

APPENDIX G

Greenhouse Gas Emissions Assessment

Greenhouse Gas Emissions Assessment
Sierra Distribution Facility Project
City of Fontana, California



Expect More. Experience Better.

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TABLE OF CONTENTS

1	INTRODUCTION	
1.1	Project Location and Setting	1
1.2	Project Description	2
2	ENVIRONMENTAL SETTING	
2.1	Greenhouse Gases and Climate Change.....	8
3	REGULATORY SETTING	
3.1	Federal	10
3.2	State of California	12
3.3	Regional.....	20
3.4	Local.....	22
4	SIGNIFICANCE CRITERIA AND METHODOLOGY	
4.1	Thresholds and Significant Criteria	23
4.2	Methodology	24
5	POTENTIAL GREENHOUSE GAS IMPACTS AND MITIGATION	
5.1	Greenhouse Gas Emissions.....	25
5.2	Greenhouse Gas Reduction Plan Compliance.....	26
5.3	Cumulative Setting, Impacts, and Mitigation Measures	31
6	REFERENCES	
	References.....	32
TABLES		
Table 1	Description of Greenhouse Gases	9
Table 2	Construction-Related Greenhouse Gas Emissions	25
Table 3	Project Greenhouse Gas Emissions	26
Table 4	Regional Transportation Plan/Sustainable Communities Strategy Consistency	27
Table 5	Consistency with the City of Fontana General Plan Update	29
EXHIBITS		
Exhibit 1	Regional Vicinity	5
Exhibit 2	Site Vicinity.....	6
Exhibit 3	Site Plan	7
APPENDIX		
	Appendix A: Greenhouse Gas Emissions Data	
	Appendix B: Consistency with the Fontana Industrial Commerce Center Sustainability Standards	

LIST OF ABBREVIATED TERMS

AB	Assembly Bill
CARB	California Air Resource Board
CCR	California Code of Regulations
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CALGreen Code	California Green Building Standards Code
CPUC	California Public Utilities Commission
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CFC	Chlorofluorocarbon
CPP	Clean Power Plan
cy	Cubic yard
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
FR	Federal Register
GHG	Greenhouse gas
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
LCFS	Low Carbon Fuel Standard
CH ₄	Methane
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MTCO ₂ e	Metric tons of carbon dioxide equivalent
NHTSA	National Highway Traffic Safety Administration
NF ₃	Nitrogen trifluoride
N ₂ O	Nitrous oxide
PFC	Perfluorocarbon
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Government
Sf	Square foot
SF ₆	Sulfur hexafluoride
TAC	Toxic air contaminants

1 INTRODUCTION

This report documents the results of a Greenhouse Gas (GHG) Emissions Assessment completed for the Sierra Distribution Facility Project (“Project” or “Proposed Project”). The purpose of this GHG Emissions Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location and Setting

The Project site is located in northern Fontana, in San Bernardino County (County); Refer to Exhibit 1: Regional Vicinity. The Project site is comprised of six parcels (Assessor’s Parcel Numbers [APNs]: 1119-241-10, -13, -18, -25, -26, and -27). The Project site is located at the northeast corner of the intersection of Sierra Avenue and Clubhouse Drive within the City and is bounded to the north and south by existing warehouse/industrial buildings, to the west by Sierra Avenue and residential development, and to the east by Mango Avenue and a landfill; Refer to Exhibit 2: Local Vicinity.

The Project site is bound to the west by Sierra Avenue, to the east by Mango Avenue, and Windflower Avenue enters the Project site from Sierra Avenue. The proposed Project site is presently developed with four commercial/industrial buildings ranging from 5,000 to 25,000 square feet in size. The northwestern quadrant is developed with one building and is utilized as a wooden pallet facility. The northeastern quadrant is developed with one building and is utilized as a carnival attraction repair facility with truck trailer parking. The southwestern quadrant is developed with one building and open-graded gravel pavements and is utilized for truck trailer storage. The southeastern quadrant is developed with one building and is utilized as a storage facility. The existing buildings are single-story, metal-framed structures and are assumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. Ground surface cover consists mainly of open graded gravel and exposed soil, with AC or PCC pavements surrounding the buildings. Little to no vegetation exists on site. Few large trees are present between the northwest and northeast quadrants.

According to available historical sources, the Project site was historically undeveloped vacant land as early as 1896 and was developed in phases from 1982 to 1990. The Project site was historically occupied by light industrial businesses including: All American Pipe & Steel Distribution; Days Express Inc.; Anderson Trucking Services; Apollo Amusement; San Gabriel Valley Lumber & Milling; S.J. Steel Inc.; Active Steel, Inc.; and National Pallets (1987-Present). The Project site is currently occupied by the following businesses:

- 1.) San Gabriel Valley Lumber & Milling, 6075 Sierra Avenue. This portion of the Project site is located on the northwest and is used for manufacturing of wood molding and repair/ sale of wooden

pallets. This property was developed in late 1980s and houses a metal structure and a mobile office.

- 2.) 5975 Sierra Ave./ 16899 Windflower Avenue. This parcel is located on the southwest portion and is currently unoccupied. This property was last occupied by Anderson Trucking Services for storage and distribution of furniture & was developed in early 1980s and houses a metal structure.
- 3.) Davis Partners, 17010 Windflower Avenue. This parcel is located on the northeast portion and is currently used for repair of carnival rides. This property was developed in the late 1980s and houses two attached metal structures.
- 4.) Aluma Systems, 17051 Windflower Avenue. This parcel is located on the southeast portion and is currently used for repair and rent of steel and aluminum scaffolding. This property was developed in 1990 and houses a large metal structure. Two stormwater catch basins are present at this property.

1.2 Project Description

The Project involves the development of a 398,514-square foot¹ warehouse building within an approximately 18.3-acre site, with associated facilities and improvements including approximately 10,000 square feet of office space, vehicle parking, loading dock doors, trailer parking, onsite landscaping, and related onsite improvements; refer to Exhibit 3: Overall Site Plan. The Project would have a Floor Area Ratio (FAR) of 0.45 and can have a maximum FAR of 0.60. Future occupant(s) of the building are not known at this time.

The single building for the Project would maintain a typical height of 43 feet with a maximum height not to exceed 45.5 feet. The maximum building height allowed is approximately 75 feet. The building elevations would be articulated with varying depths of recesses with windows. The paint scheme includes a variable grey and white paint scheme to minimize the bulk and scale of the building with a decorative paint feature in the recesses along the side (east and west) and rear (north) elevations of the building. The dock doors (54) would be centered on the south side of the building.

Land Use and Zoning

The Project is consistent with the City's General Plan land use designation and the zoning. The Project site's industrial land use designation is I-L: Light Industrial and the zoning is M-1: Light Industrial. I-L: Light Industrial (0.1 to 0.6 FAR) allows for employee-intensive uses, including business parks, research and development, technology centers, corporate and support office uses, clean industry, supporting retail uses, truck and equipment sales and related services. Warehouses that are designed in ways that limit off-site impacts are also permitted.

General uses permitted (either by right, minor use permit, or conditional use permit) under the industrial zoning districts (Light Industrial [M-1]) includes manufacturing, food processing, service and repair,

¹ The analysis herein is based on trip generation for a total of 395,034 square feet. The nominal increase in proposed square footage would not result in appreciable increases in operational emissions.

storage and open yards, warehousing uses, retail sales, restaurants and bars, administrative and professional offices, educational, and miscellaneous uses.

Landscaping

Landscaping would be provided on approximately 19.8 percent (78,795 square feet) of the Project site. Landscaping would be installed in all areas not devoted to buildings, parking, traffic, and specific user requirements, in accordance with the City's Zoning and Development Code Section 30-551 which specifies landscape design guidelines for industrial zoning districts.

Project Circulation and Parking

Currently, the Project site is accessible from Windflower Avenue via Sierra Avenue. There is currently not access between the Project site and Mango Avenue.

Regional Project access would be from State Route 210 (SR-210) via the officially designated local truck route, Sierra Avenue. Local access would be provided via Sierra Avenue and Mango Avenue. Project site ingress and egress would be via four driveways: one 40-foot (southerly) driveway and one 35-foot (northerly) driveway on Sierra Avenue and one 40-foot (southerly) driveway and one 35-foot (northerly) driveway on Mango Avenue. Trucks would enter the site via northbound Sierra Avenue and exit the site via southbound Mango Avenue. Mango Avenue intersects with Sierra Lakes Parkway which reconnects with Sierra Avenue. Trucks would access southbound Sierra Avenue from this point to reach SR-210 and regional destinations beyond.

The Project would provide 132 parking stalls, 81 trailer stalls, and 37 tractor trailer stalls. Additionally, a total of 54 dock doors would be provided. Parking stalls would be provided as follows:

• Standard = 98 stalls • ADA Standard = 5 stalls • ADA Van = 1 stall • EV ADA Van = 1 stall	• EV Charging Only = 21 stalls • EV ADA = 1 stalls • EV Ambulance = 0 stalls • Carpool/Vanpool/EV = 5 stalls
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The Project would require a 34-foot right-of-way dedication for Mango Avenue.

Project Phasing and Construction

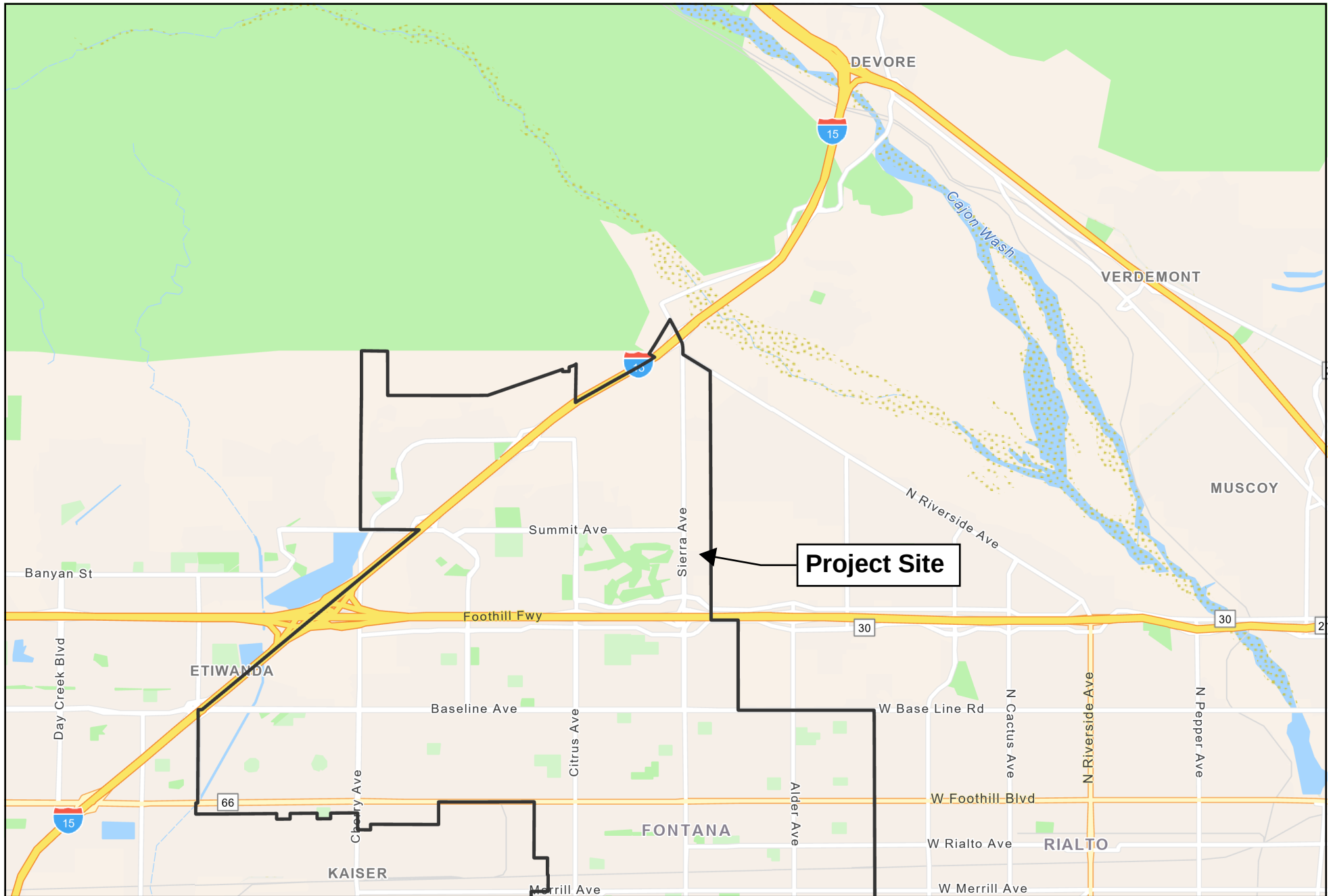
The Project is anticipated to be developed in one phase. Should the Project be approved, construction is anticipated to occur over a duration of approximately 15 months, commencing in summer of 2024; the facility would be operational in fall of 2025. New construction would include: (1) demolition, (2) grading/removal of concrete, (3) building construction, (4) paving, (5) architectural coating, (6)

landscaping, and the applicable off-site improvements conditioned by the City consisting of standard curb and gutter improvements.

Grading and Utilities

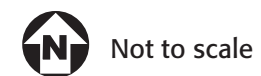
The following describes grading and utility work to be completed for the Project. The Project site is relatively flat but would require grading to achieve the needed slopes and contour to facilitate building design and connections to existing utilities. The existing site topography generally slopes downward to the south at a gradient of $3\pm$ percent. The Project site would maintain the same general drainage pattern and would be graded to conduct runoff to the new drainage facilities that would be constructed as part of the Project. It is anticipated that the site would be graded to balance on-site, eliminating the need for off-site soils hauling.

Overhead SCE powerlines are present along the northern, southern, and western property lines of the Project site. The overhead powerlines would be removed from their existing location and undergrounded. The applicant would work with SCE to tie into, relocate, and extend services into the site as required.



Source: ESRI, 2022

EXHIBIT 1: Regional Vicinity
Sierra Distribution Facility Project, City of Fontana





Source: ESRI, 2022

EXHIBIT 2: Local Vicinity

Sierra Distribution Facility Project, City of Fontana



Not to scale

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Kimley»Horn

[illegible]

2 ENVIRONMENTAL SETTING

2.1 Greenhouse Gases and Climate Change

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere.² Table 1: Description of Greenhouse Gases describes the primary GHGs attributed to global climate change, including their physical properties.

² Intergovernmental Panel on Climate Change, *Carbon and Other Biogeochemical Cycles*. In: *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013. http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.

Table 1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	CO ₂ is a colorless, odorless gas that is emitted naturally and through human activities. 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. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N ₂ O)	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
Methane (CH ₄)	CH ₄ , a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF ₆)	SF ₆ is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. 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. The Global Warming Potential of SF ₆ is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF ₃)	NF ₃ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.
Source: Compiled from U.S. EPA, <i>Overview of Greenhouse Gases</i> , April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, <i>Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016</i> , 2018; Intergovernmental Panel on Climate Change, <i>Climate Change 2007: The Physical Science Basis</i> , 2007; National Research Council, <i>Advancing the Science of Climate Change</i> , 2010; U.S. EPA, <i>Methane and Nitrous Oxide Emission from Natural Sources</i> , April 2010.	

3 REGULATORY SETTING

3.1 Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and

light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

On April 2, 2018, the Administrator signed the Mid-term Evaluation Final Determination which finds that the model year 2022-2025 greenhouse gas standards are not appropriate in light of the record before EPA and, therefore, should be revised.³

On September 19, 2019, under the Safer, Affordable, Fuel-Efficient (SAFE) Vehicles Rule, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the U.S. EPA issued the final "One National Program Rule." The rule states that federal law preempts state and local laws regarding tailpipe GHG emissions standards, zero emissions vehicle mandates, and fuel economy for automobiles and light duty trucks. The rule revokes California's Clean Air Act waiver and preempts California's Advanced Clean Car Regulations.^{4,5}

On September 20, 2019, a lawsuit was filed by California and a coalition of 22 other states, and the cities of Los Angeles, New York and Washington, D.C., in the United States District Court for the District of Columbia (Case 1:19-cv-02826) challenging the SAFE Rule and arguing that EPA lacks the legal authority to withdraw the California waiver. In April 2021, the EPA announced it would reconsider its previous withdrawal and grant California permission to set more stringent climate requirements for cars and SUVs. On March 9, 2022, the EPA restored California's 2013 waiver to full force, including both its GHG standards and zero-emissions vehicles sales requirements.

Presidential Executive Orders 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis". Executive Order 13990 directs Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ's 2020 regulations implementing the procedural requirements of the National

³ U.S. Environmental Protection Agency. *Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emissions Standards for Model Years 2022-2025*. Available online at: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas>, accessed September 2022

⁴ U.S. Department of Transportation and U.S. EPA. 2019. *One National Program Rule on Federal Preemption of State Fuel Economy Standards*. Available online at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf>, accessed September 14, 2022.

⁵ Southern California Association of Governments. 2019. *Final Federal Safer, Affordable, Fuel-Efficient Vehicles Rule Part I (Supplemental Report)*. Available online at: [http://www.scag.ca.gov/committees/CommitteeDocLibrary/EEC_Item8_RC_Item10%20Supplemental%20Report .pdf](http://www.scag.ca.gov/committees/CommitteeDocLibrary/EEC_Item8_RC_Item10%20Supplemental%20Report.pdf)

Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

Executive Order 13390 also directs the EPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks,” promulgated in April 2020.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration's policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories. In line with these Executive Order directives, CEQ is reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA's statutory requirements. This phase 1 rulemaking will propose a narrow set of changes to the 2020 NEPA regulations to address these goals.

3.2 State of California

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO₂ equivalents (CO₂e) in the world and produced 459 million gross metric tons of CO₂e in 2013. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved

by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

2017 CARB Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").⁶ The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.⁷ Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.
- The California Sustainable Freight Action Plan was developed in 2016 and provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing pollution.

⁶ CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

⁷ The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

- CARB's Mobile Source Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The mobile Source Strategy includes increasing ZEV buses and trucks.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO₂e (MMTCo₂e) to 545 MMTCo₂e. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017 CARB adopted a second update to the Scoping Plan⁸. The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support other Federal actions.

2022 CARB Scoping Plan

Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead

⁸ California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017.

advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects.⁹ CARB specifically states that Appendix D does not address other land uses (e.g., industrial).¹⁰ However, CARB plans to explore new approaches for other land use types in the future.¹¹

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable

⁹ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions*, Page 21, November 2022.

¹⁰ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions*, Page 4, November 2022.

¹¹ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions*, Page 21, November 2022.

community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO₂e emissions and 75 percent fewer smog-forming emissions. In 2019 the EPA published the SAFE Rule that revoked California's waiver. However, the EPA is currently reconsidering the SAFE rule pursuant to Presidential Executive Order 13390.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO₂ per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. SB 1078 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. SBX1-2, which codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more

regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

AB 1279 (California Climate Crisis Act)

Signed on September 16, 2022, AB 1279 established the goal to achieve net-zero GHG emissions no later than 2045 and net negative thereafter. The bill establishes a goal toward at least an 85 percent reduction target for anthropogenic GHG emissions below statewide emissions limit from Section 36550 of the California Health and Safety Code.

AB 1384 (Resiliency Through Adaptation, Economic Vitality, and Equity Act)

Signed on September 16, 2022, AB 1384 requires the release of a draft *Safeguarding California Plan* by January 1, 2024, and every three years thereafter. The intent of AB 1384 is to prioritize the most vulnerable communities, ecosystems, and economic sectors in the State's climate adaptation and resilience strategy set forth in the *Safeguarding California Plan* by ensuring that all State departments and agencies accurately identify, collaboratively prepare for, and are sufficiently resourced to adequately

respond to the impacts of climate change, such as extreme weather events, the urban heat island effect, habitat loss, wildfire, sea level rise, and drought.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission “last-mile” delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting:** Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Executive Orders Related to GHG Emissions

California’s Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

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

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the

Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the State’s Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's RPS to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO₂e (MMTCO₂e). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State’s climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment “requiring increasing volumes” of new zero emission vehicles (ZEVs) “towards the target of 100 percent.” The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management

Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2016 Building Energy Efficiency Standards approved on January 19, 2016 went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy and nonresidential buildings will use about 30 percent less energy than buildings under the 2016 standards.

On August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards (2022 Energy Code). In December, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.¹²

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2023 (2022 CALGreen). The 2022 CALGreen standards continue to

¹² California Energy Commission, *2022 Building Energy Efficiency Standards*, <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>, accessed December 2022.

improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

Warehouse Best Practices and Mitigation

The California Department of Justice published recommended best practices and mitigation measures to comply with CEQA, updated in September 2022. The purpose of this document is to provide information on feasible best practices and mitigation measures that have been adapted from warehouse projects in California. Project-specific best practices and measures include warehouse siting and design considerations such as distance to sensitive receptors, setback requirements, perimeter screening, parking considerations, limitations on idling time, use of zero-emissions operational equipment (e.g., forklifts and yard trucks), and constructing and maintaining electric light-duty vehicle charging stations, among others.

3.3 Regional

South Coast Air Quality Management District Thresholds

The South Coast Air Quality Management District (SCAQMD) formed a GHG California Environmental Quality Act (CEQA) Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.

With the tiered approach, the Project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. The SCAQMD has adopted a threshold of 10,000 metric tons of CO₂e (MTCO₂e) per year for industrial projects and a 3,000 MTCO₂e threshold was proposed for non-industrial projects but has not been adopted. During Working Group Meeting #7 it was explained that this threshold was derived using a 90 percent capture rate of a large sampling of industrial facilities. During Meeting #8, the Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.). The Working Group indicated that the 10,000 MTCO₂e per year threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Southern California Association of Governments

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]). The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy 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. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions.

3.4 Local

City of Fontana General Plan Update

Chapter 10 and Chapter 12 of the General Plan Update outline the goals and policies for resource efficiency and planning for climate change within the City. General Plan policies that relate to climate change include the following:

Chapter 10, Infrastructure and Green Systems

Goal 7: Fontana is an energy-efficient community.

Policy 7.1: Promote renewable energy and distributed energy systems in new development and retrofits of existing development to work towards the highest levels of low-carbon energy-efficiency.

Chapter 12, Sustainability and Resilience

Goal 3: Renewable sources of energy, including solar and wind, and other energy-conservation strategies are available to city households and businesses.

Policy 3.1: Promote renewable energy programs for government, Fontana businesses, and Fontana residences.

Goal 5: Green building techniques are used in new development and retrofits.

Policy 5.1: Promote green building through guidelines, awards and nonfinancial incentives.

Goal 6: Fontana is a leader in energy-efficient development and retrofits.

Policy 6.1: Promote incentives for energy-efficient residential and non-residential construction.

City of Fontana Industrial Commerce Center Sustainability Standards Ordinance

The City approved and adopted the Industrial Commerce Center Sustainability Standards Ordinance (Ordinance No. 1891) on April 12, 2022. It is applicable to all warehouse uses throughout the City, including the proposed Project. The Ordinance will meet and exceed all state and federal environmental standards and would foster the balancing of public health and quality of life issues with the economic and employment opportunities that the goods movement provides the City and its residents.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Thresholds and Significance Criteria

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The amendments to the CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project's GHG emissions will have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the project's GHG emissions¹³.

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project normally would have a significant effect on the environment if it would:

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

South Coast Air Quality Management District Thresholds

On December 5, 2008, the SCAQMD Governing Board adopted a 10,000 MTCO₂e industrial threshold for projects where SCAQMD is the lead agency. The SCAQMD GHG CEQA Significance Threshold Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.) during Meeting #8. Additionally, the SCAQMD GHG Significance Threshold Stakeholder Working Group has specified that a warehouse is considered to be an industrial project.¹⁴ During the GHG CEQA Significance Threshold Working Group Meeting #15, the SCAQMD noted that it was considering extending the industrial GHG significance threshold for use by all lead agencies. Furthermore, the Working Group indicated that the 10,000 MTCO₂e per year threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD has not announced when staff is expecting to present GHG thresholds for land use projects where the SCAQMD is not the lead agency to the governing board.

The City of Fontana has not adopted project-specific significance thresholds, and instead relies on SCAQMD's recommended Tier 3 screening thresholds to determine the significance of a project's GHG emissions. Although this Project proposes an industrial warehouse, the considerable majority of GHG emissions generated in relation to the Project would result from mobile truck emissions, and not stationary industrial sources. Therefore, to provide the most conservative analysis, the City will apply the

¹³ 14 California Code of Regulations, Section 15064.4a

¹⁴ South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #8*, 2009.

3,000 MTCO₂e/year screening threshold recommended by SCAQMD for residential and commercial projects, the emissions of which primarily the result of mobile, and not stationary, sources.

4.2 Methodology

The Project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2020.4.0 (CalEEMod). Details of the modeling assumptions and emission factors are provided in [Appendix A: Greenhouse Gas Emissions Data](#). For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The Project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The Project's operational-related GHG emissions would be generated by vehicular traffic, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Greenhouse Gas Emissions

Threshold 5.1 Would the Project generate GHG emissions, either directly or indirectly, that could have a significant impact on the environment?

Short-Term Construction Greenhouse Gas Emissions

The Project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by construction equipment utilized to build the Project is depicted in [Table 2: Construction-Related Greenhouse Gas Emissions](#).

Table 2: Construction-Related Greenhouse Gas Emissions	
Category	MTCO ₂ e
2024 Construction	496
2025 Construction	711
Total Construction Emissions	1,207
30-Year Amortized Construction	40
Source: CalEEMod version 2020.4.0. Refer to Appendix A: Greenhouse Gas Emissions Data for model outputs.	

As shown, the Project would result in the generation of approximately 1,207 MTCO₂e over the course of construction. Construction GHG emissions are typically summed and amortized over the lifetime of the Project (assumed to be 30 years), then added to the operational emissions.¹⁵ The amortized Project construction emissions would be 40 MTCO₂e per year. Once construction is complete, the generation of these GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of the Project. GHG emissions would result from direct emissions such as Project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the Project, the emissions associated with solid waste generated from the Project, and any fugitive refrigerants from air conditioning or refrigerators.

Total GHG emissions associated with the Project are summarized in [Table 3: Project Greenhouse Gas Emissions](#). As shown in [Table 3](#), the Project would generate approximately 2,528 MTCO₂e annually from both construction and operations and the Project. The existing approximately 48,000 square feet of warehouse use located on the Project site generates approximately 1,985 MTCO₂e annually and will be removed and replaced by the Project. Existing emissions have been estimated based on CalEEMod default

¹⁵ The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

emissions factors for building operations and estimated trip generation. Therefore, the development of the Project would generate approximately 543 MTCO₂e net new emissions annually. The net Project-related GHG emissions would not exceed the City's 3,000 MTCO₂e per year threshold. Therefore, the proposed Project would be less than significant, and no mitigation measures are required.

Table 3: Project Greenhouse Gas Emissions	
Emissions Source	MTCO₂e per Year
Proposed Emissions	
Construction Amortized Over 30 Years	40
Area Source	<1
Energy	240
Mobile	1,729
Waste	94
Water and Wastewater	272
Off-road Equipment (Electric Equipment)	153
Proposed Total	2,528
<i>Existing Emissions</i>	<i>1,985</i>
Net New Emissions	543
<i>City of Fontana Project Threshold</i>	<i>3,000</i>
Exceeds Threshold?	No
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.	

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.2 Greenhouse Gas Reduction Plan Compliance

Threshold 5.2 Would the Project conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions?

Regional Transportation Plan/Sustainable Communities Strategy Consistency

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 *Regional Transportation Plan/Sustainable Communities Strategy* [2020 RTP/SCS]). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG's RTP/SCS establishes GHG emissions goals for automobiles and light-duty

trucks for 2020 and 2035 as well as an overall GHG target for the Project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15.

The RTP/SCS contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding.

The plan accounts for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. The RTP/SCS is also supported by a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and Federal Clean Air Act (FCAA) requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently. GHG emissions resulting from development-related mobile sources are the most potent source of emissions, and therefore Project comparison to the RTP/SCS is an appropriate indicator of whether the Project would inhibit the post-2020 GHG reduction goals promulgated by the state. The Project's consistency with the RTP/SCS goals is analyzed in detail in [Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency](#).

Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency			
SCAG Goals		Compliance	
GOAL 1:	Encourage regional economic prosperity and global competitiveness.	N/A:	This is not a project-specific policy and is therefore not applicable. However, the Project is located on an occupied site that is surrounded by development. Redevelopment of the site would contribute to regional economic prosperity.
GOAL 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 3:	Enhance the preservation, security, and resilience of the regional transportation system.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 4:	Increase person and goods movement and travel choices within the transportation system.	N/A:	This is not a transportation improvement project and is therefore not applicable. However, the Project includes a warehouse use that would support goods movement.
GOAL 5:	Reduce greenhouse gas emissions and improve air quality.	N/A:	The Project is located within a developed area in proximity to existing truck routes and freeways, which would reduce trip lengths, and also reduce GHG and air quality emissions.
GOAL 6:	Support healthy and equitable communities	N/A:	As discussed in the Air Quality Assessment and the Health Risk Assessment, the Project would not exceed thresholds or result in health impacts. The Project would not conflict with the surrounding community's ability to access healthy food or parks. In addition, the Project would be required to comply with the City's Industrial Commerce Center Sustainability Standards Ordinance, ensuring that

Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency	
SCAG Goals	Compliance
	impacts to sensitive receptors would be minimized to the extent feasible.
GOAL 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.	N/A: This is not a project-specific policy and is therefore not applicable.
GOAL 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	N/A: This is not a transportation improvement project and is therefore not applicable. However, the Project is located in a developed area in proximity to existing truck routes and freeways. Location of the Project within a developed area would reduce trip lengths, which would result in more efficient travel.
GOAL 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.	N/A: The Project involves development of a warehouse and does not include housing.
Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.	N/A: This the Project is not located on agricultural or habitat lands.
Source: Southern California Association of Governments, <i>Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)</i> , 2020.	

The goals stated in the RTP/SCS were used to determine consistency with the planning efforts previously stated. As shown in [Table 4](#), the proposed Project would be consistent with the stated goals of the RTP/SCS. Therefore, the proposed Project would not result in any significant impacts or interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets.

California Air Resource Board Scoping Plan Consistency

As previously noted, the 2022 Scoping Plan sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. The transportation, electricity, and industrial sectors are the largest GHG contributors in the State. The 2022 Scoping Plan plans to achieve the AB 1279 targets primarily through zero-emission transportation (e.g., electrifying cars, buses, trains, and trucks). Additional GHG reductions are achieved through decarbonizing the electricity and industrial sectors.

Statewide strategies to reduce GHG emissions in the latest 2022 Scoping Plan include implementing SB 100, which would achieve 100 percent clean electricity by 2045; achieving 100 percent zero emission vehicle sales in 2035 through Advanced Clean Cars II; and implementing the Advanced Clean Fleets regulation to deploy zero-electric vehicle buses and trucks. Additional transportation policies include the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation. The 2022 Scoping Plan would continue to implement SB 375. GHGs would be further reduced through the Cap-and-Trade Program carbon pricing and SB 905. SB 905 requires CARB to create the

Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon dioxide removal projects and technology.

Approximately 83 percent of the Project's GHG emissions are from energy and mobile sources which would be further reduced by the 2022 Scoping Plan measures described above. It should be noted that the City has no control over vehicle emissions. However, these emissions would decline in the future due to Statewide measures discussed above, as well as cleaner technology and fleet turnover.

The Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan.

Consistency with the City of Fontana General Plan Update

As previously discussed, Chapter 10 and Chapter 12 of the General Plan Update outline the goals and policies for resource efficiency and planning for climate change within the City. The Project's consistency with these goals and policies is discussed in [Table 5: Consistency with the City of Fontana General Plan Update](#). As shown in [Table 5](#), the proposed Project would be consistent with the General Plan Update.

Table 5: Consistency with the City of Fontana General Plan Update	
Goals	Project Consistency
Chapter 10, Infrastructure and Green Systems	
Goal 7: Fontana is an energy-efficient community.	Consistent. The Project would implement required green building strategies through existing regulation that requires the Project to comply with various CALGreen and the Fontana Industrial Commerce Center Sustainability Standards Ordinance requirements. The Project includes sustainability design features that support such measures. As such, the project would be consistent with this goal.
Chapter 12, Sustainability and Resilience	
Goal 3: Renewable sources of energy, including solar and wind, and other energy-conservation strategies are available to city households and businesses.	Consistent. The electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent of total procurement by 2030. As such, the project would be consistent with this goal.
Goal 5: Green building techniques are used in new development and retrofits.	Consistent. The Project would comply with the latest Title 24 standards. The Project would implement required green building strategies through existing regulation that requires the Project to comply with various CALGreen requirements. The Project includes sustainability design features that support the Green Building Strategy. As such, the project would be consistent with this goal.
Goal 6: Fontana is a leader in energy-efficient development and retrofits.	Consistent. The Project would comply with the latest Title 24 standards. The Project would implement required green building strategies through existing regulation that requires the Project to comply with various CALGreen requirements. The Project includes sustainability design features that support the

Table 5: Consistency with the City of Fontana General Plan Update	
Goals	Project Consistency
	Green Building Strategy. As such, the project would be consistent with this goal.
Source: City of Fontana, <i>General Plan Update 2015-2035</i> , November 2018.	

The Project is estimated to emit an additional approximately 390 MTCO₂e per year directly from on-site activities and indirectly from off-site motor vehicles, see [Table 3](#). As discussed above, the net new GHG emissions caused by long-term operation of the Project would not exceed the City's 3,000 MTCO₂e per year screening threshold, and impacts would be less than significant.

As discussed above, the proposed Project would not interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets. Additionally, Project emissions would be indirectly reduced through the implementation of various Scoping Plan measures, such as the low carbon fuel standard, vehicle emissions standards, building energy efficiency standards, market-based mechanisms (such as the cap-and-trade program) and the Renewable Portfolio Standard. Therefore, the Project would not conflict with the Scoping Plan's recommended measures and, as such, would not impede implementation of the Scoping Plan. As such, impacts related to consistency with the Scoping Plan would be less than significant.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the Project would benefit from implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

In addition, the Project would be required to comply with all applicable standards of the Fontana Industrial Commerce Center Sustainability Standards Ordinance and final documentation of compliance would be subject to review and approval prior to issuance of applicable permits. Requirements include, but are not limited to the following:

- Buffering and Screening / Adjacent uses (Sec. 9-71): include appropriate landscaping buffer between warehouse building and adjacent sensitive receptors; all landscaping shall be drought tolerant, loading docks and truck entries shall be oriented away from abutting sensitive receptors.
- Signing and Traffic Patterns (Sec. 9-72): Post anti-idling signage indicating a 3-minute diesel truck idling restriction, prepare and submit a Truck Route Map, provide adequate stacking depth within property (minimum 140 feet).
- Alternative Energy (Sec. 9.73): On-site motorized operational equipment shall be zero emission, all building roofs shall be solar ready, at least 10 percent of all passenger vehicle parking spaces shall be electric vehicle (EV) ready, at least 5 percent of all passenger vehicle parking spaces shall

be equipped with working Level 2 Quick charge EV charging stations, electric plug-in units shall be installed at every dock door servicing refrigerated space, provide bicycle parking.

- Operation and Construction (Sec. 9-74): Ensure that electrical rooms are sized to accommodate potential need for additional electrical panels, use super-compliance VOC coatings, use the highest rated CARB Tier technology for construction equipment, use electric-powered hand tools and forklifts.

See Appendix B for a preliminary consistency analysis of Project with the Ordinance. The California Department of Justice published recommended best practices and mitigation measures to comply with CEQA, updated in September 2022. Best practices and measures are generally consistent with the requirements of the Ordinance. Therefore, implementation of applicable standards of the Ordinance would include applicable best practices and mitigation measures recommended by the Department of Justice. The Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing the emissions of GHGs because the Project would generate low levels of GHGs, and would not impede implementation of the Scoping Plan, or conflict with the policies of the Scoping Plan or any other GHG reduction plan. Therefore, the impacts would be less than significant.

5.3 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

Cumulative Impacts

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown in [Table 4](#) and [Table 5](#), the Project would not conflict with the Fontana General Plan Update, the RTP/SCS, or the CARB Scoping Plan. Therefore, the Project's cumulative contribution of GHG emissions would be less than significant and the Project's cumulative GHG impacts would also be less than cumulatively considerable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

1. California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, November 2022.
2. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, 2017.
3. City of Fontana, *General Plan Update 2015-2035*, November 2018
4. City of Fontana, *Industrial Commerce Center Sustainability Ordinance (Ordinance No. 1891)*, Fontana Municipal Code Article V Section 9-70, April 2022
5. Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007.
6. Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013.
7. National Research Council, *Advancing the Science of Climate Change*, 2010.
8. HPA Architecture. *Sierra Distribution Facility Site Plan*, July 2022.
9. Kimley-Horn, *Trip Generation Assessment and Traffic Scoping for the Proposed Sierra Distribution Facility in the City of Fontana*, April 2023.
10. San Bernardino County Council of Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, March 2021
11. State of California, *Code of Regulations Section 15065.5a*, 2018.
12. Southern California Association of Governments, *2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)*, 2020.
13. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, 2009.
14. U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018.
15. U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, 2010.
16. U.S. EPA, *Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emissions Standards for Model Years 2022-2025*. Available online at: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas>, accessed November 2022.
17. U.S. EPA, *Overview of Greenhouse Gases*, 2018.

Appendix A

Greenhouse Gas Emissions Data

Construction Assumptions

Disturbed Area 18.3 Acres
797,148.00 sf

Demolition

48,000	sf building
2,208	tons building
724,000	sf pavement
13,863	tons pavement
16,071	total demolition waste (tons)

* Per CalEEMod: 1 SF = 0.046 tons

* SF pavement * 0.25 F = CF. CF * 0.037 = CY. CY * 2.07 = tons

Cut/Fill

-	cy import
-	cy export

No piledriving

Project Land Uses

Site Area	18.3 ac
Building Area	398.034 KSF
Unrefrigerated Warehouse	388.034 KSF
Office	10 KSF
Landscape	87.217 KSF
Pavement	311.90 KSF

Trip Rates

<u>Existing</u>				
	Size (KSF)	Trip Rate	Daily Trips	
Warehouse	48	8.229167		395
<u>Proposed</u>				
	Size (KSF)	Trip Rate	Daily Trips	
Warehouse	398	1.71		680.58

	% Trips		fleet mix
LDA	100%	93	0.2354
LHDT1	24%	73	0.1848
MHDT	21%	63	0.1595
HHDT	55%	166	0.4203

Total Trips 395

	% Trips		fleet mix
LDA	100%	442	0.6490
LHDT1	25%	59	0.0866
MHDT	21%	50	0.0734
HHDT	55%	130	0.1909

Total Trips 681

Project: Sierra Distribution Center
GHG Emissions

Construction

	2024	496
	2025	711
Total		1,208
Amortized		40

Proposed Operations - Unmitigated

Area	0
Energy	240
Mobile	1,729
Waste	94
Water	272
Total	2,334

Existing Operations

Warehouse	1,985
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Net Emissions

Proposed Project	2,375
Existing Warehouse	1,985
Net New Emissions	390

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

Sierra Distribution- Existing

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	48.00	1000sqft	1.10	48,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2022
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 -

Construction Phase - Operations Only

Trips and VMT -

Demolition -

Grading - Zero Import/Export

Vehicle Trips - Per Trip Generation Assessment

Construction Off-road Equipment Mitigation -

Fleet Mix - Per Trip Generation Assessment

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	0.00
tblFleetMix	HHD	8.6030e-003	0.42
tblFleetMix	LDA	0.54	0.24
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.18
tblFleetMix	LHD2	6.2270e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.8450e-003	0.00
tblFleetMix	MHD	0.01	0.16
tblFleetMix	OBUS	8.2900e-004	0.00
tblFleetMix	SBUS	7.4100e-004	0.00
tblFleetMix	UBUS	5.2100e-004	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	8.23
tblVehicleTrips	SU_TR	1.74	8.23
tblVehicleTrips	WD_TR	1.74	8.23

2.0 Emissions Summary

Sierra Distribution- Existing - South Coast Air Basin, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)				Maximum Mitigated ROG + NOX (tons/quarter)			
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Sierra Distribution- Existing - South Coast Air Basin, Annual

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

Highest

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	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003
Energy	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	24.8977	24.8977	1.7700e-003	3.0000e-004	25.0302
Mobile	0.1656	4.2872	1.7214	0.0187	0.7665	0.0385	0.8050	0.2137	0.0368	0.2504	0.0000	1,821.9715	1,821.9715	0.0756	0.2419	1,895.9380
Waste						0.0000	0.0000		0.0000	0.0000	9.1590	0.0000	9.1590	0.5413	0.0000	22.6909
Water						0.0000	0.0000		0.0000	0.0000	3.5215	25.6323	29.1538	0.3639	8.8000e-003	40.8734
Total	0.3619	4.2920	1.7260	0.0187	0.7665	0.0388	0.8053	0.2137	0.0371	0.2508	12.6805	1,872.5027	1,885.1832	0.9825	0.2510	1,984.5338

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003
Energy	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	24.8977	24.8977	1.7700e-003	3.0000e-004	25.0302
Mobile	0.1656	4.2872	1.7214	0.0187	0.7665	0.0385	0.8050	0.2137	0.0368	0.2504	0.0000	1,821.9715	1,821.9715	0.0756	0.2419	1,895.9380
Waste						0.0000	0.0000		0.0000	0.0000	9.1590	0.0000	9.1590	0.5413	0.0000	22.6909
Water						0.0000	0.0000		0.0000	0.0000	3.5215	25.6323	29.1538	0.3639	8.8000e-003	40.8734
Total	0.3619	4.2920	1.7260	0.0187	0.7665	0.0388	0.8053	0.2137	0.0371	0.2508	12.6805	1,872.5027	1,885.1832	0.9825	0.2510	1,984.5338

	ROG	NOx	CO	SO2	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	Demolition	Demolition	9/14/2022	9/13/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

[illegible]

Unmitigated Construction Off-Site

[illegible]

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

3.2 Demolition - 2022

Mitigated Construction On-Site

[illegible]

Mitigated Construction Off-Site

[illegible]

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1656	4.2872	1.7214	0.0187	0.7665	0.0385	0.8050	0.2137	0.0368	0.2504	0.0000	1,821.9715	1,821.9715	0.0756	0.2419	1,895.9380
Unmitigated	0.1656	4.2872	1.7214	0.0187	0.7665	0.0385	0.8050	0.2137	0.0368	0.2504	0.0000	1,821.9715	1,821.9715	0.0756	0.2419	1,895.9380

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	395.04	395.04	395.04	1,815,119	1,815,119
Total	395.04	395.04	395.04	1,815,119	1,815,119

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
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.235400	0.000000	0.000000	0.000000	0.184800	0.000000	0.159500	0.420300	0.000000	0.000000	0.000000	0.000000	0.000000

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	19.7492	19.7492	1.6700e-003	2.0000e-004	19.8511
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	19.7492	19.7492	1.6700e-003	2.0000e-004	19.8511
NaturalGas Mitigated	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791
NaturalGas Unmitigated	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791

Sierra Distribution- Existing - South Coast Air Basin, Annual

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					
Unrefrigerated Warehouse-No Rail	96480	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791
Total		5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791

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					
Unrefrigerated Warehouse-No Rail	96480	5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791
Total		5.2000e-004	4.7300e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1485	5.1485	1.0000e-004	9.0000e-005	5.1791

Sierra Distribution- Existing - South Coast Air Basin, Annual

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			
Unrefrigerated Warehouse-No Rail	111360	19.7492	1.6700e-003	2.0000e-004	19.8511
Total		19.7492	1.6700e-003	2.0000e-004	19.8511

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	111360	19.7492	1.6700e-003	2.0000e-004	19.8511
Total		19.7492	1.6700e-003	2.0000e-004	19.8511

6.0 Area Detail**6.1 Mitigation Measures Area**

Sierra Distribution- Existing - South Coast Air Basin, 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
Category	tons/yr										MT/yr					
Mitigated	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003
Unmitigated	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-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	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1735					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003
Total	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003

Sierra Distribution- Existing - South Coast Air Basin, Annual

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	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1735					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003
Total	0.1958	1.0000e-005	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1900e-003	1.1900e-003	0.0000	0.0000	1.2700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Sierra Distribution- Existing - South Coast Air Basin, Annual

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	29.1538	0.3639	8.8000e-003	40.8734
Unmitigated	29.1538	0.3639	8.8000e-003	40.8734

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	11.1 / 0	29.1538	0.3639	8.8000e-003	40.8734
Total		29.1538	0.3639	8.8000e-003	40.8734

Sierra Distribution- Existing - South Coast Air Basin, Annual

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			
Unrefrigerated Warehouse-No Rail	11.1 / 0	29.1538	0.3639	8.8000e-003	40.8734
Total		29.1538	0.3639	8.8000e-003	40.8734

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.1590	0.5413	0.0000	22.6909
Unmitigated	9.1590	0.5413	0.0000	22.6909

Sierra Distribution- Existing - South Coast Air Basin, Annual

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	45.12	9.1590	0.5413	0.0000	22.6909
Total		9.1590	0.5413	0.0000	22.6909

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	45.12	9.1590	0.5413	0.0000	22.6909
Total		9.1590	0.5413	0.0000	22.6909

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Sierra Distribution- Existing - South Coast Air Basin, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Sierra Distribution- Proposed****South Coast Air Basin, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Unrefrigerated Warehouse-No Rail	388.03	1000sqft	8.91	388,034.00	0
Other Non-Asphalt Surfaces	87.22	1000sqft	2.00	87,217.00	0
Parking Lot	311.90	1000sqft	7.16	311,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2026
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 -

Construction Phase - Project Schedule

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Per Trip Generation Assessment

Construction Off-road Equipment Mitigation - Per SCAQMD Rules and Regulations, Tier 4 per Fontana Industrial Commerce Center ordinance

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

Fleet Mix - Per Trip Generation Assessment

Waste Mitigation - Per AQ 939

Water Mitigation -

[illegible]

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	300.00	66.00
tblConstructionPhase	NumDays	300.00	173.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	23.00
tblFleetMix	HHD	8.6510e-003	0.19
tblFleetMix	LDA	0.54	0.65
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.09
tblFleetMix	LHD2	6.6070e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.5830e-003	0.00
tblFleetMix	MHD	0.01	0.07
tblFleetMix	OBUS	8.1800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	UBUS	4.9700e-004	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	1.74	1.71

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	1.74	1.71
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	1.74	1.71

2.0 Emissions Summary

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2111	1.9565	1.9861	5.3500e-003	0.7664	0.0750	0.8414	0.2668	0.0695	0.3363	0.0000	487.8288	487.8288	0.0860	0.0207	496.1362
2025	2.1462	1.7817	2.7732	7.5700e-003	0.4078	0.0598	0.4676	0.1099	0.0562	0.1661	0.0000	699.2806	699.2806	0.0744	0.0344	711.3877
Maximum	2.1462	1.9565	2.7732	7.5700e-003	0.7664	0.0750	0.8414	0.2668	0.0695	0.3363	0.0000	699.2806	699.2806	0.0860	0.0344	711.3877

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0839	0.4958	2.2125	5.3500e-003	0.3828	8.6100e-003	0.3914	0.1257	8.4900e-003	0.1342	0.0000	487.8285	487.8285	0.0860	0.0207	496.1358
2025	2.0548	0.7454	2.9645	7.5700e-003	0.3872	0.0118	0.3990	0.1049	0.0116	0.1164	0.0000	699.2803	699.2803	0.0744	0.0344	711.3874
Maximum	2.0548	0.7454	2.9645	7.5700e-003	0.3872	0.0118	0.3990	0.1257	0.0116	0.1342	0.0000	699.2803	699.2803	0.0860	0.0344	711.3874

Sierra Distribution- Proposed - South Coast Air Basin, 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	9.28	66.80	-8.78	0.00	34.42	84.87	39.62	38.78	84.06	50.11	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2024	8-31-2024	1.0797	0.2016
2	9-1-2024	11-30-2024	0.8582	0.2636
3	12-1-2024	2-28-2025	0.6759	0.3187
4	3-1-2025	5-31-2025	0.6695	0.3159
5	6-1-2025	8-31-2025	1.7584	1.3112
6	9-1-2025	9-30-2025	1.0715	0.9734
		Highest	1.7584	1.3112

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Energy	4.3900e-003	0.0399	0.0335	2.4000e-004		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	238.7627	238.7627	0.0173	2.7900e-003	240.0285
Mobile	0.1304	2.5195	2.3274	0.0172	1.2059	0.0193	1.2253	0.3280	0.0184	0.3464	0.0000	1,674.4243	1,674.4243	0.0630	0.1766	1,728.6110
Waste						0.0000	0.0000		0.0000	0.0000	75.9288	0.0000	75.9288	4.4873	0.0000	188.1103
Water						0.0000	0.0000		0.0000	0.0000	29.0317	213.4610	242.4927	2.9999	0.0726	339.1211
Total	1.7899	2.5595	2.3710	0.0174	1.2059	0.0224	1.2283	0.3280	0.0214	0.3494	104.9604	2,126.6679	2,231.6283	7.5674	0.2519	2,495.8921

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Energy	4.3900e-003	0.0399	0.0335	2.4000e-004		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	238.7627	238.7627	0.0173	2.7900e-003	240.0285
Mobile	0.1304	2.5195	2.3274	0.0172	1.2059	0.0193	1.2253	0.3280	0.0184	0.3464	0.0000	1,674.4243	1,674.4243	0.0630	0.1766	1,728.6110
Waste						0.0000	0.0000		0.0000	0.0000	37.9644	0.0000	37.9644	2.2436	0.0000	94.0552
Water						0.0000	0.0000		0.0000	0.0000	23.2253	171.0672	194.2925	2.3999	0.0581	271.5968
Total	1.7899	2.5595	2.3710	0.0174	1.2059	0.0224	1.2283	0.3280	0.0214	0.3494	61.1897	2,084.2740	2,145.4637	4.7239	0.2374	2,334.3126

	ROG	NOx	CO	SO2	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	41.70	1.99	3.86	37.58	5.76	6.47

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2024	6/28/2024	5	20	
2	Site Preparation	Site Preparation	6/29/2024	7/31/2024	5	23	
3	Grading	Grading	8/1/2024	9/30/2024	5	43	

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

4	Infrastructure	Building Construction	10/1/2024	12/31/2024	5	66
5	Building Construction	Building Construction	1/1/2025	8/29/2025	5	173
6	Paving	Paving	8/1/2025	9/30/2025	5	43
7	Architectural Coating	Architectural Coating	8/1/2025	9/30/2025	5	43

Acres of Grading (Site Preparation Phase): 34.5**Acres of Grading (Grading Phase): 129****Acres of Paving: 9.16****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 597,051; Non-Residential Outdoor: 199,017; Striped Parking Area: 23,947 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Infrastructure	Cranes	1	7.00	231	0.29
Infrastructure	Forklifts	3	8.00	89	0.20
Infrastructure	Generator Sets	1	8.00	84	0.74
Infrastructure	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Infrastructure	Welders	1	8.00	46	0.45
Building Construction	Cranes	1	7.00	231	0.29

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
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
Demolition	6	15.00	0.00	1,589.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Infrastructure	9	334.00	131.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	334.00	131.00	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	67.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1720	0.0000	0.1720	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338
Total	0.0224	0.2088	0.1971	3.9000e-004	0.1720	9.6000e-003	0.1816	0.0260	8.9200e-003	0.0350	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338

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	1.6200e-003	0.1035	0.0279	4.5000e-004	0.0137	6.9000e-004	0.0144	3.7500e-003	6.6000e-004	4.4100e-003	0.0000	45.1323	45.1323	2.8100e-003	7.1800e-003	47.3426
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	4.4000e-004	3.2000e-004	4.5700e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2759	1.2759	3.0000e-005	3.0000e-005	1.2858
Total	2.0600e-003	0.1038	0.0325	4.6000e-004	0.0153	7.0000e-004	0.0160	4.1900e-003	6.7000e-004	4.8600e-003	0.0000	46.4082	46.4082	2.8400e-003	7.2100e-003	48.6284

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.2 Demolition - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0637	0.0000	0.0637	9.6500e-003	0.0000	9.6500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0200	0.2328	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	4.6200e-003	0.0200	0.2328	3.9000e-004	0.0637	6.2000e-004	0.0643	9.6500e-003	6.2000e-004	0.0103	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338

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	1.6200e-003	0.1035	0.0279	4.5000e-004	0.0131	6.9000e-004	0.0137	3.6000e-003	6.6000e-004	4.2600e-003	0.0000	45.1323	45.1323	2.8100e-003	7.1800e-003	47.3426
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	4.4000e-004	3.2000e-004	4.5700e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.2000e-004	1.0000e-005	4.2000e-004	0.0000	1.2759	1.2759	3.0000e-005	3.0000e-005	1.2858
Total	2.0600e-003	0.1038	0.0325	4.6000e-004	0.0146	7.0000e-004	0.0153	4.0200e-003	6.7000e-004	4.6800e-003	0.0000	46.4082	46.4082	2.8400e-003	7.2100e-003	48.6284

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2261	0.0000	0.2261	0.1162	0.0000	0.1162	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0306	0.3125	0.2109	4.4000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	38.4756	38.4756	0.0124	0.0000	38.7867
Total	0.0306	0.3125	0.2109	4.4000e-004	0.2261	0.0141	0.2402	0.1162	0.0130	0.1292	0.0000	38.4756	38.4756	0.0124	0.0000	38.7867

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.4000e-004	6.3100e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7607	1.7607	4.0000e-005	4.0000e-005	1.7744
Total	6.0000e-004	4.4000e-004	6.3100e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7607	1.7607	4.0000e-005	4.0000e-005	1.7744

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.3 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0838	0.0000	0.0838	0.0430	0.0000	0.0430	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3500e-003	0.0232	0.2400	4.4000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	38.4756	38.4756	0.0124	0.0000	38.7867
Total	5.3500e-003	0.0232	0.2400	4.4000e-004	0.0838	7.1000e-004	0.0845	0.0430	7.1000e-004	0.0438	0.0000	38.4756	38.4756	0.0124	0.0000	38.7867

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.4000e-004	6.3100e-003	2.0000e-005	2.1500e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004	0.0000	1.7607	1.7607	4.0000e-005	4.0000e-005	1.7744
Total	6.0000e-004	4.4000e-004	6.3100e-003	2.0000e-005	2.1500e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004	0.0000	1.7607	1.7607	4.0000e-005	4.0000e-005	1.7744

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1979	0.0000	0.1979	0.0786	0.0000	0.0786	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0692	0.6961	0.5960	1.3300e-003		0.0287	0.0287		0.0264	0.0264	0.0000	117.2170	117.2170	0.0379	0.0000	118.1647
Total	0.0692	0.6961	0.5960	1.3300e-003	0.1979	0.0287	0.2266	0.0786	0.0264	0.1050	0.0000	117.2170	117.2170	0.0379	0.0000	118.1647

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.2000e-004	0.0131	4.0000e-005	4.7200e-003	3.0000e-005	4.7400e-003	1.2500e-003	2.0000e-005	1.2800e-003	0.0000	3.6576	3.6576	9.0000e-005	9.0000e-005	3.6860
Total	1.2500e-003	9.2000e-004	0.0131	4.0000e-005	4.7200e-003	3.0000e-005	4.7400e-003	1.2500e-003	2.0000e-005	1.2800e-003	0.0000	3.6576	3.6576	9.0000e-005	9.0000e-005	3.6860

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0733	0.0000	0.0733	0.0291	0.0000	0.0291	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0164	0.0710	0.7095	1.3300e-003		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	117.2168	117.2168	0.0379	0.0000	118.1646
Total	0.0164	0.0710	0.7095	1.3300e-003	0.0733	2.1800e-003	0.0755	0.0291	2.1800e-003	0.0313	0.0000	117.2168	117.2168	0.0379	0.0000	118.1646

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.2000e-004	0.0131	4.0000e-005	4.4700e-003	3.0000e-005	4.5000e-003	1.1900e-003	2.0000e-005	1.2200e-003	0.0000	3.6576	3.6576	9.0000e-005	9.0000e-005	3.6860
Total	1.2500e-003	9.2000e-004	0.0131	4.0000e-005	4.4700e-003	3.0000e-005	4.5000e-003	1.1900e-003	2.0000e-005	1.2200e-003	0.0000	3.6576	3.6576	9.0000e-005	9.0000e-005	3.6860

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.5 Infrastructure - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0486	0.4436	0.5335	8.9000e-004		0.0202	0.0202		0.0190	0.0190	0.0000	76.5102	76.5102	0.0181	0.0000	76.9625
Total	0.0486	0.4436	0.5335	8.9000e-004		0.0202	0.0202		0.0190	0.0190	0.0000	76.5102	76.5102	0.0181	0.0000	76.9625

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	4.4300e-003	0.1667	0.0606	7.8000e-004	0.0273	8.8000e-004	0.0281	7.8700e-003	8.4000e-004	8.7100e-003	0.0000	76.0512	76.0512	2.8500e-003	0.0111	79.4173
Worker	0.0320	0.0236	0.3360	1.0000e-003	0.1209	6.7000e-004	0.1216	0.0321	6.1000e-004	0.0327	0.0000	93.7523	93.7523	2.2100e-003	2.2600e-003	94.4822
Total	0.0365	0.1903	0.3967	1.7800e-003	0.1482	1.5500e-003	0.1497	0.0400	1.4500e-003	0.0414	0.0000	169.8035	169.8035	5.0600e-003	0.0133	173.8995

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.5 Infrastructure - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0172	0.0862	0.5817	8.9000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	76.5101	76.5101	0.0181	0.0000	76.9624
Total	0.0172	0.0862	0.5817	8.9000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	76.5101	76.5101	0.0181	0.0000	76.9624

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	4.4300e-003	0.1667	0.0606	7.8000e-004	0.0261	8.8000e-004	0.0270	7.5800e-003	8.4000e-004	8.4200e-003	0.0000	76.0512	76.0512	2.8500e-003	0.0111	79.4173
Worker	0.0320	0.0236	0.3360	1.0000e-003	0.1146	6.7000e-004	0.1153	0.0306	6.1000e-004	0.0312	0.0000	93.7523	93.7523	2.2100e-003	2.2600e-003	94.4822
Total	0.0365	0.1903	0.3967	1.7800e-003	0.1407	1.5500e-003	0.1423	0.0382	1.4500e-003	0.0396	0.0000	169.8035	169.8035	5.0600e-003	0.0133	173.8995

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1183	1.0786	1.3913	2.3300e-003		0.0456	0.0456		0.0429	0.0429	0.0000	200.6103	200.6103	0.0472	0.0000	201.7893
Total	0.1183	1.0786	1.3913	2.3300e-003		0.0456	0.0456		0.0429	0.0429	0.0000	200.6103	200.6103	0.0472	0.0000	201.7893

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	0.0113	0.4350	0.1565	2.0000e-003	0.0715	2.3200e-003	0.0738	0.0206	2.2200e-003	0.0228	0.0000	195.7678	195.7678	7.4900e-003	0.0285	204.4477
Worker	0.0787	0.0556	0.8228	2.5400e-003	0.3170	1.6700e-003	0.3186	0.0842	1.5400e-003	0.0857	0.0000	239.7419	239.7419	5.2300e-003	5.5500e-003	241.5258
Total	0.0900	0.4906	0.9793	4.5400e-003	0.3884	3.9900e-003	0.3924	0.1048	3.7600e-003	0.1086	0.0000	435.5098	435.5098	0.0127	0.0341	445.9735

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

3.6 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.2225	1.5237	2.3300e-003		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	200.6101	200.6101	0.0472	0.0000	201.7890
Total	0.0436	0.2225	1.5237	2.3300e-003		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	200.6101	200.6101	0.0472	0.0000	201.7890

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	0.0113	0.4350	0.1565	2.0000e-003	0.0684	2.3200e-003	0.0707	0.0199	2.2200e-003	0.0221	0.0000	195.7678	195.7678	7.4900e-003	0.0285	204.4477
Worker	0.0787	0.0556	0.8228	2.5400e-003	0.3005	1.6700e-003	0.3022	0.0801	1.5400e-003	0.0817	0.0000	239.7419	239.7419	5.2300e-003	5.5500e-003	241.5258
Total	0.0900	0.4906	0.9793	4.5400e-003	0.3689	3.9900e-003	0.3729	0.1000	3.7600e-003	0.1038	0.0000	435.5098	435.5098	0.0127	0.0341	445.9735

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	9.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0291	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.2000e-004	9.1800e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.6762	2.6762	6.0000e-005	6.0000e-005	2.6961
Total	8.8000e-004	6.2000e-004	9.1800e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.6762	2.6762	6.0000e-005	6.0000e-005	2.6961

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0300e-003	0.0261	0.3719	4.9000e-004		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	9.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0154	0.0261	0.3719	4.9000e-004		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.2000e-004	9.1800e-003	3.0000e-005	3.3500e-003	2.0000e-005	3.3700e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.6762	2.6762	6.0000e-005	6.0000e-005	2.6961
Total	8.8000e-004	6.2000e-004	9.1800e-003	3.0000e-005	3.3500e-003	2.0000e-005	3.3700e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.6762	2.6762	6.0000e-005	6.0000e-005	2.6961

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.8 Architectural Coating - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	1.9041	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	2.7700e-003	0.0410	1.3000e-004	0.0158	8.0000e-005	0.0159	4.2000e-003	8.0000e-005	4.2700e-003	0.0000	11.9535	11.9535	2.6000e-004	2.8000e-004	12.0424
Total	3.9200e-003	2.7700e-003	0.0410	1.3000e-004	0.0158	8.0000e-005	0.0159	4.2000e-003	8.0000e-005	4.2700e-003	0.0000	11.9535	11.9535	2.6000e-004	2.8000e-004	12.0424

Sierra Distribution- Proposed - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.8 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	2.7700e-003	0.0394	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	1.9010	2.7700e-003	0.0394	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	2.7700e-003	0.0410	1.3000e-004	0.0150	8.0000e-005	0.0151	4.0000e-003	8.0000e-005	4.0700e-003	0.0000	11.9535	11.9535	2.6000e-004	2.8000e-004	12.0424
Total	3.9200e-003	2.7700e-003	0.0410	1.3000e-004	0.0150	8.0000e-005	0.0151	4.0000e-003	8.0000e-005	4.0700e-003	0.0000	11.9535	11.9535	2.6000e-004	2.8000e-004	12.0424

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1304	2.5195	2.3274	0.0172	1.2059	0.0193	1.2253	0.3280	0.0184	0.3464	0.0000	1,674.424 3	1,674.424 3	0.0630	0.1766	1,728.611 0
Unmitigated	0.1304	2.5195	2.3274	0.0172	1.2059	0.0193	1.2253	0.3280	0.0184	0.3464	0.0000	1,674.424 3	1,674.424 3	0.0630	0.1766	1,728.611 0

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	663.54	663.54	663.54	3,048,806	3,048,806
Total	663.54	663.54	663.54	3,048,806	3,048,806

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
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

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.541801	0.062785	0.185964	0.127448	0.023798	0.006607	0.012341	0.008651	0.000818	0.000497	0.024959	0.000748	0.003583
Other Non-Asphalt Surfaces	0.541801	0.062785	0.185964	0.127448	0.023798	0.006607	0.012341	0.008651	0.000818	0.000497	0.024959	0.000748	0.003583
Parking Lot	0.541801	0.062785	0.185964	0.127448	0.023798	0.006607	0.012341	0.008651	0.000818	0.000497	0.024959	0.000748	0.003583
Unrefrigerated Warehouse-No Rail	0.649046	0.000000	0.000000	0.000000	0.086640	0.000000	0.073420	0.190900	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Sierra Distribution- Proposed - South Coast Air Basin, 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
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	195.3113	195.3113	0.0165	2.0000e-003	196.3189
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	195.3113	195.3113	0.0165	2.0000e-003	196.3189
NaturalGas Mitigated	4.3900e-003	0.0399	0.0335	2.4000e-004		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	43.4514	43.4514	8.3000e-004	8.0000e-004	43.7096
NaturalGas Unmitigated	4.3900e-003	0.0399	0.0335	2.4000e-004		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	43.4514	43.4514	8.3000e-004	8.0000e-004	43.7096

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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					
General Office Building	34300	1.8000e-004	1.6800e-003	1.4100e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8304	1.8304	4.0000e-005	3.0000e-005	1.8413
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	779948	4.2100e-003	0.0382	0.0321	2.3000e-004		2.9100e-003	2.9100e-003		2.9100e-003	2.9100e-003	0.0000	41.6210	41.6210	8.0000e-004	7.6000e-004	41.8684
Total		4.3900e-003	0.0399	0.0335	2.4000e-004		3.0400e-003	3.0400e-003		3.0400e-003	3.0400e-003	0.0000	43.4514	43.4514	8.4000e-004	7.9000e-004	43.7096

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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					
General Office Building	34300	1.8000e-004	1.6800e-003	1.4100e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8304	1.8304	4.0000e-005	3.0000e-005	1.8413
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	779948	4.2100e-003	0.0382	0.0321	2.3000e-004		2.9100e-003	2.9100e-003		2.9100e-003	2.9100e-003	0.0000	41.6210	41.6210	8.0000e-004	7.6000e-004	41.8684
Total		4.3900e-003	0.0399	0.0335	2.4000e-004		3.0400e-003	3.0400e-003		3.0400e-003	3.0400e-003	0.0000	43.4514	43.4514	8.4000e-004	7.9000e-004	43.7096

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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			
General Office Building	91900	16.2981	1.3800e-003	1.7000e-004	16.3821
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	109165	19.3599	1.6300e-003	2.0000e-004	19.4598
Unrefrigerated Warehouse-No Rail	900239	159.6534	0.0135	1.6300e-003	160.4770
Total		195.3113	0.0165	2.0000e-003	196.3189

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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			
General Office Building	91900	16.2981	1.3800e-003	1.7000e-004	16.3821
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	109165	19.3599	1.6300e-003	2.0000e-004	19.4598
Unrefrigerated Warehouse-No Rail	900239	159.6534	0.0135	1.6300e-003	160.4770
Total		195.3113	0.0165	2.0000e-003	196.3189

6.0 Area Detail**6.1 Mitigation Measures Area**

Sierra Distribution- Proposed - South Coast Air Basin, 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
Category	tons/yr										MT/yr					
Mitigated	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Unmitigated	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211

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	0.1900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Total	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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	0.1900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Total	1.6551	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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	194.2925	2.3999	0.0581	271.5968
Unmitigated	242.4927	2.9999	0.0726	339.1211

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.77734 / 1.08934	6.8145	0.0584	1.4300e-003	8.7021
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	89.7319 / 0	235.6783	2.9414	0.0712	330.4191
Total		242.4927	2.9999	0.0726	339.1211

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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			
General Office Building	1.42187 / 1.02289	5.7499	0.0468	1.1500e-003	7.2615
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	71.7856 / 0	188.5426	2.3531	0.0569	264.3353
Total		194.2925	2.3999	0.0581	271.5968

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Sierra Distribution- Proposed - South Coast Air Basin, 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	37.9644	2.2436	0.0000	94.0552
Unmitigated	75.9288	4.4873	0.0000	188.1103

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
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	364.75	74.0410	4.3757	0.0000	183.4333
Total		75.9288	4.4873	0.0000	188.1103

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
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	182.375	37.0205	2.1879	0.0000	91.7167
Total		37.9644	2.2436	0.0000	94.0552

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

Sierra Distribution- Proposed - South Coast Air Basin, Annual

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

Equipment Type	Number
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11.0 Vegetation

Appendix B

Consistency with the Fontana Industrial Commerce Center Sustainability Standards

Consistency with the Fontana Industrial Commerce Center Sustainability Standards	
Fontana MC Article V Section 9-70	FSDF Applicable SCs, PDFs, MMs
Sec. 9-71. – Buffering and Screening / Adjacent uses.	
(1) For any Warehouse building larger than 50,000 square feet in size, a ten-foot-wide landscaping buffer shall be required, measured from the property line of all adjacent sensitive receptors. For any Warehouse building larger than 400,000 square feet in size, a twenty-foot-wide landscaping buffer shall be required, measured from the property line of all adjacent sensitive receptors. The buffer area(s) shall include, at a minimum, a solid decorative wall(s) of at least ten feet in height, natural ground landscaping, and solid screen buffering trees, as described below, unless there is an existing solid block wall. For any Warehouse building equal to or less than 50,000 square feet in size, a solid decorative wall(s) of at least ten feet in height shall be required when adjacent to any sensitive receptors. Sensitive receptor shall be defined as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, in-home daycares, health facilities such as hospitals, long term care facilities, retirement and nursing homes, community centers, places of worship, parks (excluding trails), prisons, and dormitories.	There are no sensitive receptors adjacent to the Project boundaries. Therefore, this standard is not applicable. The nearest sensitive receptors (residential uses) are located across Sierra Avenue from the Project site and are located approximately 130 feet from the Project boundaries. The Project would include a minimum 15-foot landscape buffer along the western boundary of the site.
(2) Trees shall be used as part of the solid screen buffering treatment. Trees used for this purpose shall be evergreen, drought tolerant, minimum 36-inch box, and shall be spaced at no greater than 40-feet on center. The property owner and any successors in interest shall maintain these trees for the duration of ownership, ensuring any unhealthy or dead trees are replaced timely as needed.	This is a site design measure and not directly applicable to GHG. However, the Project would be required to comply with this measure.
(3) All landscaping shall be drought tolerant, and to the extent feasible, species with low biogenic emissions. Palm trees shall not be utilized.	The Project would comply with this measure by installing drought tolerant landscaping. Palm trees are not included in the landscape plan.
(4) All landscaping areas shall be properly irrigated for the life of the facility to allow for plants and trees to maintain growth.	This is a site design measure and not directly applicable to GHG. However, the Project would be required to comply with this measure.
(5) Trees shall be installed in automobile parking areas to provide at least 35% shade cover of parking areas within fifteen years. Trees shall be planted that are capable of meeting this requirement.	The Project would comply with this measure as shown on landscape plans.
(6) Unless physically impossible, loading docks and truck entries shall be oriented away from abutting sensitive receptors. To the greatest extent feasible, loading docks, truck entries, and truck drive aisles shall be located away from nearby sensitive receptors. In making feasibility decisions, the City must comply with existing laws and regulations and balance public safety and the site development's potential impacts to nearby sensitive receptors. Therefore, loading docks, truck entries, and drive aisles may be located nearby sensitive receptors at the discretion of the Planning Director, but any such site design shall include measures designed to minimize overall impacts to nearby sensitive receptors.	There are no sensitive receptors abutting the Project site. Additionally, based on the conceptual site plan, loading docks are oriented away from the nearest sensitive receptors to the west of Sierra Avenue. The Project includes a driveway off of Sierra Avenue that would allow access for passenger vehicles only. Truck entry would be permitted via Mango Avenue only, which is approximately 1,400 feet from the nearest sensitive receptor (located to the west of Sierra Avenue). The Project site plan would undergo final site plan review and approvals and appropriate conditions will be implemented by the Planning Director.

Consistency with the Fontana Industrial Commerce Center Sustainability Standards	
Fontana MC Article V Section 9-70	FSDF Applicable SCs, PDFs, MMs
(7) For any Warehouse building larger than 400,000 square feet in size, the building's loading docks shall be located a minimum of 300 feet away, measured from the property line of the sensitive receptor to the nearest dock door which does not exclusively serve electric trucks using a direct straight-line method.	The proposed warehouse is less than 400,000 square feet. However, according to the conceptual site plan, the closest dock door would be located at least 400 feet away from the nearest sensitive receptor property line.
Sec. 9-72. – Signage and Traffic Patterns.	
(1) Entry gates into the loading dock/truck court area shall be positioned after a minimum of 140 feet of total available stacking depth inside the property line. The stacking distance shall be increased by 70 feet for every 20 loading docks beyond 50 docks. Queuing, or circling of vehicles, on public streets immediately pre- or post-entry to an industrial commerce facility is strictly prohibited unless queuing occurs in a deceleration lane or right turn lane exclusively serving the facility.	Truck access would be provided via one driveway on Mango Avenue. According to the conceptual site plan, the stacking depth would be approximately 141 feet from the Mango Avenue entry point. The Project would include 54 docks, and therefore an additional 70 feet is not required.
(2) Applicants shall submit to the Engineering Department, and obtain approval of, all turning templates to verify truck turning movements at entrance and exit driveways and street intersection adjacent to industrial buildings prior to entitlement approval. Unless not physically possible, truck entries shall be located on Collector Streets (or streets of a higher commercial classification), and vehicle entries shall be designed to prevent truck access on streets that are not Collector Streets (or streets of a higher commercial classification), including, but not limited to, by limiting the width of vehicle entries.	Truck turning movements are included on the Site Plan and will be submitted to the Engineering Department for review and verification.
(3) Anti-idling signs indicating a 3-minute diesel truck engine idling restriction shall be posted at industrial commerce facilities along entrances to the site and in the dock areas and shall be strictly enforced by the facility operator.	The Project would comply with this measure through installation of anti-idling signs. .
(4) Prior to issuance of certificate of occupancy facility operators shall establish and submit for approval to the Planning Director a Truck Routing Plan to and from the State Highway System based on the City's latest Truck Route Map. The plan shall describe the operational characteristics of the use of the facility operator, including, but not limited to, hours of operations, types of items to be stored within the building, and proposed truck routing to and from the facility to designated truck routes that avoids passing sensitive receptors, to the greatest extent possible. The plan shall include measures, such as signage and pavement markings, queuing analysis and enforcement, for preventing truck queuing, circling, stopping, and parking on public streets. Facility operator shall be responsible for enforcement of the plan. A revised plan shall be submitted to by the Planning Director prior to a business license being issued by the City for any new tenant of the property. The Planning Director shall have discretion to determine if changes to the plan are necessary including any additional measures to alleviate truck routing and parking issues that may arise during the life of the facility.	A Truck Routing Plan will be prepared and submitted to the Planning Director for review and approval prior to the issuance of the certificate of occupancy.
(5) Signs and drive aisle pavement markings shall clearly identify the on-site circulation pattern to minimize unnecessary on-site vehicular travel. (6) Facility operators shall post signs in prominent locations inside and outside of the building indicating that	The Project will comply with this measure through the installation of the appropriate signs throughout

Consistency with the Fontana Industrial Commerce Center Sustainability Standards	
Fontana MC Article V Section 9-70	FSDF Applicable SCs, PDFs, MMs
off-site parking for any employee, truck, or other operation related vehicle is strictly prohibited. City may require facility operator to post signs on surface or residential streets indicating that off-site truck parking is prohibited by City ordinance and/or the Truck Routing Plan.	the Project site and within neighboring residential areas, as required by the City.
(7) Signs shall be installed at all truck exit driveways directing truck drivers to the truck route as indicated in the Truck Routing Plan and State Highway System.	The Project will comply with this measure through the installation of appropriate signage at the exit driveways.
(8) Signs shall be installed in public view with contact information for a local designated representative who works for the facility operator and who is designated to receive complaints about excessive dust, fumes, or odors, and truck and parking complaints for the site, as well as contact information for the SCAQMD's on-line complaint system and its complaint call-line: 1-800-288-7664. Any complaints made to the facility operator's designee shall be answered within 72 hours of receipt.	The Project will comply with this measure through the posting of the designated representative's contact information and the contact information for SCAQMD's on-line complaint system and call-line.
(9) All signs under this Section shall be legible, durable, and weather-proof.	All signage installed at the Project site pursuant to this Ordinance will be legible, durable, and weather-proof.
(10) Prior to issuance of a business license, City shall ensure for any facility with a building or buildings larger than 400,000 total square feet, that the facility shall include a truck operator lounge equipped with clean and accessible amenities such as restrooms, vending machines, television, and air conditioning."	The proposed warehouse is less than 400,000 square feet. Therefore, this standard is not applicable.
Sec. 9-73. – Alternative Energy.	
(1) On-site motorized operational equipment shall be ZE (zero emission).	All on-site forklifts and yard trucks will be zero emission vehicles.
(2) All building roofs shall be solar-ready, which includes designing and constructing buildings in a manner that facilitates and optimizes the installation of a rooftop solar photovoltaic (PV) system at some point after the building has been constructed.	Building code requires solar ready. Inclusion of PV system infrastructure (conduit, reinforced roofs) and solar PV systems can be added as mitigation. See Site Plan general note #18 on sheet DAB-A1.1
(3) The office portion of a building's rooftop that is not covered with solar panels or other utilities shall be constructed with light colored roofing material with a solar reflective index ("SRI") of not less than 78. This material shall be the minimum solar reflective rating of the roof material for the life of the building."	See keynote #27 on sheet DAB-A1.1
(4) On buildings over 400,000 square feet, prior to issuance of a business license, the City shall ensure rooftop solar panels are installed and operated in such a manner that they will supply 100% of the power needed to operate all non-refrigerated portions of the facility including the parking areas.	The proposed warehouse is less than 400,000 square feet. Therefore, this standard is not applicable.
(5) At least 10% of all passenger vehicle parking spaces shall be electric vehicle (EV) ready, with all necessary conduit and related appurtenances installed. At least 5% of all passenger vehicle parking spaces shall be equipped with working Level 2 Quick charge EV charging stations installed and operational, prior to building occupancy. Signage shall be installed indicating EV charging stations and specifying that spaces are reserved for clean air/EV vehicles. Unless superior technology is developed that would replace the EV charging units, facility operator and any successors in interest shall be responsible for maintaining the EV charging stations in working order for the life of the facility.	The Project would provide 132 auto parking stalls. Of these, one would be for EV ADA Van; 21 would be for EV charging only; and one would be for EV ADA. In total, EV spaces total 23 stalls, exceeding the 10 percent threshold. See updated tabulation (7) EV (per 5% of city requirements) and (19) EV capable (per 2022 CalGreen)
(6) Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide chilled, cooled, or freezer warehouse space, a conduit shall be installed during construction of the building shell from the electrical room to 100% of the loading dock doors that have	The Project would not include refrigerated space. The Project would comply with the specifications of this measure

Consistency with the Fontana Industrial Commerce Center Sustainability Standards	
Fontana MC Article V Section 9-70	FSDF Applicable SCs, PDFs, MMs
potential to serve the refrigerated space. When tenant improvement building permits are issued for any refrigerated warehouse space, electric plug-in units shall be installed at every dock door servicing the refrigerated space to allow transport refrigeration units (TRUs) to plug in. Truck operators with TRUs shall be required to utilize electric plug-in units when at loading docks.	through either covenants on the title or through the installation of a conduit to provide electric plug-in units at all of the loading dock doors.
(7) Bicycle racks are required per Section 30-714 and in the amount required for warehouse uses by Table 30-714 of the Zoning and Development Code. The racks shall include locks as well as electric plugs to charge electric bikes. The racks shall be located as close as possible to employee entrance(s). Nothing in this section shall preclude the warehouse operator from satisfying this requirement by utilizing bicycle parking amenities considered to be superior such as locating bicycle parking facilities indoors or providing bicycle lockers.	Bicycle racks are proposed in close proximity to the east and west building entries.
Sec. 9-74. – Operation and Construction.	
(1) Cool surface treatments shall be added to all drive aisles and parking areas or such areas shall be constructed with a solar-reflective cool pavement such as concrete.	The Project will comply with this measure.
(2) To ensure that warehouse electrical rooms are sufficiently sized to accommodate the potential need for additional electrical panels, either a secondary electrical room shall be provided in the building, or the primary electrical room shall be sized 25% larger than is required to satisfy the service requirements of the building or the electrical gear shall be installed with the initial construction with 25% excess demand capacity.	The Project will comply with this measure.
(3) Use of super-compliant VOC architectural and industrial maintenance coatings (e.g., paints) shall be required.	The Project will comply with this measure through the use of super compliant VOC.
(4) The facility operator shall incorporate a recycling program.	The Project will comply with this measure.
(5) The following environmentally responsible practices shall be required during construction: a. The applicant shall use reasonable best efforts to deploy the highest rated CARB Tier technology that is available at the time of construction. Prior to permit issuance, the construction contractor shall submit an equipment list confirming equipment used is compliant with the highest CARB Tier at the time of construction. Equipment proposed for use that does not meet the highest CARB Tier in effect at the time of construction, shall only be approved for use at the discretion of the Planning Director and shall require proof from the construction contractor that, despite reasonable best efforts to obtain the highest CARB Tier equipment, such equipment was unavailable. b. Use of electric-powered hand tools, forklifts, and pressure washers. c. Designation of an area in any construction site where electric-powered construction vehicles and equipment can charge. d. Identification in site plans of a location for future electric truck charging stations and installation of a conduit to that location. e. Diesel-powered generators shall be prohibited except in case of emergency or to establish temporary power during construction.	The Project will comply with this measure.
(6) A Property Maintenance Program shall be submitted for review and approval by the Planning Director or his/her designee prior to the issuance of building permits. The program shall provide for the regular maintenance of building structures, landscaping, and paved surfaces in good physical condition, and appearance. The methods and maximum intervals for maintenance of each component shall be specified in the program.	The Project will comply with this measure.
(7) Property owner shall provide facility operator with information on incentive programs such as the Carl Moyer Program and Voucher Incentive Program and shall require all facility operators to enroll in the United States Environmental Protection Agency's SmartWay Program.	The Project will comply with this measure.