APPENDIX E:

GREENHOUSE GAS EMISSIONS ASSESSMENT

Greenhouse Gas Emissions Assessment
2245 W. Valley Boulevard Project
City of Colton, California

Prepared by:

Kimley-Horn and Associates, Inc.

3880 Lemon Street, Suite 420
Riverside, California 92501
Contact: Mr. Alex Pohlman

951.543.9868

February 2023

TABLE OF CONTENTS

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_2e	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
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
$MTCO_2e$	million tons of carbon dioxide equivalent
NHTSA	National Highway Traffic Safety Administration
NF_3	nitrogen trifluoride
N_2O	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 2245 W. Valley Boulevard 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 2245 W. Valley Boulevard (Project) site is in the northwestern portion of the City of Colton in the southwestern portion of the County San Bernardino, California; refer to Exhibit 1, Regional Location Map. The Project site is a nine net acre site (Assessor Parcel Number [APN] 0254-041-04 with I-10 and W. Valley Boulevard to the south, E. San Bernardino Avenue to the far north, S. Riverside Avenue and the City of Rialto to the west, and Wildrose Avenue to the east; refer to Exhibit 2, Local Vicinity Map. The Project site is located in the Colton's Hub City Centre Specific Plan (CHCCSP).

The Project site is predominately paved and developed with an existing industrial building. The Project site also includes segments of perimeter fencing, several mature trees, and scattered vegetation at the northern portion of the Project site. The Project site is overall flat and utilized for truck and trailer parking, storage and other transportation related activities. The following uses surround the Project site:

- North: Chuze Fitness, Vacant Land, and E San Bernardino Avenue
- South: E Valley Boulevard, Clutch Master Auto Parts Store, and I-10 Freeway
- East: Brill CSM Bakery Solutions Warehouse and Wildrose Avenue
- West: Vacant land, commercial businesses, S Riverside Avenue, and City of Rialto

1.2 Project Description

The Project proposes to develop four tilt-up concrete industrial buildings totaling approximately 149,204 square feet (SF) of warehouse space, and approximately 37,301 SF of office space for an overall building area of 186,505 SF. Refer to Exhibit 3, Conceptual Site Plan which illustrates the proposed Project buildings.

The Project would include the minimal production, use, storage, transport and disposal of hazardous materials for construction and operational activities. The Project does not include cold storage. The Project is speculative in nature; the end user(s) and their hours of operation are unknown at this time. However, to be conservative, it has been assumed that each building would operate 24 hours per day/7 days per week. The Project will be subject to a condition of approval providing that there shall be no refrigerated uses on site, unless a future tenant who proposes to have such uses conducts an update of the CEQA document and any applicable studies/memorandums to amend the condition.

The Project site's General Plan land use designation and zoning classification are as follows:

- General Plan Land Use: Colton's Hub City Centre Specific Plan (CHCCSP); Business District Sign Overlay (BDS)
- Zoning: Colton's Hub City Centre Specific Plan; Business District Sign Overlay (BDS)
- Specific Plan Designation: Business Park (BP)

The Project's proposed light industrial use is consistent with current land use and zoning designations and consistent with planned industrial uses within the immediate vicinity of the Project site.

Site Access

Regional access to the Project site is provided via I-10 at S. Riverside Avenue and local access to the Project site is provided via W. Valley Boulevard which is a four-lane divided roadway, trending in an east-west direction. Building 1 through Building 4 would be sited near each corner of the Project site. Immediate ingress and egress access to Buildings 1 and 4 would be provided via two 35-foot-wide driveways located on the southwest and southeast corners of the Project site and one 40' wide driveway. Buildings 2 and 3 would be accessible via 26-foot internal drive aisles that would allow for on-site movement for workers and emergency vehicles alike.

Parking

The Project is anticipated to provide 251 vehicle parking stalls and 21 dock doors. Vehicle parking would be provided throughout the Project site. Dock doors and truck/trailer parking would be located on the east side of the Buildings 1 and 3. Dock doors and truck/trailer parking would be located on the west side of Buildings 2 and 4.

Landscaping

The Project is anticipated to landscape approximately 42,638 SF of the Project site.

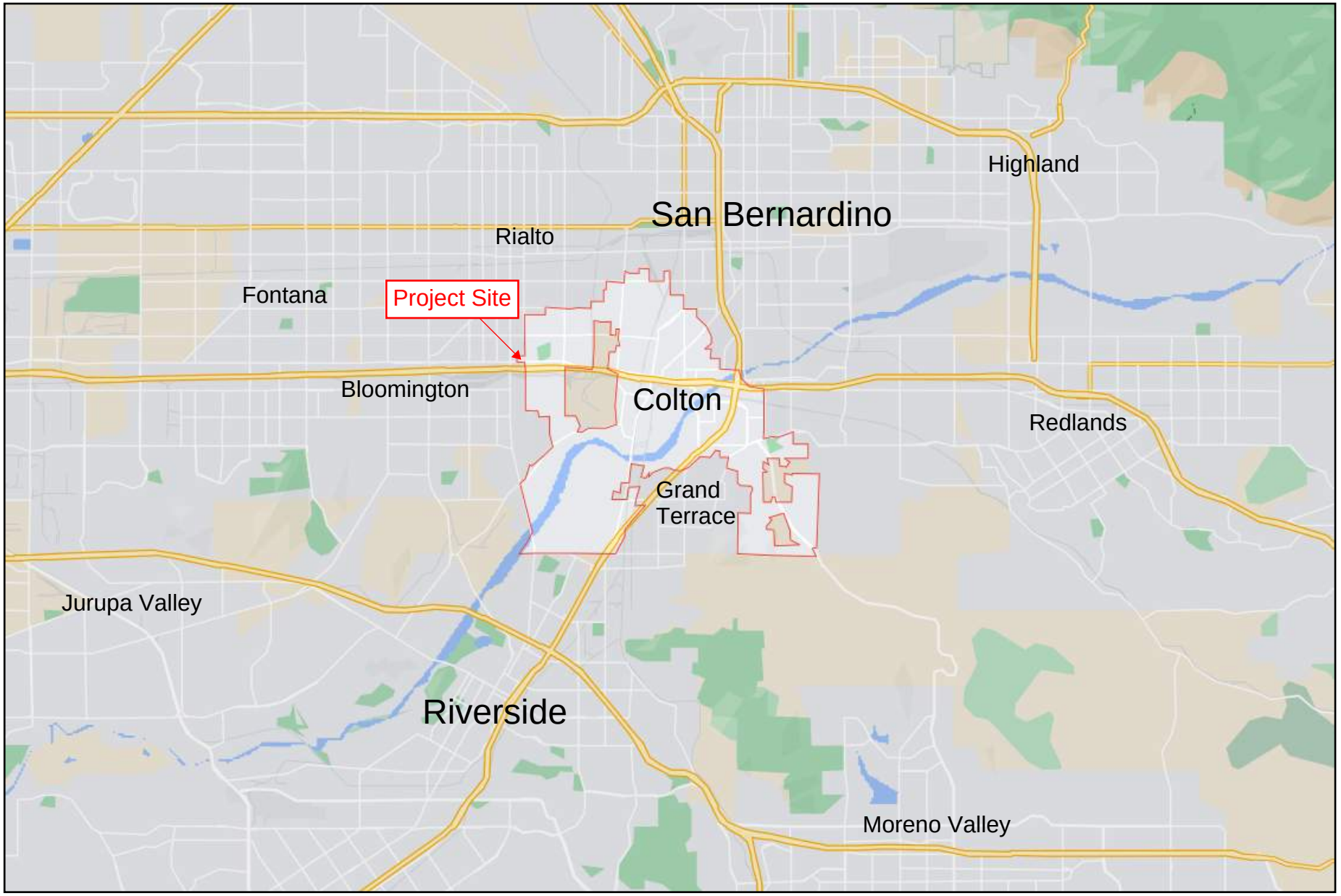
Project Construction Schedule

Construction activities are anticipated to begin in the second quarter of 2023 and are anticipated to be completed during the second quarter of 2024.

Demolition Activities

The Project site is currently developed with an existing building previously utilized for industrial usage. Prior to the approval and issuance of any demolition or building permits, the proposed demolition activities would be conducted in compliance with the City's municipal code (Colton MC) Section 15.58.040, Construction and Demolition Recycling Requirements, which includes construction and demolition requirements for the removal, remodeling or new construction of any structure on a site.[1]

[1] City of Colton. (2022). City of Colton Municipal Code. Available at: https://library.municode.com/ca/colton/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.58RERE_15.58.040CODERERE (accessed November 15, 2022).



Source: Google Maps

Exhibit 1: Regional Location Map
City of Colton
2245 W. Valley Boulevard

Not to Scale

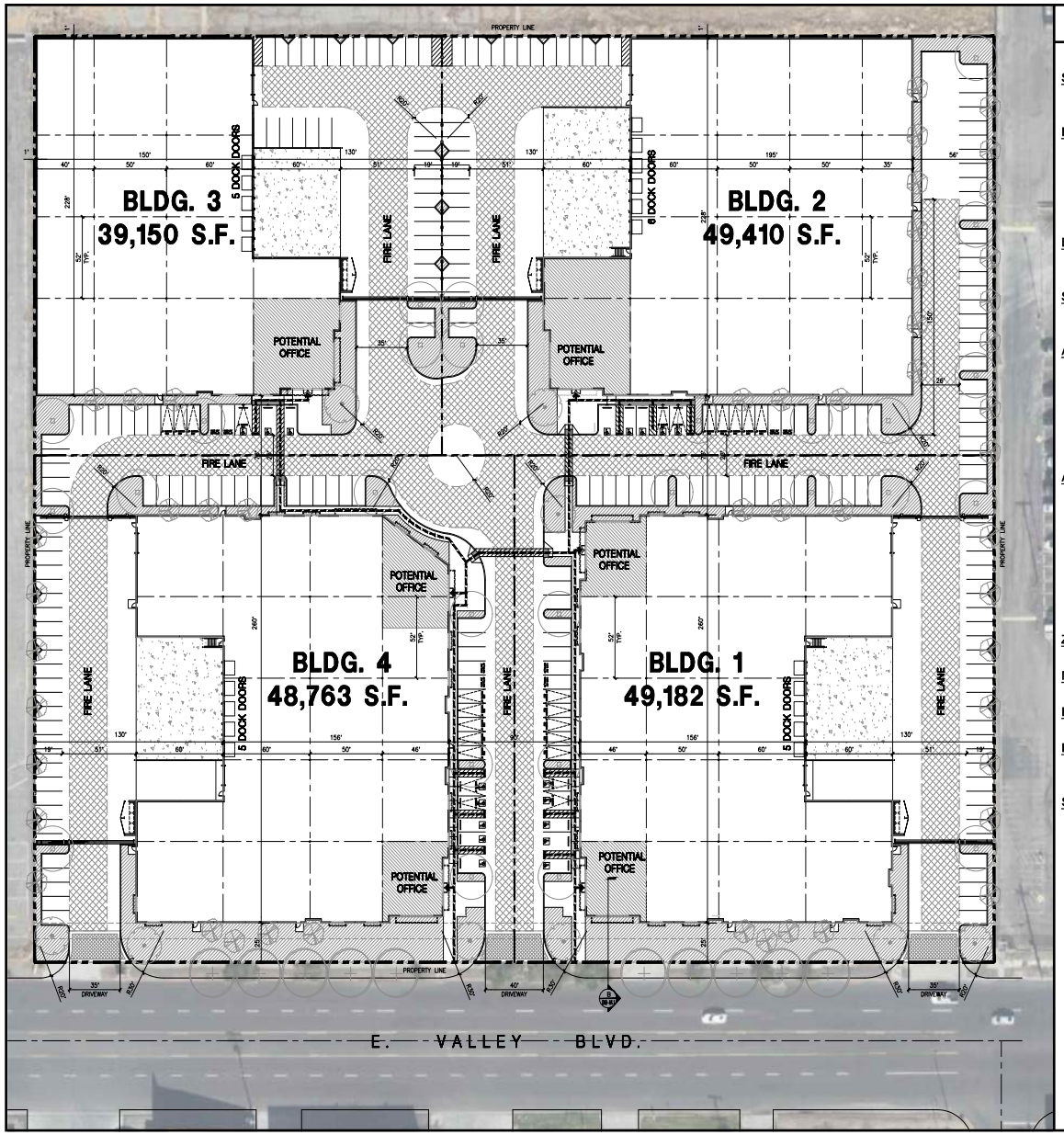
Kimley»Horn

Source: Nearmap Imagery September 5, 2022

Exhibit 2: Local Vicinity Map
City of Colton
2245 W. Valley Boulevard

Not to Scale

Kimley»Horn



LEGEND

	BLDG. 1	BLDG. 2	BLDG. 3	BLDG. 4	TOTAL	
SITE AREA						
In s.f.	106,913	101,727	75,027	106,913	390,580	sf
In acres	2.5	2.3	1.7	2.5	9.0	ac
BUILDING AREA						
Office - 20% *	9,836	9,882	7,830	9,753	37,301	sf
Warehouse	39,346	39,528	31,320	39,010	149,204	sf
TOTAL	49,182	49,410	39,150	48,763	186,505	sf
Note: For all uses, the max. gross leasable area of a freestanding building, whether one or more users/tenant, shall not exceed 50,000 s.f.						
FLOOR AREA RATIO						
Maximum Allowed			no limit			
Actual	0.460	0.486	0.522	0.456	0.478	
SITE COVERAGE						
Maximum Allowed			no limit			
Actual	46.0%	48.6%	52.2%	45.6%	47.8%	
AUTO PARKING REQUIRED						
Office: 1/250 s.f.	39	40	31	39	149	stalls
Whse: Building under 20K @ 1/1,000 s.f.	n/a	n/a	n/a	n/a	n/a	stalls
* Building over 20K @ 1/2,000 s.f.	20	20	16	20	76	stalls
* Min. 20% of gross building area shall be considered office						
TOTAL	59	60	47	59	225	stalls
AUTO PARKING PROVIDED						
Standard (9' x 19')	57	59	42	49	207	stalls
ADA Standard (9' x 19')	2	2	1	2	7	stalls
ADA Van (12' x 19')	1	1	1	1	4	stalls
EV Standard (9' x 19')	5	5	3	5	18	stalls
EV ADA Standard (9' x 19')	1	1	0	1	3	stalls
EV ADA Van (12' x 19')	1	1	1	1	4	stalls
Clean Air/Vanpool/EV (9' x 19')	2	2	2	2	8	stalls
TOTAL	69	71	50	61	251	stalls

ZONING ORDINANCE

Zoning - Colton's Hub City Centre SP - Business Park (BP)

MAXIMUM BUILDING HEIGHT ALLOWED

Height - 50'

LANDSCAPE REQUIREMENT

Percentage - to be verified

LANDSCAPE PROVIDED

	BLDG. 1	BLDG. 2	BLDG. 3	BLDG. 4	TOTAL	
In s.f.	14,687	8,573	5,112	14,266	42,638	
Percentage	13.7%	8.4%	6.8%	13.3%	10.9%	

SETBACKS

Building	Landscape
Valley Blvd. - 25'	15'
Public Rd. - 20'	15'
From RMU - 10'	5'
From Open Space - 10'	5'

Source: HPA Architecture. (2022). Master Site Plan

Exhibit 3 Conceptual Site Plan

City of Colton

2245 W. Valley Boulevard

Not to Scale

Kimley»Horn

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 (CO_2), methane (CH_4), and nitrous oxide (N_2O). 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 (SF_6), and nitrogen trifluoride (NF_3); 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 CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 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 CO_2 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_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The Global Warming Potential of N_2O 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, *Overview of Greenhouse Gases*, April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, 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's (U.S. 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 U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. 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 U.S. 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 U.S. 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, U.S. 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 U.S. 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 CO_2 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. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.[3]

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.)[4] The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration has repealed SAFE Rule Part One, effective January 28, 2022 and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a

[3] U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2,* 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: October 2022.

[4] U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program*, September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. Accessed: October 2022.

rigorous assessment of current and future technologies. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050.[5]

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 CO_2 equivalents (CO_2e) in the world and produced 369 million gross metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2020.[6] The transportation sector is the State's 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 legislation's major provisions.

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

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verifying 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 California Air Resource Board 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").[7] 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

[5] U.S. EPA, *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026,* 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: October 2022.

[6] California Air Resources Board, *Current California GHG Emissions Inventory Data, 2000-2020 GHG inventory (2022 Edition)*, https://ww2.arb.ca.gov/ghg-inventory-data, accessed December 2022.

[7] 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.

the adopted role of a cap-and-trade program.[8] 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.
- 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 CO_2e ($MMTCO_2e$) to 545 $MMTCO_2e$. 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.

[8] 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 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 Plan[9]. 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 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

[9] California Air Resources Board, *California's 2017 Climate Change Scoping Plan,* November 2017.

focused on Residential and Mixed-Use Projects.[10] CARB specifically states that Appendix D does not address other land uses (e.g., industrial).[11] However, CARB plans to explore new approaches for other land use types in the future.[12]

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. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan.

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 AB 32's GHG reduction goals. SB 375 requires metropolitan planning organizations to include sustainable 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 U.S. EPA's denial of an implementation waiver. The U.S. EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for passenger vehicle and light duty truck 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 passenger vehicles are anticipated to emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

SB 1368 (Emission Performance Standards)

SB 1368, which is AB 32's companion bill, 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

[10] California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, *Appendix D: Local Actions*, Page 21, November 2022.
[11] California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, *Appendix D: Local Actions*, Page 4, November 2022.
[12] California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, *Appendix D: Local Actions*, Page 21, November 2022.

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 CO_2 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. This goal was accelerated with SB 107, which 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. SB X1-2, 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 Executive Order B-30-15's goals. The SB 350 objectives 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 45 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 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. The bill requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

AB 1279 (Carbon Neutrality)

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% reduction target for anthropogenic GHG emissions below statewide emissions limit from Section 36550 of the California Health and Safety Code.

SB 1020 (100 Percent Clean Electric Grid)

Signed on September 16, 2022, SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

SB 905 (Capturing and Removing Carbon Pollution)

Signed on September 16, 2022, SB 905 establishes regulatory framework and policies that involve carbon removal, carbon capture, utilization, and sequestration. It also prohibits the injecting of concentrated carbon dioxide fluid into a Class II injection well for the purpose of enhanced oil recovery.

AB 1757 (Nature-Based Solutions)

Signed on September 16, 2022, AB 1757 requires state agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

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 (CEC), 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 Renewable Portfolio Standard (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 CO_2e (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 CEC adopted the 2022 Energy Code on August 11, 2021, which was subsequently 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

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 latest update to the CALGreen Code went into effect January 1, 2020 (2019 CALGreen). The 2019 CALGreen standards improve upon the previous standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The new 2019 CALGreen standards require residential buildings are required to be solar ready through solar panels (refer to Section 110.10 in the 2019 Building Energy Efficiency Standards for more details). The CEC adopted the 2022 CALGreen Code, which went into effect on January 1, 2023.

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.

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. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a variety of city and county planning departments in the SCAB, various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The Working Group has proposed a tiered approach to evaluating GHG emissions for development projects where SCAQMD is not the lead agency, wherein projects are evaluated sequentially through a series of "tiers" to determine whether the project is likely to result in a potentially significant impact due to GHG emissions.

With the tiered approach, a project is compared against 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 $MTCO_2e$ per year for industrial projects and a 3,000 $MTCO_2e$ 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. The Working Group indicated that the 10,000 $MTCO_2e$ 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.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, SCAQMD initially outlined that a project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third option. Under the Tier 4 third option, a project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_2e$ per service population per year. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

Tier 3 Screening Thresholds

When the tiered approach is applied to a proposed project, and the project is found not to comply with Tier 1 or Tier 2, the project's emissions are compared against a screening threshold, as described above, for Tier 3. The screening threshold formally adopted by SCAQMD is an "interim" screening threshold for stationary source industrial projects where the SCAQMD is the lead agency under CEQA. The threshold was termed "interim" because, at the time, SCAQMD anticipated that CARB would be adopting a statewide significance threshold that would inform and provide guidance to SCAQMD in its adoption of a final threshold. However, no statewide threshold was ever adopted, and the interim threshold remains in effect.

For projects for which SCAQMD is not a lead agency, no screening thresholds have been formally adopted. However, the SCAQMD Working Group has recommended a threshold of 10,000 $MTCO_2e$/year for industrial projects and 3,000 $MTCO_2e$/year for residential and commercial projects. SCAQMD determined that these thresholds would "capture" 90 percent of GHG emissions from these sectors, "capture" meaning that 90 percent of total emissions from all new projects would be subject to some type of CEQA analysis (i.e., found potentially significant).[13]

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

[13] SCAQMD, "Staff Report: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," December 5, 2008, Attachment E: "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold," October 2008, p. 3-2.

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 Colton General Plan

The City of Colton General Plan (Colton GP) Land Use Element contains the following goals and policies pertaining to air quality:

Goal LU 4: **Incorporate green building and other sustainable building practices into development projects.**

Policy LU 4.1: Require that new development projects reflect the principles of Traditional Neighborhood Development: walkable street patterns, pedestrian amenities, access to transit, a mix of complementary uses, comfortable and accessible open spaces a range of housing types and densities, and quality design.

Policy LU 4.2: Facilitate the use of green building standards and Leadership in Energy and Environmental Design or similar programs in both private and public projects.

Policy LU 4.3: Promote sustainable building practices that go beyond the requirement of Title 24 of the California Administrative Code and encourage energy-efficient design elements.

Policy LU 4.4: Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment.

Policy LU 4.5: Promote adoptive reuse of existing buildings as an alternative to new construction.

Policy LU 4.6: Require that land divisions and development projects incorporate designs and practices that respect natural site features and provide for groundwater recharge.

Goal LU 5: **Reduce use of energy resources citywide, with a key goal of reducing the City's carbon footprint.**

Policy LU 5.1: Require the incorporation of energy conservation features into the design of all new construction and site development, as required by State law and local regulations.

Policy LU 5.2: Provide incentives, as funding opportunities become available, for the installation of energy conservation features in existing multi-family residential and commercial developments, including technical assistance and possible low interest loans.

Policy LU 5.3: Educate the public using a variety of outreach channels regarding the need for energy conservation, techniques which can be employed, and systems which are available.

Policy LU 5.4: Support the ongoing efforts of the ARB to implement AB32 and SB375, and fully follow any new AB32 and SB375-related regulations.

Policy LU 5.5: Develop and implement GHG emissions reduction measures, including discrete, early-action GHG reducing measures that are technologically feasible and cost effective.

Policy LU 5.6: Require detailed air quality and climate change analyses for all applications that have the potential to adversely affect air quality and incorporate the analyses into applicable CEQA documents. Projects with the potential to generate significant levels of air pollutants and GHGs, such as manufacturing facilities and site development operations, shall be required to incorporate mitigation into their design and operation, and to utilize the most advanced technological methods feasible.

Policy LU 5.7: Work with SCAQMD and SCAG to implement the AQMP and Regional Transportation Plan/Sustainable Communities Strategy, with the objective of meeting federal and state air quality standards for all pollutants. To ensure that new measures can be practically enforced in the region, participate in future amendments and updates of the AQMP.

City of Colton Municipal Code

The Colton Municipal Code (CMC) contains the following policies for air quality that would apply to the Project:

§ 18.42.060–Smoke

CMC § 18.42.060 states "No operation or activity is permitted to have operations which emit excessive smoke, fumes or dust or which exceed the requirements, or levels, as specified by the SCAQMD."

§ 18.42.070–Odors

CMC § 18.42.070 states "All activities shall be operated so as not to emit matter causing unpleasant odors which are perceptible by the average person at or beyond any lot line of the lot containing the activities."

§ 18.42.080 - Air Quality

CMC § 18.42.080 states "No operation or activity shall cause the emission of any smoke, fly ash, dust, fumes, vapors, gases or other forms of air pollution which can cause damage to health, animals, vegetation, or other forms of property, or which can cause excessive soiling on any other lot. No emission shall be permitted, which exceeds the requirements of the SCAQMD or the requirements of any air quality plan adopted by the City."

City of Colton Climate Action Plan

The City adopted its Climate Action Plan (CAP) on November 3, 2015. The CAP presents the GHG inventories, identifies the effectiveness of California initiatives to reduce GHG emissions, and identifies local measures that were selected by the City to reduce GHG emissions under the City's jurisdictional control to achieve the City's identified GHG reduction target. The City participated in the San Bernardino County Regional GHG Reduction Plan (Plan) which presents the collective results of all local efforts to reduce GHG emissions consistent with Statewide GHG targets expressed in AB 32, the "Global Warming Solutions Act of 2006," and SB 375. The CAP builds on the regional work and refines it to provide City-specific information and to develop the local implementation plan for City-selected GHG reduction

measures. The CAP identifies how the GHG reduction measures will be implemented and monitored by the City to ensure that progress is being made toward the GHG reduction target.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Thresholds and significant criteria

Based upon the criteria derived from State CEQA Guidelines Appendix G, 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.

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The State 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 emissions.[14]

4.2 Methodology

Global climate change is, by definition, a cumulative impact of GHG emissions. Therefore, there is no project-level analysis. The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities which almost doubled between 1970 and 2010 from approximately 27 gigatonnes (Gt) of CO_2/year to nearly 49 $GtCO_2$/year.[15] As such, the geographic extent of climate change and GHG emissions cumulative impact discussion is worldwide.

Construction

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 Modeling 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 construction is anticipated to occur over a duration of approximately 12 months, beginning as early as June 2023.

[14] 14 California Code of Regulations, Section 15064.4a

[15] Intergovernmental Panel on Climate Change, *Climate Change 2014 Mitigation of Climate Change Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2014.

Operations

The Project's operational GHG emissions would be generated by vehicular traffic, off-road equipment, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste. These emissions categories are discussed below.

- **Area Sources**. Area source emissions occur from hearths, architectural coatings, landscaping equipment, and consumer products. The Project involves warehouse uses and would not include hearths. Landscaping and consumer products would be limited. Negligible quantities of consumer products (i.e., personal care products, home, lawn, and garden products, disinfectants, sanitizers, polishes, cosmetics, and floor finishes) would be used. Additionally, the primary emissions from architectural coatings are volatile organic compounds, which are relatively insignificant as direct GHG emissions.

- **Energy Consumption**. Energy consumption consists of emissions from project consumption of electricity and natural gas. Primary uses of electricity and natural gas by the Project would be for miscellaneous warehouse equipment, space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Energy emissions are calculated based on consumption rates and emissions factors in CalEEMod.

- **Solid Waste**. Solid waste releases GHG emissions in the form of methane when these materials decompose. Solid waste emissions are calculated based on generation rates and emissions factors in CalEEMod.

- **Water and Wastewater**. Project GHG emissions would be generated from energy consumption associated with water and wastewater conveyance and treatment. No changes were made to the default water usage consumption rates or emissions factors.

- **Off-Road Equipment**. Operational off-road emissions would be generated by off-road cargo handling equipment used during operational activities. For this project it was assumed that the warehouses would include three forklifts and one off-highway trucks for loading and unloading goods per the SCAQMD *High Cube Warehouse Truck Trip Study White Paper.*[16] Off-road equipment for this Project are assumed to use zero emission (electric) or near zero emission technology. However, the GHG emissions resulting from the generation of nonrenewable electricity have been conservatively included in this analysis. It should be noted that the Project does not include cold storage. Therefore, this analysis models the warehouses as unrefrigerated, and the Project would not include emissions from transport refrigeration units (TRUs).

- **Emergency Backup Generators**. As the Project warehouses are speculative, it is unknown whether emergency backup generators would be used. Backup generators would only be used in the event of a power failure and would not be part of the Project's normal daily operations. Nonetheless, emissions associated with this equipment were included to be conservative. Emissions from an emergency backup generator for each warehouse building were calculated separately from CalEEMod; refer to Appendix A. However, CalEEMod default emissions rates were used. If backup generators are required, the end user would be required to obtain a permit from the SCAQMD

[16] SCAQMD, *High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results*, June 2014.

prior to installation. Emergency backup generators must meet SCAQMD's Best Available Control Technology (BACT) requirements and comply with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines), which would minimize emissions.

- **Mobile Sources**. Mobile sources are emissions from motor vehicles. The Project generated traffic was obtained from the Project's Traffic Study prepared by Kimley-horn and Associates (July 2022). Project trip generation from the Traffic Study is based on the 11th Edition of the Institute of Transportation Engineers (ITE) land use category:

    - ITE Land Use 150, Warehousing (189.89 thousand square feet, 325 total daily vehicle trips, which include 88 truck trips).

  The Project would generate 325 daily trips, which includes 237 passenger car trips and 88 truck trips. Passenger car/employee commute trip lengths use CalEEMod default lengths for projects in Riverside County. Truck trip lengths are assumed to be 33.2 miles one way.[17] Warehouse truck mix percentages are based on the SCAQMD Truck Trip Generation Study applied to ITE truck percentages. This analysis assumes that all truck trips associated with the Project are new and does not account for emissions from existing trips.

[17] California Air Resources Board, *Appendix B: Emissions Estimation Methodology for On-Road Diesel-Fueled Heavy-Duty Drayage Trucks at California Ports and Intermodal Rail Yards*, 2007. Available at: https://ww3.arb.ca.gov/msei/onroad/downloads/drayage_trucks/appbf.pdf

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

Project construction activities would generate direct CO_2, N_2O, and CH_4 emissions from construction equipment, transport of materials, and construction workers commuting to and from the Project site. Total GHG emissions generated during all construction phases were combined and are presented in Table 2: Construction-Related Greenhouse Gas Emissions.

Table 2: Construction-Related Greenhouse Gas Emissions

Category	$MTCO_2e$
2023 Construction	553.18
2024 Construction	252.40
Total Construction	805.58
30-Year Amortized Construction	26.85

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.

As indicated in Table 2, the Project would result in the generation of approximately 805.58 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions.[18] The amortized Project construction emissions would be 26.85 $MTCO_2e$ per year. Once construction is complete, construction-related GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions would occur over the Project's lifetime. 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.

The Project's operational GHG emissions are provided in Table 3: Project Greenhouse Gas Emissions. As shown in Table 3, the Project would generate approximately 2,094.14 $MTCO_2e$ annually from both construction and operations and the Project. Project-related GHG emissions would not exceed the City's 3,000 $MTCO_2e$ per year threshold. Therefore, Project impacts would be less than significant, and no mitigation measures are required.

[18] The amortization period is 30 years per 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).

Table 3: Project Greenhouse Gas Emissions	
Emissions Source	**$MTCO_2e$ per Year**
Construction Amortized Over 30 Years	26.85
Area Source	0.01
Energy	155.92
Mobile	1,622.78
Off-Road Equipment	50.10
Backup Generator	19.56
Waste	88.02
Water and Wastewater	130.90
Total	**2,094.14**
City of Colton Project Threshold	*3,000*
Exceeds Threshold?	**No**
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.	

Mitigation Measures: The CHCCSP Final EIR recommended mitigation measures **AQ-1** through **AQ-14** to reduce GHG emissions.

Mitigation Measures from the Final EIR

AQ-1 The project applicant shall require that the grading contractors comply with SCAQMD Rule 403 minimum requirements for controlling fugitive dust and limit the grading area to no more than 5 acres per day. In addition, the DSF HCP provides clear direction on how some BACM should be implemented as follows: Each Covered Project Proponent shall ensure that active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately. This would include such measures as:

- sweeping local streets regularly during construction.
- applying dust palliatives to areas that are not under active construction.
- pre-water larger sites prior to initiation of grading, grade sites in phases timed to coincide with construction so that no sites are left graded and exposed to the elements; washing construction vehicles prior to leaving a construction site.
- Installing wind fencing around construction sites with signage that identifies who to call if dust is seen blowing from the site.
- Any other measures that, at the time of approval of individual development projects, must be implemented on a project-by-project basis.

AQ-2 The project applicant shall require that architectural coating products are used that do not exceed more than 5g/L VOC content.

AQ-3 The project applicant shall require that all diesel construction equipment used on -site be certified Tier 4 Final, with level 3 diesel particulate filters and oxidative catalysts that are at least 25 percent efficient. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. In addition, construction contractors shall be encouraged to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up off-road diesel vehicles, such as heavy-duty construction equipment. More information is at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm

AQ- 4 All new development projects, or sites where significant redevelopment will occur shall be required to provide sidewalks along and within the property boundaries.

AQ-5 All new development projects, or sites where significant redevelopment will occur shall require that any future tenants institute a ride sharing program and employee vanpool/shuttle that is open to all employees.

AQ-6 ~~All new residential project proponents shall ensure that the local school district serving the project area will offer a school bus program for children of future residents.~~ This MM applies to residential projects and does not apply to the proposed Project.

AQ-7 All new development projects, or sites where significant redevelopment will occur shall require that any future commercial tenants restrict delivery truck idling on the project site.

AQ-8 All future tenants must institute a recycling program that reduces waste to landfills by a minimum of 50 percent, or as stipulated by CalRecycle. The recycling program must include designated recycling bins at each proposed trash storage area and require all green waste to be stored in containers separate from other types of municipal solid waste.

AQ-9 ~~All new development projects, or sites where significant redevelopment will occur shall exceed 2013 Title 24, Part 6 Standards by 3 percent, and meet Green Building Code Standards~~. Current 2022 Title 24 CALGreen Green Building Code Standards would already exceed 2013 standards by over 3 percent, therefore this mitigation measure is no longer applicable.

AQ-10 All new development projects, or sites where significant redevelopment will occur shall be equipped with faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures.

AQ-11 Water-efficient irrigation systems shall be installed at all new development projects, or sites where significant redevelopment will occur that conforms to the requirements of Colton Municipal Code.

AQ-12 All new development projects, or sites where significant redevelopment will occur shall include ENERGY STAR-compliant appliances wherever appliances are needed in buildings

on-site and that natural gas only hearths be installed when needed. In addition, for new residential projects, outlets for electric or natural gas barbeques shall be installed.

AQ-13 All new development projects, or sites where significant redevelopment will shall be developed with high-efficiency lighting on-site that is at least 10 percent more efficient than standard lighting. In addition, the operation of a site's outdoor lighting shall be limited to the hours necessary to support the function of a land use at a project site, and for security purposes.

AQ-14 All new development projects, or sites where significant redevelopment will occur shall require that architectural coating products used for maintenance/re-application do not exceed more than 5g/L VOC content.

AQ-15 All new development projects, or sites where significant redevelopment will occur adjacent to or near conservation sites established in the HCP, shall include measures to reduce impacts associated with the operation of any development projects must be developed on a project-by-project basis depending on the type of land use being proposed and a site's proximity to the conservation areas identified in the HCP. These may include BMPs such as routine parking lot and street sweeping to reduce particulate matter; encouraging employees to use alternative modes of transportation and carpooling, and the development of workforce housing near employment generators such as the ARMC.

AQ-16 All new non-residential development projects, or sites where significant redevelopment will occur shall provide electric car charging stations for tenants (not just electric vehicle wiring per local ordinance). Also, provide designated areas for parking of zero emission vehicles (ZEVs) for car-sharing programs. This measure shall be implemented on a project-by-project basis at the discretion of the Development Services Director.

No additional mitigation measures are required.

Level of Significance: Less than significant impact. The Project would not result in any new or more severe impacts than previously analyzed in the FEIR.

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?

The City of Colton has a Climate Action Plan (CAP) that has a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020.[19] The City has exceeded this goal through a combination of State and County reduction measures, but the CAP also includes various local measures to further reduce GHG emissions. The CAP identifies a series of local measures to help guide the City in the areas of building energy, transportation, solid waste management, wastewater treatment, and water conveyance to further reduce community wide GHG emissions. Measures that are applicable to the

[19] City of Colton, *Colton Climate Action Plan*, 2015.

Project include meeting the City's waste diversion goal consistent with CALGreen, reducing the amount of water, energy, and fuels consumed, and demonstrating energy efficiency in new development. Project emissions have been quantified above and would not exceed the applicable GHG threshold. As the Project has existing light industrial uses currently occurring on the site, the Project would not conflict with the CAP's measures.

Pursuant to the requirements in AB 32, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program. The 2022 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the SB 32 2030 target. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets.

Because the Project is limited to light industrial uses the Scoping Plan's recommended measures are not directly applicable. In other words, there are no specific actions or measures to incorporate into the Project in order to comply with the Scoping Plan. However, the Project 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.

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. Therefore, the impacts would be less than significant.

Mitigation Measures: No additional mitigation beyond what is identified in the FEIR is required.

Level of Significance: Less than significant impact. The Project would not result in any new or more severe impacts than previously analyzed in the FEIR.

6 REFERENCES

1. California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, August 2010.
2. California Air Resources Board, *California's 2022 Scoping Plan for Achieving Carbon Neutrality,* 2022.
3. California Air Resources Board, *EMFAC2021 Volume III Technical Document*, March 21, 2021.
4. City of Colton, *Colton General Plan (Model Air Quality Element),* 1991.
5. City of Colton, *Colton Climate Action Plan*, 2015.
6. City of Colton, Colton General Plan (Model Air Quality Element), 1991.
7. City of Colton, Municipal Code, 2019.
8. Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007.
9. 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.
10. National Research Council, *Advancing the Science of Climate Change*, 2010.
11. San Bernardino County Transportation Authority, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, March 2014.
12. State of California, *Code of Regulations Section 15065.5a*, 2018.
13. Southern California Association of Governments, *Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy*, 2020.
14. South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,* October 2008.
15. South Coast Air Quality Management District, *High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results*, June 2014.
16. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #8*, 2009.
17. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, 2009.
18. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15*, 2010.
19. U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018.
20. U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, 2010.
21. U.S. EPA, *Overview of Greenhouse Gases*, 2018.

Appendix A

Greenhouse Gas Emissions Data

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

Colton 2245 W Valley Blvd - Unmitigated

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	37.30	1000sqft	0.86	37,301.00	0
Unrefrigerated Warehouse-No Rail	149.20	1000sqft	3.43	149,204.00	0
Parking Lot	3.73	Acre	3.73	162,478.80	0
City Park	0.98	Acre	0.98	42,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2024
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 - refer to site plan. landscape area shown as city park. parking area includes parking stalls, travel lanes, and other impervious surfaces

Construction Phase - applicant construction schedule

Demolition - applicant construction schedule

Grading -

Architectural Coating -

Vehicle Trips - trucks shown under warehouse: 88/149.2=0.5898123324396783 cars: 237/37.301=6.3537170585239 distribution trip length 33.2 SCAQMD Study

Water Mitigation - required by CA building code - not mitigation

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

Fleet Mix - refer to TIA report

Construction Off-road Equipment Mitigation - RULE 403-not mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	230.00	174.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	10.00	44.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.52
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1040e-003	0.00
tblFleetMix	LHD2	7.1040e-003	0.26
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	4.8300e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.22
tblFleetMix	OBUS	5.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

tblFleetMix	UBUS	2.5100e-004	0.00
tblLandUse	LandUseSquareFeet	37,300.00	37,301.00
tblLandUse	LandUseSquareFeet	149,200.00	149,204.00
tblLandUse	LandUseSquareFeet	42,688.80	42,638.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	33.20
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	6.35
tblVehicleTrips	ST_TR	1.74	0.59
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	6.35
tblVehicleTrips	SU_TR	1.74	0.59
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	6.35
tblVehicleTrips	WD_TR	1.74	0.59

2.0 Emissions Summary

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2933	2.7569	2.6311	6.0700e-003	1.0348	0.1188	1.1536	0.4225	0.1103	0.5327	0.0000	545.2482	545.2482	0.1145	0.0170	553.1772
2024	1.0006	0.8565	1.2204	2.7600e-003	0.1076	0.0352	0.1429	0.0290	0.0331	0.0621	0.0000	248.8957	248.8957	0.0347	8.8400e-003	252.3963
Maximum	**1.0006**	**2.7569**	**2.6311**	**6.0700e-003**	**1.0348**	**0.1188**	**1.1536**	**0.4225**	**0.1103**	**0.5327**	**0.0000**	**545.2482**	**545.2482**	**0.1145**	**0.0170**	**553.1772**

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					
2023	0.2933	2.7569	2.6311	6.0700e-003	0.4710	0.1188	0.5898	0.1832	0.1103	0.2934	0.0000	545.2478	545.2478	0.1145	0.0170	553.1768
2024	1.0006	0.8565	1.2204	2.7600e-003	0.0995	0.0352	0.1347	0.0270	0.0331	0.0601	0.0000	248.8956	248.8956	0.0347	8.8400e-003	252.3962
Maximum	**1.0006**	**2.7569**	**2.6311**	**6.0700e-003**	**0.4710**	**0.1188**	**0.5898**	**0.1832**	**0.1103**	**0.2934**	**0.0000**	**545.2478**	**545.2478**	**0.1145**	**0.0170**	**553.1768**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**50.06**	**0.00**	**44.11**	**53.44**	**0.00**	**40.56**	**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	**6-1-2023**	**8-31-2023**	1.5182	1.5182
2	**9-1-2023**	**11-30-2023**	1.2075	1.2075
3	**12-1-2023**	**2-29-2024**	0.8544	0.8544
4	**3-1-2024**	**5-31-2024**	1.0264	1.0264
5	**6-1-2024**	**8-31-2024**	0.3094	0.3094
		Highest	1.5182	1.5182

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	0.7738	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003
Energy	2.3100e-003	0.0210	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	155.0986	155.0986	0.0116	1.7700e-003	155.9167
Mobile	0.2167	2.3859	2.6799	0.0163	1.0050	0.0247	1.0297	0.2757	0.0236	0.2993	0.0000	1,568.7821	1,568.7821	0.0549	0.1766	1,622.7834
Waste						0.0000	0.0000		0.0000	0.0000	35.5275	0.0000	35.5275	2.0996	0.0000	88.0178
Water						0.0000	0.0000		0.0000	0.0000	13.0493	105.2891	118.3383	1.3492	0.0327	161.8195
Total	**0.9927**	**2.4069**	**2.7000**	**0.0164**	**1.0050**	**0.0263**	**1.0313**	**0.2757**	**0.0252**	**0.3009**	**48.5768**	**1,829.1746**	**1,877.7513**	**3.5153**	**0.2111**	**2,028.5424**

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	0.7738	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003
Energy	2.3100e-003	0.0210	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	155.0986	155.0986	0.0116	1.7700e-003	155.9167
Mobile	0.2167	2.3859	2.6799	0.0163	1.0050	0.0247	1.0297	0.2757	0.0236	0.2993	0.0000	1,568.7821	1,568.7821	0.0549	0.1766	1,622.7834
Waste						0.0000	0.0000		0.0000	0.0000	35.5275	0.0000	35.5275	2.0996	0.0000	88.0178
Water						0.0000	0.0000		0.0000	0.0000	10.4394	85.6638	96.1033	1.0795	0.0262	130.8956
Total	**0.9927**	**2.4069**	**2.7000**	**0.0164**	**1.0050**	**0.0263**	**1.0313**	**0.2757**	**0.0252**	**0.3009**	**45.9669**	**1,809.5494**	**1,855.5163**	**3.2456**	**0.2046**	**1,997.6185**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.37**	**1.07**	**1.18**	**7.67**	**3.09**	**1.52**

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	6/1/2023	8/1/2023	5	44	
2	Site Preparation	Site Preparation	6/1/2023	8/1/2023	5	44	
3	Grading	Grading	8/2/2023	11/21/2023	5	80	

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

4	Building Construction	Building Construction	8/31/2023	4/30/2024	5	174	
5	Paving	Paving	12/1/2023	1/31/2024	5	44	
6	Architectural Coating	Architectural Coating	4/1/2024	6/30/2024	5	65	

Acres of Grading (Site Preparation Phase): 66

Acres of Grading (Grading Phase): 80

Acres of Paving: 3.73

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 279,758; Non-Residential Outdoor: 93,253; Striped Parking Area: 9,749 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

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	1,784.00	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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	161.00	64.00	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	32.00	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

Clean Paved Roads

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

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1930	0.0000	0.1930	0.0292	0.0000	0.0292	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.4727	0.4322	8.5000e-004		0.0220	0.0220		0.0204	0.0204	0.0000	74.7826	74.7826	0.0209	0.0000	75.3061
Total	**0.0499**	**0.4727**	**0.4322**	**8.5000e-004**	**0.1930**	**0.0220**	**0.2150**	**0.0292**	**0.0204**	**0.0497**	**0.0000**	**74.7826**	**74.7826**	**0.0209**	**0.0000**	**75.3061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0800e-003	0.1037	0.0301	5.0000e-004	0.0154	1.0300e-003	0.0164	4.2200e-003	9.9000e-004	5.2100e-003	0.0000	49.5689	49.5689	2.1100e-003	7.8600e-003	51.9630
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	1.1500e-003	8.6000e-004	0.0107	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8260	2.8260	7.0000e-005	8.0000e-005	2.8507
Total	**3.2300e-003**	**0.1046**	**0.0408**	**5.3000e-004**	**0.0190**	**1.0500e-003**	**0.0200**	**5.1800e-003**	**1.0100e-003**	**6.1900e-003**	**0.0000**	**52.3949**	**52.3949**	**2.1800e-003**	**7.9400e-003**	**54.8137**

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

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0753	0.0000	0.0753	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.4727	0.4322	8.5000e-004		0.0220	0.0220		0.0204	0.0204	0.0000	74.7825	74.7825	0.0209	0.0000	75.3060
Total	**0.0499**	**0.4727**	**0.4322**	**8.5000e-004**	**0.0753**	**0.0220**	**0.0972**	**0.0114**	**0.0204**	**0.0318**	**0.0000**	**74.7825**	**74.7825**	**0.0209**	**0.0000**	**75.3060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0800e-003	0.1037	0.0301	5.0000e-004	0.0143	1.0300e-003	0.0154	3.9700e-003	9.9000e-004	4.9500e-003	0.0000	49.5689	49.5689	2.1100e-003	7.8600e-003	51.9630
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	1.1500e-003	8.6000e-004	0.0107	3.0000e-005	3.3400e-003	2.0000e-005	3.3500e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.8260	2.8260	7.0000e-005	8.0000e-005	2.8507
Total	**3.2300e-003**	**0.1046**	**0.0408**	**5.3000e-004**	**0.0177**	**1.0500e-003**	**0.0187**	**4.8600e-003**	**1.0100e-003**	**5.8600e-003**	**0.0000**	**52.3949**	**52.3949**	**2.1800e-003**	**7.9400e-003**	**54.8137**

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

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4325	0.0000	0.4325	0.2223	0.0000	0.2223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.6055	0.4014	8.4000e-004		0.0279	0.0279		0.0256	0.0256	0.0000	73.5915	73.5915	0.0238	0.0000	74.1866
Total	**0.0585**	**0.6055**	**0.4014**	**8.4000e-004**	**0.4325**	**0.0279**	**0.4603**	**0.2223**	**0.0256**	**0.2479**	**0.0000**	**73.5915**	**73.5915**	**0.0238**	**0.0000**	**74.1866**

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	1.3800e-003	1.0300e-003	0.0129	4.0000e-005	4.3400e-003	2.0000e-005	4.3600e-003	1.1500e-003	2.0000e-005	1.1700e-003	0.0000	3.3912	3.3912	9.0000e-005	9.0000e-005	3.4208
Total	**1.3800e-003**	**1.0300e-003**	**0.0129**	**4.0000e-005**	**4.3400e-003**	**2.0000e-005**	**4.3600e-003**	**1.1500e-003**	**2.0000e-005**	**1.1700e-003**	**0.0000**	**3.3912**	**3.3912**	**9.0000e-005**	**9.0000e-005**	**3.4208**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1687	0.0000	0.1687	0.0867	0.0000	0.0867	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.6055	0.4014	8.4000e-004		0.0279	0.0279		0.0256	0.0256	0.0000	73.5914	73.5914	0.0238	0.0000	74.1865
Total	**0.0585**	**0.6055**	**0.4014**	**8.4000e-004**	**0.1687**	**0.0279**	**0.1965**	**0.0867**	**0.0256**	**0.1123**	**0.0000**	**73.5914**	**73.5914**	**0.0238**	**0.0000**	**74.1865**

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	1.3800e-003	1.0300e-003	0.0129	4.0000e-005	4.0000e-003	2.0000e-005	4.0300e-003	1.0700e-003	2.0000e-005	1.0900e-003	0.0000	3.3912	3.3912	9.0000e-005	9.0000e-005	3.4208
Total	**1.3800e-003**	**1.0300e-003**	**0.0129**	**4.0000e-005**	**4.0000e-003**	**2.0000e-005**	**4.0300e-003**	**1.0700e-003**	**2.0000e-005**	**1.0900e-003**	**0.0000**	**3.3912**	**3.3912**	**9.0000e-005**	**9.0000e-005**	**3.4208**

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

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2833	0.0000	0.2833	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0684	0.7174	0.5900	1.1900e-003		0.0310	0.0310		0.0285	0.0285	0.0000	104.2425	104.2425	0.0337	0.0000	105.0853
Total	**0.0684**	**0.7174**	**0.5900**	**1.1900e-003**	**0.2833**	**0.0310**	**0.3143**	**0.1370**	**0.0285**	**0.1655**	**0.0000**	**104.2425**	**104.2425**	**0.0337**	**0.0000**	**105.0853**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0900e-003	1.5600e-003	0.0195	6.0000e-005	6.5800e-003	3.0000e-005	6.6100e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.1382	5.1382	1.3000e-004	1.4000e-004	5.1831
Total	**2.0900e-003**	**1.5600e-003**	**0.0195**	**6.0000e-005**	**6.5800e-003**	**3.0000e-005**	**6.6100e-003**	**1.7500e-003**	**3.0000e-005**	**1.7800e-003**	**0.0000**	**5.1382**	**5.1382**	**1.3000e-004**	**1.4000e-004**	**5.1831**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1105	0.0000	0.1105	0.0534	0.0000	0.0534	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0684	0.7174	0.5900	1.1900e-003		0.0310	0.0310		0.0285	0.0285	0.0000	104.2423	104.2423	0.0337	0.0000	105.0852
Total	**0.0684**	**0.7174**	**0.5900**	**1.1900e-003**	**0.1105**	**0.0310**	**0.1415**	**0.0534**	**0.0285**	**0.0820**	**0.0000**	**104.2423**	**104.2423**	**0.0337**	**0.0000**	**105.0852**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0900e-003	1.5600e-003	0.0195	6.0000e-005	6.0700e-003	3.0000e-005	6.1000e-003	1.6200e-003	3.0000e-005	1.6500e-003	0.0000	5.1382	5.1382	1.3000e-004	1.4000e-004	5.1831
Total	**2.0900e-003**	**1.5600e-003**	**0.0195**	**6.0000e-005**	**6.0700e-003**	**3.0000e-005**	**6.1000e-003**	**1.6200e-003**	**3.0000e-005**	**1.6500e-003**	**0.0000**	**5.1382**	**5.1382**	**1.3000e-004**	**1.4000e-004**	**5.1831**

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

3.5 Building Construction - 2023

Unmitigated Construction 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	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8351	100.8351	0.0240	0.0000	101.4347
Total	**0.0684**	**0.6257**	**0.7066**	**1.1700e-003**		**0.0304**	**0.0304**		**0.0286**	**0.0286**	**0.0000**	**100.8351**	**100.8351**	**0.0240**	**0.0000**	**101.4347**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1400e-003	0.1027	0.0416	5.0000e-004	0.0176	7.4000e-004	0.0183	5.0700e-003	7.0000e-004	5.7700e-003	0.0000	48.5204	48.5204	1.2600e-003	7.1700e-003	50.6888
Worker	0.0244	0.0182	0.2279	6.5000e-004	0.0768	3.9000e-004	0.0772	0.0204	3.6000e-004	0.0208	0.0000	59.9751	59.9751	1.5700e-003	1.6300e-003	60.4994
Total	**0.0275**	**0.1209**	**0.2695**	**1.1500e-003**	**0.0944**	**1.1300e-003**	**0.0955**	**0.0255**	**1.0600e-003**	**0.0265**	**0.0000**	**108.4955**	**108.4955**	**2.8300e-003**	**8.8000e-003**	**111.1881**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.5 Building Construction - 2023

Mitigated Construction 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	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8349	100.8349	0.0240	0.0000	101.4346
Total	**0.0684**	**0.6257**	**0.7066**	**1.1700e-003**		**0.0304**	**0.0304**		**0.0286**	**0.0286**	**0.0000**	**100.8349**	**100.8349**	**0.0240**	**0.0000**	**101.4346**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1400e-003	0.1027	0.0416	5.0000e-004	0.0164	7.4000e-004	0.0172	4.7900e-003	7.0000e-004	5.5000e-003	0.0000	48.5204	48.5204	1.2600e-003	7.1700e-003	50.6888
Worker	0.0244	0.0182	0.2279	6.5000e-004	0.0708	3.9000e-004	0.0712	0.0189	3.6000e-004	0.0193	0.0000	59.9751	59.9751	1.5700e-003	1.6300e-003	60.4994
Total	**0.0275**	**0.1209**	**0.2695**	**1.1500e-003**	**0.0872**	**1.1300e-003**	**0.0884**	**0.0237**	**1.0600e-003**	**0.0248**	**0.0000**	**108.4955**	**108.4955**	**2.8300e-003**	**8.8000e-003**	**111.1881**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.5 Building Construction - 2024

Unmitigated Construction 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	0.0640	0.5848	0.7033	1.1700e-003		0.0267	0.0267		0.0251	0.0251	0.0000	100.8544	100.8544	0.0239	0.0000	101.4506
Total	**0.0640**	**0.5848**	**0.7033**	**1.1700e-003**		**0.0267**	**0.0267**		**0.0251**	**0.0251**	**0.0000**	**100.8544**	**100.8544**	**0.0239**	**0.0000**	**101.4506**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0700e-003	0.1036	0.0409	4.9000e-004	0.0176	7.2000e-004	0.0183	5.0700e-003	6.9000e-004	5.7600e-003	0.0000	47.8524	47.8524	1.2200e-003	7.0700e-003	49.9900
Worker	0.0227	0.0162	0.2124	6.3000e-004	0.0768	3.7000e-004	0.0772	0.0204	3.4000e-004	0.0207	0.0000	58.6982	58.6982	1.4300e-003	1.5100e-003	59.1831
Total	**0.0258**	**0.1198**	**0.2533**	**1.1200e-003**	**0.0944**	**1.0900e-003**	**0.0954**	**0.0255**	**1.0300e-003**	**0.0265**	**0.0000**	**106.5505**	**106.5505**	**2.6500e-003**	**8.5800e-003**	**109.1730**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.5 Building Construction - 2024

Mitigated Construction 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	0.0640	0.5848	0.7033	1.1700e-003		0.0267	0.0267		0.0251	0.0251	0.0000	100.8542	100.8542	0.0239	0.0000	101.4505
Total	**0.0640**	**0.5848**	**0.7033**	**1.1700e-003**		**0.0267**	**0.0267**		**0.0251**	**0.0251**	**0.0000**	**100.8542**	**100.8542**	**0.0239**	**0.0000**	**101.4505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0700e-003	0.1036	0.0409	4.9000e-004	0.0164	7.2000e-004	0.0172	4.7900e-003	6.9000e-004	5.4900e-003	0.0000	47.8524	47.8524	1.2200e-003	7.0700e-003	49.9900
Worker	0.0227	0.0162	0.2124	6.3000e-004	0.0708	3.7000e-004	0.0712	0.0189	3.4000e-004	0.0193	0.0000	58.6982	58.6982	1.4300e-003	1.5100e-003	59.1831
Total	**0.0258**	**0.1198**	**0.2533**	**1.1200e-003**	**0.0872**	**1.0900e-003**	**0.0883**	**0.0237**	**1.0300e-003**	**0.0248**	**0.0000**	**106.5505**	**106.5505**	**2.6500e-003**	**8.5800e-003**	**109.1730**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0108	0.1070	0.1531	2.4000e-004		5.3600e-003	5.3600e-003		4.9300e-003	4.9300e-003	0.0000	21.0282	21.0282	6.8000e-003	0.0000	21.1982
Paving	2.3300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0132**	**0.1070**	**0.1531**	**2.4000e-004**		**5.3600e-003**	**5.3600e-003**		**4.9300e-003**	**4.9300e-003**	**0.0000**	**21.0282**	**21.0282**	**6.8000e-003**	**0.0000**	**21.1982**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.1200e-003	1.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3488	1.3488	4.0000e-005	4.0000e-005	1.3606
Total	**5.5000e-004**	**4.1000e-004**	**5.1200e-003**	**1.0000e-005**	**1.7300e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.3488**	**1.3488**	**4.0000e-005**	**4.0000e-005**	**1.3606**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0108	0.1070	0.1531	2.4000e-004		5.3600e-003	5.3600e-003		4.9300e-003	4.9300e-003	0.0000	21.0282	21.0282	6.8000e-003	0.0000	21.1982
Paving	2.3300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0132**	**0.1070**	**0.1531**	**2.4000e-004**		**5.3600e-003**	**5.3600e-003**		**4.9300e-003**	**4.9300e-003**	**0.0000**	**21.0282**	**21.0282**	**6.8000e-003**	**0.0000**	**21.1982**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.1200e-003	1.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.3000e-004	1.0000e-005	4.3000e-004	0.0000	1.3488	1.3488	4.0000e-005	4.0000e-005	1.3606
Total	**5.5000e-004**	**4.1000e-004**	**5.1200e-003**	**1.0000e-005**	**1.5900e-003**	**1.0000e-005**	**1.6000e-003**	**4.3000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.3488**	**1.3488**	**4.0000e-005**	**4.0000e-005**	**1.3606**

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

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.1095	0.1682	2.6000e-004		5.3900e-003	5.3900e-003		4.9600e-003	4.9600e-003	0.0000	23.0305	23.0305	7.4500e-003	0.0000	23.2167
Paving	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.1095**	**0.1682**	**2.6000e-004**		**5.3900e-003**	**5.3900e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**23.0305**	**23.0305**	**7.4500e-003**	**0.0000**	**23.2167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.0000e-004	5.2300e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4458	1.4458	4.0000e-005	4.0000e-005	1.4577
Total	**5.6000e-004**	**4.0000e-004**	**5.2300e-003**	**2.0000e-005**	**1.8900e-003**	**1.0000e-005**	**1.9000e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.4458**	**1.4458**	**4.0000e-005**	**4.0000e-005**	**1.4577**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.1095	0.1682	2.6000e-004		5.3900e-003	5.3900e-003		4.9600e-003	4.9600e-003	0.0000	23.0305	23.0305	7.4500e-003	0.0000	23.2167
Paving	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.1095**	**0.1682**	**2.6000e-004**		**5.3900e-003**	**5.3900e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**23.0305**	**23.0305**	**7.4500e-003**	**0.0000**	**23.2167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.0000e-004	5.2300e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7500e-003	4.7000e-004	1.0000e-005	4.7000e-004	0.0000	1.4458	1.4458	4.0000e-005	4.0000e-005	1.4577
Total	**5.6000e-004**	**4.0000e-004**	**5.2300e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7500e-003**	**4.7000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4458**	**1.4458**	**4.0000e-005**	**4.0000e-005**	**1.4577**

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

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**0.8929**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

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	3.3700e-003	2.4000e-003	0.0315	9.0000e-005	0.0114	6.0000e-005	0.0115	3.0300e-003	5.0000e-005	3.0800e-003	0.0000	8.7165	8.7165	2.1000e-004	2.2000e-004	8.7885
Total	**3.3700e-003**	**2.4000e-003**	**0.0315**	**9.0000e-005**	**0.0114**	**6.0000e-005**	**0.0115**	**3.0300e-003**	**5.0000e-005**	**3.0800e-003**	**0.0000**	**8.7165**	**8.7165**	**2.1000e-004**	**2.2000e-004**	**8.7885**

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

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**0.8929**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

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	3.3700e-003	2.4000e-003	0.0315	9.0000e-005	0.0105	6.0000e-005	0.0106	2.8100e-003	5.0000e-005	2.8600e-003	0.0000	8.7165	8.7165	2.1000e-004	2.2000e-004	8.7885
Total	**3.3700e-003**	**2.4000e-003**	**0.0315**	**9.0000e-005**	**0.0105**	**6.0000e-005**	**0.0106**	**2.8100e-003**	**5.0000e-005**	**2.8600e-003**	**0.0000**	**8.7165**	**8.7165**	**2.1000e-004**	**2.2000e-004**	**8.7885**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, 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	0.2167	2.3859	2.6799	0.0163	1.0050	0.0247	1.0297	0.2757	0.0236	0.2993	0.0000	1,568.7821	1,568.7821	0.0549	0.1766	1,622.7834
Unmitigated	0.2167	2.3859	2.6799	0.0163	1.0050	0.0247	1.0297	0.2757	0.0236	0.2993	0.0000	1,568.7821	1,568.7821	0.0549	0.1766	1,622.7834

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	236.99	236.99	236.99	1,432,010	1,432,010
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	88.00	88.00	88.00	1,063,462	1,063,462
Total	324.99	324.99	324.99	2,495,473	2,495,473

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

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 Rail	16.60	8.40	33.20	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.540566	0.056059	0.172680	0.136494	0.026304	0.007104	0.011680	0.017449	0.000554	0.000251	0.025076	0.000954	0.004830
General Office Building	0.577752	0.056059	0.172680	0.136494	0.026304	0.000000	0.000000	0.000000	0.000554	0.000251	0.025076	0.000000	0.004830
Parking Lot	0.540566	0.056059	0.172680	0.136494	0.026304	0.007104	0.011680	0.017449	0.000554	0.000251	0.025076	0.000954	0.004830
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.260000	0.220000	0.520000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	132.2673	132.2673	0.0112	1.3500e-003	132.9497
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	132.2673	132.2673	0.0112	1.3500e-003	132.9497
NaturalGas Mitigated	2.3100e-003	0.0210	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	22.8313	22.8313	4.4000e-004	4.2000e-004	22.9670
NaturalGas Unmitigated	2.3100e-003	0.0210	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	22.8313	22.8313	4.4000e-004	4.2000e-004	22.9670

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, 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					
City Park	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
General Office Building	127942	6.9000e-004	6.2700e-003	5.2700e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	6.8275	6.8275	1.3000e-004	1.3000e-004	6.8681
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	299900	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0038	16.0038	3.1000e-004	2.9000e-004	16.0989
Total		**2.3100e-003**	**0.0210**	**0.0176**	**1.3000e-004**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**22.8313**	**22.8313**	**4.4000e-004**	**4.2000e-004**	**22.9670**

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, 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					
City Park	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
General Office Building	127942	6.9000e-004	6.2700e-003	5.2700e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	6.8275	6.8275	1.3000e-004	1.3000e-004	6.8681
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	299900	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0038	16.0038	3.1000e-004	2.9000e-004	16.0989
Total		**2.3100e-003**	**0.0210**	**0.0176**	**1.3000e-004**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**22.8313**	**22.8313**	**4.4000e-004**	**4.2000e-004**	**22.9670**

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			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	342796	60.7934	5.1300e-003	6.2000e-004	61.1070
Parking Lot	56867.6	10.0852	8.5000e-004	1.0000e-004	10.1372
Unrefrigerated Warehouse-No Rail	346153	61.3887	5.1800e-003	6.3000e-004	61.7054
Total		**132.2673**	**0.0112**	**1.3500e-003**	**132.9497**

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			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	342796	60.7934	5.1300e-003	6.2000e-004	61.1070
Parking Lot	56867.6	10.0852	8.5000e-004	1.0000e-004	10.1372
Unrefrigerated Warehouse-No Rail	346153	61.3887	5.1800e-003	6.3000e-004	61.7054
Total		**132.2673**	**0.0112**	**1.3500e-003**	**132.9497**

6.0 Area Detail

6.1 Mitigation Measures Area

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	0.7738	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003
Unmitigated	0.7738	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003
Total	**0.7738**	**2.0000e-005**	**2.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.7500e-003**	**4.7500e-003**	**1.0000e-005**	**0.0000**	**5.0600e-003**

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	0.0887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7500e-003	4.7500e-003	1.0000e-005	0.0000	5.0600e-003
Total	**0.7738**	**2.0000e-005**	**2.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.7500e-003**	**4.7500e-003**	**1.0000e-005**	**0.0000**	**5.0600e-003**

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

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, 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	96.1033	1.0795	0.0262	130.8956
Unmitigated	118.3383	1.3492	0.0327	161.8195

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.16765	2.3006	1.9000e-004	2.0000e-005	2.3125
General Office Building	6.62947 / 4.06322	25.4179	0.2180	5.3400e-003	32.4587
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	34.5025 / 0	90.6198	1.1310	0.0274	127.0482
Total		**118.3383**	**1.3492**	**0.0327**	**161.8195**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.09642	2.1603	1.8000e-004	2.0000e-005	2.1714
General Office Building	5.30358 / 3.81537	21.4471	0.1745	4.2800e-003	27.0855
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	27.602 / 0	72.4958	0.9048	0.0219	101.6386
Total		**96.1033**	**1.0795**	**0.0262**	**130.8956**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Colton 2245 W Valley Blvd - Unmitigated - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.5275	2.0996	0.0000	88.0178
Unmitigated	35.5275	2.0996	0.0000	88.0178

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.08	0.0162	9.6000e-004	0.0000	0.0402
General Office Building	34.69	7.0418	0.4162	0.0000	17.4457
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	140.25	28.4695	1.6825	0.0000	70.5319
Total		**35.5275**	**2.0996**	**0.0000**	**88.0178**

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			
City Park	0.08	0.0162	9.6000e-004	0.0000	0.0402
General Office Building	34.69	7.0418	0.4162	0.0000	17.4457
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	140.25	28.4695	1.6825	0.0000	70.5319
Total		**35.5275**	**2.0996**	**0.0000**	**88.0178**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

Equipment Type	Number

11.0 Vegetation

	Project KSF	Forklifts	Hostlers
Warehouse	149.204	3	1

Statistical Measure	Number of Pallet Jacks/Forklifts at Facility per Thousand Square Feet of Building Area
Minimum	0.02
Maximum	0.4
Average	0.12

Source: *SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results* , June 2014, Table 9 Pallet Jack/Forklift Usage, page 9.
http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf

Hostlers

3.6 hostlers per million sf

Electric Equipment Emissions

Equipment	Number of Equipment[1]	Hours per Day[1]	Days per Year[1]	Equipment Size[2] (hp)	Equipment Size (kW)	Load Factor[2]	SCE electricity emission factor[3] (MT CO_2e/MWh)	Emissions (MT CO_2e/year)
Colton 2245 W. Valley Blvd.								
Forklift	3	12	365	89	66.4	0.20	0.156	27.1
Yard Truck	1	12	365	190	141.7	0.44	0.156	22.9
								50.1

Notes:

[1] Project-specific data.

[2] Equipment size and load factors based on CalEEMod Appendix D, Table 3.3.

[3] CO_2e intensity factor for SCE accounts for the projected RPS improvements consistent with SB 100.

Conversion Factors:

0.7457 kW/hp

1000 kW/MW

1 MT = 2204.623 pounds

Emergency Backup Generator Emissions 365 24 8760

	Fuel Type	Quantity	HP	LF	Hours/Year per Unit	Hours per Day	HP-hr per day	Total hp-hr per year
Standard Generator	Diesel	1	750	0.74	50	1	750	37,500

	HC	ROG	TOG	CO	NO_X	CO_2	PM_{10}	$PM_{2.5}$	PM	SO_X
Emissions Rates (g/hp-hr)	0.14	1.020583	1.124909	2.6	2.85	521.6311	0.15	0.15	0.15	0.00494
Pounds/Day	0.23	1.69	1.86	4.30	4.71	862.50	0.25	0.25	0.25	0.01
Tons/Year	0.01	0.04	0.05	0.11	0.12	21.56	0.01	0.01	0.01	0.00
Metric tons/year						19.56				

Source: Emissions rates from CalEEMod Guide Appenix D, Table 12.1