HELIX Environmental Planning

Brown Field Municipal Airport Master Plan Update

Air Quality Technical Report

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AAM	annual arithmetic mean
AAQS	Ambient Air Quality Standard
ACM	asbestos containing material
AMP	Airport Master Plan
AQIA	Air Quality Impact Assessment
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
City	City of San Diego
CO	carbon monoxide
County	County of San Diego
DPM	Diesel Particulate Matter
°F	Fahrenheit (degrees)
FAA	Federal Aviation Administration
g/L	grams per liter
H_2S	hydrogen sulfide
IEM	Iowa Environmental Mesonet
km	kilometer
LBP	lead-based paint
LOS	level of service

ACRONYMS AND ABBREVIATIONS (cont.)

mg/m^3	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standard
NO	nitrogen oxide
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NO_X	oxides of nitrogen
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational and Safety Health Administration
Pb	lead
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SF	square feet/foot
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	oxides of sulfur
T-BACT	Toxics Best Available Control Technology
TAC	Toxic Air Contaminant
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WRCC	Western Regional Climate Center

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts associated with construction and operation (non-flight emissions related to vehicular use and building energy use) of the preferred plan (project) to implement the Airport Master Plan (AMP) for the Brown Field Municipal Airport (Airport) operated by the City of San Diego (City) located in the community of Otay Mesa. The AMP includes improvement activities to be implemented at the Airport over a 20-year planning period. Airside improvements in the AMP would include the reconfiguration of several taxiways to bring them into compliance with current federal design standards. Landside improvements in the AMP would include rehabilitation of the terminal building, a new maintenance building, and the construction of up to 107 new hangars.

Criteria pollutant and precursor pollutant emissions generated during construction activities or non-flight related operational changes (vehicular and building energy emissions) from the proposed improvements would not exceed the San Diego County Air Pollution Control District's (SDAPCD) screening thresholds. Therefore, emissions of criteria pollutants related to implementation of the proposed AMP would not result in a violation of air quality standards and the impacts would be less than significant.

It is not anticipated that implementation of the proposed AMP would result in an increase in demand for use of Airport airside or landside facilities beyond the forecast growth in aviation and aviation-related services in the San Diego region and anticipated emissions associated with these sources would not exceed SDAPCD screening thresholds. Therefore, the project would not conflict with or obstruction implementation of the San Diego County Regional Air Quality Strategy or the State Implementation Plan.

The net increase in trips generated by the Airport as a result of implementing the AMP combined with forecast traffic in the project vicinity would not result in carbon monoxide hotspots. Construction activities associated with implementation of the project would result in the use of diesel-powered construction equipment, which are a source of the toxic contaminant Diesel Particulate Matter (DPM). Due to the intermittent nature of construction equipment use and because construction activities would be concentrated in different areas of the Airport for short periods, construction of the project would not expose nearby sensitive receptors to substantial concentrations of DPM. Demolition activities could disturb asbestos containing materials (ACMs) and lead-based paint (LBP) in older structures. Compliance with SDAPCD, state, and federal regulations for agency notification and safe handling of ACM and LBP would ensure that project construction activities would not result in the exposure of sensitive receptors to substantial concentrations of airborne asbestos and the impact would be less than significant.

Construction activities or long-term operation of the Airport would not be a source of objectionable odors that would adversely affect a significant number of persons and odor impacts would be less than significant.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes, at programmatic level, potential air quality impacts associated with the preferred alternative (project) to implement the proposed Airport Master Plan (AMP) for Brown Field Municipal Airport (also referred to as "Airport" or by its Federal Aviation Administration [FAA] identifier "SDM"). The analysis includes a description of existing conditions in the Airport vicinity and an assessment of potential impacts associated with the construction and operation (non-flight operations such as vehicular use and building energy use) of improvements included within the AMP. As appropriate, the analysis identifies measures which can be taken to avoid adverse air quality impacts. The analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines and the City of San Diego's (City) *California Environmental Quality Act* (CEQA) *Significance Determination Thresholds* (City 2022). The assessment of aircraft-related air pollutant emissions is not included in this report.

1.2 PROJECT BACKGROUND

The City of San Diego (City) owns and operates SDM as a General Aviation (GA) airport. Airport planning occurs at the national, state, regional, and local level; and in 2017, the City began developing an AMP to determine the extent, type, and schedule of development needed. An AMP presents the community and airport's vision for a 20-year strategic development plan based on the forecast of activity. It is used as a decision-making tool and is intended to complement other local and regional plans.

The AMP consists of a report documenting existing conditions of the airport, a forecast of activity, facility requirements (the airport's needs based on the forecast and compliance with FAA Design Standards for airports), development and evaluation of alternatives to meet those needs, and a funding plan for that development. Project objectives include maintaining a balance between airport user interests and the surrounding community, remedying areas with a history of potential risk of collisions or runway incursions, and modernizing Airport facilities. The AMP includes an Airport Layout Plan (ALP) which graphically depicts all planned development at the Airport within the 20-year planning period as determined in the AMP. This drawing requires approval by the FAA, which makes the airport eligible to receive federal funding for airport improvements and maintenance under the FAA's Airport Improvement Program. The ALP Update for Brown Field Municipal Airport is referred to as the project for the purposes of this analysis (C&S Companies 2022).

1.3 PROJECT LOCATION

The AMP includes improvements that would be contained within the boundaries of the Airport, which is in the City community of Otay Mesa. The Airport is located north of Otay Mesa Road, east of Heritage Road, south of Pogo Row, and west of La Media Road (refer to Figure 1, *Regional Location*, and Figure 2, *Project Vicinity [Aerial Photograph]*).

1.4 PROJECT DESCRIPTION

The proposed AMP would involve both landside and airside components. Much of SDM has been leased by the City to the proposed developers of the Metropolitan Airpark Project (MAP), which was reviewed previously in a separate EIR (SCH No. 2010071054) and is not a part of this project.

The landside improvements to be covered by the AMP include:

- A 14,000-square foot (SF) terminal building. This would be accomplished by rehabilitating the existing terminal building and tower in accordance with the U.S. Secretary of the Interior standards for the Treatment of Historic Properties.
- Up to 107 new hangars (approximately 154,000 SF). An aircraft wash rack is proposed within the hangar site as well as approximately 83 new automobile parking spaces which are intended to compensate for the loss of a parking area off the west end of the runway apron as a result of proposed AMP improvements.
- Demolition of several small structures which house equipment and supplies and consolidating those facilities into one 10,000-SF centralized maintenance building.
- A new fuel storage tank and various utility and fencing improvements around the airfield.

As a separate project not included in the AMP, a new 4,000-SF U.S. Customs and Border Protection building would be constructed. This improvement project has received a CEQA exemption and is not a part of the project. Because construction of the U.S. Customs and Border Protection building could coincide with project construction activities, to be conservative in estimating maximum daily construction emissions, construction activities for the building and associated ramp improvements are included in this analysis.

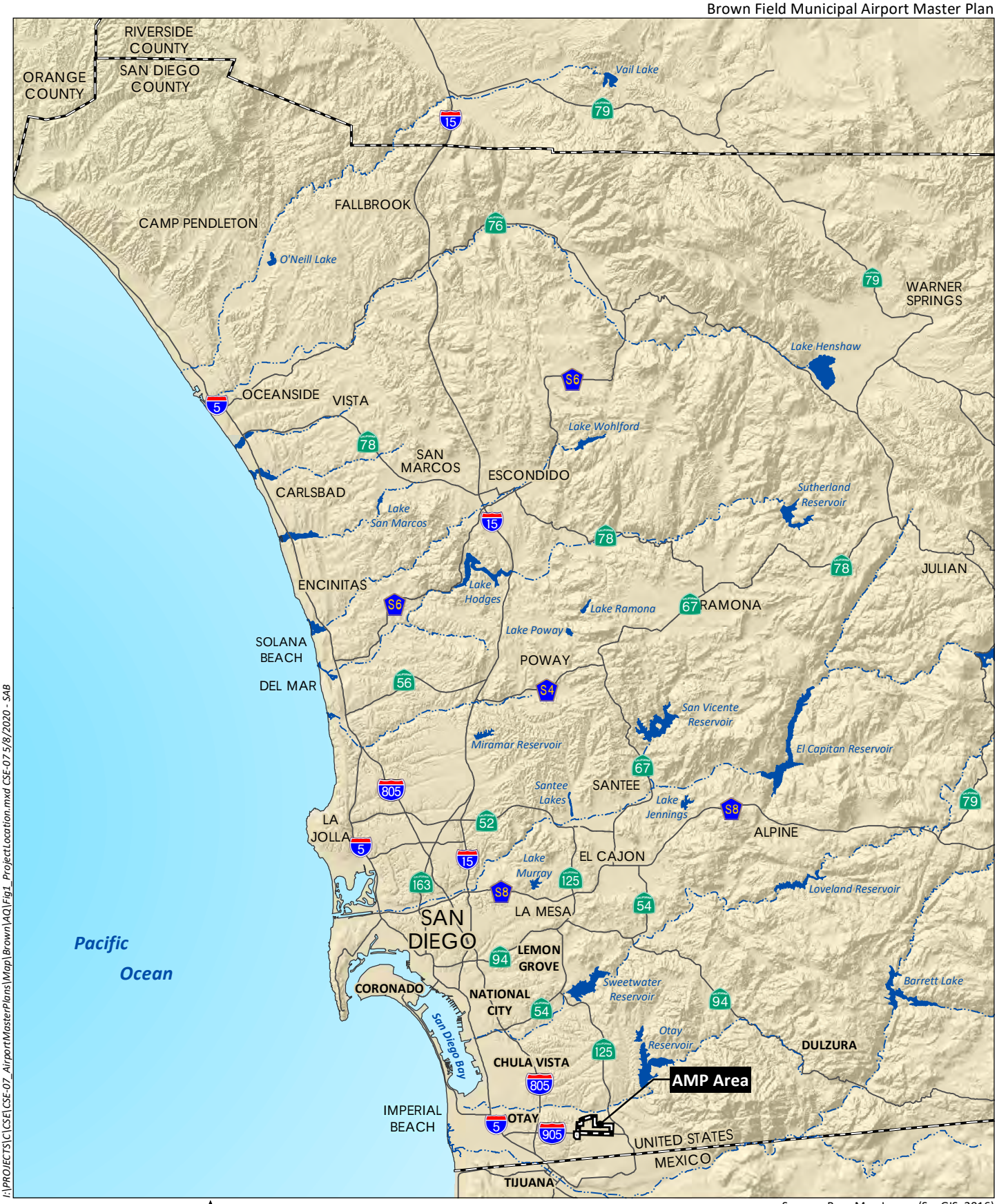
Airside improvements proposed at SDM include the reconfiguration of several taxiways to bring them into compliance with current FAA design standards, pavement repair and maintenance activities for various taxiways and runway 8R/26L, and the relocation of windsocks and the segmented circle outside of the runway safety zone. Refer to Figure 3, *Proposed Airport Plan*.

1.5 AIR POLLUTANT DESCRIPTORS AND TERMINOLOGY

1.5.1 Criteria Air Pollutants

Criteria air pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, air pollutants include the following compounds:

- Ozone (O_3)
- Reactive organic gases (ROGs) or volatile organic compounds (VOCs)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM), which is further subdivided:
    - Respirable PM, 10 microns or less in diameter (PM_{10})



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Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

Source: Aerial (SanGIS 2017)

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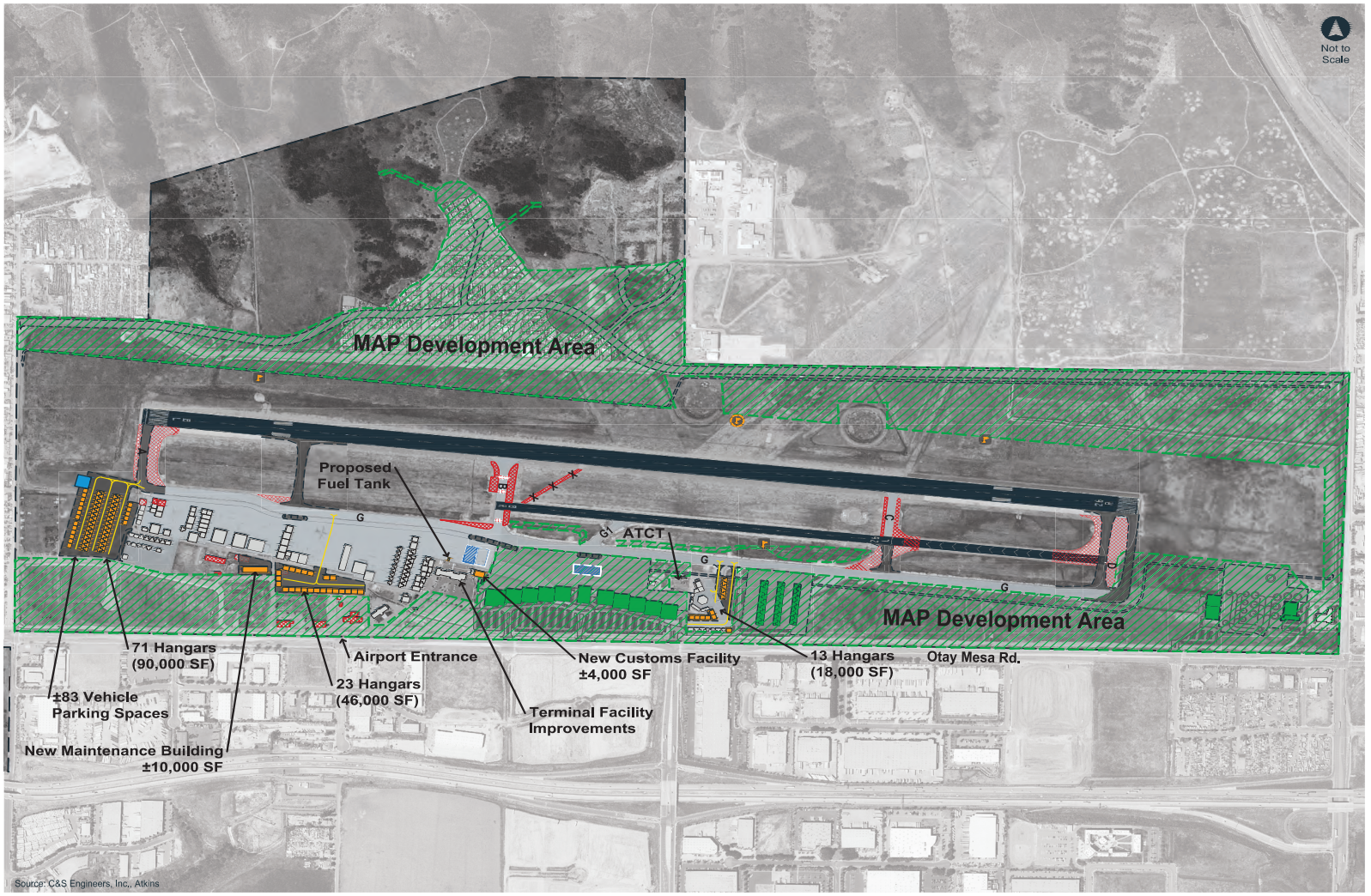
Project Vicinity (Aerial Photograph)

Figure 2



SD Airports

Brown Field Municipal Airport Master Plan

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Pavement
- MAP Development Area
- Proposed MAP Buildings
- Proposed Demolition
- Proposed Taxiway/Taxilane Centerline
- Proposed Wash Rack
- Existing Customs Box
- Proposed Customs Box Expansion
- Proposed Segmented Circl
- Proposed Wind Cone
- Proposed "No-Taxi" Island

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Source: C&S Companies 2024

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Proposed Airport Plan

Figure 3

  - Fine PM, 2.5 microns or less in diameter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])[1] and nitrogen oxides (NO_X).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 1, *Common Sources and Human Health Effects of Criteria Air Pollutants*. Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from on-road vehicles (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel.

Table 1
COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO_X) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma;

[1] CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

Pollutant	Major Man-Made Sources	Human Health Effects
	lots, wood-burning stoves and fireplaces, automobiles, and other sources.	development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CARB 2024a; USEPA 2024a

1.5.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. General health effects of TAC emissions associated with the project are discussed in Section 2.2.4, below.

2.0 REGULATORY FRAMEWORK

2.1 FEDERAL REGULATIONS

2.1.1 Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. On February 7, 2024, the USEPA announced a final rule to lower the annual arithmetic mean (AAM) primary NAAQS for $PM_{2.5}$ from 12 µg/m^3 to 9 µg/m^3. The new final rule retains the existing 24-hour primary NAAQS for $PM_{2.5}$ of 35 µg/m^3 and the existing AAM secondary NAAQS for $PM_{2.5}$ of 15.0 µg/m^3 (USEPA

2024b). Table 2, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants.

Table 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	9 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Source: CARB 2016; USEPA 2024b

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter;
AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide;
mg/m^3: milligrams per cubic meter; NO_2 nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. Areas that do not meet the NAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On June 3, 2016, the San Diego Air Basin (SDAB) was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone. Effective June 3, 2016, the USEPA determined that 11 areas, including the SDAB, failed to attain the 2008 Ozone NAAQS by the applicable attainment date of July 20, 2015 and, thus, were reclassified as "Moderate" for the 2008 Ozone NAAQS (CARB 2018a). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM_{10} and $PM_{2.5}$. The current federal attainment status for the SDAB is provided in Table 3, *Federal and State Air Quality Designations.*

Table 3
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	Attainment[1]	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable[1]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: SDAPCD 2024a; USEPA 2024b; USEPA 2024c

[1] The federal 1-hour standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

[2] At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

[3] The Federal attainment designation for the $PM_{2.5}$ NAAQS reflects the designation for the 2012 NAAQS. As of this analysis, attainment classification for the 2024 primary AAM $PM_{2.5}$ NAAQS had not been completed.

CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide

2.2 STATE REGULATIONS

2.2.1 California Clean Air Act

The CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles (see Table 2). Areas that do not meet the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$ (SDAPCD 2018). The current state attainment status for the SDAB is provided in Table 3.

The CARB is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The SDAPCD is responsible for developing and implementing the rules

and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, developing of air quality management plans, and adopting and enforcing air pollution regulations for the County.

2.2.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes the CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to the CARB for review and approval. The CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP (CARB 2009). At any one time, several California submittals are pending USEPA approval.

2.2.3 California Energy Code

California Code of Regulations (CCR) Title 24 Part 6: California’s Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California’s energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results in greenhouse gas emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Title 24 standards became effective on January 1, 2023. The 2022 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. New for the 2022 Title 24 standards are non-residential on-site PV (solar panels) electricity generation requirements (California Energy Commission [CEC] 2022).

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach. Future development per the proposed AMP is required to be designed to meet the current Title 24 energy efficiency standards.

2.2.4 Toxic Air Contaminants

The Health and Safety Code (§39655, subd. (a)) defines a toxic air contaminant (TAC) as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a

present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter and 90 percent of DPM is less than 2.5 microns in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, the CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a significant impact on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2018c).

Lead is a naturally occurring metallic element that is found in small amounts in the earth's crust. In addition to its status as a criteria pollutant, lead is listed as a TAC because, depending on the level and duration of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. There is also a probable link between lead exposure and kidney cancer, brain cancer (gliomas), and lung cancer (USEPA 2024d). Aviation gasoline (avgas) is the only remaining lead-containing transportation fuel in the United States. Lead in avgas prevents damaging engine knock, or detonation, which can result in a sudden engine failure. Lead particulate matter is emitted into the atmosphere in the exhaust from engines burning leaded avgas. Lead particulate matter can also be emitted during demolition and renovation activities that disturb material that contains lead-based paint (LBP), most typically found in structures built before 1978.

Benzene is a colorless, sweet smelling organic compound that is listed as a TAC by CARB. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure of benzene has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. The USEPA has classified benzene as a known human carcinogen (USEPA 2012). Gasoline vapors are a major source of benzene in the United States and automotive gasoline is limited to a maximum of 1.3 percent by the USEPA (2008). Although there is no regulatory limit to benzene concentration in avgas, the ASTM D910 specification for all avgas requires a maximum freezing point of minus 58 degrees centigrade. The physical properties of benzene, which would raise the freezing point of the fuel, naturally results in the presence of only trace amounts of benzene in avgas (ASTM 2011). Therefore, aircraft refueling activities at the Airport are not anticipated to be a significant source of benzene and are not further evaluated in this analysis.

Asbestos is a mineral fiber that naturally occurs in some rock and soil. Long-term exposure to airborne asbestos fibers has been linked to major health effects including lung cancer; mesothelioma, a rare form of cancer that is found in the thin lining of the lung, chest and the abdomen and heart; and asbestosis, a serious progressive, long-term, non-cancer disease of the lungs (USEPA 2024e). Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for

insulation and as a fire retardant, primarily in buildings constructed before 1979. Asbestos fibers may be released into the air by the disturbance of asbestos containing material (ACM) during renovation and demolition activities; or during earth disturbing activities in areas where naturally occurring asbestos (NOA) is present in the rock or soil. NOA is not likely to be present in the soil and rock of San Diego County (CGS 2000).

2.3 LOCAL REGULATIONS

2.3.1 Regional Air Quality Strategy

The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing plans for attainment and maintenance of the ambient air quality standards in the SDAB. These air quality plans provide an overview of the region's air quality and identify the pollution-control measures needed to attain and maintain air quality standards. The applicable plans for the SDAB, described below, accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the regional air quality plans and the SIP.

2.3.1.1 Attainment Plan

The regional air quality plan addressing the NAAQS for ozone in the SDAB is SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* (Attainment Plan). The Attainment Plan outlines SDAPCD's strategies and control measures designed to attain the NAAQS for ozone in the SDAB. Approved by the SDAPCD Board on October 14, 2020, and by CARB on November 19, 2020, the attainment plan was submitted to the USEPA on January 8, 2021, for consideration as a revision to the California SIP for attaining the ozone standards (SDAPCD 2020).

2.3.1.2 Regional Air Quality Strategy

To comply with State law, the SDAPCD must prepare an updated State Ozone Attainment Plan to identify possible new actions to further reduce emissions. Initially adopted in 1992, the Regional Air Quality Strategy (RAQS) identifies measures to reduce emissions from sources regulated by the SDAPCD, primarily stationary sources such as industrial operations and manufacturing facilities. The RAQS is periodically updated to reflect updated information on air quality, emission trends, and new feasible control measures, and was last updated in 2023 (SDAPCD 2023).

2.3.2 San Diego Air Pollution Control District Rules and Regulations

Future development pursuant to the AMP is required to comply with SDAPCD Rules and Regulations which require the incorporation of best management practices (BMPs) during construction to reduce emissions of fugitive dust.

2.3.2.1 Rule 50 (Visible Emissions)

Particulate matter pollution impacts the environment by decreasing visibility (haze). These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot.

Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of $PM_{2.5}$. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment.

Visibility reduction is probably the most apparent symptom of air pollution. Visibility degradation is caused by the absorption and scattering of light by particles and gases in the atmosphere before it reaches the observer. As the number of fine particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Light absorption by gases and particles is sometimes the cause of discolorations in the atmosphere but usually does not contribute very significantly to visibility degradation. Scattering by particulates impairs visibility much more readily. SDAPCD Rule 50 (Visible Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale.

2.3.2.2 Rule 51 (Nuisance)

SDAPCD Rule 51 (Nuisance) states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of the rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals (SDAPCD 1976).

2.3.2.3 Rule 55 (Fugitive Dust Control)

SDAPCD Rule 55 (Fugitive Dust Control) requires action be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 (Fugitive Dust Control) places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of track-out/carry-out shall be minimized through implementation of control measures and removed at the conclusion of each work day using street sweepers (SDAPCD 2009).

2.3.2.4 Rule 67.0.1 (Architectural Coatings)

Implementation of the AMP is required to comply with SDAPCD Rule 67.0.1 (Architectural Coatings) which requires non-residential interior/exterior coatings are to be less than or equal to 100 grams per liter (2021a).

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB in which the Airport is located, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity. Precipitation is limited to a few storms during the winter season. The climate of the County is characterized by hot, dry summers, and mild, wet winters.

The predominant wind direction in the vicinity of the project site is from the west and the average wind speed is approximately 6 miles per hour (mph; Iowa Environmental Mesonet [IEM] 2019). The annual average maximum temperature at the Airport is approximately 68 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 53°F. Total precipitation in the vicinity of the project site averages approximately 10 inches annually. Precipitation occurs mostly during the winter and is relatively infrequent during the summer (Western Regional Climate Center [WRCC] 2019).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

3.2 EXISTING AIR QUALITY

3.2.1 Attainment Designations

Attainment designations are discussed in Sections 2.1.1 and 2.2.1, and in Table 3. The SDAB is a federal and state nonattainment area for ozone. The SDAB is also a state nonattainment area for PM_{10} and $PM_{2.5}$.

3.2.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the San Diego region. The purpose of the monitoring stations is to measure ambient concentrations of criteria air pollutants and determine whether the ambient air quality meets state and federal standards, pursuant to the CAAQS and the NAAQS. The nearest ambient monitoring station to the area is the Otay Mesa – Donovan Road monitoring station located approximately one mile east of the AMP area at 480 Alta Road in San Diego. This station monitors the following criteria air pollutants: O_3, NO_2, and $PM_{2.5}$. There are no monitoring stations in San Diego County with data for PM_{10} in the last three years (2020 through 2022). Air quality data collected at the Otay Mesa - Donovan monitoring station for the years 2020 through 2022 are shown in Table 4, *Air Quality Monitoring Data*.

Monitoring data at the Otay Mesa – Donovan Road station reported exceedances of the one-hour ozone state standard on three days in 2020 and on one day in 2022; and exceedances of the 8-hour state/federal ozone standard on ten days in 2020 and on 1 day in 2022. No exceedances of NO_2 occurred during this monitoring period. The Donovan Road station only has reported data for PM2.5 in 2022; the federal one-hour $PM_{2.5}$ standard was not exceeded on any days in 2022. Insufficient data was available for determination of $PM_{2.5}$ annual average standard exceedances in 2020 through 2022 at the Donovan Road station.

Table 4
AIR QUALITY MONITORING DATA

Pollutant Standards	2020	2021	2022
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.113	0.085	0.114
Maximum concentration 8-hour period (ppm)	0.100	0.068	0.071
Days above 1-hour state standard (>0.09 ppm)	3	0	1
Days above 8-hour state/federal standard (>0.070 ppm)	10	0	2
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.057	0.061	0.065
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.008	0.008	0.007
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration (µg/m^3)	79.0	69.0	55.0
Measured Days above 24-hr state standard (>50 µg/m^3)	9	4	3
Measured Days above 24-hr federal standard (>150 µg/m^3)	0	0	0
Annual average (µg/m^3)	31.3	26.9	26.2
Exceed state annual standard (20 µg/m^3)	Yes	Yes	Yes
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	*	*	30.7
Days above 24-hour federal standard (>35 µg/m^3)	*	*	0
Annual average (µg/m^3)	*	*	*
Exceed state and federal annual standard (12 µg/m^3)	*	*	*

Source: CARB 2018b. Data collected at the Otay Mesa-Donovan air quality monitoring station.
ppm = parts per million; µg/m^3 = micrograms per cubic meter; * = insufficient data

3.3 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005, OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptors to aircraft operations at the Airport are multi-family residences near Avenida De Las Vistas, approximately 1,700 feet northwest of the Airport boundary and approximately 3,000 feet northwest of the Runway 8 Left (8L) threshold. The closest school is the San Ysidro High School, 1.5 miles southwest of the Runway 8L threshold. There are no hospitals or daycare centers within 1.5 miles of the Airport.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Air emissions from area and energy sources were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air quality management and air pollution control districts. The calculation methodology, source of emission factors used, and default data is described in the CalEEMod User's Guide, and Appendices C, D, and G (CAPCOA 2022).

In brief, CalEEMod is a computer model that estimates criteria air pollutant and greenhouse gas emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban or rural), operational year, location, climate zone, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default variables and calculations in each of the subsequent modules. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities.

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (woodstoves, fireplaces, consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos, medium truck, etc.), trip distribution (i.e., percent work to home, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters.

In various places the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment, the default parameters were not changed unless otherwise noted. The CalEEMod output files for the project are included in Appendix A to this report.

4.1.1 Construction Emissions

Construction emissions were estimated using CalEEMod based on the proposed construction phases and equipment described below.

4.1.1.1 Construction Phasing

Airport improvements identified in the AMP are proposed over the 20-year planning period (2017 to 2037) and are broken down into two 5-year periods (Phase I and Phase II) and one 10-year period (Phase III). Table 5, *SDM Airport Master Plan Phasing*, lists the improvement tasks and the phasing. All tasks are assumed to occur sequentially (no overlap). Because a portion of the AMP planning period has already passed, for the purposes of this analysis Phase I construction is assumed to commence in January 2025, followed by Phase II construction in January 2026 and Phase III in January 2030. Construction is assumed to occur 8 hours per day, 5 days per week. Some construction activities may occur at night.

Table 5
SDM AIRPORT MASTER PLAN PHASING

Task #	Improvement Projects
Phase I Near-Term 0 - 5 Years	
1-1	Runway 8R/26L and Associated Projects
1-2	Taxiway G West End Improvements and New Taxiway
1-3	Construct New Customs Border Protection Facility and Transient Ramp Improvements*
1-4	Fencing Improvements
1-5	Avigation Easements for Runway 8L/26R Runway Protection Zones[1]
1-6	Customs Border Protection Customs Box Expansion
1-7	Proposed Fuel Tank
1-8	Relocate Segmented Circle and Wind Cones out of Safety Areas
Phase II Mid-Term 6 - 10 Years	
2-1	Realign Taxiway D and Taxiway G Improvements
2-2	Rehabilitate Terminal Building
2-3	Construct New Maintenance Building
2-4	Demolish Abandoned Buildings
2-5	Demolish/Relocate Hangars in Taxiway Object Free Area
2-6	Runway 8R/26L and Associated Projects Preventative Maintenance
2-7	Construct New 2,000 sq/ft Hangars / Add Pavement
Phase III Long-Term 11 - 20 Years	
3-1	New T-Hangars on West End of Apron

Source: C&S Companies 2022

[1] Avigation Easements are assumed to require no construction activity.

* Exempt from CEQA.

4.1.1.2 Pavement Maintenance

AMP tasks identified as runway, taxiway or ramp improvements are assumed to be pavement maintenance treatments in accordance with the *Pavement Maintenance Management Plan* (Atkins 2018). All pavement improvements are assumed to require re-application of runway and taxiway markings following paving activities. Pavement maintenance and improvements are broken into four categories:

- **Preventative Maintenance and Rehabilitation**: Pavement preventative maintenance or rehabilitation would involve a combination of any of the following operations: crack sealing; shallow patching; deep patching; and/or surface treatment. To be conservative, preventative maintenance is assumed to require the same level of treatment as rehabilitation. Three inches of material are assumed to be removed during shallow patching and six inches of material are

assumed to be removed during deep patching. Surface treatment is assumed to be a spray application of a bituminous slurry (also known as a seal coat) without added aggregate. It is assumed that the rehabilitated areas would require new pavement marking. Approximately 450,760 SF of pavement is assumed to require rehabilitative maintenance. The rehabilitation work rate is assumed to be 10,000 SF per day. The percentage of each rehabilitation area affected by repair operations is assumed to be:

  - Crack Sealing: 100%
  - Shallow Patching: 5%
  - Deep Patching: 2%
  - Surface Treatment: 20%
  - Marking: 10%

- **Reconstruction**: Pavement reconstruction is assumed to require removing up to 6 inches of asphalt concrete using a pavement milling machine and exporting the ground asphalt from the site. A new layer of asphalt concrete would be placed by a paving machine followed by a roller. It assumed that the rehabilitated areas would require new pavement marking. Approximately 686,910 SF of pavement is assumed to require reconstruction. The reconstruction work rate is assumed to be approximately 25,000 SF per day.

- **New Surface**: The construction of new surfaces for runways, taxiways, aprons, and hangar/tiedown areas is assumed to require excavating to a depth of approximately 18 inches using a combination of rubber-tired dozers and graders and rubber-tired loader and exporting the material from the site. New surfaces are assumed to be typically 12 inches of subgrade compacted with a steel drum vibratory roller, followed by 6 inches of asphalt concrete laid by a paving machine and compacted with a steel drum vibratory roller. Approximately 1,239,175 SF of pavement is assumed to require new surfacing. The new surface work rate is assumed to be 12,000 SF per day.

- **Pavement Demolition**: Pavement demolition is assumed to require the removal of the asphalt concrete layer (leaving any aggregate subgrade), grinding the removed asphalt, and exporting the material from the site. Approximately 483,140 SF of pavement is assumed to be demolished. The pavement demolition work rate is assumed to be approximately 10,000 SF per day.

4.1.1.3 Pavement Marking

For new or repaired runway or taxiway surfaces, 10 percent of the surface is assumed to require new marking. It is assumed that the area to be marked would be cleaned of rubber and old paint prior to marking using a self-propelled high-pressure blasting truck, followed by a self-propelled automated pavement marking machine with an assumed total 712 hp (2 engines). For new or repaired runway or taxiway surfaces, 1,389,965 SF is assumed to require new marking. The marking work rate is assumed to be 35,000 SF per day.

4.1.1.4 Hangar Construction Assumptions

Hangars are assumed to be pre-fabricated and pre-painted panels assembled onto a welded frame with a crane and/or a fork lift on a concrete slab foundation. For a series of hangars, the work rate is assumed to be approximately 500 SF per day.

4.1.1.5 Building Demolition Assumptions

Demolition of buildings and structures, including hangars, and (conservatively) including the terminal building rehabilitation, were modeled using the CalEEMod default equipment. The demolition schedule and crew size were estimated based on the building square footage from the proposed AMP.

4.1.1.6 Maintenance Building Construction and Terminal Building Rehabilitation

Construction of the proposed maintenance building and the rehabilitated terminal building were modeled using the CalEEMod default equipment and schedule, based on the building square footage from the proposed AMP. Grid electrical power was assumed to be used for all small construction equipment (no diesel-powered generators, welders, or air compressors). The maintenance building construction and terminal building rehabilitation was conservatively assumed to require a crew of up to ten and one vendor deliveries per day.

4.1.1.7 Construction Equipment Assumptions

The construction equipment to be used for each improvement task in the proposed AMP has not been determined at the time of this programmatic analysis. A conservative (high) estimate of the maximum anticipated required equipment is shown in Table 6, *Construction Equipment Assumptions*.

Table 6
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity Type	Equipment	Quantity	Hours per Day
Pavement Maintenance/ Rehabilitation	Crack Sealing Truck	1	5
	Concrete Saw	1	2
	Tractors/Loaders/Backhoes	1	7
	Paving Equipment	1	2
	Roller	1	2
Pavement Reconstruction	Pavement Milling Machine	1	6
	Paving Machine	1	6
	Paving Equipment	1	6
	Roller	1	7
Pavement New Surface	Rubber Tired Dozer	1	4
	Rubber Tired Loader	1	4
	Grader	1	4
	Paving Machine	1	5
	Paving Equipment	1	5
	Roller	1	5
Pavement Demolition	Concrete Saw	1	2
	Rubber Tired Dozer	1	7
	Rubber Tired Loader	1	4
	Excavator	1	7
	Grinding/Crushing Machine	1	4
Pavement Marking	Blasting Truck	1	4
	Marking Machine	1	4

Activity Type	Equipment	Quantity	Hours per Day
Hangar Construction	Rubber Tired Dozer	1	4
	Tractors/Loaders/Backhoes	1	4
	Crane	1	3
	Forklift	1	3
	Aerial Lift	1	3
	Welder	1	2
	Generator	1	6
Building Demolition	Concrete Saw	1	8
	Excavator	1	8
	Rubber Tired Dozer	1	8
Building Construction/Rehabilitation	Crane	1	4
	Forklift	1	6
	Tractors/Loaders/Backhoes	1	8
Fencing and Miscellaneous	Tractors/Loaders/Backhoes	1	7
Fuel Tank Excavation	Excavator	1	7
	Tractors/Loaders/Backhoes	1	7

Source: CalEEMod (output data, including equipment horsepower, is provided in Appendix A)

4.1.2 Operational Emissions

For long-term operation, emissions resulting from the 14,000 SF terminal building, the new 10,000 SF maintenance building, and the 107 new hangars were modeled. Operational emissions were modeled for the first full year of operation following the earliest anticipated completion of all proposed improvements – 2031. The new hangars would be built as needed to meet demand during the AMP planning period. To be conservative in estimating the highest potential increase in operational emissions, all hangars were assumed to be completed by the end of 2030.

4.1.2.1 Mobile (Transportation) Sources

Operational emissions from mobile source emissions are associated with project related vehicle miles traveled (VMT) (calculated in the model from trip generation and trip lengths). Project trip generation was analyzed in the *Brown Field Municipal Airport Transportation Impact Analysis and Local Mobility Analysis*. Project trip generation was based on vehicular counts for airport driveways during one week in March 2024, and on airport flight operations during the same week. Trips and employees per flight operation were calculated and used to estimate 231 new daily airport trips in 2037 (CR Associates 2024). The calculated net new project trips were used in the emissions modeling with CalEEMod default distances, purposes, and fleet mix.

4.1.2.2 Area Sources

Area sources include emissions from landscaping equipment, the use of consumer products, and the reapplication of architectural coatings for maintenance. Emissions associated with area sources were estimated using the CalEEMod default values.

4.1.2.3 Energy Sources

Development within the project site would use electricity for lighting, heating, cooling, and appliances. Electricity generation typically entails the combustion of fossil fuels, including natural gas and coal,

which is then transmitted to end users. A building's electricity use is thus associated with the off-site or indirect emission of greenhouse gas at the source of electricity generation (power plant).

The terminal building and the maintenance building could use natural gas for heating, hot water, and appliances which would result in emissions from the combustion of natural gas. Energy use for the terminal building and the maintenance building were modeled using CalEEMod defaults. Hangers were assumed to use only CalEEMod default electricity not subject to Title 24 (e.g., lighting, plug-in appliances, and tools).

4.2 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's California Environmental Quality Act (CEQA) Guidelines Appendix G, the City's CEQA Significance Determination Thresholds (2022), and applicable air district screening-level thresholds described below. Thresholds have been modified from the City's CEQA Significance Determination Thresholds to reflect a programmatic analysis for the proposed project. A significant air quality and/or odor impact could occur if the project would:

1. Conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP;

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3. Result in a cumulatively considerable net increase for which the SDAB is in non-attainment under the NAAQS or CAAQS;

4. Expose sensitive receptors (including, but not limited to, residences, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or

5. Create objectionable odors affecting a substantial number of people.

To determine whether the project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or the ozone precursors NO_X and VOCs, the City has adopted screening criteria (City 2022). These screening criteria are based on the SDAPCD trigger levels listed in Rules 20.2 and 20.3 established for the use in the permitting process for stationary sources of pollutants. Since the last revisions to the City's CEQA guidelines, the SDAPCD has added criteria for $PM_{2.5}$. The screening criteria were developed by SDAPCD for the preparation of Air Quality Impact Assessments (AQIAs; SDAPCD 2019; SDAPCD 2021b). The NAAQS and CAAQS, as discussed in Section 2.1.1, identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Therefore, for CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality or have an adverse effect on human health. The City has not adopted thresholds to determine the significance of exposure of sensitive to substantial TAC concentrations. In Rule 1210, the SDAPCD has adopted thresholds for the significance of cancer and non-cancer health effects for stationary source of TACs which are required to prepare a health risk assessment (SDAPCD 2021c). The health risk thresholds can be used as screening criteria to determine the significance of a

project's emissions of TACs. The screening thresholds are shown in Table 7, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 7
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions		
Construction Emissions (Pounds/Day)			
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	67		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	137		
Operational Emissions			
	Pounds per Hour	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	67	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	137	15
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: City 2022; SDPACD 2021b; SDAPCD 2021c; SDAPCD 2019
T-BACT = Toxics-Best Available Control Technology

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

5.0 PROJECT IMPACTS

This section evaluates potential air quality and odor impacts of the project.

5.1 ISSUE 1: CONSISTENCY WITH THE REGIONAL AIR QUALITY PLAN

5.1.1 Impacts

As discussed in Section 4.2, the thresholds of significance for the project's criteria pollutant and precursor emissions are based on the SDAPCD AQIA trigger levels. These significance thresholds have been established to assist lead agencies in determining whether a project may have a significant air

quality impact during the initial study. A project with emissions lower than the thresholds would not conflict with or obstruct implementation of the District's air quality plans for attainment of the applicable NAAQS and CAAQS. As discussed in Section 5.2 below, the project would not exceed the construction operational related thresholds of significance for criteria pollutants and precursor emissions.

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. In addition, the SDAPCD's Attainment Plan includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the RAQS, Attainment Plan, and SIP.

The RAQS and Attainment Plan rely on information from CARB and SANDAG, including projected growth in San Diego County, mobile, area and all other source emissions to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends and land use plans developed by the cities and by San Diego County. As such, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS and Attainment Plan. If a project proposes development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the RAQS and Attainment Plan. If a project proposes development that is greater than that anticipated in the City General Plan and SANDAG's growth projections upon which the Attainment Plan is based, the project may conflict with the RAQS, Attainment Plan, and SIP and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the project and the surrounding projects exceed the growth projections used in the RAQS and Attainment Plan for the specific subregional area.

As discussed in Section 1.3, the proposed AMP outlines a series of airside and landside improvements and modifications that would accommodate current aircraft and forecast demands. Collectively these improvements and modifications would provide for safer air travel as well as economic benefits by modernizing and expanding the useable spaces to meet the forecast demand. It is not anticipated that implementation of the proposed AMP would result in an increase in demand for use of the Airport airside or landside facilities beyond the forecast growth in aviation and aviation-related services in the San Diego region. The AMP does not include residential development. Therefore, implementation of proposed project would not result in regional growth of population beyond that anticipated in the General Plan and Otay Mesa Community Plan and would not result in growth beyond the assumptions utilized in developing the SDAPCD's RAQS and Attainment Plan.

5.1.2 Significance of Impacts

Because implementation of the proposed project would conflict with or obstruct implementation of the San Diego RAQS, Attainment Plan, or applicable portions of the SIP, the impact would be less than significant.

5.1.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.1.4 Significance After Mitigation

Impacts related to consistency with applicable air quality plans would be less than significant.

5.2 ISSUE 2: CONFORMANCE TO FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

5.2.1 Impacts

Implementation of the proposed AMP would generate criteria pollutants in the short-term during construction and the long-term during operation. To determine whether a project would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, emissions associated with the improvement projects included in the proposed airport plan were evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 7).

5.2.1.1 Construction

Construction activities associated implementation of the airside and landside improvements under the proposed AMP would result in emissions of fugitive dust from demolition and site grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. Improvement project task numbers 1-5 would establish or modify avigation easements and would not require any physical construction activity. Construction emissions were modeled by activity type and each modeled activity includes the combined emissions resulting from construction of the proposed improvement listed in Table 5. The estimated maximum daily construction emissions are shown in Table 8, *Construction Criteria Pollutant and Precursor Emissions*. The emissions estimates assume compliance with the SDAPCD Rule 55 via watering exposed areas and demolition area a minimum of twice per day. The CalEEMod output files are included as appendix A to this report.

Table 8
CONSTRUCTION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS

Activity	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase I Near-Term						
Pavement Demolition	1.5	20.7	16.2	<0.1	7.3	1.8
New Surface Grading	0.9	21.8	11.5	<0.1	4.9	2.0
New Surface Paving	10.7	6.3	4.9	<0.1	1.0	0.4
Pavement Rehabilitation	0.5	3.8	5.4	<0.1	0.3	0.2
Pavement Reconstruction	1.1	18.4	12.2	<0.1	2.5	1.0
Pavement Marking	14.9	5.4	4.9	<0.1	0.3	0.2
Fencing and Miscellaneous	0.1	1.0	1.8	<0.1	<0.1	<0.1
Fuel Tank Excavation	0.2	1.7	2.8	<0.1	0.1	<0.1
New Customs and Border Protection Building Construction	0.6	5.3	7.9	<0.1	0.4	0.2
New Customs and Border Protection Building Painting	7.1	0.9	1.5	<0.1	0.1	<0.1
Phase II Mid-Term						
Pavement Demolition	1.4	18.9	15.6	<0.1	6.8	1.7
New Surface Grading	1.1	25.6	14.5	<0.1	5.9	2.2
New Surface Paving	4.7	7.1	5.2	<0.1	1.2	0.4
Pavement Rehabilitation	0.5	3.5	5.2	<0.1	0.2	0.1
Pavement Reconstruction	1.0	13.4	10.5	<0.1	1.5	0.6
Pavement Marking	15.1	5.2	4.9	<0.1	0.3	0.2
Building Demolition	2.0	21.0	19.8	<0.1	4.5	1.3
Maintenance Building Construction	0.6	4.9	7.8	<0.1	0.4	0.2
Maintenance Building Painting	2.0	0.9	1.5	<0.1	0.1	<0.1
Terminal Building Construction/Renovation	0.6	4.9	7.7	<0.1	0.4	0.2
Terminal Building Painting	5.9	0.9	1.5	<0.1	0.1	<0.1
Hangar Construction	0.4	3.3	4.5	<0.1	0.3	0.1
Phase III Long-Term						
New Surface Grading	0.9	22.8	14.3	<0.1	6.0	2.2
New Surface Paving	5.5	5.2	4.6	<0.1	0.9	0.3
Hangar Construction	0.4	3.0	4.3	<0.1	0.3	0.1
Maximum Daily Emissions	**15.1**	**25.6**	**19.8**	**<0.1**	**7.3**	**2.2**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Source: CalEEMod; Thresholds City 2022.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 8, emissions of all criteria pollutants and precursors related to project construction would be below the SDAPCD's screening thresholds. The maximum daily emissions shown assume all construction activities within each phase would occur sequentially (no overlap). If activities were to overlap, the maximum potential daily emissions would be the sum of the activities within a phase, resulting in a maximum of 39 pounds per day ROG during Phase I (threshold is 137 pounds per day); 127 pounds per day NO_X during Phase II (threshold is 250 pounds per day); and 127 pounds per day CO during Phase II (threshold is 250 pounds per day). No combination of overlapping construction activities would have the potential to result in emissions exceeding the SDAPCD's maximum daily thresholds.

5.2.1.2 Operation

Existing sources of non-aircraft related criteria pollutants and precursors associated with operation of the Airport include mobile sources such as exhaust from visitor, pilot, employee, and vendor vehicles; area sources such as the use of landscape maintenance and aviation support equipment, and the use of consumer products and paint for cleaning and maintenance. The proposed rehabilitated terminal building, the new maintenance building, and new hangars could result in an increase in building energy and area sources of criteria pollutants and precursors. The potential increase in non-aircraft operational emissions resulting from implementation of the project is shown in Table 9, *Operation Criteria Pollutant and Precursor Emissions (Non-Aircraft Related)*.

Table 9
OPERATION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (NON-AIRCRAFT RELATED)

Source	Maximum Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile	0.9	0.7	7.6	<0.1	2.0	0.5
Area	5.3	0.0	7.7	<0.1	<0.1	<0.1
Energy	0.0	0.2	0.2	<0.1	<0.1	<0.1
Total[1]	**6.3**	**0.9**	**15.5**	**<0.1**	**2.0**	**0.5**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Source: CalEEMod; Thresholds City 2022.

[1] Totals may not sum due to rounding.

ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = oxides of sulfur; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns

As shown in Table 9, increases in non-aircraft operational emissions from implementation of the project would not exceed the City screening thresholds. Therefore, implementation of the proposed AMP would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation and the impact would be less than significant.

5.2.2 Significance of Impacts

Criteria pollutant and precursor pollutant emissions generated during construction or non-flight related operational activities related to implementation of the proposed project would not exceed the SDAPCD screening thresholds. Therefore, implementation of the proposed project would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation and the impact would be less than significant.

5.2.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.2.4 Significance After Mitigation

Impacts related to consistency with applicable air quality plans would be less than significant.

5.3 ISSUE 3: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SDAB. The region is a federal and/or state nonattainment area for PM_{10}, $PM_{2.5}$, and ozone. Implementation of the proposed AMP would contribute particulate matter and the ozone precursors ROGs and NO_X to the area during construction and operation of the proposed airport plan. As described in Section 5.2.1, emissions during construction and operation would not result in the violation any air quality standard or contribute substantially to an existing or projected air quality violation.

5.3.1 Significance of Impacts

Criteria pollutant and precursor pollutant emissions generated during construction and non-flight operations activities related to implementation of the proposed project would not exceed the SDAPCD screening thresholds. Therefore, emissions of criteria pollutants and precursors related to implementation of the proposed project would not be cumulatively considerable.

5.3.2 Mitigation Framework

Impacts would not be cumulatively considerable; therefore, no mitigation measures are required.

5.3.3 Significance After Mitigation

Impacts related to cumulative net increases of criteria pollutants would not be cumulatively considerable.

5.4 ISSUE 4: IMPACTS TO SENSITIVE RECEPTORS

5.4.1 Impacts

5.4.1.1 Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution in excess of the NAAQS concentration limit that is typically caused by severe vehicle congestion on major roadways. Transport of the criteria pollutant CO is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with high volume intersections that are projected to operate at unacceptable levels of service (LOS) during the peak commute hours.[2]

Neither the City nor the SDAPCD have adopted screening methods for CO hotspots. The Bay Area Air Quality Management District (BAAQMD) provides screening guidance in their CEQA Guidelines

[2] LOS is a measure to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

concerning the volume of traffic which could result in a CO hotspot: intersections which carry more than 44,000 vehicles per hour; or intersections which carry more than 24,000 vehicles per hour and where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway) (BAAQMD 2023).

The project would not contribute traffic to a location where horizontal or vertical mixing of air would be substantially limited. All intersections affected by the project would include a mix of vehicle types that are not anticipated to be substantially different from the County average fleet mix, as identified in CalEEMod. According to the SANDAG Transportation Forecast Information Center, the busiest intersection in the project vicinity would be the intersection of Otay Mesa Road and Heritage Road which is forecast to carry 31,900 vehicle per day, or approximately 3,910 vehicles during the peak hour in 2035 (SANDAG 2019). The project's addition of 231 vehicles per day, or 23 vehicles during the peak hour, would result in the intersection carrying approximately 3,934 vehicles during the peak hour. This would be far below the screening level of44,000 vehicles per hour. Therefore, the project's contribution to future traffic would not result in CO hotspots and the impact would be less than significant.

5.4.1.2 Exposure to Toxic Air Contaminants

Construction Diesel Particulate Matter Emissions

Implementation of the proposed AMP would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as hangar construction. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005).

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed amount of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (Office of Environmental Health Hazard Assessment [OEHHA] 2015). Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the Airport over a 20-year phasing plan, it is not anticipated that implementation of the AMP would expose sensitive receptors to substantial construction-related DPM concentrations. Therefore, this impact would be less than significant.

Construction Asbestos and Lead Based Paint Emissions

Asbestos dust and lead are known carcinogens classified as TACs by CARB. Both may be found in buildings constructed prior to 1979 when lead was used in LBP and asbestos was used as a component of building materials such as walls, ceilings, insulation, or fireproofing. Demolition and renovation of existing structures erected prior to 1979 could result in the disturbance of ACMs and LBP.

Airborne asbestos is regulated in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations. Federal and state regulations prohibit emissions of asbestos from demolition or construction activities. Following identification of friable ACMs, federal and state Occupational and Safety Health Administration (OSHA) regulations require that asbestos trained, and certified abatement personnel perform asbestos abatement and that all asbestos-containing materials removed from on-site structures must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. In accordance with the SDAPCD Rule 1206, *Asbestos Removal, Renovation, and Demolition*, prior to commencement of renovation or demolition operations and prior to submitting the notifications required by Section (e) of Rule 1206, a facility survey shall be performed to determine the presence or absence of ACM, regardless of the age of the facility (SDAPCD 2017). USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb LBP in structures built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers or lead dust and require notice to federal and/or local government agencies prior to beginning demolition or renovation that could disturb ACM. Therefore, compliance with established regulations would ensure that potential impacts associated with ACM and LBP would be less than significant.

Other Operation-related TAC Emissions

Long-term operation of the airport includes the operation of piston-engine powered aircraft which typically burn 100LL avgas. As described in Section 2.2.4, the exhaust of aircraft burning 100LL avgas contains lead. The assessment of aircraft-related air pollutant emissions is not included in this report.

Other long-term non-flight related operational emissions include toxic substances such as cleaning agents in use at the Airport. Use of these substances are not expected to increase beyond what is currently in use at the Airport. Compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents is regulated by the 1990 Federal Clean Air Act Amendments as well as State-adopted regulations for the chemical composition of consumer products. Therefore, implementation of the AMP would not result in the exposure of sensitive receptors to substantial pollutant concentrations related to operation of the Airport and the impact would be less than significant.

5.4.2 Significance of Impacts

Construction of the proposed improvement tasks within the AMP would not expose sensitive receptors to substantial concentrations of CO, DPM, ACM, LBP or other TACs. Long-term operation of the Airport as a result of implementation of the AMP would not result in significant increased long-term emissions

of other toxic substances. Therefore, implementation of the proposed AMP would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

5.4.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.4.4 Significance After Mitigation

Impacts to sensitive receptors would be less than significant.

5.5 ISSUE 5: ODORS

5.5.1 Impacts

As discussed above, the State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials.

Existing operation of the Airport could be an occasional source of some odors including from vehicle exhaust, aircraft refueling, and solid waste collection. Implementation of the proposed AMP would not substantially change existing sources of odors from existing Airport operation. The primary new facilities in the AMP (hangars, maintenance building, and administration uses) would not generate new sources of odor compared to existing facilities. Therefore, long-term operation of the Airport under the proposed AMP would not create objectionable odors affecting a substantial number of people.

5.5.2 Significance of Impacts

Potential construction-generated odors would be localized, temporary, intermittent, and not expected to affect a substantial number of people. Implementation of the proposed AMP would not substantially change existing sources of odors from Airport operation. Therefore, impacts associated with odors would be less than significant.

5.5.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.5.4 Significance After Mitigation

Impacts related to odors would be less than significant.

6.0 LIST OF PREPARERS

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Appendix A

CalEEMod Output

SDM AMP Near-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDM AMP Near-Term Construction
Construction Start Date	1/2/2025
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.572419898935365, -116.9806118044164
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6601
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.23

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
Other Asphalt Surfaces	1,202	1000sqft	27.6	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.9	18.4	12.2	0.07	0.46	2.01	2.48	0.44	0.55	0.99	10,524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.7	21.8	16.2	0.08	0.66	6.60	7.26	0.62	1.50	1.97	13,121
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.89	5.88	5.64	0.02	0.19	0.91	1.10	0.18	0.20	0.37	2,534
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	1.07	1.03	< 0.005	0.03	0.17	0.20	0.03	0.04	0.07	420

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2025	14.9	18.4	12.2	0.07	0.46	2.01	2.48	0.44	0.55	0.99	10,524
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2025	10.7	21.8	16.2	0.08	0.66	6.60	7.26	0.62	1.50	1.97	13,121

Average Daily	—	—	—	—	—	—	—	—	—	—	—
2025	1.89	5.88	5.64	0.02	0.19	0.91	1.10	0.18	0.20	0.37	2,534
Annual	—	—	—	—	—	—	—	—	—	—	—
2025	0.34	1.07	1.03	< 0.005	0.03	0.17	0.20	0.03	0.04	0.07	420

3. Construction Emissions Details

3.1. Pavement Demolition (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.1	12.5	0.02	0.54	—	0.54	0.50	—	0.50	2,102
Demolition	—	—	—	—	—	4.84	4.84	—	0.73	0.73	—
Onsite truck	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	0.12	1.12	1.16	< 0.005	0.05	—	0.05	0.05	—	0.05	196
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	32.4
Demolition	—	—	—	—	—	0.08	0.08	—	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

Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	8.56	3.12	0.04	0.12	1.62	1.74	0.12	0.44	0.56	6,604
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.80	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	616
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	102

3.3. New Surface Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	6.07	5.59	0.01	0.28	—	0.28	0.26	—	0.26	977
Dust From Material Movement	—	—	—	—	—	1.41	1.41	—	0.67	0.67	—

Onsite truck	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	0.01	0.12	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	18.7
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.10
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	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	0.02	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	45.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	15.7	5.71	0.07	0.21	2.98	3.19	0.21	0.82	1.03	12,099
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.30	0.11	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	232
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	38.4

3.5. New CPB Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	1,309
Onsite truck	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	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	1,309
Onsite truck	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	0.14	1.41	1.90	< 0.005	0.06	—	0.06	0.05	—	0.05	359
Onsite truck	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	0.03	0.26	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	59.4
Onsite truck	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	0.08	0.06	0.93	0.00	0.00	0.17	0.17	0.00	0.04	0.04	193
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	52.3
Hauling	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	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	182
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	52.2
Hauling	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	0.02	0.02	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	50.3
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	14.3
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.32
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.37
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. New Surface Paving (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.33	3.12	< 0.005	0.11	—	0.11	0.10	—	0.10	474
Paving	10.3	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.09

Paving	0.20	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.50
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	68.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	3.92	1.43	0.02	0.05	0.74	0.80	0.05	0.20	0.26	3,025
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	58.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.61

3.9. Pavement Marking (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.36	4.40	0.02	0.18	—	0.18	0.17	—	0.17	2,068
Architectural Coatings	14.2	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.41	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	159
Architectural Coatings	1.09	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.08	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	26.3
Architectural Coatings	0.20	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.04

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. New CPB Building Painting (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	134
Architectural Coatings	6.92	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.84
Architectural Coatings	0.09	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.30

Architectural Coatings	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	90.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Pavement Rehabilitation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	3.60	4.71	0.01	0.13	—	0.13	0.12	—	0.12	1,262
Onsite truck	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	0.48	3.60	4.71	0.01	0.13	—	0.13	0.12	—	0.12	1,262
Onsite truck	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	0.04	0.28	0.36	< 0.005	0.01	—	0.01	0.01	—	0.01	96.8
Onsite truck	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	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.58	0.00	0.00	0.11	0.11	0.00	0.02	0.02	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.02	0.02	113
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.18	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	136
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.4
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.46

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.72

3.15. Pavement Reconstruction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	8.58	8.03	0.02	0.33	—	0.33	0.30	—	0.30	2,576
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.54	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	162
Onsite truck	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	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	26.9
Onsite truck	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	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.16	9.81	3.66	0.05	0.14	1.93	2.07	0.14	0.53	0.67	7,851
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.64	0.23	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	494
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	81.8

3.17. Fencing, Seg. Circle & Windsock (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.96	1.67	< 0.005	0.04	—	0.04	0.03	—	0.03	255
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.99
Onsite truck	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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.16
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Fuel Tank Excavation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.69	2.56	< 0.005	0.06	—	0.06	0.05	—	0.05	379
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.4
Onsite truck	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	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.72
Onsite truck	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	0.02	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	48.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
Pavement Demolition	Demolition	1/2/2025	2/18/2025	5.00	34.0	—
New Surface Grading	Grading	2/19/2025	2/27/2025	5.00	7.00	—
New CPB Building Construction	Building Construction	7/26/2025	12/12/2025	5.00	100	—
New Surface Paving	Paving	2/28/2025	3/10/2025	5.00	7.00	—
Pavement Marking	Architectural Coating	5/21/2025	6/27/2025	5.00	28.0	—
New CPB Building Painting	Architectural Coating	12/13/2025	12/19/2025	5.00	5.00	—
Pavement Rehabilitation	Trenching	3/11/2025	4/17/2025	5.00	28.0	—
Pavement Reconstruction	Trenching	4/18/2025	5/20/2025	5.00	23.0	—
Fencing, Seg. Circle & Windsock	Trenching	6/28/2025	7/11/2025	5.00	10.0	—
Fuel Tank Excavation	Trenching	7/12/2025	7/25/2025	5.00	10.0	—

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
Pavement Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73
Pavement Demolition	Other Construction Equipment	Diesel	Average	1.00	4.00	85.0	0.78
Pavement Demolition	Excavators	Diesel	Average	1.00	7.00	36.0	0.38
Pavement Demolition	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Pavement Demolition	Rubber Tired Loaders	Diesel	Average	1.00	4.00	150	0.36
Pavement Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
New Surface Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
New Surface Grading	Rubber Tired Dozers	Diesel	Average	1.00	4.00	367	0.40

New CPB Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
New CPB Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
New CPB Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
New Surface Paving	Pavers	Diesel	Average	1.00	5.00	81.0	0.42
New Surface Paving	Paving Equipment	Diesel	Average	1.00	5.00	89.0	0.36
New Surface Paving	Rollers	Diesel	Average	1.00	5.00	36.0	0.38
Pavement Marking	Other Construction Equipment	Diesel	Average	1.00	4.00	712	0.42
Pavement Marking	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
New CPB Building Painting	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Pavement Rehabilitation	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73
Pavement Rehabilitation	Off-Highway Trucks	Diesel	Average	1.00	5.00	376	0.38
Pavement Rehabilitation	Paving Equipment	Diesel	Average	1.00	2.00	89.0	0.36
Pavement Rehabilitation	Rollers	Diesel	Average	1.00	2.00	36.0	0.38
Pavement Rehabilitation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Pavement Reconstruction	Other Construction Equipment	Diesel	Average	1.00	6.00	675	0.42
Pavement Reconstruction	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Pavement Reconstruction	Paving Equipment	Diesel	Average	1.00	6.00	89.0	0.36
Pavement Reconstruction	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Fencing, Seg. Circle & Windsock	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Fuel Tank Excavation	Excavators	Diesel	Average	1.00	7.00	36.0	0.38

Fuel Tank Excavation	Tractors/Loaders/Backh	Diesel	Average	1.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Pavement Demolition	—	—	—	—
Pavement Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Pavement Demolition	Vendor	—	7.63	HHDT,MHDT
Pavement Demolition	Hauling	87.6	20.0	HHDT
Pavement Demolition	Onsite truck	—	—	HHDT
New Surface Grading	—	—	—	—
New Surface Grading	Worker	5.00	12.0	LDA,LDT1,LDT2
New Surface Grading	Vendor	—	7.63	HHDT,MHDT
New Surface Grading	Hauling	161	20.0	HHDT
New Surface Grading	Onsite truck	—	—	HHDT
New Surface Paving	—	—	—	—
New Surface Paving	Worker	7.50	12.0	LDA,LDT1,LDT2
New Surface Paving	Vendor	—	7.63	HHDT,MHDT
New Surface Paving	Hauling	40.1	20.0	HHDT
New Surface Paving	Onsite truck	—	—	HHDT
Pavement Marking	—	—	—	—
Pavement Marking	Worker	10.0	12.0	LDA,LDT1,LDT2
Pavement Marking	Vendor	—	7.63	HHDT,MHDT
Pavement Marking	Hauling	0.00	20.0	HHDT
Pavement Marking	Onsite truck	—	—	HHDT
Pavement Rehabilitation	—	—	—	—

Pavement Rehabilitation	Worker	12.5	12.0	LDA,LDT1,LDT2
Pavement Rehabilitation	Vendor	—	7.63	HHDT,MHDT
Pavement Rehabilitation	Hauling	1.80	20.0	HHDT
Pavement Rehabilitation	Onsite truck	—	—	HHDT
Pavement Reconstruction	—	—	—	—
Pavement Reconstruction	Worker	10.0	12.0	LDA,LDT1,LDT2
Pavement Reconstruction	Vendor	—	7.63	HHDT,MHDT
Pavement Reconstruction	Hauling	104	20.0	HHDT
Pavement Reconstruction	Onsite truck	—	—	HHDT
Fencing, Seg. Circle & Windsock	—	—	—	—
Fencing, Seg. Circle & Windsock	Worker	2.50	12.0	LDA,LDT1,LDT2
Fencing, Seg. Circle & Windsock	Vendor	—	7.63	HHDT,MHDT
Fencing, Seg. Circle & Windsock	Hauling	0.00	20.0	HHDT
Fencing, Seg. Circle & Windsock	Onsite truck	—	—	HHDT
Fuel Tank Excavation	—	—	—	—
Fuel Tank Excavation	Worker	5.00	12.0	LDA,LDT1,LDT2
Fuel Tank Excavation	Vendor	—	7.63	HHDT,MHDT
Fuel Tank Excavation	Hauling	0.00	20.0	HHDT
Fuel Tank Excavation	Onsite truck	—	—	HHDT
New CPB Building Construction	—	—	—	—
New CPB Building Construction	Worker	20.0	12.0	LDA,LDT1,LDT2
New CPB Building Construction	Vendor	2.00	7.63	HHDT,MHDT
New CPB Building Construction	Hauling	0.00	20.0	HHDT
New CPB Building Construction	Onsite truck	—	—	HHDT
New CPB Building Painting	—	—	—	—
New CPB Building Painting	Worker	10.0	12.0	LDA,LDT1,LDT2
New CPB Building Painting	Vendor	—	7.63	HHDT,MHDT

New CPB Building Painting	Hauling	0.00	20.0	HHDT
New CPB Building Painting	Onsite truck	—	—	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)
Pavement Marking	0.00	0.00	0.00	0.00	86,025
New CPB Building Painting	0.00	0.00	7,840	7,080	0.00

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 (Ton of Debris)	Acres Paved (acres)
Pavement Demolition	0.00	0.00	0.00	11,917	—
New Surface Grading	4,496	4,496	1.50	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	27.6

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Asphalt Surfaces	27.6	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	9.36	annual days of extreme heat
Extreme Precipitation	2.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.20	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9
Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2
Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4
Unemployment	43.1

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	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973
Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167
Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007
Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052

Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2
Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5
Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6
No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0

Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0
Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	50.0
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 & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule estimated from AMP task list and Pavement Maintenance Management Plan.
Construction: Off-Road Equipment	Equipment estimated based on the ALP and activities described in the Pavement Maintenance Plan. Other Construction Equipment for pavement demolition = asphalt and concrete debris crusher. Off-Highway Truck for pavement marking = automated runway striping machine. Other Construction Equipment for pavement marking = pavement paint blasting machine. Off-Highway Truck for pavement rehabilitation = crack sealing truck. Other Construction Equipment for pavement rehabilitation = pavement milling machine.
Construction: Trips and VMT	Pavement Marking and building painting crew size estimated at 5 per day (10 worker trips/day). Pavement haul trips are 1 way (2 trips per load) and assume 16 CY per tandem trailer load. Import and export is not phased. CPB Building Construction crew size estimate at 10 per day (20 worker trips/day), vendor trips estimated at 2 per day.
Construction: Architectural Coatings	Marking assumed to be 10% of new or repaired pavement.
Construction: Dust From Material Movement	Grading assumes 18 inches soil removed and replaced with 18 inches of uncompressed aggregate.

SDM AMP Mid-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDM AMP Mid-Term Construction
Construction Start Date	1/2/2026
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.572419898935365, -116.9806118044164
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6601
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.23

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
Other Asphalt Surfaces	1,310	1000sqft	30.1	0.00	0.00	—	—	—

Government Office Building	14.0	1000sqft	0.32	14,000	0.00	—	—	—
General Light Industry	10.0	1000sqft	0.23	10,000	0.00	—	—	—
Unrefrigerated Warehouse-No Rail	64.0	1000sqft	1.47	64,000	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.1	21.0	19.8	0.05	0.66	3.85	4.50	0.59	0.71	1.30	6,831
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.72	25.6	15.6	0.11	0.60	6.18	6.79	0.53	1.74	2.19	16,561
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.43	5.99	6.23	0.02	0.19	0.86	1.04	0.17	0.21	0.37	2,607
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	1.09	1.14	< 0.005	0.03	0.16	0.19	0.03	0.04	0.07	432

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	15.1	21.0	19.8	0.05	0.66	3.85	4.50	0.59	0.71	1.30	6,831
2027	5.94	4.67	7.75	0.01	0.17	0.18	0.35	0.15	0.04	0.20	1,545
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	4.72	25.6	15.6	0.11	0.60	6.18	6.79	0.53	1.74	2.19	16,561
2027	0.55	4.68	7.65	0.01	0.17	0.18	0.35	0.15	0.04	0.20	1,534
2028	0.42	3.15	4.40	0.01	0.10	0.18	0.29	0.10	0.04	0.14	979
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	1.43	5.99	6.23	0.02	0.19	0.86	1.04	0.17	0.21	0.37	2,607
2027	0.43	2.82	4.28	0.01	0.10	0.13	0.23	0.09	0.03	0.12	889
2028	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.67
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.26	1.09	1.14	< 0.005	0.03	0.16	0.19	0.03	0.04	0.07	432
2027	0.08	0.51	0.78	< 0.005	0.02	0.02	0.04	0.02	0.01	0.02	147
2028	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.27

3. Construction Emissions Details

3.1. Pavement Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.24	11.2	12.1	0.02	0.50	—	0.50	0.46	—	0.46	2,103
Demolition	—	—	—	—	—	4.54	4.54	—	0.69	0.69	—
Onsite truck	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	0.06	0.52	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	97.9
Demolition	—	—	—	—	—	0.21	0.21	—	0.03	0.03	—
Onsite truck	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	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.2
Demolition	—	—	—	—	—	0.04	0.04	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.12	7.71	2.88	0.04	0.11	1.52	1.63	0.07	0.42	0.49	6,058
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.36	0.13	< 0.005	0.01	0.07	0.08	< 0.005	0.02	0.02	282
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	46.7

3.3. Building Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.85	16.4	17.0	0.03	0.59	—	0.59	0.55	—	0.55	2,765
Demolition	—	—	—	—	—	2.72	2.72	—	0.41	0.41	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.67	0.70	< 0.005	0.02	—	0.02	0.02	—	0.02	114
Demolition	—	—	—	—	—	0.11	0.11	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.8
Demolition	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	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	0.09	0.07	1.08	0.00	0.00	0.21	0.21	0.00	0.05	0.05	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.08	4.46	1.71	0.02	0.07	0.91	0.98	0.04	0.25	0.29	3,643
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.19	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	150
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.8

3.5. New Surface Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.19	6.92	0.01	0.29	—	0.29	0.27	—	0.27	1,228
Dust From Material Movement	—	—	—	—	—	1.42	1.42	—	0.67	0.67	—
Onsite truck	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	0.04	0.31	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	60.6

Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—
Onsite truck	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	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.0
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	66.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.31	19.4	7.27	0.10	0.27	3.83	4.11	0.18	1.05	1.23	15,266
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.95	0.36	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	753
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	125

3.7. Maintenance Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	4.81	6.91	0.01	0.19	—	0.19	0.17	—	0.17	1,309
Onsite truck	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	0.49	4.81	6.91	0.01	0.19	—	0.19	0.17	—	0.17	1,309
Onsite truck	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	0.16	1.58	2.27	< 0.005	0.06	—	0.06	0.06	—	0.06	430
Onsite truck	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	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	71.2
Onsite truck	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	0.07	0.06	0.86	0.00	0.00	0.17	0.17	0.00	0.04	0.04	189
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.4
Hauling	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	0.07	0.06	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	178
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.3

Hauling	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	0.02	0.02	0.25	0.00	0.00	0.05	0.05	0.00	0.01	0.01	59.1
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	16.9
Hauling	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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.78
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Terminal Building Rehab (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	4.81	6.91	0.01	0.19	—	0.19	0.17	—	0.17	1,309
Onsite truck	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	0.03	0.26	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	71.7
Onsite truck	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	< 0.005	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.9
Onsite truck	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	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	178
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.3
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.85
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.81
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.47
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Terminal Building Rehab (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	1,309
Onsite truck	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	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	1,309
Onsite truck	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	0.17	1.62	2.46	< 0.005	0.06	—	0.06	0.05	—	0.05	466
Onsite truck	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	0.03	0.30	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01	77.2
Onsite truck	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	0.07	0.05	0.82	0.00	0.00	0.17	0.17	0.00	0.04	0.04	186
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.2
Hauling	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	0.07	0.06	0.72	0.00	0.00	0.17	0.17	0.00	0.04	0.04	175
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.2
Hauling	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	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	62.9
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.9
Hauling	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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.4
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.96

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Hangar Construction (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	3.18	3.69	0.01	0.11	—	0.11	0.10	—	0.10	758
Onsite truck	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	0.36	3.18	3.69	0.01	0.11	—	0.11	0.10	—	0.10	758
Onsite truck	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	0.13	1.10	1.27	< 0.005	0.04	—	0.04	0.04	—	0.04	261
Onsite truck	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	0.20	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	43.2
Onsite truck	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	0.07	0.05	0.82	0.00	0.00	0.17	0.17	0.00	0.04	0.04	186
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.2
Hauling	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	0.07	0.06	0.72	0.00	0.00	0.17	0.17	0.00	0.04	0.04	175
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.2
Hauling	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	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	60.8
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.3
Hauling	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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.86
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Hangar Construction (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	3.03	3.69	0.01	0.10	—	0.10	0.09	—	0.09	758
Onsite truck	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	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.93
Onsite truck	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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.98
Onsite truck	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	0.68	0.00	0.00	0.17	0.17	0.00	0.04	0.04	172
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.0
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.36
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.22
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. New Surface Paving (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.24	2.22	3.11	< 0.005	0.10	—	0.10	0.09	—	0.09	474
Paving	4.38	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.4
Paving	0.22	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.87
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	66.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	4.86	1.82	0.02	0.07	0.96	1.03	0.05	0.26	0.31	3,816
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	188
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	31.2

3.19. Terminal Building Painting (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134
Architectural Coatings	5.80	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.84
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.30
Architectural Coatings	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Worker	0.04	0.02	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	92.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Pavement Marking (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.16	4.44	0.02	0.18	—	0.18	0.16	—	0.16	2,069
Architectural Coatings	14.4	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.24	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	96.4
Architectural Coatings	0.67	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
Architectural Coatings	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.03	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	94.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Maintenance Building Painting (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134
Architectural Coatings	1.85	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.84
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.30
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.03	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	89.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Pavement Rehabilitation (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.38	4.71	0.01	0.12	—	0.12	0.11	—	0.11	1,263
Onsite truck	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	0.47	3.38	4.71	0.01	0.12	—	0.12	0.11	—	0.11	1,263
Onsite truck	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	0.03	0.21	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	79.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.2
Onsite truck	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	0.05	0.03	0.54	0.00	0.00	0.11	0.11	0.00	0.02	0.02	118
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	70.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.48	0.00	0.00	0.11	0.11	0.00	0.02	0.02	111
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	70.1
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.42
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.73

3.27. Pavement Reconstruction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.89	8.31	8.06	0.02	0.31	—	0.31	0.29	—	0.29	2,577
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	49.4
Onsite truck	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	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.18
Onsite truck	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	0.04	0.03	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	94.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	5.10	1.96	0.03	0.07	1.04	1.12	0.05	0.29	0.34	4,159
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	79.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.2

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
Pavement Demolition	Demolition	1/2/2026	1/26/2026	5.00	17.0	—
Building Demolition	Demolition	5/22/2026	6/11/2026	5.00	15.0	—
New Surface Grading	Grading	1/27/2026	2/19/2026	5.00	18.0	—
Maintenance Building Construction	Building Construction	6/12/2026	11/26/2026	5.00	120	—
Terminal Building Rehab	Building Construction	12/4/2026	7/1/2027	5.00	150	—
Hangar Construction	Building Construction	7/9/2027	1/4/2028	5.00	128	—
New Surface Paving	Paving	2/20/2026	3/17/2026	5.00	18.0	—
Terminal Building Painting	Architectural Coating	7/2/2027	7/8/2027	5.00	5.00	—
Pavement Marking	Architectural Coating	4/29/2026	5/21/2026	5.00	17.0	—
Maintenance Building Painting	Architectural Coating	11/27/2026	12/3/2026	5.00	5.00	—
Pavement Rehabilitation	Trenching	3/18/2026	4/17/2026	5.00	23.0	—
Pavement Reconstruction	Trenching	4/18/2026	4/28/2026	5.00	7.00	—

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
Pavement Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73

Pavement Demolition	Other Construction Equipment	Diesel	Average	1.00	4.00	85.0	0.78
Pavement Demolition	Excavators	Diesel	Average	1.00	7.00	36.0	0.38
Pavement Demolition	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Pavement Demolition	Rubber Tired Loaders	Diesel	Average	1.00	4.00	150	0.36
Pavement Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Building Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Building Demolition	Excavators	Diesel	Average	8.00	8.00	36.0	0.38
Building Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
New Surface Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
New Surface Grading	Rubber Tired Dozers	Diesel	Average	1.00	4.00	367	0.40
New Surface Grading	Rubber Tired Loaders	Diesel	Average	1.00	4.00	150	0.36
Maintenance Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Maintenance Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Maintenance Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Terminal Building Rehab	Cranes	Diesel	Average	1.00	4.00	367	0.29
Terminal Building Rehab	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Terminal Building Rehab	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Hangar Construction	Cranes	Diesel	Average	1.00	3.00	367	0.29
Hangar Construction	Forklifts	Diesel	Average	1.00	3.00	82.0	0.20
Hangar Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Hangar Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37

Hangar Construction	Welders	Diesel	Average	1.00	4.00	46.0	0.45
New Surface Paving	Pavers	Diesel	Average	1.00	5.00	81.0	0.42
New Surface Paving	Paving Equipment	Diesel	Average	1.00	5.00	89.0	0.36
New Surface Paving	Rollers	Diesel	Average	1.00	5.00	36.0	0.38
Terminal Building Painting	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Pavement Marking	Other Construction Equipment	Diesel	Average	1.00	4.00	712	0.42
Pavement Marking	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
Maintenance Building Painting	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Pavement Rehabilitation	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73
Pavement Rehabilitation	Off-Highway Trucks	Diesel	Average	1.00	5.00	376	0.38
Pavement Rehabilitation	Paving Equipment	Diesel	Average	1.00	2.00	89.0	0.36
Pavement Rehabilitation	Rollers	Diesel	Average	1.00	2.00	36.0	0.38
Pavement Rehabilitation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Pavement Reconstruction	Other Construction Equipment	Diesel	Average	1.00	6.00	675	0.42
Pavement Reconstruction	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Pavement Reconstruction	Paving Equipment	Diesel	Average	1.00	6.00	89.0	0.36
Pavement Reconstruction	Rollers	Diesel	Average	1.00	7.00	36.0	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

Pavement Demolition	—	—	—	—
Pavement Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Pavement Demolition	Vendor	—	7.63	HHDT,MHDT
Pavement Demolition	Hauling	82.1	20.0	HHDT
Pavement Demolition	Onsite truck	—	—	HHDT
New Surface Grading	—	—	—	—
New Surface Grading	Worker	7.50	12.0	LDA,LDT1,LDT2
New Surface Grading	Vendor	—	7.63	HHDT,MHDT
New Surface Grading	Hauling	207	20.0	HHDT
New Surface Grading	Onsite truck	—	—	HHDT
New Surface Paving	—	—	—	—
New Surface Paving	Worker	7.50	12.0	LDA,LDT1,LDT2
New Surface Paving	Vendor	—	7.63	HHDT,MHDT
New Surface Paving	Hauling	51.7	20.0	HHDT
New Surface Paving	Onsite truck	—	—	HHDT
Pavement Marking	—	—	—	—
Pavement Marking	Worker	10.0	12.0	LDA,LDT1,LDT2
Pavement Marking	Vendor	—	7.63	HHDT,MHDT
Pavement Marking	Hauling	0.00	20.0	HHDT
Pavement Marking	Onsite truck	—	—	HHDT
Pavement Rehabilitation	—	—	—	—
Pavement Rehabilitation	Worker	12.5	12.0	LDA,LDT1,LDT2
Pavement Rehabilitation	Vendor	—	7.63	HHDT,MHDT
Pavement Rehabilitation	Hauling	0.95	20.0	HHDT
Pavement Rehabilitation	Onsite truck	—	—	HHDT
Pavement Reconstruction	—	—	—	—
Pavement Reconstruction	Worker	10.0	12.0	LDA,LDT1,LDT2

Pavement Reconstruction	Vendor	—	7.63	HHDT,MHDT
Pavement Reconstruction	Hauling	56.3	20.0	HHDT
Pavement Reconstruction	Onsite truck	—	—	HHDT
Maintenance Building Construction	—	—	—	—
Maintenance Building Construction	Worker	20.0	12.0	LDA,LDT1,LDT2
Maintenance Building Construction	Vendor	2.00	7.63	HHDT,MHDT
Maintenance Building Construction	Hauling	0.00	20.0	HHDT
Maintenance Building Construction	Onsite truck	—	—	HHDT
Maintenance Building Painting	—	—	—	—
Maintenance Building Painting	Worker	10.0	12.0	LDA,LDT1,LDT2
Maintenance Building Painting	Vendor	—	7.63	HHDT,MHDT
Maintenance Building Painting	Hauling	0.00	20.0	HHDT
Maintenance Building Painting	Onsite truck	—	—	HHDT
Building Demolition	—	—	—	—
Building Demolition	Worker	25.0	12.0	LDA,LDT1,LDT2
Building Demolition	Vendor	—	7.63	HHDT,MHDT
Building Demolition	Hauling	49.3	20.0	HHDT
Building Demolition	Onsite truck	—	—	HHDT
Terminal Building Rehab	—	—	—	—
Terminal Building Rehab	Worker	20.0	12.0	LDA,LDT1,LDT2
Terminal Building Rehab	Vendor	2.00	7.63	HHDT,MHDT
Terminal Building Rehab	Hauling	0.00	20.0	HHDT
Terminal Building Rehab	Onsite truck	—	—	HHDT
Hangar Construction	—	—	—	—
Hangar Construction	Worker	20.0	12.0	LDA,LDT1,LDT2
Hangar Construction	Vendor	2.00	7.63	HHDT,MHDT
Hangar Construction	Hauling	0.00	20.0	HHDT

Hangar Construction	Onsite truck	—	—	HHDT
Terminal Building Painting	—	—	—	—
Terminal Building Painting	Worker	10.0	12.0	LDA,LDT1,LDT2
Terminal Building Painting	Vendor	—	7.63	HHDT,MHDT
Terminal Building Painting	Hauling	0.00	20.0	HHDT
Terminal Building Painting	Onsite truck	—	—	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)
Pavement Marking	0.00	0.00	0.00	0.00	52,972
Maintenance Building Painting	0.00	0.00	2,000	2,000	0.00
Terminal Building Painting	0.00	0.00	10,000	2,500	0.00

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 (Ton of Debris)	Acres Paved (acres)
Pavement Demolition	0.00	0.00	0.00	5,579	—
Building Demolition	0.00	0.00	0.00	64,190	—
New Surface Grading	14,886	14,886	1.50	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	30.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Asphalt Surfaces	30.1	100%
Government Office Building	0.00	0%
General Light Industry	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	589	0.03	< 0.005
2027	0.00	589	0.03	< 0.005
2028	0.00	589	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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	9.36	annual days of extreme heat
Extreme Precipitation	2.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.20	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9
Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2

Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4
Unemployment	43.1

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	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973
Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167

Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007
Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2
Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5

Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6
No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0
Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0
Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0

Healthy Places Index Score for Project Location (b)	50.0
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 & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule estimated from AMP task list and Pavement Maintenance Management Plan.
Construction: Off-Road Equipment	Equipment estimated based on the ALP and activities described in the Pavement Maintenance Plan. Other Construction Equipment for pavement demolition = asphalt and concrete debris crusher. Off-Highway Truck for pavement marking = automated runway striping machine. Other Construction Equipment for pavement marking = pavement paint blasting machine. Off-Highway Truck for pavement rehabilitation = crack sealing truck. Other Construction Equipment for pavement rehabilitation = pavement milling machine.
Construction: Trips and VMT	Pavement Marking and building painting crew size estimated at 5 per day (10 worker trips/day). Pavement haul trips are 1 way (2 trips per load) and assume 16 CY per tandem trailer load. Import and export is not phased. Building Construction crew size estimate at 10 per day (20 worker trips/day), vendor trips estimated at 2 per day.
Construction: Architectural Coatings	Marking assumed to be 10% of new or repaired pavement.
Construction: Dust From Material Movement	Grading assumes 18 inches soil removed and replaced with 18 inches of uncompressed aggregate.

SDM AMP Long-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDM AMP Long-Term Construction
Construction Start Date	1/2/2030
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.572419898935365, -116.9806118044164
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6601
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.23

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
Other Asphalt Surfaces	1,310	1000sqft	30.1	0.00	0.00	—	—	—

Unrefrigerated Warehouse-No Rail	90.0	1000sqft	2.07	90,000	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.40	2.95	4.38	0.01	0.09	0.18	0.27	0.08	0.04	0.13	980
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.52	22.8	14.3	0.11	0.43	5.58	6.01	0.41	1.81	2.22	15,913
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.46	2.61	2.90	0.01	0.07	0.35	0.42	0.06	0.10	0.17	1,265
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.48	0.53	< 0.005	0.01	0.06	0.08	0.01	0.02	0.03	209

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	0.40	2.95	4.38	0.01	0.09	0.18	0.27	0.08	0.04	0.13	980

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	5.52	22.8	14.3	0.11	0.43	5.58	6.01	0.41	1.81	2.22	15,913
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2030	0.46	2.61	2.90	0.01	0.07	0.35	0.42	0.06	0.10	0.17	1,265
Annual	—	—	—	—	—	—	—	—	—	—	—
2030	0.08	0.48	0.53	< 0.005	0.01	0.06	0.08	0.01	0.02	0.03	209

3. Construction Emissions Details

3.1. New Surface Grading (2030) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	4.96	6.88	0.01	0.24	—	0.24	0.22	—	0.22	1,229
Dust From Material Movement	—	—	—	—	—	1.42	1.42	—	0.67	0.67	—
Onsite truck	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	0.03	0.20	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	50.5
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—

Onsite truck	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	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.36
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.23	0.00	0.00	0.06	0.06	0.00	0.01	0.01	62.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.23	17.8	7.20	0.10	0.19	4.10	4.29	0.19	1.12	1.32	14,622
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.73	0.29	< 0.005	0.01	0.17	0.17	0.01	0.05	0.05	601
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.13	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	99.5

3.3. Hangar Construction (2030) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	2.86	3.67	0.01	0.09	—	0.09	0.08	—	0.08	758
Onsite truck	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	0.33	2.86	3.67	0.01	0.09	—	0.09	0.08	—	0.08	758
Onsite truck	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	0.16	1.41	1.81	< 0.005	0.05	—	0.05	0.04	—	0.04	374
Onsite truck	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	0.03	0.26	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	61.9
Onsite truck	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	0.06	0.04	0.69	0.00	0.00	0.17	0.17	0.00	0.04	0.04	176
Vendor	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	46.1
Hauling	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	0.06	0.05	0.60	0.00	0.00	0.17	0.17	0.00	0.04	0.04	166
Vendor	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	46.1
Hauling	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	0.03	0.02	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	82.6
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	22.7
Hauling	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	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	13.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.76
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. New Surface Paving (2030) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.96	3.09	< 0.005	0.07	—	0.07	0.06	—	0.06	474
Paving	5.25	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.08	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.5
Paving	0.22	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.22
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.23	0.00	0.00	0.06	0.06	0.00	0.01	0.01	62.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	3.23	1.31	0.02	0.04	0.74	0.78	0.04	0.20	0.24	2,656
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.13	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	109
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	18.1

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
New Surface Grading	Grading	1/2/2030	1/22/2030	5.00	15.0	—
Hangar Construction	Building Construction	2/13/2030	10/22/2030	5.00	180	—
New Surface Paving	Paving	1/23/2030	2/12/2030	5.00	15.0	—

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
New Surface Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
New Surface Grading	Rubber Tired Dozers	Diesel	Average	1.00	4.00	367	0.40
New Surface Grading	Rubber Tired Loaders	Diesel	Average	1.00	4.00	150	0.36
Hangar Construction	Cranes	Diesel	Average	1.00	3.00	367	0.29
Hangar Construction	Forklifts	Diesel	Average	1.00	3.00	82.0	0.20
Hangar Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Hangar Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Hangar Construction	Welders	Diesel	Average	1.00	4.00	46.0	0.45
New Surface Paving	Pavers	Diesel	Average	1.00	5.00	81.0	0.42
New Surface Paving	Paving Equipment	Diesel	Average	1.00	5.00	89.0	0.36
New Surface Paving	Rollers	Diesel	Average	1.00	5.00	36.0	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
New Surface Grading	—	—	—	—
New Surface Grading	Worker	7.50	12.0	LDA,LDT1,LDT2
New Surface Grading	Vendor	—	7.63	HHDT,MHDT
New Surface Grading	Hauling	221	20.0	HHDT
New Surface Grading	Onsite truck	—	—	HHDT
New Surface Paving	—	—	—	—

New Surface Paving	Worker	7.50	12.0	LDA,LDT1,LDT2
New Surface Paving	Vendor	—	7.63	HHDT,MHDT
New Surface Paving	Hauling	40.1	20.0	HHDT
New Surface Paving	Onsite truck	—	—	HHDT
Hangar Construction	—	—	—	—
Hangar Construction	Worker	20.0	12.0	LDA,LDT1,LDT2
Hangar Construction	Vendor	2.00	7.63	HHDT,MHDT
Hangar Construction	Hauling	0.00	20.0	HHDT
Hangar Construction	Onsite truck	—	—	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)

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)
New Surface Grading	13,257	13,257	1.50	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	30.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Asphalt Surfaces	30.1	100%
Unrefrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2030	0.00	589	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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	9.36	annual days of extreme heat
Extreme Precipitation	2.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.20	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	1	0	0	N/A
Wildfire	1	0	0	N/A

Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9
Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2
Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4

Unemployment	43.1

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	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973
Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167
Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007

Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2
Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5
Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6

No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0
Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0
Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	50.0
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 & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule estimated from AMP task list and Pavement Maintenance Management Plan.
Construction: Off-Road Equipment	Equipment estimated based on the ALP and modeling for Near- and Mid-Term components.
Construction: Trips and VMT	Pavement haul trips are 1 way (2 trips per load) and assume 16 CY per tandem trailer load. Import and export is not phased. Building Construction crew size estimate at 10 per day (20 worker trips/day), vendor trips estimated at 2 per day.
Construction: Architectural Coatings	Marking assumed to be 10% of new or repaired pavement.
Construction: Dust From Material Movement	Grading assumes 18 inches soil removed and replaced with 18 inches of uncompressed aggregate.

SDM AMP Operation R2 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDM AMP Operation R2
Operational Year	2031
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.572419898935365, -116.9806118044164
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6601
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.25

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	154	1000sqft	3.54	154,000	0.00	—	—	—

General Office Building	14.0	1000sqft	0.32	14,000	0.00	—	—	—
General Light Industry	10.0	1000sqft	0.23	10,000	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.26	0.94	15.5	0.02	0.04	1.97	2.02	0.04	0.50	0.54	2,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.98	0.94	7.23	0.02	0.03	1.97	2.00	0.03	0.50	0.53	2,687
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.45	0.85	9.99	0.02	0.04	1.65	1.68	0.03	0.42	0.45	2,408
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.00	0.16	1.82	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	399

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.94	0.64	7.56	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,118
Area	5.31	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9
Energy	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	530
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	6.26	0.94	15.5	0.02	0.04	1.97	2.02	0.04	0.50	0.54	2,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.71	7.04	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,022
Area	4.04	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	530
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	4.98	0.94	7.23	0.02	0.03	1.97	2.00	0.03	0.50	0.53	2,687
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.59	5.98	0.02	0.01	1.65	1.66	0.01	0.42	0.43	1,727
Area	4.66	0.03	3.82	< 0.005	0.01	—	0.01	0.01	—	0.01	15.8
Energy	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	530
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	5.45	0.85	9.99	0.02	0.04	1.65	1.68	0.03	0.42	0.45	2,408
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.14	0.11	1.09	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	286
Area	0.85	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61
Energy	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	87.8

Water	—	—	—	—	—	—	—	—	—	—	9.08
Waste	—	—	—	—	—	—	—	—	—	—	12.7
Refrig.	—	—	—	—	—	—	—	—	—	—	0.44
Total	1.00	0.16	1.82	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	399

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.77	0.53	6.21	0.02	0.01	1.62	1.63	0.01	0.41	0.42	1,741
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.17	0.11	1.35	< 0.005	< 0.005	0.35	0.35	< 0.005	0.09	0.09	377
Total	0.94	0.64	7.56	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.76	0.58	5.79	0.02	0.01	1.62	1.63	0.01	0.41	0.42	1,663
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.17	0.13	1.25	< 0.005	< 0.005	0.35	0.35	< 0.005	0.09	0.09	360

Total	0.93	0.71	7.04	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,022
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.14	0.10	1.06	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	277
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	< 0.005	< 0.005	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	8.58
Total	0.14	0.11	1.09	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	286

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	105
General Office Building	—	—	—	—	—	—	—	—	—	—	109
General Light Industry	—	—	—	—	—	—	—	—	—	—	42.2
Total	—	—	—	—	—	—	—	—	—	—	257
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	105

General Office Building	—	—	—	—	—	—	—	—	—	—	109
General Light Industry	—	—	—	—	—	—	—	—	—	—	42.2
Total	—	—	—	—	—	—	—	—	—	—	257
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	17.4
General Office Building	—	—	—	—	—	—	—	—	—	—	18.1
General Light Industry	—	—	—	—	—	—	—	—	—	—	6.99
Total	—	—	—	—	—	—	—	—	—	—	42.5

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
General Office Building	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
General Light Industry	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	130
Total	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	274
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
General Office Building	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
General Light Industry	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	130
Total	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	274
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
General Office Building	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
General Light Industry	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	21.5
Total	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	45.3

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.81	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.23	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.27	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9
Total	5.31	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.81	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.23	—	—	—	—	—	—	—	—	—	—
Total	4.04	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.70	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61
Total	0.85	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	28.4
General Light Industry	—	—	—	—	—	—	—	—	—	—	26.4
Total	—	—	—	—	—	—	—	—	—	—	54.8

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	28.4
General Light Industry	—	—	—	—	—	—	—	—	—	—	26.4
Total	—	—	—	—	—	—	—	—	—	—	54.8
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	4.71
General Light Industry	—	—	—	—	—	—	—	—	—	—	4.37
Total	—	—	—	—	—	—	—	—	—	—	9.08

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	29.0
General Office Building	—	—	—	—	—	—	—	—	—	—	24.6

General Light Industry	—	—	—	—	—	—	—	—	—	—	23.4
Total	—	—	—	—	—	—	—	—	—	—	77.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	29.0
General Office Building	—	—	—	—	—	—	—	—	—	—	24.6
General Light Industry	—	—	—	—	—	—	—	—	—	—	23.4
Total	—	—	—	—	—	—	—	—	—	—	77.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	4.81
General Office Building	—	—	—	—	—	—	—	—	—	—	4.06
General Light Industry	—	—	—	—	—	—	—	—	—	—	3.87
Total	—	—	—	—	—	—	—	—	—	—	12.7

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.03

General Light Industry	—	—	—	—	—	—	—	—	—	—	2.60
Total	—	—	—	—	—	—	—	—	—	—	2.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.03
General Light Industry	—	—	—	—	—	—	—	—	—	—	2.60
Total	—	—	—	—	—	—	—	—	—	—	2.64
Annual	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.01
General Light Industry	—	—	—	—	—	—	—	—	—	—	0.43
Total	—	—	—	—	—	—	—	—	—	—	0.44

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											
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											
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											
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	231	231	231	84,315	2,299	2,299	2,299	839,216
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.00	0.00	50.0	2,607	0.00	0.00	498	25,950

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	267,000	89,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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	223,482	170	0.0330	0.0040	0.00
General Office Building	232,324	170	0.0330	0.0040	448,322
General Light Industry	89,734	170	0.0330	0.0040	403,643

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	0.00	0.00
General Office Building	2,488,272	0.00
General Light Industry	2,312,500	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	15.4	—
General Office Building	13.0	—
General Light Industry	12.4	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

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

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

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	9.36	annual days of extreme heat
Extreme Precipitation	2.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.20	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2

Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9

Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2
Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4
Unemployment	43.1

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	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973

Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167
Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007
Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2

Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5
Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6
No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0
Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0

Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	50.0
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 & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule estimated from AMP task list and Pavement Maintenance Management Plan.
Construction: Off-Road Equipment	Equipment estimated based on the ALP and modeling for Near- and Mid-Term components.
Construction: Trips and VMT	Pavement haul trips are 1 way (2 trips per load) and assume 16 CY per tandem trailer load. Import and export is not phased. Building Construction crew size estimate at 10 per day (20 worker trips/day), vendor trips estimated at 2 per day.

Construction: Architectural Coatings	Marking assumed to be 10% of new or repaired pavement.
Construction: Dust From Material Movement	Grading assumes 18 inches soil removed and replaced with 18 inches of uncompressed aggregate.
Operations: Vehicle Data	Project net increased trip generation over existing trips (231 ADT) per project Transportation Impact Analysis and Local Mobility Analysis (CR Associates, June 20, 2024).
Operations: Architectural Coatings	—
Operations: Energy Use	No natural gas use and Non-Title 24 electricity use only for hangars.
Operations: Water and Waste Water	No water use for hangars.
Operations: Solid Waste	Minimal solid waste generation for hangars, assumed at 0.1 ton per year per 1,000 SF.

SDM AMP Operation Mitigated R2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDM AMP Operation Mitigated R2
Operational Year	2031
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.572419898935365, -116.9806118044164
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6601
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.25

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	154	1000sqft	3.54	154,000	0.00	—	—	—

General Office Building	14.0	1000sqft	0.32	14,000	0.00	—	—	—
General Light Industry	10.0	1000sqft	0.23	10,000	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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.26	0.83	15.4	0.02	0.04	1.97	2.01	0.03	0.50	0.53	2,796
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.97	0.83	7.14	0.02	0.02	1.97	2.00	0.02	0.50	0.52	2,668
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.45	0.74	9.90	0.02	0.03	1.65	1.68	0.02	0.42	0.44	2,389
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	0.14	1.81	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	395

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.94	0.64	7.56	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,118
Area	5.31	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	511
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	6.26	0.83	15.4	0.02	0.04	1.97	2.01	0.03	0.50	0.53	2,796
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.71	7.04	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,022
Area	4.04	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	511
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	4.97	0.83	7.14	0.02	0.02	1.97	2.00	0.02	0.50	0.52	2,668
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.59	5.98	0.02	0.01	1.65	1.66	0.01	0.42	0.43	1,727
Area	4.66	0.03	3.82	< 0.005	0.01	—	0.01	0.01	—	0.01	15.8
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	511
Water	—	—	—	—	—	—	—	—	—	—	54.8
Waste	—	—	—	—	—	—	—	—	—	—	77.0
Refrig.	—	—	—	—	—	—	—	—	—	—	2.64
Total	5.45	0.74	9.90	0.02	0.03	1.65	1.68	0.02	0.42	0.44	2,389
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.14	0.11	1.09	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	286
Area	0.85	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61
Energy	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	84.7

Water	—	—	—	—	—	—	—	—	—	—	9.08
Waste	—	—	—	—	—	—	—	—	—	—	12.7
Refrig.	—	—	—	—	—	—	—	—	—	—	0.44
Total	0.99	0.14	1.81	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	395

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.77	0.53	6.21	0.02	0.01	1.62	1.63	0.01	0.41	0.42	1,741
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.17	0.11	1.35	< 0.005	< 0.005	0.35	0.35	< 0.005	0.09	0.09	377
Total	0.94	0.64	7.56	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.76	0.58	5.79	0.02	0.01	1.62	1.63	0.01	0.41	0.42	1,663
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.17	0.13	1.25	< 0.005	< 0.005	0.35	0.35	< 0.005	0.09	0.09	360

Total	0.93	0.71	7.04	0.02	0.01	1.97	1.99	0.01	0.50	0.51	2,022
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.14	0.10	1.06	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	277
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	< 0.005	< 0.005	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	8.58
Total	0.14	0.11	1.09	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	286

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	105
General Office Building	—	—	—	—	—	—	—	—	—	—	171
General Light Industry	—	—	—	—	—	—	—	—	—	—	91.2
Total	—	—	—	—	—	—	—	—	—	—	367
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	105

General Office Building	—	—	—	—	—	—	—	—	—	—	171
General Light Industry	—	—	—	—	—	—	—	—	—	—	91.2
Total	—	—	—	—	—	—	—	—	—	—	367
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	17.4
General Office Building	—	—	—	—	—	—	—	—	—	—	28.3
General Light Industry	—	—	—	—	—	—	—	—	—	—	15.1
Total	—	—	—	—	—	—	—	—	—	—	60.8

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
General Office Building	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
General Light Industry	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
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
General Office Building	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
General Light Industry	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	144
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
General Office Building	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
General Light Industry	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.81	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.23	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.27	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9
Total	5.31	0.07	7.74	< 0.005	0.01	—	0.01	0.01	—	0.01	31.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.81	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.23	—	—	—	—	—	—	—	—	—	—
Total	4.04	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.70	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61
Total	0.85	0.01	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.61

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	28.4
General Light Industry	—	—	—	—	—	—	—	—	—	—	26.4
Total	—	—	—	—	—	—	—	—	—	—	54.8

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	28.4
General Light Industry	—	—	—	—	—	—	—	—	—	—	26.4
Total	—	—	—	—	—	—	—	—	—	—	54.8
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	4.71
General Light Industry	—	—	—	—	—	—	—	—	—	—	4.37
Total	—	—	—	—	—	—	—	—	—	—	9.08

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	29.0
General Office Building	—	—	—	—	—	—	—	—	—	—	24.6

General Light Industry	—	—	—	—	—	—	—	—	—	—	23.4
Total	—	—	—	—	—	—	—	—	—	—	77.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	29.0
General Office Building	—	—	—	—	—	—	—	—	—	—	24.6
General Light Industry	—	—	—	—	—	—	—	—	—	—	23.4
Total	—	—	—	—	—	—	—	—	—	—	77.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	4.81
General Office Building	—	—	—	—	—	—	—	—	—	—	4.06
General Light Industry	—	—	—	—	—	—	—	—	—	—	3.87
Total	—	—	—	—	—	—	—	—	—	—	12.7

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.03

General Light Industry	—	—	—	—	—	—	—	—	—	—	2.60
Total	—	—	—	—	—	—	—	—	—	—	2.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.03
General Light Industry	—	—	—	—	—	—	—	—	—	—	2.60
Total	—	—	—	—	—	—	—	—	—	—	2.64
Annual	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.01
General Light Industry	—	—	—	—	—	—	—	—	—	—	0.43
Total	—	—	—	—	—	—	—	—	—	—	0.44

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											
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											
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											
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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	231	231	231	84,315	2,299	2,299	2,299	839,216
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	0.00	0.00	50.0	2,607	0.00	0.00	498	25,950

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	267,000	89,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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	223,482	170	0.0330	0.0040	0.00
General Office Building	363,682	170	0.0330	0.0040	448,322
General Light Industry	194,001	170	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	0.00	0.00
General Office Building	2,488,272	0.00
General Light Industry	2,312,500	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	15.4	—
General Office Building	13.0	—
General Light Industry	12.4	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

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

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

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	9.36	annual days of extreme heat
Extreme Precipitation	2.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.20	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2

Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9

Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2
Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4
Unemployment	43.1

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	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973

Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167
Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007
Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2

Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5
Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6
No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0
Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0

Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	50.0
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 & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule estimated from AMP task list and Pavement Maintenance Management Plan.
Construction: Off-Road Equipment	Equipment estimated based on the ALP and modeling for Near- and Mid-Term components.
Construction: Trips and VMT	Pavement haul trips are 1 way (2 trips per load) and assume 16 CY per tandem trailer load. Import and export is not phased. Building Construction crew size estimate at 10 per day (20 worker trips/day), vendor trips estimated at 2 per day.

Construction: Architectural Coatings	Marking assumed to be 10% of new or repaired pavement.
Construction: Dust From Material Movement	Grading assumes 18 inches soil removed and replaced with 18 inches of uncompressed aggregate.
Operations: Vehicle Data	Project net increased trip generation over existing trips (231 ADT) per project Transportation Impact Analysis and Local Mobility Analysis (CR Associates, June 20, 2024).
Operations: Energy Use	No natural gas use and Non-Title 24 electricity use only for hangars. Per mitigation measure GHG-01, natural gas use for the terminal building and maintenance building converted to the equivalent electricity use (1 kBTU = 0.293 kWh) and added to the default electricity use.
Operations: Water and Waste Water	No water use for hangars.
Operations: Solid Waste	Minimal solid waste generation for hangars, assumed at 0.1 ton per year per 1,000 SF.