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# **Majestic Chino Flight**

## **ENERGY ANALYSIS**

### **CITY OF CHINO**

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SEPTEMBER 27, 2022



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## LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AGSP	Airport Gateway Specific Plan
AQIA	<i>Majestic Chino Flight Air Quality Impact Analysis</i>
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Chino
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHD1/LHD2	Light-Heavy Duty Trucks
MDV	Medium Duty Trucks
MHD	Medium-Heavy Duty Trucks
MMcfd	Million Cubic Feet Per Day

mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Majestic Chino Flight
PV	Photovoltaic
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century
U.S.	United States
VMT	Vehicle Miles Traveled

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## EXECUTIVE SUMMARY

### ES.1 SUMMARY OF FINDINGS

The results of this *Majestic Chino Flight Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the *CEQA Guidelines (CEQA Guidelines)* (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	<i>Less Than Significant</i>	<i>n/a</i>
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	<i>Less Than Significant</i>	<i>n/a</i>

### ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 6 of this report.

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# 1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Majestic Chino Flight Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Chino (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

## 1.1 SITE LOCATION

The proposed Project is located on the southeast corner of Flight Avenue and Remington Avenue in the City of Chino, as shown on Exhibit 1-A. The nearest noise sensitive residential homes are generally located south of the project site across Kimball Avenue.

## 1.2 PROJECT DESCRIPTION

The Project is proposed to consist of the development of a 925,362 square foot (sf) single warehouse building. For the purposes of this analysis, the Project has been evaluated assuming 138,804 sf of high-cube cold storage warehouse use and 786,558 sf of high-cube fulfilment center use (15% and 85% of the overall building square footage, respectively). It is anticipated that the Project would operate seven days a week 24 hours a day and be developed in a single phase with an anticipated Opening Year of 2025. The site plan for the proposed Project is shown on Exhibit 1-B.

EXHIBIT 1-A: LOCATION MAP

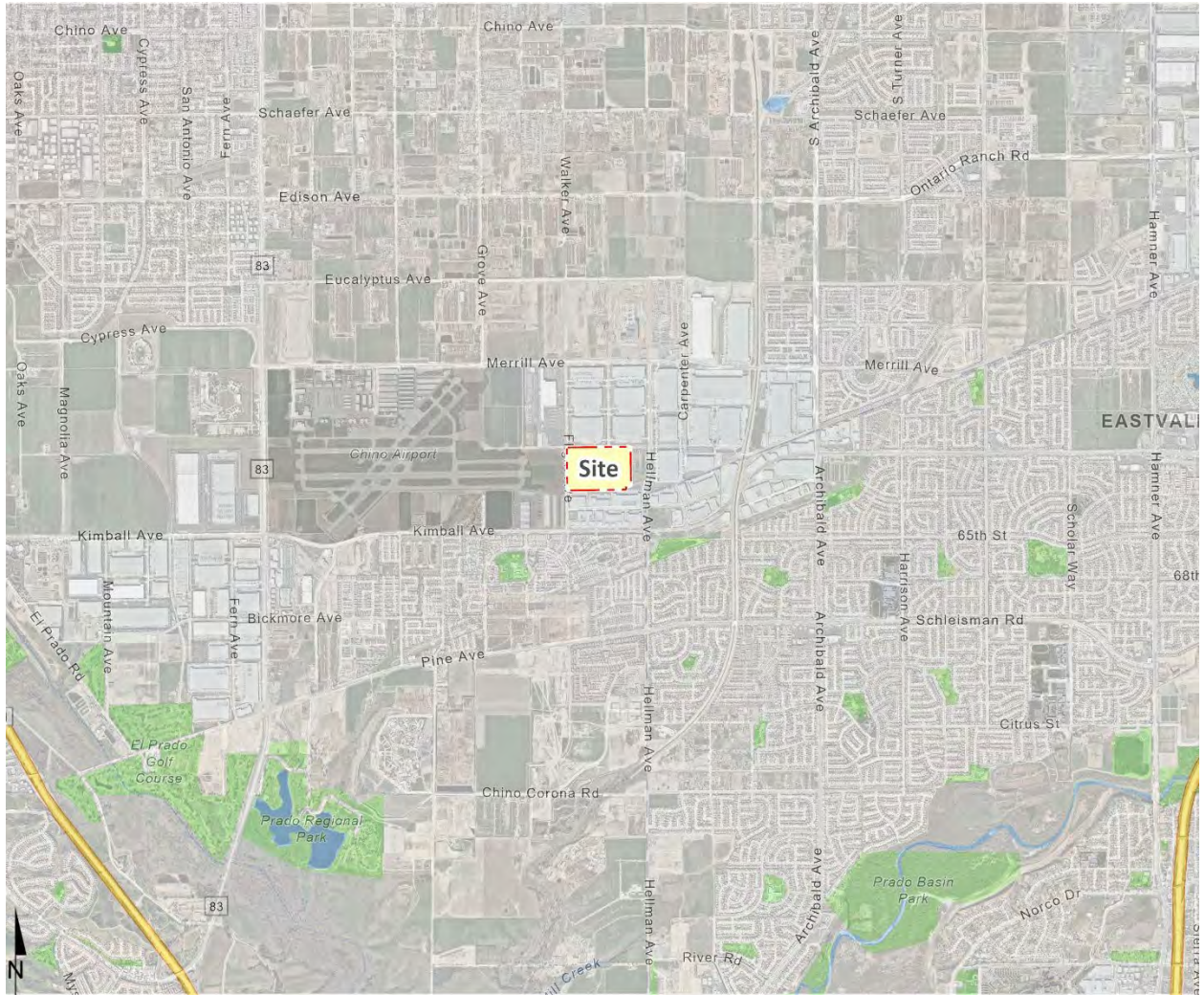
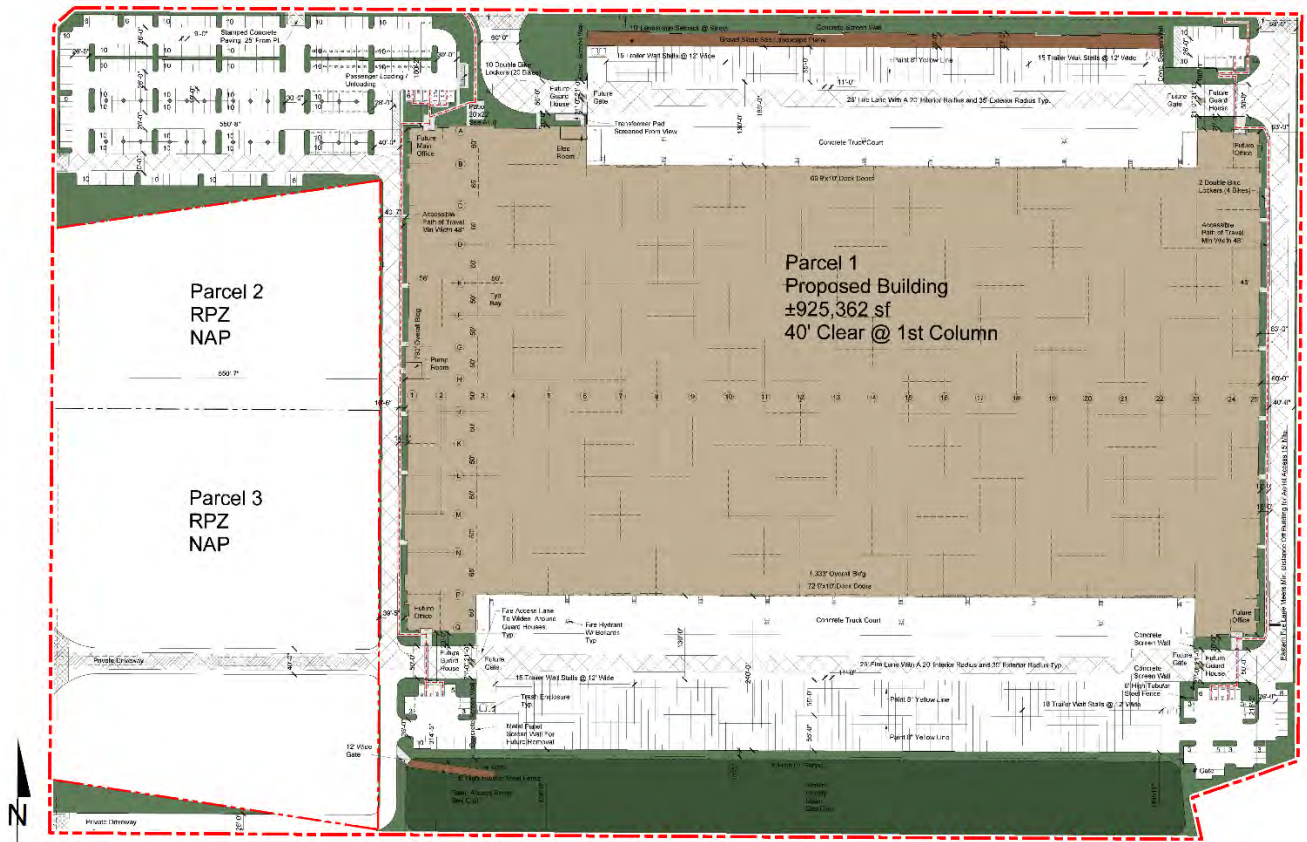


EXHIBIT 1-B: SITE PLAN



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## 2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

### 2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2020, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and included (2):

- As of 2020, approximately 6,923 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2020, approximately 524 million barrels of petroleum
- As of 2020, approximately 2,075 billion cubic feet of natural gas
- As of 2020, approximately 1 million short tons of coal

The California Energy Commission's (CEC) Transportation Energy Demand Forecast released the 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting CEC's projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030 (3)
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030 (3)
- Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2019 (4)

The most recent data provided by the EIA for energy use in California by demand sector is from 2020 and is reported as follows:

- Approximately 34.0% transportation
- Approximately 24.6% industrial
- Approximately 21.8% residential
- Approximately 19.6% commercial (5)

In 2021, total system electric generation for California was 277,764 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 194,127 GWh which accounted for approximately 70% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (18%) (6). Natural gas is the main source for electricity generation at 50.19% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2021)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	% of Imports	Total California Energy Mix	Total California Power Mix
Coal	303	0.2%	181	7,788	7,969	9.5%	8,272	3.0%
Natural Gas	97,431	50.2%	45	7,880	7,925	9.5%	105,356	379.0%
Oil	37	0.0%	-	-	-	0.0%	37	0.0%
Other (Waste Heat/Petroleum Coke)	382	0.2%	68	15	83	0.1%	465	0.2%
Nuclear	16,477	8.5%	524	8,756	9,281	11.1%	25,758	9.3%
Large Hydro	12,036	6.2%	12,042	1,578	13,620	16.3%	25,656	9.2%
Unspecified	-	0.0%	8,156	10,731	18,887	22.6%	18,887	6.8%
Total Thermal and Non-Renewables	<b>126,666</b>	<b>65.2%</b>	<b>21,017</b>	<b>36,748</b>	<b>57,764</b>	<b>6910.0%</b>	<b>184,431</b>	<b>66.4%</b>
Biomass	5,381	2.8%	864	26	890	1.1%	6,271	2.3%
Geothermal	11,116	5.7%	192	1,906	2,098	2.5%	13,214	4.8%
Small Hydro	2,531	1.3%	304	1	304	0.4%	2,835	1.0%
Solar	33,260	17.1%	220	5,979	6,199	7.4%	39,458	14.2%
Wind	15,173	7.8%	9,976	6,405	16,381	19.6%	31,555	11.4%
Total Renewables	<b>67,461</b>	<b>34.8%</b>	<b>11,555</b>	<b>14,317</b>	<b>25,872</b>	<b>3090.0%</b>	<b>93,333</b>	<b>33.6%</b>
<b>SYSTEM TOTALS</b>	<b>194,127</b>	<b>100.0%</b>	<b>32,572</b>	<b>51,064</b>	<b>83,636</b>	<b>100.0%</b>	<b>277,764</b>	<b>100.0%</b>

Source: CECs 2021 Total System Electric Generation

An updated summary of, and context for energy consumption and energy demands within the State is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below (7):

- In 2021, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2021, it ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states and, the state accounted for 15% of the nation’s jet fuel consumption and 10% of motor gasoline consumption in 2020.
- In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.
- In 2021, California was the nation’s top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand.
- In 2021, California was the fourth-largest electricity producer in the nation, but the state was also the nation’s second-largest consumer of electricity, and in 2020, it received about 30% of its electricity supply from generating facilities outside of California, including imports from Mexico.

As indicated above, California is one of the nation’s leading energy-producing states, and California’s per capita energy use is among the nation’s most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

## 2.2 ELECTRICITY

The usage associated with electricity use were calculated using CalEEMod Version 2022.1. The Southern California region’s electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board’s once-through cooling policy, the retirement of San Onofre complicated the situation. California Independent Service Operator (ISO) studies revealed the extent to which the South Coast Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (8). Similarly, the subsequent 2021 IEPR’s provides information and policy recommendations on advancing a clean, reliable, and affordable energy system.

California’s electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California ISO is a nonprofit public benefit

corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (9).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (10).

Table 2-2, SCE's specific proportional shares of electricity sources in 2020. As indicated in Table 2-2, the 2020 SCE Power Mix has renewable energy at 30.9% of the overall energy resources. Geothermal resources are at 5.5%, wind power is at 9.4%, large hydroelectric sources are at 3.3%, solar energy is at 15.1%, and coal is at 0% (11).

TABLE 2-2: SCE 2020 POWER CONTENT MIX

Energy Resources	2020 SCE Power Mix
<b>Eligible Renewable</b>	<b>30.9%</b>
Biomass & Waste	0.1%
Geothermal	5.5%
Eligible Hydroelectric	0.8%
Solar	15.1%
Wind	9.4%
<b>Coal</b>	<b>0.0%</b>
<b>Large Hydroelectric</b>	<b>3.3%</b>
<b>Natural Gas</b>	<b>15.2%</b>
<b>Nuclear</b>	<b>8.4%</b>
<b>Other</b>	<b>0.3%</b>
Unspecified Sources of power*	42.0%
<b>Total</b>	<b>100%</b>

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

## 2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

*"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*

*California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*

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

*A significant amount of gas (about 19%, or 1131 MMcf, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.*

*SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.*

*Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.*

*The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.*

*Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.*

*PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet*

*California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements .*

*Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.*

*The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.*

*Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.*

*In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).*

*In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A*

certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (12)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

Based on information provided by the Project applicant, no natural gas would be used as a result of the Project, and as such use of natural gas is not considered in the analysis.

## 2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (13), and those vehicles consume an estimated 17.2 billion gallons of fuel each year<sup>1</sup>. Gasoline (and other vehicle fuels) are

<sup>1</sup> Fuel consumptions estimated utilizing information from EMFAC2021.

commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (13). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 10% of the nation's total consumption. The state is the largest U.S. consumer of motor gasoline and jet fuel, and 85% of the petroleum consumed in California is used in the transportation sector (14).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2019, about 37% of the natural gas delivered to consumers went to the state's industrial sector, and about 28% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the state's utility-scale electricity generation in 2019. The residential sector, where two-thirds of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (14).

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### 3 REGULATORY BACKGROUND

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

#### 3.1 FEDERAL REGULATIONS

##### 3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

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

##### 3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21<sup>ST</sup> CENTURY (TEA-21)

TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

#### 3.2 CALIFORNIA REGULATIONS

##### 3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2021 IEPR was adopted February 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2021 IEPR provides the results

of the CEC’s assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. Additionally, the 2021 IEPR provides the results of the CEC’s assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs (15).

### **3.2.2 STATE OF CALIFORNIA ENERGY PLAN**

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

### **3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS**

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code 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. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made (16).

### **3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS**

California 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. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

### **3.2.5 CALIFORNIA’S RENEWABLE PORTFOLIO STANDARD (RPS)**

First established in 2002 under Senate Bill (SB) 1078, California’s Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (17).

### **3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)**

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

### **3.2.7 EXECUTIVE ORDER N-79-20 AND ADVANCED CLEAN CARS II**

On August 25, 2022 CARB approved the Advanced Clean Cars II rule, which codifies the goals set out in Executive Order N-79-20 and establishes a year-by-year roadmap such that by 2035, 100% of new cars and light trucks sold in California will be zero-emission vehicles. Under this regulation, automakers are required to accelerate deliveries of zero-emission light-duty vehicles, beginning with model year 2026. CARB estimates that between 2026 and 2040, the regulation would reduce GHG emissions by a cumulative 395 million metric tons, equivalent to reducing petroleum use by 915 million barrels.

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## 4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

### 4.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (18), states that the means of achieving the goal of energy conservation includes the following:

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

In compliance with Appendix G of the *State CEQA Guidelines* (19), this report analyzes the Project's anticipated energy use during construction and operations to determine if the Project would:

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

### 4.2 METHODOLOGY

Information from the CalEEMod Version 2022.1 outputs for the *Majestic Chino Flight Air Quality Impact Analysis* (AQIA) (20) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

#### 4.2.1 CAL EEMOD

In May 2022, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (21). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendices 4.1 through 4.2.

#### 4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMISSIONS FACTOR model (EMFAC2021) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (22). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of

analysis, the 2024 and 2025 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Outputs from the EMFAC2021 model run is provided in Appendix 4.3.

### 4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

#### 4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

##### CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in January 2024 and would last through February 2025 (20). The construction schedule utilized in the analysis, shown in Table 4-1, represents a “worst-case” analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (23).

**TABLE 4-1: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Days
Site Preparation	01/15/2024	02/14/2024	23
Grading	02/14/2024	06/26/2024	96
Building Construction	04/25/2024	12/31/2024	179
Paving	11/20/2024	02/05/2025	56
Architectural Coating	07/25/2024	12/11/2024	100

##### PROJECT CONSTRUCTION POWER COST

The *2022 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of \$2.41, which was used to calculate the Project’s total construction power cost (24).

As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$62,805.21.

**TABLE 4-2: CONSTRUCTION POWER COST**

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
High-Cube Cold Storage	\$2.41	138.804	13	\$4,348.74
High-Cube Fulfillment	\$2.41	786.558	13	\$24,642.85
Landscape	\$2.41	336.477	13	\$10,541.82
Parking	\$2.41	246.222	13	\$7,714.14
Other Asphalt Surfaces	\$2.41	496.574	13	\$15,557.66
<b>CONSTRUCTION POWER COST</b>				<b>\$62,805.21</b>

#### 4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

#### PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of June 1, 2022, SCE's general service rate is \$0.13 per kilowatt hours (kWh) of electricity for industrial services (25). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 473,252 kWh.

**TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE**

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
High-Cube Cold Storage	\$0.13	32,769
High-Cube Fulfillment	\$0.13	185,689
Landscape	\$0.13	79,435
Parking	\$0.13	58,128
Other Asphalt Surfaces	\$0.13	117,230
<b>CONSTRUCTION ELECTRICITY USAGE</b>		<b>473,252</b>

#### 4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

#### CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

**TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Construction Activity	Equipment	Amount	Hours Per Day
Site Preparation	Crawler Tractors	2	8
	Rubber Tired Dozers	2	8
Grading	Water Pull/Water Truck	2	8
	Excavators	2	8
	Graders	1	8
	Blade	1	8
	Scrapers	5	8
Building Construction	Cranes	1	8
	Crawler Tractors	2	8
	Forklifts	2	8
	Generator Sets	1	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

**PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION**

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (26). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered, which is consistent with industry standards.

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region<sup>2</sup>. As presented in Table 4-5, Project construction activities would consume an estimated 86,359 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose.

<sup>2</sup> Based on Appendix A of the CalEEMod User’s Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Site Preparation	23	Rubber Tired Dozers	367	2	8	0.40	2,349	2,920
		Crawler Tractors	87	2	8	0.43	599	744
Grading	96	Excavators	36	2	8	0.38	219	1,136
		Graders	148	1	8	0.41	485	2,519
		Scrapers	423	5	8	0.48	8,122	42,145
		Off-Highway Trucks	376	2	8	0.38	2,286	11,863
		Other Construction Equipment	82	1	8	0.42	276	1,430
Building Construction	179	Cranes	367	1	8	0.29	851	8,238
		Forklifts	82	2	8	0.20	262	2,539
		Generator Sets	14	1	8	0.74	83	802
		Welders	46	1	8	0.45	166	1,602
		Crawler Tractors	87	2	8	0.43	599	5,791
Paving	56	Pavers	81	2	8	0.42	544	1,648
		Paving Equipment	89	2	8	0.36	513	1,552
		Rollers	36	2	8	0.38	219	663
Architectural Coating	100	Air Compressors	37	1	8	0.48	142	768
<b>CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)</b>								<b>86,359</b>

#### 4.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul truck commuting to and from the site. The number of workers and vendor trips are presented below in Table 4-6. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

**TABLE 4-6: CONSTRUCTION TRIPS AND VMT**

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Site Preparation	10	8	0
Grading	28	33	0
Building Construction	389	60	0
Paving	15	19	0
Architectural Coating	78	33	0

#### 4.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips (personal vehicles used by workers commuting to the Project from home) would generate an estimated 1,692,306 VMT during the 13 months of construction (20). Based on CalEEMod methodology, it is assumed that 50% of all construction worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1<sup>3</sup>), and 25% are from light-duty-trucks (LDT2<sup>4</sup>). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (22). EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2024 and 2025 calendar years. Data from EMFAC2021 is shown in Appendix 4.3.

As shown in Table 4-7, the estimated annual fuel consumption resulting from Project construction worker trips is 61,109 gallons during full construction of the Project. It should be noted that construction worker trips would represent a “single-event” gasoline fuel demand and would not require ongoing or permanent commitment of fuel resources for this purpose.

<sup>3</sup> Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

<sup>4</sup> Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

**TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES**

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2024	LDA						
	Site Preparation	23	5	18.5	2,128	31.57	67
	Grading	96	14	18.5	24,864	31.57	787
	Building Construction	179	195	18.5	645,743	31.57	20,452
	Paving	30	8	18.5	4,440	31.57	141
	Architectural Coating	100	39	18.5	72,150	31.57	2,285
	LDT1						
	Site Preparation	23	3	18.5	1,277	24.59	52
	Grading	96	7	18.5	12,432	24.59	506
	Building Construction	179	98	18.5	324,527	24.59	13,196
	Paving	30	4	18.5	2,220	24.59	90
	Architectural Coating	100	20	18.5	37,000	24.59	1,505
	LDT2						
	Site Preparation	23	3	18.5	1,277	24.51	52
	Grading	96	7	18.5	12,432	24.51	507
	Building Construction	179	98	18.5	324,527	24.51	13,243
	Paving	30	4	18.5	2,220	24.51	91
	Architectural Coating	100	20	18.5	37,000	24.51	1,510
2025	LDA						
	Building Construction	26	195	18.5	93,795	32.57	2,880
	LDT1						
	Building Construction	26	98	18.5	47,138	25.11	1,877
	LDT2						
Building Construction	26	98	18.5	47,138	25.24	1,868	
<b>TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION</b>							<b>61,109</b>

**4.3.6 CONSTRUCTION VENDOR FUEL ESTIMATES**

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 201,430 VMT along area roadways for the Project over the duration of construction activity (20). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD) and 50% of all vendor trips are from heavy-heavy duty trucks (HHD). These assumptions are consistent with the CalEEMod defaults utilized within

the within the AQIA (20). Vehicle fuel efficiencies for MHDs and HHDs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHD and HHD vehicle classes within the California sub-area for the 2024 and 2025 calendar years. Data from EMFAC2021 is shown in Appendix 4.3.

Based on Table 4-8, it is estimated that 28,790 gallons of fuel will be consumed related to construction vendor trips during full construction of the Project. It should be noted that Project construction vendor trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

**TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES**

Year	Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2024	MHD						
	Site Preparation	23	4	10.2	938	8.32	113
	Grading	96	17	10.2	16,646	8.32	2,002
	Building Construction	179	30	10.2	54,774	8.32	6,587
	Paving	30	10	10.2	3,060	8.32	368
	Architectural Coating	100	17	10.2	17,340	8.32	2,085
	HHD (Vendor)						
	Site Preparation	23	4	10.2	938	6.03	156
	Grading	96	17	10.2	16,646	6.03	2,763
	Building Construction	179	30	10.2	54,774	6.03	9,091
	Paving	30	10	10.2	3,060	6.03	508
	Architectural Coating	100	17	10.2	17,340	6.03	2,878
2025	MHD						
	Building Construction	26	30	10.2	7,956	8.43	943
	HHD (Vendor)						
Building Construction	26	30	10.2	7,956	6.13	1,298	
<b>TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION</b>							<b>28,790</b>

**4.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES**

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require

the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.” In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

#### **4.4 OPERATIONAL ENERGY DEMANDS**

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

#### 4.4.1 TRANSPORTATION FUEL DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (22). EMFAC2021 was run for the San Bernardino County area for the 2025 calendar year. Data from EMFAC2021 is shown in Appendix 4.3.

In order to account for the possibility of refrigerated uses (cold storage), it is assumed that all trucks accessing this land use are presumed to also have transport refrigeration units (TRUs). Therefore, for modeling purposes 53 trucks are assumed to be trucks with TRUs. TRUs are also accounted for during on-site and off-site travel. The TRU calculations are based on EMFAC2021.

The estimated transportation energy demands are summarized on Table 4-9. As summarized on Table 4-9 the Project would result in a 10,856,941 annual VMT and an estimated annual fuel consumption of 732,255 gallons of fuel.

**TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION**

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	32.57	4,671,001	143,426
LDT1	25.11	377,716	15,040
LDT2	25.24	1,903,587	75,424
MDV	15.27	1,219,029	79,852
MCY	15.27	166,762	10,924
LHD1	16.22	319,347	19,693
LHD2	15.27	86,808	5,686
MHD	8.43	272,595	32,324
HHD	6.13	1,840,096	300,184
TRUs			49,701
<b>TOTAL (ALL VEHICLES)</b>		<b>10,856,941</b>	<b>732,255</b>

#### 4.4.2 ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMANDS

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to three (3) 175 horsepower (hp), natural gas-powered cargo handling equipment – port tractors operating at 4 hours a day<sup>5</sup> for 365 days of the year.

<sup>5</sup> Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

Project operational activity estimates and associated fuel consumption estimates are based on the annual EMFAC2021 offroad emissions for the 2025 operational year and was used to derive the total annual fuel consumption associated on-site equipment. As presented in Table 4-10, Project on-site equipment would consume an estimated 13,926 gallons of natural gas.

**TABLE 4-10: ON-SITE CARGO HANDLING EQUIPMENT FUEL CONSUMPTION ESTIMATES**

Equipment	Quantity	Usage Hours	Days of Operation	EMFAC2021 Fuel Consumption (gal./yr)	EMFAC2021 Activity (hrs./yr)	Total Fuel Consumption
Cargo Handling Equipment	3	4	365	18,339	5,768	13,926
<b>ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMAND (GALLONS FUEL)</b>						<b>13,926</b>

#### 4.4.3 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of electricity, which would be supplied to the Project by SCE. Annual electricity demands of the Project are summarized in Table 4-11. As summarized on Table 4-11 the Project would result in 6,887,649 kWh/year of electricity.

Based on information provided by the Project Applicant, the Project would not use natural gas for the building envelope. As such, natural gas consumption has not been analyzed in this study.

**TABLE 4-11: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY**

Land Use	Electricity Demand (kWh/year)
High-Cube Cold Storage	3,039,175
High-Cube Fulfillment	3,632,878
Landscape	0
Parking	215,596
Other Asphalt Surfaces	0
<b>TOTAL PROJECT ENERGY DEMAND</b>	<b>6,887,649</b>

#### 4.4.4 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Standards Code).

##### ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions,

average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

## **4.5 SUMMARY**

### **4.5.1 CONSTRUCTION ENERGY DEMANDS**

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately \$62,805.21. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project buildout, is calculated to be approximately 473,252 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 86,359 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 61,109 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDs and HHDs) will total approximately 28,790 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2021 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (15). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

## 4.5.2 OPERATIONAL ENERGY DEMANDS

### TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 732,255 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other industrial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25% by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (27).
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

The proposed Project would implement project design features that would facilitate the accessibility, parking, and loading of trucks on-site.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

#### **ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMANDS**

As previously stated, it is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. On-site cargo handling equipment used by the Project would result in approximately 13,926 gallons of natural gas. On-site equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed operations that are unusual or energy-intensive, and Project on-site equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

#### **FACILITY ENERGY DEMANDS**

Project facility operational energy demands are estimated to be: 6,887,649 kWh/year of electricity which would be supplied by SCE. Based on information provided by the Project Applicant, the Project would not use natural gas. As such, natural gas consumption has not been analyzed in this study. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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## 5 CONCLUSIONS

### 5.1 ENERGY IMPACT 1

***Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

### 5.2 ENERGY IMPACT 2

***Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

The Project's consistency with the applicable state and local plans is discussed below.

#### **CONSISTENCY WITH ISTE A**

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTE A because SCAG is not planning for intermodal facilities on or through the Project site.

#### **CONSISTENCY WITH TEA-21**

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

#### **CONSISTENCY WITH IEPR**

Electricity would be provided to the Project by SCE. SCE's *Clean Power and Electrification Pathway* (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2021 IEPR.

Additionally, the Project will comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the proposed Project would support the goals presented in the 2020 IEPR.

**CONSISTENCY WITH STATE OF CALIFORNIA ENERGY PLAN**

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with or obstruct, implementation of the State of California Energy Plan.

**CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS**

The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. As the Project building construction is anticipated in 2025, it is presumed that the Project would be required to comply with the Title 24 standards in place at that time. Therefore, the Project is would not result in a significant impact on energy resources (16). The proposed Project would be subject to Title 24 standards.

**CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 11, CALGREEN**

As previously stated, CCR, Title 24, Part 11: CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that were published on July 1, 2022 and will become effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made.

**CONSISTENCY WITH AB 1493**

AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.

**CONSISTENCY WITH RPS**

California's RPS is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.

**CONSISTENCY WITH SB 350**

The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected.

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## 7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Majestic Chino Flight. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at [hqureshi@urbanxroads.com](mailto:hqureshi@urbanxroads.com).

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Master of Science in Environmental Studies  
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008  
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007  
AB2588 Regulatory Standards – Trinity Consultants • November 2006  
Air Dispersion Modeling – Lakes Environmental • June 2006

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**APPENDIX 4.1:**

**CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS**

# Majestic Chino Flight (Construction - Unmitigated) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Majestic Chino Flight (Construction - Unmitigated)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	18.8
Location	33.975016031195395, -117.61750902854183
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5262
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	139	1000sqft	4.35	138,804	50,472	0.00	—	—
Unrefrigerated Warehouse-No Rail	787	1000sqft	24.6	786,558	286,005	0.00	—	—

Parking Lot	834	Space	5.65	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	497	1000sqft	11.4	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.2	50.1	72.2	85.1	0.16	2.98	6.11	9.09	2.74	1.27	4.01	—	22,370	22,370	1.03	0.64	26.1	22,612
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.5	51.6	82.3	68.9	0.16	3.55	5.85	9.40	3.27	2.11	5.38	—	18,180	18,180	0.78	0.65	0.73	18,291
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.30	16.3	26.1	32.7	0.06	1.10	3.04	4.13	1.01	0.73	1.74	—	8,444	8,444	0.42	0.31	5.49	8,553
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.78	2.97	4.76	5.96	0.01	0.20	0.55	0.75	0.18	0.13	0.32	—	1,398	1,398	0.07	0.05	0.91	1,416

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.2	50.1	72.2	85.1	0.16	2.98	6.11	9.09	2.74	1.27	4.01	—	22,370	22,370	1.03	0.64	26.1	22,612
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	51.6	82.3	68.9	0.16	3.55	5.85	9.40	3.27	2.11	5.38	—	18,180	18,180	0.78	0.65	0.73	18,291
2025	1.07	1.67	8.10	11.0	0.02	0.36	0.27	0.63	0.33	0.07	0.40	—	2,135	2,135	0.11	0.09	0.05	2,165
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.30	16.3	26.1	32.7	0.06	1.10	3.04	4.13	1.01	0.73	1.74	—	8,444	8,444	0.42	0.31	5.49	8,553
2025	0.08	0.12	0.57	0.78	< 0.005	0.03	0.02	0.04	0.02	< 0.005	0.03	—	151	151	0.01	0.01	0.06	153
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.78	2.97	4.76	5.96	0.01	0.20	0.55	0.75	0.18	0.13	0.32	—	1,398	1,398	0.07	0.05	0.91	1,416
2025	0.01	0.02	0.10	0.14	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	—	24.9	24.9	< 0.005	< 0.005	0.01	25.3

### 3. Construction Emissions Details

#### 3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Majestic Chino Flight (Construction - Unmitigated) Detailed Report, 9/7/2022

Off-Road Equipment	3.30	2.78	26.4	21.9	0.03	1.36	—	1.36	1.25	—	1.25	—	3,454	3,454	0.14	0.03	—	3,465
Dust From Material Movement	—	—	—	—	—	—	3.68	3.68	—	1.78	1.78	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.67	1.38	< 0.005	0.09	—	0.09	0.08	—	0.08	—	218	218	0.01	< 0.005	—	218
Dust From Material Movement	—	—	—	—	—	—	0.23	0.23	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.25	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	—	36.2
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.49	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	95.9	95.9	0.01	< 0.005	0.01	97.2

Vendor	0.02	0.01	0.26	0.14	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	207	207	0.02	0.03	0.01	216
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.13	6.13	< 0.005	< 0.005	0.01	6.22
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.26
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	6.92	5.81	54.3	44.5	0.12	2.18	—	2.18	2.01	—	2.01	—	13,303	13,303	0.54	0.11	—	13,349
Dust From Material Movement	—	—	—	—	—	—	1.52	1.52	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	6.92	5.81	54.3	44.5	0.12	2.18	—	2.18	2.01	—	2.01	—	13,303	13,303	0.54	0.11	—	13,349
Dust From Material Movement	—	—	—	—	—	—	1.52	1.52	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.82	1.53	14.3	11.7	0.03	0.57	—	0.57	0.53	—	0.53	—	3,499	3,499	0.14	0.03	—	3,511
Dust From Material Movement	—	—	—	—	—	—	0.40	0.40	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.61	2.14	0.01	0.10	—	0.10	0.10	—	0.10	—	579	579	0.02	< 0.005	—	581
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.78	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	293	293	0.01	0.01	1.17	298
Vendor	0.10	0.03	1.03	0.56	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	852	852	0.07	0.13	2.36	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.12	1.38	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	269	269	0.01	0.01	0.03	272
Vendor	0.09	0.02	1.07	0.57	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	852	852	0.07	0.13	0.06	892
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	71.7	71.7	< 0.005	< 0.005	0.13	72.7
Vendor	0.02	0.01	0.28	0.15	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	224	224	0.02	0.03	0.27	235
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.9	11.9	< 0.005	< 0.005	0.02	12.0
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.1	37.1	< 0.005	0.01	0.04	38.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.81	1.52	13.5	12.5	0.02	0.77	—	0.77	0.70	—	0.70	—	2,304	2,304	0.09	0.02	—	2,312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	1.81	1.52	13.5	12.5	0.02	0.77	—	0.77	0.70	—	0.70	—	2,304	2,304	0.09	0.02	—	2,312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.74	6.60	6.11	0.01	0.38	—	0.38	0.35	—	0.35	—	1,130	1,130	0.05	0.01	—	1,134
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.20	1.12	< 0.005	0.07	—	0.07	0.06	—	0.06	—	187	187	0.01	< 0.005	—	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.05	1.91	1.45	24.7	0.00	0.00	0.23	0.23	0.00	0.00	0.00	—	4,070	4,070	0.19	0.15	16.2	4,135
Vendor	0.18	0.05	1.87	1.03	0.01	0.02	0.09	0.11	0.02	0.03	0.06	—	1,548	1,548	0.13	0.23	4.29	1,625
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.94	1.79	1.69	19.1	0.00	0.00	0.23	0.23	0.00	0.00	0.00	—	3,732	3,732	0.20	0.15	0.42	3,782
Vendor	0.17	0.04	1.95	1.04	0.01	0.02	0.09	0.11	0.02	0.03	0.06	—	1,549	1,549	0.13	0.23	0.11	1,621
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94	0.87	0.83	9.82	0.00	0.00	0.11	0.11	0.00	0.00	0.00	—	1,856	1,856	0.10	0.07	3.43	1,884
Vendor	0.08	0.02	0.96	0.51	0.01	0.01	0.04	0.05	0.01	0.02	0.03	—	760	760	0.06	0.11	0.90	796

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.15	1.79	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	307	307	0.02	0.01	0.57	312
Vendor	0.02	< 0.005	0.17	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	126	126	0.01	0.02	0.15	132
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.7. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.82	< 0.005	0.03	—	0.03	0.03	—	0.03	—	124	124	0.01	< 0.005	—	125
Paving	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.6	20.6	< 0.005	< 0.005	—	20.6

Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.74	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	144	144	0.01	0.01	0.02	146
Vendor	0.05	0.01	0.62	0.33	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	491	491	0.04	0.07	0.04	513
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.0	12.0	< 0.005	< 0.005	0.02	12.2
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	40.3	40.3	< 0.005	0.01	0.05	42.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.99	1.99	< 0.005	< 0.005	< 0.005	2.02
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.99
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.53	0.70	< 0.005	0.02	—	0.02	0.02	—	0.02	—	106	106	< 0.005	< 0.005	—	107
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.6	17.6	< 0.005	< 0.005	—	17.7
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	141	141	0.01	0.01	0.01	143
Vendor	0.05	0.01	0.59	0.31	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	483	483	0.04	0.07	0.03	506
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.1	10.1	< 0.005	< 0.005	0.02	10.2
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	34.0	34.0	< 0.005	0.01	0.04	35.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.69
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.63	5.63	< 0.005	< 0.005	0.01	5.90
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.21	1.53	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	46.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.21	1.53	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	46.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Majestic Chino Flight (Construction - Unmitigated) Detailed Report, 9/7/2022

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.33	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.8	48.8	< 0.005	< 0.005	—	48.9
Architectural Coatings	—	12.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.08	8.08	< 0.005	< 0.005	—	8.10
Architectural Coatings	—	2.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.38	0.29	4.96	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	816	816	0.04	0.03	3.25	829
Vendor	0.10	0.03	1.03	0.56	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	852	852	0.07	0.13	2.36	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.34	3.83	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	748	748	0.04	0.03	0.08	758
Vendor	0.09	0.02	1.07	0.57	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	852	852	0.07	0.13	0.06	892
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.09	1.10	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.38	211

Vendor	0.03	0.01	0.29	0.16	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	233	233	0.02	0.03	0.28	244
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.4	34.4	< 0.005	< 0.005	0.06	34.9
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	38.6	38.6	< 0.005	0.01	0.05	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/15/2024	2/14/2024	5.00	23.0	—
Grading	Grading	2/14/2024	6/26/2024	5.00	96.0	—
Building Construction	Building Construction	4/25/2024	12/31/2024	5.00	179	—
Paving	Paving	11/20/2024	2/5/2025	5.00	56.0	—

Architectural Coating	Architectural Coating	7/25/2024	12/11/2024	5.00	100	—
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## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Scrapers	Diesel	Average	5.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Grading	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Grading	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Building Construction	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
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Site Preparation	—	—	—	—
Site Preparation	Worker	10.0	13.4	LDA,LDT1,LDT2
Site Preparation	Vendor	8.00	8.33	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	28.0	13.4	LDA,LDT1,LDT2
Grading	Vendor	33.0	8.33	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	389	13.4	LDA,LDT1,LDT2
Building Construction	Vendor	60.0	8.33	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	13.4	LDA,LDT1,LDT2
Paving	Vendor	19.0	8.33	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	78.0	13.4	LDA,LDT1,LDT2
Architectural Coating	Vendor	33.0	8.33	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	1,421,464	473,821	44,562

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	46.0	0.00	—
Grading	0.00	0.00	528	0.00	—
Paving	0.00	0.00	0.00	0.00	17.1

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	5.65	100%
Other Asphalt Surfaces	11.4	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	3.10	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.78	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	77.1
AQ-PM	93.4
AQ-DPM	57.1

Drinking Water	100.0
Lead Risk Housing	17.5
Pesticides	84.9
Toxic Releases	67.6
Traffic	18.1
Effect Indicators	—
CleanUp Sites	80.3
Groundwater	98.1
Haz Waste Facilities/Generators	86.6
Impaired Water Bodies	87.0
Solid Waste	98.9
Sensitive Population	—
Asthma	16.5
Cardio-vascular	29.1
Low Birth Weights	49.0
Socioeconomic Factor Indicators	—
Education	52.9
Housing	59.3
Linguistic	68.9
Poverty	35.4
Unemployment	36.4

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	73.60451687

Employed	6.274862056
Education	—
Bachelor's or higher	64.85307327
High school enrollment	100
Preschool enrollment	66.93186193
Transportation	—
Auto Access	63.41588605
Active commuting	24.5989991
Social	—
2-parent households	66.95752598
Voting	70.69164635
Neighborhood	—
Alcohol availability	97.0101373
Park access	52.77813422
Retail density	10.02181445
Supermarket access	6.557166688
Tree canopy	8.238162453
Housing	—
Homeownership	60.78532016
Housing habitability	61.41408957
Low-inc homeowner severe housing cost burden	71.53856025
Low-inc renter severe housing cost burden	18.38829719
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	73.78416528
Arthritis	95.7
Asthma ER Admissions	84.6

High Blood Pressure	97.7
Cancer (excluding skin)	89.7
Asthma	34.7
Coronary Heart Disease	98.7
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	96.0
Life Expectancy at Birth	75.7
Cognitively Disabled	56.3
Physically Disabled	69.8
Heart Attack ER Admissions	68.4
Mental Health Not Good	54.9
Chronic Kidney Disease	97.1
Obesity	68.0
Pedestrian Injuries	19.6
Physical Health Not Good	86.2
Stroke	97.8
Health Risk Behaviors	—
Binge Drinking	28.2
Current Smoker	59.6
No Leisure Time for Physical Activity	76.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	9.0
Elderly	91.7
English Speaking	35.1
Foreign-born	48.1

Outdoor Workers	88.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.1
Traffic Density	21.6
Traffic Access	23.0
Other Indices	—
Hardship	45.2
Other Decision Support	—
2016 Voting	74.7

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	55.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
--------	---------------

Land Use	Land use areas based on information consistent with the Traffic analysis and site plan
Construction: Construction Phases	Construction anticipated to end in 2025
Construction: Off-Road Equipment	Construction equipment based on other industrial projects in the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, Building Construction, Paving, and Architectural Coating
Construction: Architectural Coatings	Rule 1113

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## **APPENDIX 4.2:**

### **CALEEMOD PROJECT OPERATIONS EMISSIONS MODEL OUTPUTS**

# Majestic Chino Flight (High-Cube Cold Storage Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Majestic Chino Flight (High-Cube Cold Storage Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	18.8
Location	33.975016031195395, -117.61750902854183
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5262
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	139	1000sqft	4.35	138,804	50,472	0.00	—	—
User Defined Industrial	139	User Defined Unit	0.00	0.00	0.00	0.00	—	—

Parking Lot	834	Space	5.65	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	497	1000sqft	11.4	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.66	5.50	7.23	22.4	0.08	0.11	2.02	2.13	0.11	0.41	0.52	132	11,829	11,961	14.2	1.08	172	12,808
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.54	4.46	7.54	13.9	0.08	0.10	2.02	2.12	0.10	0.41	0.51	132	11,585	11,716	14.2	1.08	142	12,535
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.86	4.88	5.61	14.6	0.06	0.08	1.48	1.56	0.08	0.30	0.38	132	9,405	9,537	14.0	0.84	151	10,290
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.89	1.02	2.66	0.01	0.01	0.27	0.28	0.01	0.06	0.07	21.8	1,557	1,579	2.33	0.14	25.0	1,704

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.59	1.02	7.17	16.4	0.08	0.10	2.02	2.12	0.10	0.41	0.51	—	8,483	8,483	0.54	0.89	30.1	8,790
Area	1.07	4.49	0.05	6.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.8	24.8	< 0.005	< 0.005	—	25.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,109	3,109	0.29	0.04	—	3,127
Water	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
Waste	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Total	2.66	5.50	7.23	22.4	0.08	0.11	2.02	2.13	0.11	0.41	0.52	132	11,829	11,961	14.2	1.08	172	12,808
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.54	0.97	7.54	13.9	0.08	0.10	2.02	2.12	0.10	0.41	0.51	—	8,263	8,263	0.54	0.89	0.78	8,543
Area	—	3.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,109	3,109	0.29	0.04	—	3,127
Water	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
Waste	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Total	1.54	4.46	7.54	13.9	0.08	0.10	2.02	2.12	0.10	0.41	0.51	132	11,585	11,716	14.2	1.08	142	12,535
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.71	5.57	10.5	0.06	0.08	1.48	1.55	0.07	0.30	0.37	—	6,066	6,066	0.40	0.65	9.50	6,280
Area	0.74	4.17	0.03	4.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.0	17.0	< 0.005	< 0.005	—	17.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,109	3,109	0.29	0.04	—	3,127
Water	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
Waste	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141

Total	1.86	4.88	5.61	14.6	0.06	0.08	1.48	1.56	0.08	0.30	0.38	132	9,405	9,537	14.0	0.84	151	10,290
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.13	1.02	1.91	0.01	0.01	0.27	0.28	0.01	0.06	0.07	—	1,004	1,004	0.07	0.11	1.57	1,040
Area	0.13	0.76	0.01	0.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.82	2.82	< 0.005	< 0.005	—	2.90
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	515	515	0.05	0.01	—	518
Water	—	—	—	—	—	—	—	—	—	—	—	10.2	35.2	45.4	1.05	0.03	—	79.1
Waste	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.4	23.4
Total	0.34	0.89	1.02	2.66	0.01	0.01	0.27	0.28	0.01	0.06	0.07	21.8	1,557	1,579	2.33	0.14	25.0	1,704

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.89	0.80	0.58	12.2	0.03	0.01	0.13	0.14	0.01	0.04	0.05	—	2,747	2,747	0.08	0.06	9.99	2,776
User Defined Industrial	0.69	0.21	6.59	4.21	0.05	0.09	0.50	0.59	0.09	0.16	0.25	—	5,736	5,736	0.46	0.83	20.1	6,014
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.59	1.02	7.17	16.4	0.08	0.10	0.63	0.73	0.10	0.20	0.30	—	8,483	8,483	0.54	0.89	30.1	8,790
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.85	0.76	0.65	9.66	0.02	0.01	0.13	0.14	0.01	0.04	0.05	—	2,525	2,525	0.08	0.06	0.26	2,547
User Defined Industrial	0.69	0.20	6.89	4.22	0.05	0.09	0.50	0.59	0.09	0.16	0.25	—	5,738	5,738	0.46	0.83	0.52	5,996
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.54	0.97	7.54	13.9	0.08	0.10	0.63	0.73	0.10	0.20	0.30	—	8,263	8,263	0.54	0.89	0.78	8,543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.11	0.10	0.09	1.35	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	310	310	0.01	0.01	0.52	313
User Defined Industrial	0.09	0.03	0.93	0.56	0.01	0.01	0.07	0.08	0.01	0.02	0.03	—	694	694	0.06	0.10	1.05	727
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.13	1.02	1.91	0.01	0.01	0.08	0.10	0.01	0.03	0.04	—	1,004	1,004	0.07	0.11	1.57	1,040

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,903	2,903	0.27	0.03	—	2,920
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	206	206	0.02	< 0.005	—	207
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,109	3,109	0.29	0.04	—	3,127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,903	2,903	0.27	0.03	—	2,920
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	206	206	0.02	< 0.005	—	207
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,109	3,109	0.29	0.04	—	3,127
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	481	481	0.05	0.01	—	483
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	34.1	34.1	< 0.005	< 0.005	—	34.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	515	515	0.05	0.01	—	518

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

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User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.07	0.99	0.05	6.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.8	24.8	< 0.005	< 0.005	—	25.5
Total	1.07	4.49	0.05	6.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.8	24.8	< 0.005	< 0.005	—	25.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.13	0.12	0.01	0.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.82	2.82	< 0.005	< 0.005	—	2.90
Total	0.13	0.76	0.01	0.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.82	2.82	< 0.005	< 0.005	—	2.90

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	61.5	213	274	6.33	0.15	—	478
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.2	35.2	45.4	1.05	0.03	—	79.1
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.2	35.2	45.4	1.05	0.03	—	79.1

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	70.3	0.00	70.3	7.03	0.00	—	246
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.7
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	11.6	0.00	11.6	1.16	0.00	—	40.7

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	141	141
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.4	23.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.4	23.4

#### 4.7. Offroad Emissions By Equipment Type

##### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	190	16.1	6.43	50,708	3,790	321	128	1,011,617
User Defined Industrial	106	8.97	3.58	28,291	2,210	187	74.7	589,928
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	241,627	80,542	44,561

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	3,039,175	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00
Parking Lot	215,596	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	32,098,425	810,529
User Defined Industrial	0.00	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	130	0.00
User Defined Industrial	0.00	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	3.10	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.78	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A

Air Quality	N/A	N/A	N/A	N/A
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	77.1
AQ-PM	93.4
AQ-DPM	57.1
Drinking Water	100.0
Lead Risk Housing	17.5
Pesticides	84.9
Toxic Releases	67.6
Traffic	18.1
Effect Indicators	—
CleanUp Sites	80.3
Groundwater	98.1
Haz Waste Facilities/Generators	86.6
Impaired Water Bodies	87.0
Solid Waste	98.9

Sensitive Population	—
Asthma	16.5
Cardio-vascular	29.1
Low Birth Weights	49.0
Socioeconomic Factor Indicators	—
Education	52.9
Housing	59.3
Linguistic	68.9
Poverty	35.4
Unemployment	36.4

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	73.60451687
Employed	6.274862056
Education	—
Bachelor's or higher	64.85307327
High school enrollment	100
Preschool enrollment	66.93186193
Transportation	—
Auto Access	63.41588605
Active commuting	24.5989991
Social	—
2-parent households	66.95752598
Voting	70.69164635

Neighborhood	—
Alcohol availability	97.0101373
Park access	52.77813422
Retail density	10.02181445
Supermarket access	6.557166688
Tree canopy	8.238162453
Housing	—
Homeownership	60.78532016
Housing habitability	61.41408957
Low-inc homeowner severe housing cost burden	71.53856025
Low-inc renter severe housing cost burden	18.38829719
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	73.78416528
Arthritis	95.7
Asthma ER Admissions	84.6
High Blood Pressure	97.7
Cancer (excluding skin)	89.7
Asthma	34.7
Coronary Heart Disease	98.7
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	96.0
Life Expectancy at Birth	75.7
Cognitively Disabled	56.3
Physically Disabled	69.8
Heart Attack ER Admissions	68.4
Mental Health Not Good	54.9

Chronic Kidney Disease	97.1
Obesity	68.0
Pedestrian Injuries	19.6
Physical Health Not Good	86.2
Stroke	97.8
Health Risk Behaviors	—
Binge Drinking	28.2
Current Smoker	59.6
No Leisure Time for Physical Activity	76.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	9.0
Elderly	91.7
English Speaking	35.1
Foreign-born	48.1
Outdoor Workers	88.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.1
Traffic Density	21.6
Traffic Access	23.0
Other Indices	—
Hardship	45.2
Other Decision Support	—
2016 Voting	74.7

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	55.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Project area (not accounting for High-Cube Fulfillment) is 21.40 acres
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	Project will not use natural gas
Operations: Refrigerants	Per 17 CCR 95371, new refrigeration equipment containing >50 lbs of refrigerant in new facilities is prohibited from utilizing refrigerants with a GWP of 150 or greater as of 1 Jan 2022

# Majestic Chino Flight (High-Cube Fulfillment Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Majestic Chino Flight (High-Cube Fulfillment Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	18.8
Location	33.975016031195395, -117.61750902854183
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5262
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	787	1000sqft	18.1	786,558	286,005	0.00	—	—
User Defined Industrial	787	User Defined Unit	0.00	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.2	30.8	29.9	137	0.40	0.48	10.7	11.2	0.47	2.06	2.53	747	47,158	47,905	78.7	4.82	932	52,240
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.79	24.8	31.2	84.4	0.38	0.43	10.7	11.2	0.41	2.06	2.47	747	45,421	46,168	78.7	4.84	805	50,383
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.6	27.0	23.3	87.5	0.28	0.35	7.85	8.19	0.34	1.51	1.85	747	34,745	35,492	78.0	3.80	843	39,416
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.93	4.94	4.25	16.0	0.05	0.06	1.43	1.50	0.06	0.28	0.34	124	5,752	5,876	12.9	0.63	140	6,526

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	9.11	6.31	29.6	103	0.40	0.43	10.7	11.2	0.41	2.06	2.47	—	42,341	42,341	2.65	3.90	130	43,701
Area	6.08	24.4	0.29	34.2	< 0.005	0.05	—	0.05	0.06	—	0.06	—	141	141	0.01	0.01	—	145
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,470	3,470	0.33	0.04	—	3,490
Water	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
Waste	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Total	15.2	30.8	29.9	137	0.40	0.48	10.7	11.2	0.47	2.06	2.53	747	47,158	47,905	78.7	4.82	932	52,240
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.79	6.01	31.2	84.4	0.38	0.43	10.7	11.2	0.41	2.06	2.47	—	40,745	40,745	2.67	3.94	3.37	41,989
Area	—	18.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,470	3,470	0.33	0.04	—	3,490
Water	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
Waste	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Total	8.79	24.8	31.2	84.4	0.38	0.43	10.7	11.2	0.41	2.06	2.47	747	45,421	46,168	78.7	4.84	805	50,383
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.41	4.37	23.1	64.1	0.28	0.32	7.85	8.16	0.30	1.51	1.81	—	29,973	29,973	1.95	2.89	41.0	30,923
Area	4.17	22.7	0.20	23.4	< 0.005	0.03	—	0.03	0.04	—	0.04	—	96.4	96.4	< 0.005	0.01	—	99.2
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,470	3,470	0.33	0.04	—	3,490
Water	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
Waste	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Total	10.6	27.0	23.3	87.5	0.28	0.35	7.85	8.19	0.34	1.51	1.85	747	34,745	35,492	78.0	3.80	843	39,416
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.17	0.80	4.22	11.7	0.05	0.06	1.43	1.49	0.05	0.28	0.33	—	4,962	4,962	0.32	0.48	6.79	5,120
Area	0.76	4.14	0.04	4.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.0	16.0	< 0.005	< 0.005	—	16.4

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	575	575	0.05	0.01	—	578
Water	—	—	—	—	—	—	—	—	—	—	—	57.7	200	257	5.94	0.14	—	448
Waste	—	—	—	—	—	—	—	—	—	—	—	66.0	0.00	66.0	6.59	0.00	—	231
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	133	133
Total	1.93	4.94	4.25	16.0	0.05	0.06	1.43	1.50	0.06	0.28	0.34	124	5,752	5,876	12.9	0.63	140	6,526

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	6.48	5.82	4.22	88.3	0.20	0.08	0.95	1.03	0.08	0.28	0.36	—	19,891	19,891	0.57	0.43	72.3	20,105
User Defined Industrial	2.63	0.49	25.4	14.4	0.20	0.35	1.74	2.09	0.33	0.56	0.89	—	22,450	22,450	2.08	3.48	57.7	23,596
Total	9.11	6.31	29.6	103	0.40	0.43	2.69	3.12	0.41	0.85	1.26	—	42,341	42,341	2.65	3.90	130	43,701
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	6.19	5.54	4.71	70.0	0.18	0.08	0.95	1.03	0.08	0.28	0.36	—	18,289	18,289	0.59	0.46	1.88	18,443
User Defined Industrial	2.60	0.47	26.5	14.5	0.20	0.35	1.74	2.09	0.33	0.56	0.89	—	22,456	22,456	2.08	3.48	1.50	23,546
Total	8.79	6.01	31.2	84.4	0.38	0.43	2.69	3.12	0.41	0.85	1.26	—	40,745	40,745	2.67	3.94	3.37	41,989
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.82	0.73	0.65	9.77	0.02	0.01	0.13	0.14	0.01	0.04	0.05	—	2,244	2,244	0.07	0.06	3.78	2,267
User Defined Industrial	0.35	0.06	3.57	1.93	0.03	0.05	0.23	0.28	0.04	0.07	0.12	—	2,718	2,718	0.25	0.42	3.01	2,853
Total	1.17	0.80	4.22	11.7	0.05	0.06	0.36	0.42	0.05	0.11	0.17	—	4,962	4,962	0.32	0.48	6.79	5,120

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,470	3,470	0.33	0.04	—	3,490

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,470	3,470	0.33	0.04	—	3,490
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,470	3,470	0.33	0.04	—	3,490
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,470	3,470	0.33	0.04	—	3,490
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	575	575	0.05	0.01	—	578
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	575	575	0.05	0.01	—	578

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Majestic Chino Flight (High-Cube Fulfillment Operations) Detailed Report, 8/30/2022

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	6.08	5.61	0.29	34.2	< 0.005	0.05	—	0.05	0.06	—	0.06	—	141	141	0.01	0.01	—	145
Total	6.08	24.4	0.29	34.2	< 0.005	0.05	—	0.05	0.06	—	0.06	—	141	141	0.01	0.01	—	145
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	18.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.76	0.70	0.04	4.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.0	16.0	< 0.005	< 0.005	—	16.4

Total	0.76	4.14	0.04	4.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.0	16.0	< 0.005	< 0.005	—	16.4
-------	------	------	------	------	---------	------	---	------	------	---	------	---	------	------	---------	---------	---	------

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	349	1,206	1,555	35.9	0.86	—	2,708
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	57.7	200	257	5.94	0.14	—	448
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.7	200	257	5.94	0.14	—	448

### 4.5. Waste Emissions by Land Use

#### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	398	0.00	398	39.8	0.00	—	1,394
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	66.0	0.00	66.0	6.59	0.00	—	231
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	0.00	66.0	6.59	0.00	—	231

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	802	802
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	133	133
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	133	133

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	1,376	116	46.6	367,242	27,451	2,322	929	7,326,478
User Defined Industrial	300	25.4	10.1	80,066	7,227	612	244	1,928,918

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	1,179,837	393,279	—

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

#### Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	3,632,878	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

### 5.12. Operational Water and Wastewater Consumption

#### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	181,891,538	4,592,997
User Defined Industrial	0.00	0.00

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	739	0.00
User Defined Industrial	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
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## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	3.10	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth

Wildfire	6.78	annual hectares burned
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Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	77.1
AQ-PM	93.4
AQ-DPM	57.1
Drinking Water	100.0
Lead Risk Housing	17.5
Pesticides	84.9
Toxic Releases	67.6
Traffic	18.1

Effect Indicators	—
CleanUp Sites	80.3
Groundwater	98.1
Haz Waste Facilities/Generators	86.6
Impaired Water Bodies	87.0
Solid Waste	98.9
Sensitive Population	—
Asthma	16.5
Cardio-vascular	29.1
Low Birth Weights	49.0
Socioeconomic Factor Indicators	—
Education	52.9
Housing	59.3
Linguistic	68.9
Poverty	35.4
Unemployment	36.4

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	73.60451687
Employed	6.274862056
Education	—
Bachelor's or higher	64.85307327
High school enrollment	100
Preschool enrollment	66.93186193

Transportation	—
Auto Access	63.41588605
Active commuting	24.5989991
Social	—
2-parent households	66.95752598
Voting	70.69164635
Neighborhood	—
Alcohol availability	97.0101373
Park access	52.77813422
Retail density	10.02181445
Supermarket access	6.557166688
Tree canopy	8.238162453
Housing	—
Homeownership	60.78532016
Housing habitability	61.41408957
Low-inc homeowner severe housing cost burden	71.53856025
Low-inc renter severe housing cost burden	18.38829719
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	73.78416528
Arthritis	95.7
Asthma ER Admissions	84.6
High Blood Pressure	97.7
Cancer (excluding skin)	89.7
Asthma	34.7
Coronary Heart Disease	98.7
Chronic Obstructive Pulmonary Disease	94.6

Diagnosed Diabetes	96.0
Life Expectancy at Birth	75.7
Cognitively Disabled	56.3
Physically Disabled	69.8
Heart Attack ER Admissions	68.4
Mental Health Not Good	54.9
Chronic Kidney Disease	97.1
Obesity	68.0
Pedestrian Injuries	19.6
Physical Health Not Good	86.2
Stroke	97.8
Health Risk Behaviors	—
Binge Drinking	28.2
Current Smoker	59.6
No Leisure Time for Physical Activity	76.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	9.0
Elderly	91.7
English Speaking	35.1
Foreign-born	48.1
Outdoor Workers	88.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.1
Traffic Density	21.6
Traffic Access	23.0

Other Indices	—
Hardship	45.2
Other Decision Support	—
2016 Voting	74.7

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	55.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	No natural gas
Operations: Refrigerants	Per 17 CCR 95371, new refrigeration equipment containing >50 lbs of refrigerant in new facilities is prohibited from utilizing refrigerants with a GWP of 150 or greater as of 1 Jan 2022

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**APPENDIX 4.3:**

**EMFAC2021**

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (SC)

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Gasoline	5.565987525	65632.20065	17.55506745	17555.06745	100020707.1	65632.20065	602650321.4	6.03	HHDT
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Diesel	14231.95658	551042326.4	92002.9329	92002932.9		551042326.4			
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Electricity	48.62871821	1514395.863	0	0		1514395.863			
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Natural Gas	2469.470738	50027966.96	8000.219124	8000219.124		50027966.96			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Gasoline	459317.1397	6998203711	235268.3364	235268336.4	239249877	6998203711	7553967064	31.57	LDA
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Diesel	1047.589492	13077704.42	304.6940031	304694.0031		13077704.42			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Electricity	19287.2826	319989461.8	0	0		319989461.8			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Plug-in Hybrid	12500.45848	222696187.4	3676.846561	3676846.561		222696187.4			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Gasoline	40725.35771	490115573.8	19992.18901	19992189.01	20008289.61	490115573.8	492044217.3	24.59	LDT1
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Diesel	10.72175816	55107.22369	2.270239442	2270.239442		55107.22369			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Electricity	58.29951204	952224.2422	0	0		952224.2422			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Plug-in Hybrid	51.79076029	921312.0144	13.83036618	13830.36618		921312.0144			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Gasoline	192654.7494	2757561092	113913.4167	113913416.7	114588210.3	2757561092	2808082925	24.51	LDT2
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Diesel	520.896721	8078084.967	243.685157	243685.157		8078084.967			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Electricity	1199.246991	15005145.59	0	0		15005145.59			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1594.625518	27438602.16	431.1084869	431108.4869		27438602.16			
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Gasoline	17179.49082	208481689.1	15346.53488	15346534.88	22275281.21	208481689.1	352257356.3	15.81	LHDT1
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Diesel	11382.09786	142493007.5	6928.746332	6928746.332		142493007.5			
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Electricity	52.7403112	1282659.757	0	0		1282659.757			
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Gasoline	2883.702401	33531637.34	2787.053647	2787053.647	6339312.387	33531637.34	94885856.62	14.97	LHDT2
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Diesel	4825.532255	61039665.72	3552.258741	3552258.741		61039665.72			
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Electricity	13.65084178	314553.5538	0	0		314553.5538			
San Bernardino (SC)	2024	MCY	Aggregate	Aggregate	Gasoline	20751.92893	42918713.78	1022.38967	1022389.67	1022389.67	42918713.78	42918713.78	41.98	MCY
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Gasoline	147141.1277	2023247300	102986.2138	102986213.8	104408638.9	2023247300	2084683084	19.97	MDV
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Diesel	1910.88318	26864024.48	1129.452064	1129452.064		26864024.48			
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Electricity	1327.48959	16604056.61	0	0		16604056.61			
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Plug-in Hybrid	1028.690257	17967703.21	292.9729803	292972.9803		17967703.21			
San Bernardino (SC)	2024	MH	Aggregate	Aggregate	Gasoline	3401.970527	9880592.437	2022.448199	2022448.199	2408282.462	9880592.437	13826961.78	5.74	MH
San Bernardino (SC)	2024	MH	Aggregate	Aggregate	Diesel	1336.39751	3946369.345	385.834263	385834.263		3946369.345			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Gasoline	1460.602089	25635396.94	4923.389143	4923389.143	27935606.17	25635396.94	232314319.3	8.32	MHDT
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Diesel	14946.4736	202976493.9	22669.39063	22669390.63		202976493.9			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Electricity	46.13645649	737631.427	0	0		737631.427			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Natural Gas	195.6757264	2964797.055	342.8264	342826.4		2964797.055			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Gasoline	370.0192137	5168863.655	1012.113043	1012113.043	1678725.582	5168863.655	10209810.25	6.08	OBUS
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Diesel	210.5519789	4437514.629	600.0645542	600064.5542		4437514.629			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Electricity	0.809761934	21328.84548	0	0		21328.84548			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Natural Gas	32.78528924	582103.1254	66.54798496	66547.98496		582103.1254			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Gasoline	297.8692006	4585227.496	511.4311108	511431.1108	1619236.79	4585227.496	10410441.24	6.43	SBUS
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Diesel	373.2941498	2533365.656	344.1451415	344145.1415		2533365.656			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Electricity	2.213199982	18416.70512	0	0		18416.70512			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Natural Gas	398.7600331	3273431.384	763.6605376	763660.5376		3273431.384			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Gasoline	54.72012078	1718010.1	132.909217	132909.217	2702138.875	1718010.1	13120370.38	4.86	UBUS
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Diesel	4.556959009	147096.8417	14.21429006	14214.29006		147096.8417			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Electricity	7.328344802	363414.4038	0	0		363414.4038			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Natural Gas	243.3602145	10891849.03	2555.015368	2555015.368		10891849.03			

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (SC)	2025	HHDT	Aggregate	Aggregate	Gasoline	3.869766832	57951.49636	14.57765186	14577.65186	100557864.6	57951.49636	616408385	6.13	HHDT
San Bernardino (SC)	2025	HHDT	Aggregate	Aggregate	Diesel	14693.60242	561322084.2	92421.1885	92421188.5		561322084.2			
San Bernardino (SC)	2025	HHDT	Aggregate	Aggregate	Electricity	109.5985203	3559710.012	0	0		3559710.012			
San Bernardino (SC)	2025	HHDT	Aggregate	Aggregate	Natural Gas	2560.5176	51468639.3	8122.098441	8122098.441		51468639.3			
San Bernardino (SC)	2025	LDA	Aggregate	Aggregate	Gasoline	457374.7047	6944290025	228752.9463	228752946.3	232899854.5	6944290025	7584900962	32.57	LDA
San Bernardino (SC)	2025	LDA	Aggregate	Aggregate	Diesel	986.5858319	12083220.19	278.7664269	278766.4269		12083220.19			
San Bernardino (SC)	2025	LDA	Aggregate	Aggregate	Electricity	22921.29943	388499503.9	0	0		388499503.9			
San Bernardino (SC)	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	13621.71468	240028212.7	3868.141748	3868141.748		240028212.7			
San Bernardino (SC)	2025	LDT1	Aggregate	Aggregate	Gasoline	39862.49619	480945552.2	19239.37501	19239375.01	19260687.7	480945552.2	483717360.2	25.11	LDT1
San Bernardino (SC)	2025	LDT1	Aggregate	Aggregate	Diesel	9.62153332	48187.89915	1.982153486	1982.153486		48187.89915			
San Bernardino (SC)	2025	LDT1	Aggregate	Aggregate	Electricity	81.74409231	1398094.568	0	0		1398094.568			
San Bernardino (SC)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	75.22656194	1325525.512	19.33053631	19330.53631		1325525.512			
San Bernardino (SC)	2025	LDT2	Aggregate	Aggregate	Gasoline	197589.8024	2830132229	113820.9189	113820918.9	114578307.3	2830132229	2891787665	25.24	LDT2
San Bernardino (SC)	2025	LDT2	Aggregate	Aggregate	Diesel	559.2848358	8632615.354	254.3461398	254346.1398		8632615.354			
San Bernardino (SC)	2025	LDT2	Aggregate	Aggregate	Electricity	1637.444663	20185542.74	0	0		20185542.74			
San Bernardino (SC)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1934.989022	32837278.29	503.0423007	503042.3007		32837278.29			
San Bernardino (SC)	2025	LHDT1	Aggregate	Aggregate	Gasoline	16963.11371	207137413	14862.50039	14862500.39	21735688.1	207137413	352468216.4	16.22	LHDT1
San Bernardino (SC)	2025	LHDT1	Aggregate	Aggregate	Diesel	11403.02981	142011594.7	6873.187714	6873187.714		142011594.7			
San Bernardino (SC)	2025	LHDT1	Aggregate	Aggregate	Electricity	147.3648902	3319208.717	0	0		3319208.717			
San Bernardino (SC)	2025	LHDT2	Aggregate	Aggregate	Gasoline	2823.949841	32642813.3	2664.783044	2664783.044	6207792.739	32642813.3	94768430.93	15.27	LHDT2
San Bernardino (SC)	2025	LHDT2	Aggregate	Aggregate	Diesel	4888.887446	61320690.9	3543.009695	3543009.695		61320690.9			
San Bernardino (SC)	2025	LHDT2	Aggregate	Aggregate	Electricity	37.58571717	804926.7211	0	0		804926.7211			
San Bernardino (SC)	2025	MCY	Aggregate	Aggregate	Gasoline	20826.96994	42778396.38	1015.020429	1015020.429	1015020.429	42778396.38	42778396.38	42.15	MCY
San Bernardino (SC)	2025	MDV	Aggregate	Aggregate	Gasoline	147056.3511	2024245890	100540.1081	100540108.1	101976937.9	2024245890	2094722320	20.54	MDV
San Bernardino (SC)	2025	MDV	Aggregate	Aggregate	Diesel	1906.902909	26501944.47	1093.419877	1093419.877		26501944.47			
San Bernardino (SC)	2025	MDV	Aggregate	Aggregate	Electricity	1802.834782	22197395.58	0	0		22197395.58			
San Bernardino (SC)	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	1256.812117	21777090.21	343.4098652	343409.8652		21777090.21			
San Bernardino (SC)	2025	MH	Aggregate	Aggregate	Gasoline	3227.585522	9326090.143	1908.65082	1908650.82	2288153.951	9326090.143	13206274.99	5.77	MH
San Bernardino (SC)	2025	MH	Aggregate	Aggregate	Diesel	1329.243498	3880184.844	379.5031319	379503.1319		3880184.844			
San Bernardino (SC)	2025	MHDT	Aggregate	Aggregate	Gasoline	1427.423114	25123006.81	4769.346227	4769346.227	27971880.02	25123006.81	235891698	8.43	MHDT
San Bernardino (SC)	2025	MHDT	Aggregate	Aggregate	Diesel	15347.54129	205505209.6	22845.95176	22845951.76		205505209.6			
San Bernardino (SC)	2025	MHDT	Aggregate	Aggregate	Electricity	133.1585562	2176108.516	0	0		2176108.516			
San Bernardino (SC)	2025	MHDT	Aggregate	Aggregate	Natural Gas	208.419151	3087373.059	356.5820306	356582.0306		3087373.059			
San Bernardino (SC)	2025	OBUS	Aggregate	Aggregate	Gasoline	358.2884481	4914991.263	953.0537711	953053.7711	1617074.812	4914991.263	10020066.31	6.20	OBUS
San Bernardino (SC)	2025	OBUS	Aggregate	Aggregate	Diesel	215.4704252	4443326.841	595.42053	595420.53		4443326.841			
San Bernardino (SC)	2025	OBUS	Aggregate	Aggregate	Electricity	1.990200949	51357.6674	0	0		51357.6674			
San Bernardino (SC)	2025	OBUS	Aggregate	Aggregate	Natural Gas	34.88313202	610390.5394	68.6005113	68600.5113		610390.5394			
San Bernardino (SC)	2025	SBUS	Aggregate	Aggregate	Gasoline	300.4577721	4618641.589	513.7556449	513755.6449	1621879.65	4618641.589	10451921.53	6.44	SBUS
San Bernardino (SC)	2025	SBUS	Aggregate	Aggregate	Diesel	363.8707141	2448867.744	331.7738776	331773.8776		2448867.744			
San Bernardino (SC)	2025	SBUS	Aggregate	Aggregate	Electricity	4.690534617	43259.77988	0	0		43259.77988			
San Bernardino (SC)	2025	SBUS	Aggregate	Aggregate	Natural Gas	411.4766102	3341152.413	776.3501279	776350.1279		3341152.413			
San Bernardino (SC)	2025	UBUS	Aggregate	Aggregate	Gasoline	54.83056931	1721477.777	132.9410538	132941.0538	2706050.73	1721477.777	13146852.88	4.86	UBUS
San Bernardino (SC)	2025	UBUS	Aggregate	Aggregate	Diesel	4.529432466	146321.6342	14.16487362	14164.87362		146321.6342			
San Bernardino (SC)	2025	UBUS	Aggregate	Aggregate	Electricity	7.409987909	367712.3818	0	0		367712.3818			
San Bernardino (SC)	2025	UBUS	Aggregate	Aggregate	Natural Gas	243.8212922	10911341.08	2558.944803	2558944.803		10911341.08			

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