EMFAC model (see Appendix B for details). An aggregate fuel efficiency of 28.51 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. Table 17 shows that an estimated 8,966 gallons of fuel would be consumed for construction worker trips.

Table 17: Construction Worker Fuel Consumption Estimates

Phase	Number of Days	Worker Trips/Day	Trip Length (miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	10	18	14.7	2646	28.51	93
Grading	20	15	14.7	4,410	28.51	155
Building Construction	230	71	14.7	240,051	28.51	8,420
Paving	20	15	14.7	4,410	28.51	155
Architectural Coating	20	14	14.7	4,116	28.51	144
Total Construction Worker Fuel Consumption						8,966

Notes:

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2020.4.0 defaults.

Construction Vendor/Hauling Fuel Estimates

Tables 18 and 19 show the estimated fuel consumption for vendor and hauling during building construction and architectural coating. With respect to estimated VMT, the vendor and hauling trips would generate an estimated 19,974 VMT. Data regarding project related construction worker trips were based on CalEEMod 2020.4.0 model defaults.

Table 18: Construction Vendor Fuel Consumption Estimates (MHD Trucks)

Phase	Number of Days	Vendor Trips/Day	Trip Length (miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	10	2	6.9	138	7.58	18
Grading	20	2	6.9	276	7.58	36
Building Construction	230	28	6.9	44,436	7.58	5,862
Paving	20	0	6.9	0	7.58	0
Architectural Coating	20	0	6.9	0	7.58	0
Total Construction Worker Fuel Consumption						5,917

Notes:

(1) Assumptions for the vendor trip length and vehicle miles traveled are consistent with CalEEMod 2020.4.0 defaults.

For the architectural coatings it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light duty vehicles. Therefore, vendors delivering construction material or hauling debris from the site during demolition or site preparation would use medium to heavy duty vehicles with an average fuel consumption of 7.58 mpg for medium heavy duty

trucks and 5.9 for heavy-heavy duty trucks (see Appendix B for details). Tables 18 and 19 show that an estimated 9,232 gallons of fuel would be consumed for vendor and hauling trips.

Table 19: Construction Hauling Fuel Consumption Estimates (HHD Trucks)

Phase	Number of Days	Total Hauling Trips	Trip Length (miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	10	0	20	0	5.9	0
Grading	20	978	20	19,560	5.9	3,315
Building Construction	230	0	20	0	5.9	0
Paving	20	0	20	0	5.9	0
Architectural Coating	20	0	20	0	5.9	0
Total Construction Worker Fuel Consumption						3,315

Notes:

(1) Assumptions for the hauling trip length and vehicle miles traveled are consistent with CalEEMod 2020.4.0 defaults.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately 11-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with these measures would result in a more efficient use of construction-related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction

equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Operational Energy Demands

Energy consumption in support of or related to project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Fuel Consumption

Using the CalEEMod output from the air quality and greenhouse gas analyses (Sections 6 and 7 of this report), it is assumed that an average trip for autos and light trucks was assumed to be 16.6 miles and 3- 4-axle trucks were assumed to travel an average of 6.9 miles.²⁶ As the project includes mini-storage uses, which are frequently utilized on weekends, and in order to present a worst-case scenario, it was assumed that vehicles would operate 365 days per year. Table 20 shows the estimated annual fuel consumption for all classes of vehicles from autos to heavy-heavy trucks.²⁷

Table 20: Estimated Vehicle Operations Fuel Consumption

Vehicle Type	Vehicle Mix	Number of Vehicles	Average Trip (miles) ¹	Daily VMT	Average Fuel Economy (mpg)	Total Gallons per Day	Total Annual Fuel Consumption (gallons)
Light Auto	Automobile	1,613	16.6	26768	29.01	922.72	336,791
Light Truck	Automobile	113	16.6	1878	23.89	78.63	28,700
Light Truck	Automobile	591	16.6	9815	23.23	422.51	154,217
Medium Truck	Automobile	314	6.9	2167	18.97	114.22	41,690
Light Heavy Truck	2-Axle Truck	42	6.9	293	15.1	19.39	7,078
Light Heavy Truck 10,000 lbs +	2-Axle Truck	16	6.9	111	14.46	7.69	2,809
Medium Heavy Truck	3-Axle Truck	73	6.9	504	7.65	65.83	24,029
Heavy Heavy Truck	4-Axle Truck	48	6.9	332	5.98	55.49	20,255
Total		2,829	--	41,868	-	1,686.49	--
Total Annual Fuel Consumption							615,567

Notes:

(1) Based on the size of the site and relative location, trips were assumed to be local rather than regional.

²⁶ CalEEMod default distance for H-W (home-work) or C-W (commercial-work) is 16.6 miles; 6.9 miles for H-O (home-other) or C-O (commercial-other).

²⁷ Average fuel economy based on aggregate mileage calculated in EMFAC 2021 for opening year (2023). See Appendix B for EMFAC output.

The proposed project would generate an estimated average of 2,829 trips per day. The vehicle fleet mix was used from the CalEEMod output. Table 20 shows that an estimated 615,567 gallons of fuel would be consumed per year for the operation of the proposed project.

Facility Energy Demands (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity (provided by Southern California Edison) and natural gas (provided by Southern California Gas Company). The annual natural gas and electricity demands were provided per the CalEEMod output from the air quality and greenhouse gas analyses (Sections 6 and 7 of this report) and are provided in Table 21.

Table 21: Project Annual Operational Energy Demand Summary

Natural Gas Demand	kBTU/year ¹
Unrefrigerated Warehouse - No Rail	14,036.0
Other Non-Asphalt Surfaces	0.0
Parking Lot	0.0
Convenience Market With Gas Pumps	163,678.0
Total	177,714.0

Electricity Demand	kWh/year ¹
Unrefrigerated Warehouse - No Rail	77,453.2
Other Non-Asphalt Surfaces	0.0
Parking Lot	5,600.0
Convenience Market With Gas Pumps	188,922.0
Total	271,975.2

Notes:

¹. Taken from the CalEEMod 2020.4.0 annual output (Appendix B of this report).

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or “plug-in” energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

8.2 Renewable Energy and Efficiency Plan Consistency

Regarding federal transportation regulations, the project site is located in an already developed area. Access to/from the project site is from existing roads. These roads are already in place so the project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because SCAG is not planning for intermodal facilities in the project area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by Southern California Edison and Southern California Gas Company.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources.

Regarding the State's Renewable Energy Portfolio Standards, the project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CalGreen). CalGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

As shown in Section 7 above, the proposed project would be consistent with the applicable strategies of the County's General Plan and the County CAP.

8.3 Conclusions

As supported by the preceding analyses, project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Furthermore, the energy demands of the project can be accommodated within the context of available resources and energy delivery systems. The project would therefore not cause or result in the need for additional energy producing or transmission facilities. The project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the State of California. Notwithstanding, the project proposes commercial uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

9.0 References

The following references were used in the preparing this analysis.

California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board

2008 Resolution 08-43

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2013 Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.

2021 Historical Air Quality, Top 4 Summary

County of Riverside

2015 County of Riverside General Plan. December 8.

2019 County of Riverside Climate Action Plan Update. November.

Governor's Office of Planning and Research

2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Institute of Engineers

2017 Trip Generation Manual, 10th Edition.

Intergovernmental Panel on Climate Change (IPCC)

2014 IPCC Fifth Assessment Report, Climate Change 2014: Synthesis Report

Kunzman Associates

2021 Dimon Traffic Impact Analysis. July 12.

Office of Environmental Health Hazard Assessment

2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District

1993 CEQA Air Quality Handbook

2005 Rule 403 Fugitive Dust

2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2011 Appendix A Calculation Details for CalEEMod

2012 Final 2012 Air Quality Management Plan

2016 Final 2016 Air Quality Management Plan

2018 Historical Data by Year. 2017, 2018 and 2019 Air Quality Data Tables.

Source: <http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year>

Southern California Association of Governments

2019 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

U.S. Environmental Protection Agency (EPA)

2017 Understanding Global Warming Potentials

(Source: <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>)

Appendix A:

CalEEMod Daily Emission Output

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Newport and Winchester
Riverside-South Coast County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	81.43	1000sqft	1.87	81,432.00	0
Other Non-Asphalt Surfaces	65.71	1000sqft	1.51	65,713.00	0
Parking Lot	40.00	Space	2.28	16,000.00	0
Convenience Market with Gas Pumps	16.00	Pump	0.05	6,380.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 16 pump, 6,380 SF gas station/convenience store/car wash, 81,432 SF of self-storage warehouse, 40-space parking lot plus paved surfaces (~2.28 ac), 63,713 SF of landscaped area, all on 5.71 net acres.

Construction Phase - Construction anticipated to start no sooner than April 2022 and end ~March 2023.

Grading - Cut = 21,584 CY, fill = 29,407 CY = 7,823 CY import

Architectural Coating - Parking area to be painted = 6% of 16,000 SF = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Vehicle Trips - Trip gen rate = 168.44 trips/per pump (includes PB rdx) for con market/gas stn/car wash & 1.65 trips/TSF for mini storage from TIA. Trip gen rate of 1.95 trips/TSF (Sat) and 1.89 trips/TSF (Sun) for mini storage from 10th Ed ITE for ITE code 151.

Area Coating - Parking area to be painted = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Newport and Winchester - Riverside-South Coast County, Summer

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

Area Mitigation - SCAQMD Rule 1113

Water Mitigation -

Trips and VMT - 2 vendor trips added during grading and site prep to account for water trucks.

Sequestration - 90 new trees to be planted on-site.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	4,903.00	960.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialImported	0.00	7,823.00
tblLandUse	LandUseSquareFeet	2,258.80	6,380.00
tblLandUse	LotAcreage	0.36	2.28
tblSequestration	NumberOfNewTrees	0.00	90.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	53.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PR_TP	14.00	47.00
tblVehicleTrips	ST_TR	322.50	168.44
tblVehicleTrips	ST_TR	1.74	1.95
tblVehicleTrips	SU_TR	322.50	168.44
tblVehicleTrips	SU_TR	1.74	1.89
tblVehicleTrips	WD_TR	322.50	168.44
tblVehicleTrips	WD_TR	1.74	1.65

2.0 Emissions Summary

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2443	33.2141	20.4448	0.0597	19.8710	1.6148	21.4858	10.1595	1.4857	11.6452	0.0000	6,064.957 3	6,064.957 3	1.1972	0.4820	6,232.937 7
2023	24.0657	27.0201	36.6846	0.0674	1.2971	1.2940	2.5911	0.3481	1.2111	1.5592	0.0000	6,569.203 9	6,569.203 9	1.3669	0.1001	6,633.211 9
Maximum	24.0657	33.2141	36.6846	0.0674	19.8710	1.6148	21.4858	10.1595	1.4857	11.6452	0.0000	6,569.203 9	6,569.203 9	1.3669	0.4820	6,633.211 9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2443	33.2141	20.4448	0.0597	7.8802	1.6148	9.4950	3.9970	1.4857	5.4827	0.0000	6,064.957 3	6,064.957 3	1.1972	0.4820	6,232.937 7
2023	24.0657	27.0201	36.6846	0.0674	1.2971	1.2940	2.5911	0.3481	1.2111	1.5592	0.0000	6,569.203 9	6,569.203 9	1.3669	0.1001	6,633.211 9
Maximum	24.0657	33.2141	36.6846	0.0674	7.8802	1.6148	9.4950	3.9970	1.4857	5.4827	0.0000	6,569.203 9	6,569.203 9	1.3669	0.4820	6,633.211 9

Newport and Winchester - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	56.65	0.00	49.80	58.65	0.00	46.67	0.00	0.00	0.00	0.00	0.00	0.00

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Energy	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
Mobile	7.6205	8.0878	57.8983	0.1203	11.6553	0.0956	11.7510	3.1097	0.0896	3.1993		12,371.4074	12,371.4074	0.7167	0.6343	12,578.3349
Total	9.6246	8.1358	57.9591	0.1206	11.6553	0.0993	11.7547	3.1097	0.0933	3.2030		12,428.7329	12,428.7329	0.7179	0.6353	12,636.0037

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Energy	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
Mobile	7.6205	8.0878	57.8983	0.1203	11.6553	0.0956	11.7510	3.1097	0.0896	3.1993		12,371.4074	12,371.4074	0.7167	0.6343	12,578.3349
Total	9.6246	8.1358	57.9591	0.1206	11.6553	0.0993	11.7547	3.1097	0.0933	3.2030		12,428.7329	12,428.7329	0.7179	0.6353	12,636.0037

Newport and Winchester - Riverside-South Coast County, Summer

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

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

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2022	4/14/2022	5	10	
2	Grading	Grading	4/15/2022	5/12/2022	5	20	
3	Building Construction	Building Construction	5/13/2022	3/30/2023	5	230	
4	Paving	Paving	2/28/2023	3/27/2023	5	20	
5	Architectural Coating	Architectural Coating	2/28/2023	3/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 15**Acres of Grading (Grading Phase): 20****Acres of Paving: 3.79****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,718; Non-Residential Outdoor: 43,906; Striped Parking Area: 960 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Newport and Winchester - Riverside-South Coast County, Summer

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

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	978.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	71.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2022****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	0.0742	0.1305	0.7470	2.1900e-003	0.2140	2.2200e-003	0.2162	0.0571	2.0900e-003	0.0591		224.6261	224.6261	5.0200e-003	0.0103	227.8204

Newport and Winchester - Riverside-South Coast County, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.061 9	3,686.061 9	1.1922		3,715.865 5
Total	3.1701	33.0835	19.6978	0.0380	7.6662	1.6126	9.2788	3.9400	1.4836	5.4235	0.0000	3,686.061 9	3,686.061 9	1.1922		3,715.865 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	0.0742	0.1305	0.7470	2.1900e-003	0.2140	2.2200e-003	0.2162	0.0571	2.0900e-003	0.0591		224.6261	224.6261	5.0200e-003	0.0103	227.8204

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1321	0.0000	7.1321	3.4322	0.0000	3.4322			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	7.1321	0.9409	8.0730	3.4322	0.8656	4.2978		2,872.046 4	2,872.046 4	0.9289		2,895.268 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1546	6.2452	1.3888	0.0281	0.8559	0.0726	0.9285	0.2347	0.0695	0.3041		2,999.291 0	2,999.291 0	0.0406	0.4725	3,141.101 6
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	0.2170	6.3681	2.0162	0.0300	1.0364	0.0747	1.1110	0.2828	0.0714	0.3542		3,192.910 9	3,192.910 9	0.0448	0.4820	3,337.669 4

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7815	0.0000	2.7815	1.3386	0.0000	1.3386			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	2.7815	0.9409	3.7224	1.3386	0.8656	2.2042	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1546	6.2452	1.3888	0.0281	0.8559	0.0726	0.9285	0.2347	0.0695	0.3041		2,999.291 0	2,999.291 0	0.0406	0.4725	3,141.101 6
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	0.2170	6.3681	2.0162	0.0300	1.0364	0.0747	1.1110	0.2828	0.0714	0.3542		3,192.910 9	3,192.910 9	0.0448	0.4820	3,337.669 4

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0456	1.1840	0.4117	5.1000e-003	0.1793	0.0171	0.1964	0.0516	0.0163	0.0680		540.2469	540.2469	5.7200e-003	0.0801	564.2645
Worker	0.2798	0.1813	2.8305	7.2100e-003	0.7936	3.9600e-003	0.7976	0.2105	3.6400e-003	0.2141		733.8128	733.8128	0.0182	0.0181	739.6456
Total	0.3254	1.3653	3.2422	0.0123	0.9730	0.0210	0.9940	0.2621	0.0200	0.2821		1,274.0597	1,274.0597	0.0239	0.0982	1,303.9101

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0456	1.1840	0.4117	5.1000e-003	0.1793	0.0171	0.1964	0.0516	0.0163	0.0680		540.2469	540.2469	5.7200e-003	0.0801	564.2645
Worker	0.2798	0.1813	2.8305	7.2100e-003	0.7936	3.9600e-003	0.7976	0.2105	3.6400e-003	0.2141		733.8128	733.8128	0.0182	0.0181	739.6456
Total	0.3254	1.3653	3.2422	0.0123	0.9730	0.0210	0.9940	0.2621	0.0200	0.2821		1,274.0597	1,274.0597	0.0239	0.0982	1,303.9101

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	0.9148	0.3767	4.8900e-003	0.1793	7.9700e-003	0.1873	0.0516	7.6200e-003	0.0593		518.7588	518.7588	5.2900e-003	0.0767	541.7348
Worker	0.2594	0.1603	2.6047	6.9800e-003	0.7936	3.7200e-003	0.7973	0.2105	3.4300e-003	0.2139		714.4041	714.4041	0.0163	0.0167	719.7756
Total	0.2910	1.0751	2.9814	0.0119	0.9730	0.0117	0.9847	0.2621	0.0111	0.2732		1,233.1630	1,233.1630	0.0216	0.0933	1,261.5104

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	0.9148	0.3767	4.8900e-003	0.1793	7.9700e-003	0.1873	0.0516	7.6200e-003	0.0593		518.7588	518.7588	5.2900e-003	0.0767	541.7348
Worker	0.2594	0.1603	2.6047	6.9800e-003	0.7936	3.7200e-003	0.7973	0.2105	3.4300e-003	0.2139		714.4041	714.4041	0.0163	0.0167	719.7756
Total	0.2910	1.0751	2.9814	0.0119	0.9730	0.0117	0.9847	0.2621	0.0111	0.2732		1,233.1630	1,233.1630	0.0216	0.0933	1,261.5104

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3314	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0548	0.0339	0.5503	1.4700e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		150.9305	150.9305	3.4500e-003	3.5200e-003	152.0653
Total	0.0548	0.0339	0.5503	1.4700e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		150.9305	150.9305	3.4500e-003	3.5200e-003	152.0653

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3314	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0548	0.0339	0.5503	1.4700e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		150.9305	150.9305	3.4500e-003	3.5200e-003	152.0653
Total	0.0548	0.0339	0.5503	1.4700e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		150.9305	150.9305	3.4500e-003	3.5200e-003	152.0653

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.5729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	20.7646	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0316	0.5136	1.3800e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		140.8684	140.8684	3.2200e-003	3.2800e-003	141.9276
Total	0.0512	0.0316	0.5136	1.3800e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		140.8684	140.8684	3.2200e-003	3.2800e-003	141.9276

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.5729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	20.7646	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0316	0.5136	1.3800e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		140.8684	140.8684	3.2200e-003	3.2800e-003	141.9276
Total	0.0512	0.0316	0.5136	1.3800e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		140.8684	140.8684	3.2200e-003	3.2800e-003	141.9276

Newport and Winchester - Riverside-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.6205	8.0878	57.8983	0.1203	11.6553	0.0956	11.7510	3.1097	0.0896	3.1993		12,371.40 74	12,371.40 74	0.7167	0.6343	12,578.33 49
Unmitigated	7.6205	8.0878	57.8983	0.1203	11.6553	0.0956	11.7510	3.1097	0.0896	3.1993		12,371.40 74	12,371.40 74	0.7167	0.6343	12,578.33 49

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,695.04	2,695.04	2695.04	4,835,137	4,835,137
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	134.36	158.79	153.91	602,763	602,763
Total	2,829.40	2,853.83	2,848.95	5,437,901	5,437,901

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	16.60	8.40	6.90	0.80	80.20	19.00	47	53	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Newport and Winchester - Riverside-South Coast County, Summer

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

	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Other Non-Asphalt Surfaces	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Unrefrigerated Warehouse-No Rail	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
NaturalGas Unmitigated	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

Newport and Winchester - Riverside-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	38.4548	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5241	4.5241	9.0000e-005	8.0000e-005	4.5510
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	448.434	4.8400e-003	0.0440	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7569	52.7569	1.0100e-003	9.7000e-004	53.0704
Total		5.2500e-003	0.0477	0.0401	2.8000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

Newport and Winchester - Riverside-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0384548	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5241	4.5241	9.0000e-005	8.0000e-005	4.5510
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.448434	4.8400e-003	0.0440	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7569	52.7569	1.0100e-003	9.7000e-004	53.0704
Total		5.2500e-003	0.0477	0.0401	2.8000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

6.0 Area Detail

6.1 Mitigation Measures Area

Newport and Winchester - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Unmitigated	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Total	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

Newport and Winchester - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Total	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

7.0 Water Detail**7.1 Mitigation Measures Water**

Newport and Winchester - Riverside-South Coast County, Summer

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

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Newport and Winchester
Riverside-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	81.43	1000sqft	1.87	81,432.00	0
Other Non-Asphalt Surfaces	65.71	1000sqft	1.51	65,713.00	0
Parking Lot	40.00	Space	2.28	16,000.00	0
Convenience Market with Gas Pumps	16.00	Pump	0.05	6,380.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 16 pump, 6,380 SF gas station/convenience store/car wash, 81,432 SF of self-storage warehouse, 40-space parking lot plus paved surfaces (~2.28 ac), 63,713 SF of landscaped area, all on 5.71 net acres.

Construction Phase - Construction anticipated to start no sooner than April 2022 and end ~March 2023.

Grading - Cut = 21,584 CY, fill = 29,407 CY = 7,823 CY import

Architectural Coating - Parking area to be painted = 6% of 16,000 SF = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Vehicle Trips - Trip gen rate = 168.44 trips/per pump (includes PB rdx) for con market/gas stn/car wash & 1.65 trips/TSF for mini storage from TIA. Trip gen rate of 1.95 trips/TSF (Sat) and 1.89 trips/TSF (Sun) for mini storage from 10th Ed ITE for ITE code 151.

Area Coating - Parking area to be painted = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Newport and Winchester - Riverside-South Coast County, Winter

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

Area Mitigation - SCAQMD Rule 1113

Water Mitigation -

Trips and VMT - 2 vendor trips added during grading and site prep to account for water trucks.

Sequestration - 90 new trees to be planted on-site.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	4,903.00	960.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialImported	0.00	7,823.00
tblLandUse	LandUseSquareFeet	2,258.80	6,380.00
tblLandUse	LotAcreage	0.36	2.28
tblSequestration	NumberOfNewTrees	0.00	90.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	53.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PR_TP	14.00	47.00
tblVehicleTrips	ST_TR	322.50	168.44
tblVehicleTrips	ST_TR	1.74	1.95
tblVehicleTrips	SU_TR	322.50	168.44
tblVehicleTrips	SU_TR	1.74	1.89
tblVehicleTrips	WD_TR	322.50	168.44
tblVehicleTrips	WD_TR	1.74	1.65

2.0 Emissions Summary

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2395	33.2203	20.3099	0.0595	19.8710	1.6148	21.4858	10.1595	1.4857	11.6452	0.0000	6,052.684 3	6,052.684 3	1.1971	0.4825	6,220.793 7
2023	24.0404	27.0839	36.0076	0.0665	1.2971	1.2940	2.5911	0.3481	1.2111	1.5592	0.0000	6,475.998 7	6,475.998 7	1.3668	0.1009	6,540.242 2
Maximum	24.0404	33.2203	36.0076	0.0665	19.8710	1.6148	21.4858	10.1595	1.4857	11.6452	0.0000	6,475.998 7	6,475.998 7	1.3668	0.4825	6,540.242 2

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2395	33.2203	20.3099	0.0595	7.8802	1.6148	9.4950	3.9970	1.4857	5.4827	0.0000	6,052.684 3	6,052.684 3	1.1971	0.4825	6,220.793 7
2023	24.0404	27.0839	36.0076	0.0665	1.2971	1.2940	2.5911	0.3481	1.2111	1.5592	0.0000	6,475.998 7	6,475.998 7	1.3668	0.1009	6,540.242 1
Maximum	24.0404	33.2203	36.0076	0.0665	7.8802	1.6148	9.4950	3.9970	1.4857	5.4827	0.0000	6,475.998 7	6,475.998 7	1.3668	0.4825	6,540.242 1

Newport and Winchester - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	56.65	0.00	49.80	58.65	0.00	46.67	0.00	0.00	0.00	0.00	0.00	0.00

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Energy	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
Mobile	6.2907	8.5685	52.6215	0.1118	11.6553	0.0958	11.7511	3.1097	0.0897	3.1994		11,505.38 20	11,505.38 20	0.7506	0.6483	11,717.34 12
Total	8.2947	8.6165	52.6823	0.1121	11.6553	0.0995	11.7548	3.1097	0.0934	3.2031		11,562.70 75	11,562.70 75	0.7518	0.6494	11,775.01 00

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Energy	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
Mobile	6.2907	8.5685	52.6215	0.1118	11.6553	0.0958	11.7511	3.1097	0.0897	3.1994		11,505.38 20	11,505.38 20	0.7506	0.6483	11,717.34 12
Total	8.2947	8.6165	52.6823	0.1121	11.6553	0.0995	11.7548	3.1097	0.0934	3.2031		11,562.70 75	11,562.70 75	0.7518	0.6494	11,775.01 00

Newport and Winchester - Riverside-South Coast County, Winter

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

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

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2022	4/14/2022	5	10	
2	Grading	Grading	4/15/2022	5/12/2022	5	20	
3	Building Construction	Building Construction	5/13/2022	3/30/2023	5	230	
4	Paving	Paving	2/28/2023	3/27/2023	5	20	
5	Architectural Coating	Architectural Coating	2/28/2023	3/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 15**Acres of Grading (Grading Phase): 20****Acres of Paving: 3.79****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,718; Non-Residential Outdoor: 43,906; Striped Parking Area: 960 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Newport and Winchester - Riverside-South Coast County, Winter

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

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	978.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	71.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2022****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	0.0694	0.1368	0.6121	2.0200e-003	0.2140	2.2200e-003	0.2162	0.0571	2.0900e-003	0.0591		207.1424	207.1424	4.9800e-003	0.0104	210.3713

Newport and Winchester - Riverside-South Coast County, Winter

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.061 9	3,686.061 9	1.1922		3,715.865 5
Total	3.1701	33.0835	19.6978	0.0380	7.6662	1.6126	9.2788	3.9400	1.4836	5.4235	0.0000	3,686.061 9	3,686.061 9	1.1922		3,715.865 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	0.0694	0.1368	0.6121	2.0200e-003	0.2140	2.2200e-003	0.2162	0.0571	2.0900e-003	0.0591		207.1424	207.1424	4.9800e-003	0.0104	210.3713

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1321	0.0000	7.1321	3.4322	0.0000	3.4322			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	7.1321	0.9409	8.0730	3.4322	0.8656	4.2978		2,872.046 4	2,872.046 4	0.9289		2,895.268 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1473	6.5873	1.4269	0.0281	0.8559	0.0727	0.9286	0.2347	0.0695	0.3042		3,001.580 7	3,001.580 7	0.0402	0.4728	3,143.491 0
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	0.2056	6.7161	1.9421	0.0299	1.0364	0.0748	1.1111	0.2828	0.0715	0.3543		3,180.637 9	3,180.637 9	0.0444	0.4825	3,325.525 4

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7815	0.0000	2.7815	1.3386	0.0000	1.3386			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	2.7815	0.9409	3.7224	1.3386	0.8656	2.2042	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1473	6.5873	1.4269	0.0281	0.8559	0.0727	0.9286	0.2347	0.0695	0.3042		3,001.580 7	3,001.580 7	0.0402	0.4728	3,143.491 0
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	0.2056	6.7161	1.9421	0.0299	1.0364	0.0748	1.1111	0.2828	0.0715	0.3543		3,180.637 9	3,180.637 9	0.0444	0.4825	3,325.525 4

Newport and Winchester - Riverside-South Coast County, Winter

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0436	1.2474	0.4275	5.1000e-003	0.1793	0.0171	0.1965	0.0516	0.0164	0.0680		540.8362	540.8362	5.6300e-003	0.0803	564.8963
Worker	0.2614	0.1882	2.2939	6.5300e-003	0.7936	3.9600e-003	0.7976	0.2105	3.6400e-003	0.2141		664.6834	664.6834	0.0181	0.0185	670.6407
Total	0.3050	1.4356	2.7214	0.0116	0.9730	0.0211	0.9940	0.2621	0.0200	0.2821		1,205.5196	1,205.5196	0.0237	0.0988	1,235.5370

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0436	1.2474	0.4275	5.1000e-003	0.1793	0.0171	0.1965	0.0516	0.0164	0.0680		540.8362	540.8362	5.6300e-003	0.0803	564.8963
Worker	0.2614	0.1882	2.2939	6.5300e-003	0.7936	3.9600e-003	0.7976	0.2105	3.6400e-003	0.2141		664.6834	664.6834	0.0181	0.0185	670.6407
Total	0.3050	1.4356	2.7214	0.0116	0.9730	0.0211	0.9940	0.2621	0.0200	0.2821		1,205.5196	1,205.5196	0.0237	0.0988	1,235.5370

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0292	0.9701	0.3893	4.9000e-003	0.1793	8.0000e-003	0.1873	0.0516	7.6500e-003	0.0593		520.0462	520.0462	5.1900e-003	0.0769	543.0957
Worker	0.2431	0.1663	2.1151	6.3200e-003	0.7936	3.7200e-003	0.7973	0.2105	3.4300e-003	0.2139		647.3143	647.3143	0.0163	0.0171	652.8008
Total	0.2724	1.1365	2.5044	0.0112	0.9730	0.0117	0.9847	0.2621	0.0111	0.2732		1,167.3606	1,167.3606	0.0215	0.0940	1,195.8966

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0292	0.9701	0.3893	4.9000e-003	0.1793	8.0000e-003	0.1873	0.0516	7.6500e-003	0.0593		520.0462	520.0462	5.1900e-003	0.0769	543.0957
Worker	0.2431	0.1663	2.1151	6.3200e-003	0.7936	3.7200e-003	0.7973	0.2105	3.4300e-003	0.2139		647.3143	647.3143	0.0163	0.0171	652.8008
Total	0.2724	1.1365	2.5044	0.0112	0.9730	0.0117	0.9847	0.2621	0.0111	0.2732		1,167.3606	1,167.3606	0.0215	0.0940	1,195.8966

Newport and Winchester - Riverside-South Coast County, Winter

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3314	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0514	0.0351	0.4468	1.3400e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		136.7566	136.7566	3.4300e-003	3.6000e-003	137.9157
Total	0.0514	0.0351	0.4468	1.3400e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		136.7566	136.7566	3.4300e-003	3.6000e-003	137.9157

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3314	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0514	0.0351	0.4468	1.3400e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		136.7566	136.7566	3.4300e-003	3.6000e-003	137.9157
Total	0.0514	0.0351	0.4468	1.3400e-003	0.1677	7.9000e-004	0.1685	0.0445	7.2000e-004	0.0452		136.7566	136.7566	3.4300e-003	3.6000e-003	137.9157

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.5729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	20.7646	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0479	0.0328	0.4171	1.2500e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		127.6395	127.6395	3.2100e-003	3.3600e-003	128.7213
Total	0.0479	0.0328	0.4171	1.2500e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		127.6395	127.6395	3.2100e-003	3.3600e-003	128.7213

Newport and Winchester - Riverside-South Coast County, Winter

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.5729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	20.7646	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0479	0.0328	0.4171	1.2500e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		127.6395	127.6395	3.2100e-003	3.3600e-003	128.7213
Total	0.0479	0.0328	0.4171	1.2500e-003	0.1565	7.3000e-004	0.1572	0.0415	6.8000e-004	0.0422		127.6395	127.6395	3.2100e-003	3.3600e-003	128.7213

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.2907	8.5685	52.6215	0.1118	11.6553	0.0958	11.7511	3.1097	0.0897	3.1994		11,505.38 20	11,505.38 20	0.7506	0.6483	11,717.34 12
Unmitigated	6.2907	8.5685	52.6215	0.1118	11.6553	0.0958	11.7511	3.1097	0.0897	3.1994		11,505.38 20	11,505.38 20	0.7506	0.6483	11,717.34 12

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,695.04	2,695.04	2695.04	4,835,137	4,835,137
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	134.36	158.79	153.91	602,763	602,763
Total	2,829.40	2,853.83	2,848.95	5,437,901	5,437,901

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
Convenience Market with Gas	16.60	8.40	6.90	0.80	80.20	19.00	47	53	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Newport and Winchester - Riverside-South Coast County, Winter

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

	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Other Non-Asphalt Surfaces	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Unrefrigerated Warehouse-No Rail	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214
NaturalGas Unmitigated	5.2500e-003	0.0477	0.0401	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

Newport and Winchester - Riverside-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	38.4548	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5241	4.5241	9.0000e-005	8.0000e-005	4.5510
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	448.434	4.8400e-003	0.0440	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7569	52.7569	1.0100e-003	9.7000e-004	53.0704
Total		5.2500e-003	0.0477	0.0401	2.8000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

Newport and Winchester - Riverside-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0384548	4.1000e-004	3.7700e-003	3.1700e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5241	4.5241	9.0000e-005	8.0000e-005	4.5510
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.448434	4.8400e-003	0.0440	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7569	52.7569	1.0100e-003	9.7000e-004	53.0704
Total		5.2500e-003	0.0477	0.0401	2.8000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003		57.2810	57.2810	1.1000e-003	1.0500e-003	57.6214

6.0 Area Detail

6.1 Mitigation Measures Area

Newport and Winchester - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Unmitigated	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Total	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

Newport and Winchester - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474
Total	1.9988	1.9000e-004	0.0207	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0445	0.0445	1.2000e-004		0.0474

7.0 Water Detail**7.1 Mitigation Measures Water**

Newport and Winchester - Riverside-South Coast County, Winter

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

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Appendix B:

CalEEMod Annual Emission Output

Newport and Winchester - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Newport and Winchester
Riverside-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	81.43	1000sqft	1.87	81,432.00	0
Other Non-Asphalt Surfaces	65.71	1000sqft	1.51	65,713.00	0
Parking Lot	40.00	Space	2.28	16,000.00	0
Convenience Market with Gas Pumps	16.00	Pump	0.05	6,380.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 16 pump, 6,380 SF gas station/convenience store/car wash, 81,432 SF of self-storage warehouse, 40-space parking lot plus paved surfaces (~2.28 ac), 63,713 SF of landscaped area, all on 5.71 net acres.

Construction Phase - Construction anticipated to start no sooner than April 2022 and end ~March 2023.

Grading - Cut = 21,584 CY, fill = 29,407 CY = 7,823 CY import

Architectural Coating - Parking area to be painted = 6% of 16,000 SF = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Vehicle Trips - Trip gen rate = 168.44 trips/per pump (includes PB rdx) for con market/gas stn/car wash & 1.65 trips/TSF for mini storage from TIA. Trip gen rate of 1.95 trips/TSF (Sat) and 1.89 trips/TSF (Sun) for mini storage from 10th Ed ITE for ITE code 151.

Area Coating - Parking area to be painted = 960 SF. Paints applied to buildings limited to 50g/L VOC per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Newport and Winchester - Riverside-South Coast County, Annual

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

Area Mitigation - SCAQMD Rule 1113

Water Mitigation -

Trips and VMT - 2 vendor trips added during grading and site prep to account for water trucks.

Sequestration - 90 new trees to be planted on-site.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	4,903.00	960.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialImported	0.00	7,823.00
tblLandUse	LandUseSquareFeet	2,258.80	6,380.00
tblLandUse	LotAcreage	0.36	2.28
tblSequestration	NumberOfNewTrees	0.00	90.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	53.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PR_TP	14.00	47.00
tblVehicleTrips	ST_TR	322.50	168.44
tblVehicleTrips	ST_TR	1.74	1.95
tblVehicleTrips	SU_TR	322.50	168.44
tblVehicleTrips	SU_TR	1.74	1.89
tblVehicleTrips	WD_TR	322.50	168.44
tblVehicleTrips	WD_TR	1.74	1.65

2.0 Emissions Summary

Newport and Winchester - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2037	1.8571	1.8676	4.0100e-003	0.2603	0.0871	0.3475	0.1093	0.0816	0.1910	0.0000	356.8499	356.8499	0.0621	0.0119	361.9435
2023	0.2806	0.6121	0.7764	1.5100e-003	0.0338	0.0286	0.0624	9.1100e-003	0.0268	0.0360	0.0000	133.5159	133.5159	0.0250	2.8000e-003	134.9737
Maximum	0.2806	1.8571	1.8676	4.0100e-003	0.2603	0.0871	0.3475	0.1093	0.0816	0.1910	0.0000	356.8499	356.8499	0.0621	0.0119	361.9435

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2037	1.8571	1.8676	4.0100e-003	0.1569	0.0871	0.2440	0.0576	0.0816	0.1392	0.0000	356.8496	356.8496	0.0621	0.0119	361.9433
2023	0.2806	0.6121	0.7764	1.5100e-003	0.0338	0.0286	0.0624	9.1100e-003	0.0268	0.0360	0.0000	133.5158	133.5158	0.0250	2.8000e-003	134.9736
Maximum	0.2806	1.8571	1.8676	4.0100e-003	0.1569	0.0871	0.2440	0.0576	0.0816	0.1392	0.0000	356.8496	356.8496	0.0621	0.0119	361.9433

Newport and Winchester - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	35.17	0.00	25.24	43.69	0.00	22.80	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	4-1-2022	6-30-2022	0.8089	0.8089
2	7-1-2022	9-30-2022	0.6247	0.6247
3	10-1-2022	12-31-2022	0.6263	0.6263
4	1-1-2023	3-31-2023	0.8896	0.8896
		Highest	0.8896	0.8896

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	0.3647	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003
Energy	9.6000e-004	8.7100e-003	7.3200e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	57.7172	57.7172	4.2500e-003	6.7000e-004	58.0223
Mobile	1.1479	1.5455	9.7176	0.0204	2.0569	0.0172	2.0741	0.5495	0.0161	0.5656	0.0000	1,902.429 1	1,902.429 1	0.1219	0.1062	1,937.110 3
Waste						0.0000	0.0000		0.0000	0.0000	15.5369	0.0000	15.5369	0.9182	0.0000	38.4921
Water						0.0000	0.0000		0.0000	0.0000	6.0272	44.0726	50.0997	0.6228	0.0151	70.1593
Total	1.5135	1.5542	9.7275	0.0204	2.0569	0.0178	2.0747	0.5495	0.0168	0.5663	21.5641	2,004.223 8	2,025.787 9	1.6671	0.1219	2,103.789 3

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

Mitigated Operational

[illegible]

Newport and Winchester - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.3 Vegetation****Vegetation**

	CO2e
Category	MT
New Trees	63.7200
Total	63.7200

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2022	4/14/2022	5	10	
2	Grading	Grading	4/15/2022	5/12/2022	5	20	
3	Building Construction	Building Construction	5/13/2022	3/30/2023	5	230	
4	Paving	Paving	2/28/2023	3/27/2023	5	20	
5	Architectural Coating	Architectural Coating	2/28/2023	3/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 15**Acres of Grading (Grading Phase): 20****Acres of Paving: 3.79**

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,718; Non-Residential Outdoor: 43,906; Striped Parking Area: 960 (Architectural Coating – sqft)

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

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	978.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	71.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0983	8.0600e-003	0.1064	0.0505	7.4200e-003	0.0579	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	4.4000e-004	1.5000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1751	0.1751	0.0000	3.0000e-005	0.1829
Worker	3.1000e-004	2.4000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7822	0.7822	2.0000e-005	2.0000e-005	0.7892
Total	3.3000e-004	6.8000e-004	3.2200e-003	1.0000e-005	1.0500e-003	2.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9573	0.9573	2.0000e-005	5.0000e-005	0.9721

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0383	8.0600e-003	0.0464	0.0197	7.4200e-003	0.0271	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	4.4000e-004	1.5000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1751	0.1751	0.0000	3.0000e-005	0.1829
Worker	3.1000e-004	2.4000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7822	0.7822	2.0000e-005	2.0000e-005	0.7892
Total	3.3000e-004	6.8000e-004	3.2200e-003	1.0000e-005	1.0500e-003	2.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9573	0.9573	2.0000e-005	5.0000e-005	0.9721

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0713	0.0000	0.0713	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	0.0195	0.2086	0.1527	3.0000e-004	0.0713	9.4100e-003	0.0807	0.0343	8.6600e-003	0.0430	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5200e-003	0.0659	0.0141	2.8000e-004	8.4300e-003	7.3000e-004	9.1600e-003	2.3200e-003	6.9000e-004	3.0100e-003	0.0000	27.2178	27.2178	3.7000e-004	4.2900e-003	28.5047
Vendor	3.0000e-005	8.9000e-004	3.0000e-004	0.0000	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3502	0.3502	0.0000	5.0000e-005	0.3658
Worker	5.2000e-004	4.1000e-004	5.1100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3037	1.3037	3.0000e-005	4.0000e-005	1.3153
Total	2.0700e-003	0.0672	0.0195	2.9000e-004	0.0102	7.5000e-004	0.0110	2.8000e-003	7.1000e-004	3.5100e-003	0.0000	28.8718	28.8718	4.0000e-004	4.3800e-003	30.1858

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					0.0278	0.0000	0.0278	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	0.0195	0.2086	0.1527	3.0000e-004	0.0278	9.4100e-003	0.0372	0.0134	8.6600e-003	0.0221	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5200e-003	0.0659	0.0141	2.8000e-004	8.4300e-003	7.3000e-004	9.1600e-003	2.3200e-003	6.9000e-004	3.0100e-003	0.0000	27.2178	27.2178	3.7000e-004	4.2900e-003	28.5047
Vendor	3.0000e-005	8.9000e-004	3.0000e-004	0.0000	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3502	0.3502	0.0000	5.0000e-005	0.3658
Worker	5.2000e-004	4.1000e-004	5.1100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3037	1.3037	3.0000e-005	4.0000e-005	1.3153
Total	2.0700e-003	0.0672	0.0195	2.9000e-004	0.0102	7.5000e-004	0.0110	2.8000e-003	7.1000e-004	3.5100e-003	0.0000	28.8718	28.8718	4.0000e-004	4.3800e-003	30.1858

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	1.2961	1.3582	2.2400e-003		0.0672	0.0672		0.0632	0.0632	0.0000	192.3320	192.3320	0.0461	0.0000	193.4839
Total	0.1416	1.2961	1.3582	2.2400e-003		0.0672	0.0672		0.0632	0.0632	0.0000	192.3320	192.3320	0.0461	0.0000	193.4839

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6900e-003	0.1032	0.0348	4.2000e-004	0.0147	1.4200e-003	0.0161	4.2400e-003	1.3600e-003	5.5900e-003	0.0000	40.6973	40.6973	4.3000e-004	6.0400e-003	42.5077
Worker	0.0206	0.0160	0.2007	5.5000e-004	0.0648	3.3000e-004	0.0651	0.0172	3.0000e-004	0.0175	0.0000	51.2171	51.2171	1.3700e-003	1.4200e-003	51.6738
Total	0.0243	0.1192	0.2355	9.7000e-004	0.0795	1.7500e-003	0.0812	0.0214	1.6600e-003	0.0231	0.0000	91.9144	91.9144	1.8000e-003	7.4600e-003	94.1814

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	0.1416	1.2961	1.3582	2.2400e-003		0.0672	0.0672		0.0632	0.0632	0.0000	192.3317	192.3317	0.0461	0.0000	193.4837
Total	0.1416	1.2961	1.3582	2.2400e-003		0.0672	0.0672		0.0632	0.0632	0.0000	192.3317	192.3317	0.0461	0.0000	193.4837

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6900e-003	0.1032	0.0348	4.2000e-004	0.0147	1.4200e-003	0.0161	4.2400e-003	1.3600e-003	5.5900e-003	0.0000	40.6973	40.6973	4.3000e-004	6.0400e-003	42.5077
Worker	0.0206	0.0160	0.2007	5.5000e-004	0.0648	3.3000e-004	0.0651	0.0172	3.0000e-004	0.0175	0.0000	51.2171	51.2171	1.3700e-003	1.4200e-003	51.6738
Total	0.0243	0.1192	0.2355	9.7000e-004	0.0795	1.7500e-003	0.0812	0.0214	1.6600e-003	0.0231	0.0000	91.9144	91.9144	1.8000e-003	7.4600e-003	94.1814

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0503	0.4603	0.5198	8.6000e-004		0.0224	0.0224		0.0211	0.0211	0.0000	74.1775	74.1775	0.0177	0.0000	74.6187
Total	0.0503	0.4603	0.5198	8.6000e-004		0.0224	0.0224		0.0211	0.0211	0.0000	74.1775	74.1775	0.0177	0.0000	74.6187

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0307	0.0122	1.6000e-004	5.6600e-003	2.6000e-004	5.9200e-003	1.6300e-003	2.4000e-004	1.8800e-003	0.0000	15.0752	15.0752	1.5000e-004	2.2300e-003	15.7433
Worker	7.3800e-003	5.4600e-003	0.0713	2.1000e-004	0.0250	1.2000e-004	0.0251	6.6300e-003	1.1000e-004	6.7400e-003	0.0000	19.2287	19.2287	4.7000e-004	5.0000e-004	19.3908
Total	8.3500e-003	0.0362	0.0836	3.7000e-004	0.0306	3.8000e-004	0.0310	8.2600e-003	3.5000e-004	8.6200e-003	0.0000	34.3039	34.3039	6.2000e-004	2.7300e-003	35.1341

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	0.0503	0.4603	0.5198	8.6000e-004		0.0224	0.0224		0.0211	0.0211	0.0000	74.1774	74.1774	0.0177	0.0000	74.6186
Total	0.0503	0.4603	0.5198	8.6000e-004		0.0224	0.0224		0.0211	0.0211	0.0000	74.1774	74.1774	0.0177	0.0000	74.6186

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0307	0.0122	1.6000e-004	5.6600e-003	2.6000e-004	5.9200e-003	1.6300e-003	2.4000e-004	1.8800e-003	0.0000	15.0752	15.0752	1.5000e-004	2.2300e-003	15.7433
Worker	7.3800e-003	5.4600e-003	0.0713	2.1000e-004	0.0250	1.2000e-004	0.0251	6.6300e-003	1.1000e-004	6.7400e-003	0.0000	19.2287	19.2287	4.7000e-004	5.0000e-004	19.3908
Total	8.3500e-003	0.0362	0.0836	3.7000e-004	0.0306	3.8000e-004	0.0310	8.2600e-003	3.5000e-004	8.6200e-003	0.0000	34.3039	34.3039	6.2000e-004	2.7300e-003	35.1341

3.5 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	2.9900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0133	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.6000e-004	4.7100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2695	1.2695	3.0000e-005	3.0000e-005	1.2802
Total	4.9000e-004	3.6000e-004	4.7100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2695	1.2695	3.0000e-005	3.0000e-005	1.2802

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	2.9900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0133	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.6000e-004	4.7100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2695	1.2695	3.0000e-005	3.0000e-005	1.2802
Total	4.9000e-004	3.6000e-004	4.7100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2695	1.2695	3.0000e-005	3.0000e-005	1.2802

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	0.2077	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.4000e-004	4.4000e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1849	1.1849	3.0000e-005	3.0000e-005	1.1949
Total	4.5000e-004	3.4000e-004	4.4000e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1849	1.1849	3.0000e-005	3.0000e-005	1.1949

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	0.2057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	0.2077	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.4000e-004	4.4000e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1849	1.1849	3.0000e-005	3.0000e-005	1.1949
Total	4.5000e-004	3.4000e-004	4.4000e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.1849	1.1849	3.0000e-005	3.0000e-005	1.1949

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

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1479	1.5455	9.7176	0.0204	2.0569	0.0172	2.0741	0.5495	0.0161	0.5656	0.0000	1,902.429 1	1,902.429 1	0.1219	0.1062	1,937.110 3
Unmitigated	1.1479	1.5455	9.7176	0.0204	2.0569	0.0172	2.0741	0.5495	0.0161	0.5656	0.0000	1,902.429 1	1,902.429 1	0.1219	0.1062	1,937.110 3

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	2,695.04	2,695.04	2695.04	4,835,137	4,835,137
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	134.36	158.79	153.91	602,763	602,763
Total	2,829.40	2,853.83	2,848.95	5,437,901	5,437,901

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
Convenience Market with Gas	16.60	8.40	6.90	0.80	80.20	19.00	47	53	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Other Non-Asphalt Surfaces	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Unrefrigerated Warehouse-No Rail	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

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	48.2336	48.2336	4.0700e-003	4.9000e-004	48.4825
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.2336	48.2336	4.0700e-003	4.9000e-004	48.4825
NaturalGas Mitigated	9.6000e-004	8.7100e-003	7.3200e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4835	9.4835	1.8000e-004	1.7000e-004	9.5399
NaturalGas Unmitigated	9.6000e-004	8.7100e-003	7.3200e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4835	9.4835	1.8000e-004	1.7000e-004	9.5399

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	14036	8.0000e-005	6.9000e-004	5.8000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7490	0.7490	1.0000e-005	1.0000e-005	0.7535
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	163678	8.8000e-004	8.0200e-003	6.7400e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7345	8.7345	1.7000e-004	1.6000e-004	8.7864
Total		9.6000e-004	8.7100e-003	7.3200e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4835	9.4835	1.8000e-004	1.7000e-004	9.5399

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	14036	8.0000e-005	6.9000e-004	5.8000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7490	0.7490	1.0000e-005	1.0000e-005	0.7535
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	163678	8.8000e-004	8.0200e-003	6.7400e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7345	8.7345	1.7000e-004	1.6000e-004	8.7864
Total		9.6000e-004	8.7100e-003	7.3200e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4835	9.4835	1.8000e-004	1.7000e-004	9.5399

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	77453.2	13.7360	1.1600e-003	1.4000e-004	13.8068
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5600	0.9931	8.0000e-005	1.0000e-005	0.9983
Unrefrigerated Warehouse-No Rail	188922	33.5045	2.8300e-003	3.4000e-004	33.6774
Total		48.2336	4.0700e-003	4.9000e-004	48.4825

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	77453.2	13.7360	1.1600e-003	1.4000e-004	13.8068
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5600	0.9931	8.0000e-005	1.0000e-005	0.9983
Unrefrigerated Warehouse-No Rail	188922	33.5045	2.8300e-003	3.4000e-004	33.6774
Total		48.2336	4.0700e-003	4.9000e-004	48.4825

6.0 Area Detail**6.1 Mitigation Measures Area**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3647	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003
Unmitigated	0.3647	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-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	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003
Total	0.3647	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003
Total	0.3647	2.0000e-005	2.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	50.0997	0.6228	0.0151	70.1593
Unmitigated	50.0997	0.6228	0.0151	70.1593

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.167315 / 0.102548	0.6415	5.5000e-003	1.3000e-004	0.8192
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	18.8307 / 0	49.4582	0.6173	0.0149	69.3401
Total		50.0997	0.6228	0.0151	70.1593

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.167315 / 0.102548	0.6415	5.5000e-003	1.3000e-004	0.8192
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	18.8307 / 0	49.4582	0.6173	0.0149	69.3401
Total		50.0997	0.6228	0.0151	70.1593

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Newport and Winchester - Riverside-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.5369	0.9182	0.0000	38.4921
Unmitigated	15.5369	0.9182	0.0000	38.4921

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	76.54	15.5369	0.9182	0.0000	38.4921
Total		15.5369	0.9182	0.0000	38.4921

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	76.54	15.5369	0.9182	0.0000	38.4921
Total		15.5369	0.9182	0.0000	38.4921

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**11.0 Vegetation**

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	63.7200	0.0000	0.0000	63.7200

11.2 Net New Trees**Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	90	63.7200	0.0000	0.0000	63.7200
Total		63.7200	0.0000	0.0000	63.7200

Source: EMFAC2021 (v1.0.1) Emissions Inventory														
Region Type: Air District														
Region: South Coast AQMD														
Calendar Year: 2022, 2023														
Season: Annual														
Vehicle Classification: EMFAC2007 Categories														
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption														
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast AQMD	2022	HHDT	Aggregate	Aggregate	Gasoline	95.60641581	1912.8932	1.361634287	1361.634287	2173806.505	5203.89781	12823746.26	5.90	HHDT
South Coast AQMD	2022	HHDT	Aggregate	Aggregate	Diesel	95034.10274	1486497.3	2172.444871	2172444.871		12818542.4			
South Coast AQMD	2022	HHDT	Aggregate	Aggregate	Natural Gas	9667.302196	66017.668	116.1682524	116168.2524		666026.818			
South Coast AQMD	2022	LDA	Aggregate	Aggregate	Gasoline	5579355.59	26017856	7924.340625	7924340.625	8048203.246	222935825	229493027.1	28.51	LDA
South Coast AQMD	2022	LDA	Aggregate	Aggregate	Diesel	17087.06188	72188.188	13.31404059	13314.04059		538837.919			
South Coast AQMD	2022	LDA	Aggregate	Aggregate	Electricity	208740.3341	1049658.1	0	0		9347729.24			
South Coast AQMD	2022	LDA	Aggregate	Aggregate	Plug-in Hybrid	126443.3627	522843.3	110.54858	110548.58		6018363.98			
South Coast AQMD	2022	LDT1	Aggregate	Aggregate	Gasoline	522872.6354	2299442.4	795.4456895	795445.6895	795875.9289	18702393.2	18720924.15	23.52	LDT1
South Coast AQMD	2022	LDT1	Aggregate	Aggregate	Diesel	227.8454867	675.78002	0.189193789	189.1937891		4412.0435			
South Coast AQMD	2022	LDT1	Aggregate	Aggregate	Electricity	868.2993933	3968.3694	0	0		29418.8934			
South Coast AQMD	2022	LDT1	Aggregate	Aggregate	Plug-in Hybrid	269.1981203	1113.1342	0.241045605	241.045605		14118.8698			
South Coast AQMD	2022	LDT2	Aggregate	Aggregate	Gasoline	2448794.803	11502819	4425.206062	4425206.062	4447824.48	100022729	101018750.5	22.71	LDT2
South Coast AQMD	2022	LDT2	Aggregate	Aggregate	Diesel	7501.763939	36308.457	10.79005392	10790.05392		327725.992			
South Coast AQMD	2022	LDT2	Aggregate	Aggregate	Electricity	6809.089489	35097.383	0	0		253338.66			
South Coast AQMD	2022	LDT2	Aggregate	Aggregate	Plug-in Hybrid	13139.97952	54333.815	11.82836429	11828.36429		668295.323			
South Coast AQMD	2022	LHDT1	Aggregate	Aggregate	Gasoline	205779.7377	3065811.5	611.9712829	611971.2829	813440.6976	7872223.53	11938098.84	14.68	LHDT1
South Coast AQMD	2022	LHDT1	Aggregate	Aggregate	Diesel	98734.08069	1241950.5	201.4694147	201469.4147		4065875.31			
South Coast AQMD	2022	LHDT2	Aggregate	Aggregate	Gasoline	32505.87225	484289.06	104.4839673	104483.9673	208901.3616	1189076.2	2948977.589	14.12	LHDT2
South Coast AQMD	2022	LHDT2	Aggregate	Aggregate	Diesel	42700.83635	537122.8	104.4173943	104417.3943		1759901.39			
South Coast AQMD	2022	MCY	Aggregate	Aggregate	Gasoline	238789.5589	477579.12	36.9031065	36903.1065	36903.1065	1514528.49	1514528.489	41.04	MCY
South Coast AQMD	2022	MDV	Aggregate	Aggregate	Gasoline	1597020.007	7373364.9	3299.382185	3299382.185	3341569.824	60906136.6	62094250.91	18.58	MDV
South Coast AQMD	2022	MDV	Aggregate	Aggregate	Diesel	19908.51419	94303.034	35.03589347	35035.89347		800893.913			
South Coast AQMD	2022	MDV	Aggregate	Aggregate	Electricity	6883.833285	35466.533	0	0		255748.974			
South Coast AQMD	2022	MDV	Aggregate	Aggregate	Plug-in Hybrid	8367.449725	34599.405	7.151745079	7151.745079		387220.425			
South Coast AQMD	2022	MH	Aggregate	Aggregate	Gasoline	32926.37831	3293.9549	62.87222676	62872.22676	74477.04291	305521.373	422962.4257	5.68	MH
South Coast AQMD	2022	MH	Aggregate	Aggregate	Diesel	11938.45191	1193.8452	11.60481615	11604.81615		117441.053			
South Coast AQMD	2022	MHDT	Aggregate	Aggregate	Gasoline	26631.5431	532843.91	283.0721022	283072.1022	833761.5778	1432800.38	6318951.528	7.58	MHDT
South Coast AQMD	2022	MHDT	Aggregate	Aggregate	Diesel	113608.4779	1392879	550.6894756	550689.4756		4886151.15			
South Coast AQMD	2022	MHDT	Aggregate	Aggregate	Natural Gas	1369.047668	12515.783	8.010528035	8010.528035		66003.5308			
South Coast AQMD	2022	OBUS	Aggregate	Aggregate	Gasoline	5757.390334	115193.87	48.09273137	48092.73137	81499.86704	239521.317	472730.2858	5.80	OBUS
South Coast AQMD	2022	OBUS	Aggregate	Aggregate	Diesel	2947.401237	37426.199	33.40713567	33407.13567		233208.969			
South Coast AQMD	2022	OBUS	Aggregate	Aggregate	Natural Gas	543.8622852	4840.3743	3.724790054	3724.790054		32319.1887			
South Coast AQMD	2022	SBUS	Aggregate	Aggregate	Gasoline	2748.802892	10995.212	13.87218437	13872.18437	24142.01647	122725.053	197701.6389	8.19	SBUS
South Coast AQMD	2022	SBUS	Aggregate	Aggregate	Diesel	3619.919679	52416.437	10.26983209	10269.83209		74976.5858			
South Coast AQMD	2022	SBUS	Aggregate	Aggregate	Natural Gas	3001.063853	43455.405	18.25577236	18255.77236		76122.0996			
South Coast AQMD	2022	UBUS	Aggregate	Aggregate	Gasoline	892.5609011	3570.2436	14.15154342	14151.54342	14428.57257	96764.4555	98627.58906	6.84	UBUS
South Coast AQMD	2022	UBUS	Aggregate	Aggregate	Diesel	15.79905129	63.196205	0.277029151	277.0291511		1863.13355			
South Coast AQMD	2022	UBUS	Aggregate	Aggregate	Electricity	80.27194685	321.08779	0	0		3355.6461			
South Coast AQMD	2022	UBUS	Aggregate	Aggregate	Natural Gas	5062.47247	20249.89	195.0038184	195003.8184		607728.527			

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	VTM	Total VMT	Miles Per Gallon	Vehicle Class
South Coast AQMD	2023	HHDT	Aggregate	Aggregate	Gasoline	79.6140139	1592.9172	1.226477177	1226.477177	2195549.354	4800.26334	13126856.08	5.98	HHDT
South Coast AQMD	2023	HHDT	Aggregate	Aggregate	Diesel	97908.37919	1537806.8	2194.322877	2194322.877		13122055.8			
South Coast AQMD	2023	HHDT	Aggregate	Aggregate	Electricity	77.738564	1263.8293	0	0		5240.1381			
South Coast AQMD	2023	HHDT	Aggregate	Aggregate	Natural Gas	9873.365956	63872.613	110.3940308	110394.0308		647810.604			
South Coast AQMD	2023	LDA	Aggregate	Aggregate	Gasoline	5515653.532	25694584	7739.923131	7739923.131	7871399.797	221235121	228387809.6	29.01	LDA
South Coast AQMD	2023	LDA	Aggregate	Aggregate	Diesel	16111.17729	67515.971	12.24976172	12249.76172		499312.187			
South Coast AQMD	2023	LDA	Aggregate	Aggregate	Electricity	246800.9377	1237356.5	0	0		11426023.2			
South Coast AQMD	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	140112.2438	579364.13	119.2269044	119226.9044		6653376.87			
South Coast AQMD	2023	LDT1	Aggregate	Aggregate	Gasoline	513619.0958	2259156.9	775.8263073	775826.3073	776404.1341	18520848.3	18549685.5	23.89	LDT1
South Coast AQMD	2023	LDT1	Aggregate	Aggregate	Diesel	205.2380238	597.72936	0.168341791	168.3417908		3928.7307			
South Coast AQMD	2023	LDT1	Aggregate	Aggregate	Electricity	1026.01683	4782.0195	0	0		38736.2002			
South Coast AQMD	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	476.8333874	1971.7061	0.40948501	409.48501		24908.5007			
South Coast AQMD	2023	LDT2	Aggregate	Aggregate	Gasoline	2500702.118	11756611	4463.673077	4463673.077	4490218.875	103068052	104306851.9	23.23	LDT2
South Coast AQMD	2023	LDT2	Aggregate	Aggregate	Diesel	7985.48008	38549.84	11.29275439	11292.75439		348139.877			
South Coast AQMD	2023	LDT2	Aggregate	Aggregate	Electricity	11486.38375	58989.087	0	0		424668.391			
South Coast AQMD	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	17633.30539	72913.718	15.25304351	15253.04351		890659.957			
South Coast AQMD	2023	LHDT1	Aggregate	Aggregate	Gasoline	205990.0262	3068944.5	605.5129881	605512.9881	817945.2541	8027754.41	12353663.9	15.10	LHDT1
South Coast AQMD	2023	LHDT1	Aggregate	Aggregate	Diesel	103285.9882	1299207.8	212.432266	212432.266		4325909.48			
South Coast AQMD	2023	LHDT2	Aggregate	Aggregate	Gasoline	32385.15078	482490.49	102.6445873	102644.5873	213195.0003	1196640.22	3083521.507	14.46	LHDT2
South Coast AQMD	2023	LHDT2	Aggregate	Aggregate	Diesel	45217.74117	568782.3	110.5504129	110550.4129		1886881.28			
South Coast AQMD	2023	MCY	Aggregate	Aggregate	Gasoline	243652.6947	487305.39	37.77273661	37772.73661	37772.73661	1559932.68	1559932.685	41.30	MCY
South Coast AQMD	2023	MDV	Aggregate	Aggregate	Gasoline	1610955.261	7445820	3295.632884	3295632.884	3339124.833	62045719	63332810.68	18.97	MDV
South Coast AQMD	2023	MDV	Aggregate	Aggregate	Diesel	20193.77575	95224.199	34.92870866	34928.70866		808470.346			
South Coast AQMD	2023	MDV	Aggregate	Aggregate	Electricity	12363.39263	63507.193	0	0		457395.893			
South Coast AQMD	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	10363.56067	42853.323	8.563240738	8563.240738		478621.294			
South Coast AQMD	2023	MH	Aggregate	Aggregate	Gasoline	31496.0133	3150.8612	61.07704562	61077.04562	72895.65354	296991.265	416512.1916	5.71	MH
South Coast AQMD	2023	MH	Aggregate	Aggregate	Diesel	12113.56648	1211.3566	11.81860792	11818.60792		119520.926			
South Coast AQMD	2023	MHDT	Aggregate	Aggregate	Gasoline	26074.14462	521691.49	275.3248243	275324.8243	831034.086	1408618.29	6357326.579	7.65	MHDT
South Coast AQMD	2023	MHDT	Aggregate	Aggregate	Diesel	115151.8884	1414200.2	555.7092617	555709.2617		4948708.29			
South Coast AQMD	2023	MHDT	Aggregate	Aggregate	Electricity	61.0986519	783.13563	0	0		1323.47002			
South Coast AQMD	2023	MHDT	Aggregate	Aggregate	Natural Gas	1437.885278	12858.177	8.430876413	8430.876413		69961.6482			
South Coast AQMD	2023	OBUS	Aggregate	Aggregate	Gasoline	5592.753142	111899.8	45.67618775	45676.18775	79628.2671	229831.431	467287.5684	5.87	OBUS
South Coast AQMD	2023	OBUS	Aggregate	Aggregate	Diesel	3000.126114	37982.761	33.95207935	33952.07935		237456.138			
South Coast AQMD	2023	OBUS	Aggregate	Aggregate	Natural Gas	472.4802645	4205.0744	3.310172229	3310.172229		28964.6955			
South Coast AQMD	2023	SBUS	Aggregate	Aggregate	Gasoline	2806.149505	11224.598	14.18186253	14181.86253	24093.14584	126092.708	198632.5716	8.24	SBUS
South Coast AQMD	2023	SBUS	Aggregate	Aggregate	Diesel	3532.175792	51145.905	9.911283309	9911.283309		72539.8634			
South Coast AQMD	2023	SBUS	Aggregate	Aggregate	Electricity	3.750270761	54.303921	0	0		43.5711729			
South Coast AQMD	2023	SBUS	Aggregate	Aggregate	Natural Gas	3124.882663	45248.301	18.70662412	18706.62412		78515.2508			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Gasoline	894.3697717	3577.4791	14.17067148	14170.67148	14433.31588	96960.5591	98709.58096	6.84	UBUS
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Diesel	14.61165815	58.446633	0.262644403	262.644403		1749.02188			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Electricity	80.23785626	320.95143	0	0		3352.36159			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Natural Gas	5074.148296	20296.593	194.1833007	194183.3007		609088.127			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Diesel	14.32857314	57.314293	0.259550733	259.5507326		1721.6793			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Electricity	131.5292552	526.11702	0	0		10177.4048			
South Coast AQMD	2023	UBUS	Aggregate	Aggregate	Natural Gas	5035.444501	20141.778	191.4730987	191473.0987		603721.125			