Appendix B

Air Quality Technical Report

Montgomery-Gibbs Executive Airport Master Plan Update

Air Quality Technical Report

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TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

Section **Page**

LIST OF APPENDICES

TABLE OF CONTENTS (cont.)

LIST OF FIGURES

LIST OF TABLES

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AAM	annual arithmetic mean
AAQS	Ambient Air Quality Standard
AERMOD	USEPA steady-state plume dispersion model
AERMET	meteorological data preprocessor for AERMOD
AERMAP	terrain data preprocessor for AERMOD
ACM	asbestos containing material
ADMRT	Air Dispersion Modeling and Risk Tool
AMP	Airport Master Plan
AQIA	Air Quality Impact Assessment
avgas	aviation gasoline
BAAQMD	Bay Area Air Quality Management District
BMPs	best management practices
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
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

ACRONYMS AND ABBREVIATIONS (cont.)

LBP	lead-based paint
LTO	landing and take off
mg/m^3	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standard
NO	nitrogen oxide
NO_X	oxides of nitrogen
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational and Safety Health Administration
Pb	lead
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
ppm	parts per million
RAQS	Regional Air Quality Strategy
REL	Relative Exposure Level
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SF	Square-Feet
SIP	State Implementation Plan
SO_X	oxides of sulfur
SO_2	sulfur dioxide
SR	State Route
T-BACT	Toxics Best Available Control Technology
TAC	Toxic Air Contaminant
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
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 Montgomery-Gibbs Executive Airport (Airport) operated by the City of San Diego (City). The AMP includes airside and landside improvements within the boundaries of the Airport, which is in the community of Kearny Mesa. Improvements associated with the AMP would be carried out in phases over a 20-year period. Construction within the AMP area would include demolition of existing airport infrastructure and the construction of new and expanded facilities. Construction activities and long-term operation of the Airport, with implementation of the proposed AMP, would not conflict with or obstruct implementation of the San Diego County Regional Air Quality Strategy or the State Implementation Plan.

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's) 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.

Construction and demolition activities associated with implementation of the AMP 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 emissions associated with implementation of the AMP 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 SDPACD, 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.

Implementation of the proposed AMP would result in some changes to aircraft taxi and flight patterns. Because aviation gasoline currently used in southern California contains lead, changes to aircraft movement patterns on and near the Airport could change localized concentrations of lead from aircraft exhaust. Dispersion modeling and health risk analysis of lead emissions from baseline and future operations at the airport demonstrate that the implementation of the proposed AMP would not result in an increase in incremental excess cancer risk for sensitive receptors near the Airport above the screening threshold, 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 Montgomery-Gibbs Executive Airport (also referred to as "Airport" or by its Federal Aviation Administration [FAA] identifier "MYF"). 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 that 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). This report includes an analysis of changes in health risks from aircraft exhaust lead emissions resulting from implementation of the AMP. Assessment of aircraft-related air pollutant emissions other than lead is not included in this report.

1.2 PROJECT BACKGROUND

The City of San Diego (City) owns and operates the Airport as a General Aviation airport. Airport planning occurs at the national, state, regional, and local level; in 2017, the City began developing an update to the 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 includes an assessment of existing conditions of the Airport, a forecast of activity, facility requirements (the Airport's needs based on the forecast and compliance with Federal Aviation Administration [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.

1.3 PROJECT LOCATION

The project is located within the boundaries of the Airport, which is in the San Diego community of Kearny Mesa. The Airport site is north of Aero Drive, east of State Route (SR) 163, south of Balboa Avenue, and west of Ruffin Road (Refer to Figure 1, *Regional Location*, and Figure 2, *Project Vicinity [Aerial Photograph]*).

1.4 PROJECT DESCRIPTION

The proposed AMP includes an Airport Layout Plan that graphically depicts all planned development at the Airport within the 20-year planning period as determined in the proposed 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 proposed AMP would involve both landside and airside components. The landside components include up to 92 new hangars, as well as space for 48 new tie-down areas, within the westernmost portion of the Airport. Implementation of several of the larger 75,000 square-foot (SF) hangars would require encroachment into the hotel leasehold. A 6,400-SF footprint expansion to the existing 10,000-SF terminal building is proposed. This expansion is due to a deficit in existing space and would not increase services or the number of employees. Other improvements include a public viewing area (outside the fence line) and an unleaded avgas fuel tank.

Airside improvements proposed by the AMP include removal of pavement at the end of Runway 5 and Taxiway F, along with reconfigurations of other taxiways and construction of new run-up areas. The main airside improvement proposed is the removal of the Runway 28R displaced threshold, which was put into place by City of San Diego Resolution R-280194 passed in 1992. This would result in the threshold being moved 1,199 feet from approximately the location of Taxiway B, eastward to Taxiway A. This component would move safety areas such as the Runway Protection Zone and approach surfaces, as well as require associated improvements such as relocation of glideslope and related equipment. As part of the proposed AMP, an approximately 4.5-acre area adjacent to Aero Drive and Glenn H Curtis Road would remain as "Aeronautical Land Use." While the specific land uses for this area have not yet been determined, it is anticipated that the uses would be consistent with the other landside aeronautical support facilities found at the Airport and dependent on future aeronautical demand. Refer to Figure 3, *Proposed Airport Plan*.

1.5 AIR POLLUTANT DESCRIPTORS AND TERMINOLOGY

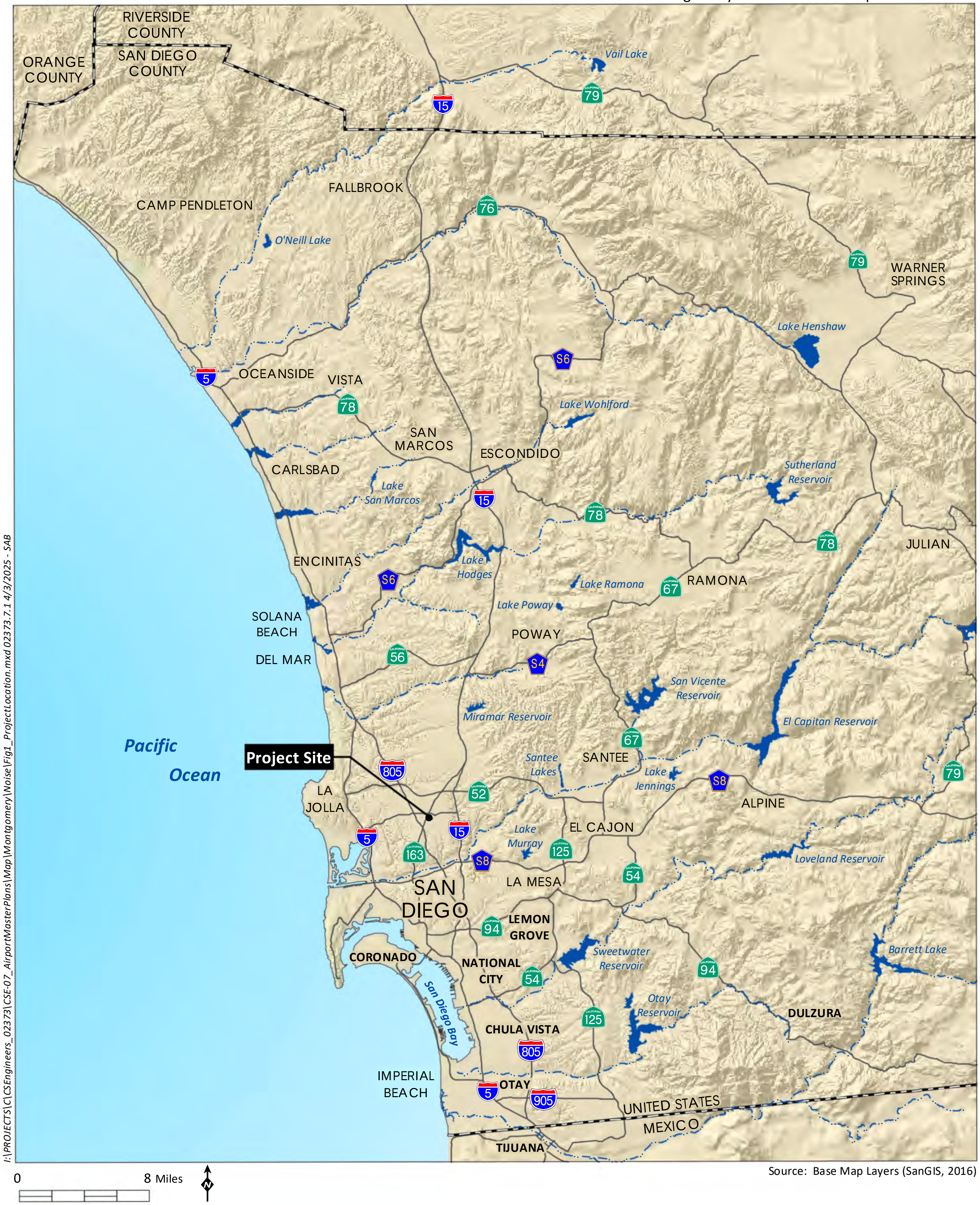
1.5.1 Criteria Air Pollutants

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

The following descriptions of general health effects for each of the air pollutants potentially associated with project construction and operation are based on information provided by the California Air Resources Board (CARB; 2025a) and the U.S. Environmental Protection Agency (USEPA; 2025).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed near the surface of the Earth when the precursor pollutants ROGs and nitrogen oxides (NO_X), both by-products



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Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

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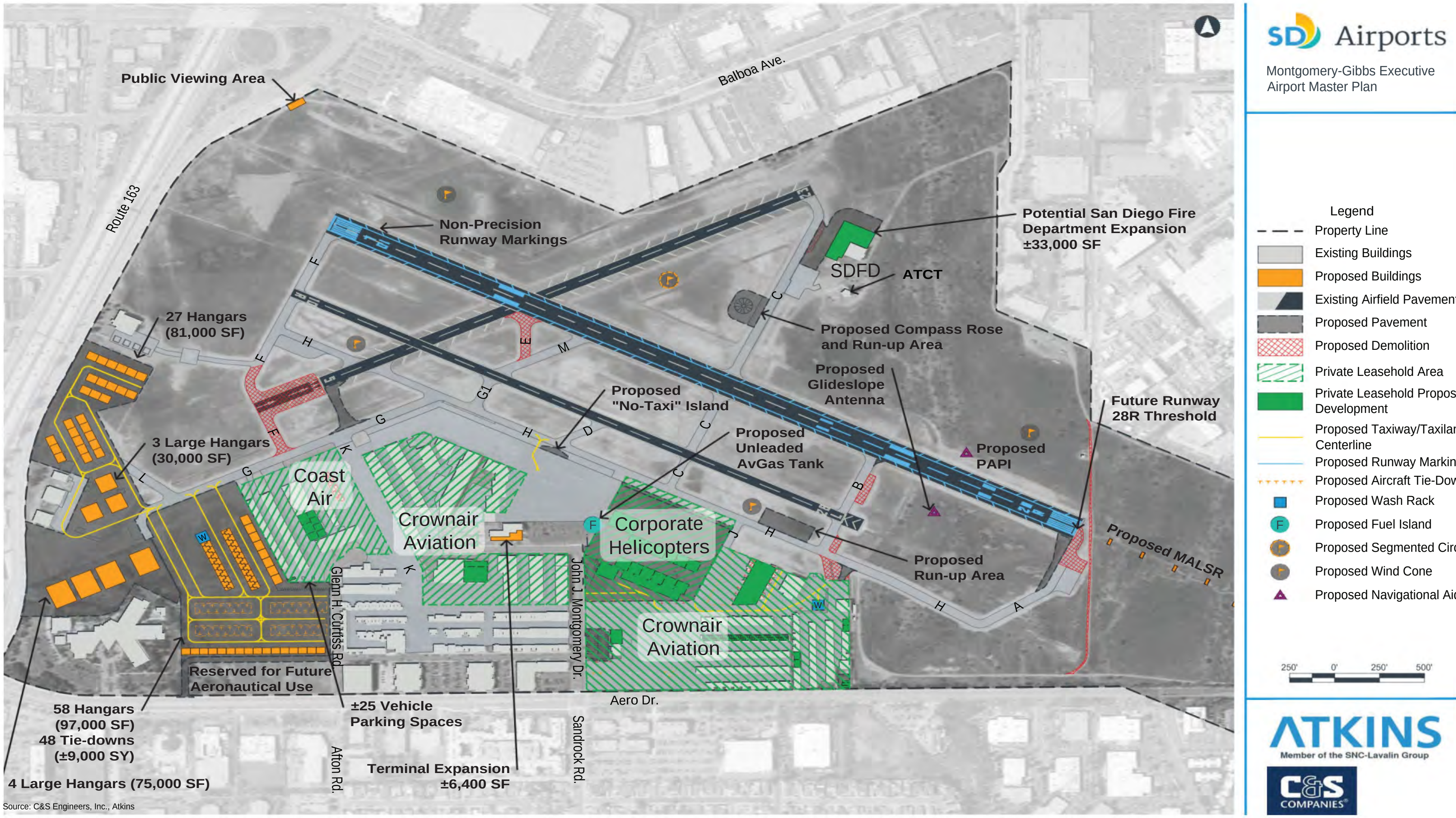
Project Vicinity (Aerial Photograph)

Figure 2



Source: C&S Companies 2024

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HELIX Environmental Planning

Proposed Airport Plan

Figure 3

of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant, and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from ozone exposure.

Reactive Organic Gases. ROGs (also known as VOCs)[1] are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products. Any direct health effects of ROGs vary by each specific compound. Adverse effects on human health are not caused directly by ROGs as a class of air pollutants, but rather by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a by-product of fuel combustion. CO is an odorless, colorless gas that affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with an existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges have been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can also be formed through chemical and photochemical reactions of precursor pollutants (primarily NO_X and SO_2) in the atmosphere. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified as a carcinogen by CARB.

Sulfur dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways, leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. Large manufacturing facilities and the exhaust from aircraft burning leaded aviation fuel are the primary sources of lead particulate emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen.

[1] CARB defines and uses the term ROGs while the USEPA defines and uses the term Volatile Organic Compounds (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.

Specific adverse health effects to individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). Criteria pollutant precursors (e.g., ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Therefore, the health effects related to secondary criteria pollutants (i.e., ozone, NO_2, PM_{10}, and $PM_{2.5}$) are the product of emissions generated by numerous sources throughout a region. Emissions of primary criteria pollutants from vehicles traveling to or from the project site (mobile source emissions; i.e., PM_{10} and $PM_{2.5}$) are distributed non-uniformly in location and time throughout the region, wherever the vehicles may travel. While it is possible to model potential concentrations of ozone and mobile source emissions on a regional scale, because of the high levels of uncertainty in modeling inputs, the results of such regional scale pollutant concentration modeling are not meaningful and specific health effects to individuals or population groups from criteria pollutant emissions cannot be directly correlated to the incremental contribution from the project.

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 CLEAN AIR ACT

Air quality is defined by ambient air concentrations of specific pollutants identified by the 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. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants. 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 $\mu g/m^3$ to 9 $\mu g/m^3$. The new final rule retains the existing 24-hour primary NAAQS for $PM_{2.5}$ of 35 $\mu g/m^3$ and the existing AAM secondary NAAQS for $PM_{2.5}$ of 15.0 $\mu g/m^3$ (USEPA 2024). Table 2, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants.

Table 1
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 2024

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 2018). 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 2, *San Diego Air Basin Attainment Status.*

Table 2
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[2]	Nonattainment
$PM_{2.5}$	Attainment[3]	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 2025a.

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 (H2S), vinyl chloride, and visibility-reducing particles (see Table 1). 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 2025a). The current state attainment status for the SDAB is provided in Table 2.

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 that 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 nonresidential 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.

2.2.4.1 Diesel Particulate Matter

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 (CARB 2025b). 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 California Air Resources Board (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 2025b).

2.2.4.2 Lead

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 2025b). 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.

2.2.4.3 Benzene

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) has 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 result 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.

2.2.4.4 Asbestos

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-cancerous disease of the lungs (2025c). 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 Air Quality Plans

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

The SDAPCD has adopted rules and regulations pursuant to the control and permitting of air pollutant emissions in the SDAB. The following rules would be applicable to the project.

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 into 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 (SDAPCD 1997).

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 to 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 workday 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 nonresidential interior/exterior coatings to be less than or equal to 100 grams per liter (SDAPCD 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 AMP area is from the west, and the average wind speed is approximately 6 miles per hour (mph; Iowa Environmental Mesonet [IEM] 2018). The annual average maximum temperature at the project site is approximately 67 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 56°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] 2018).

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 2. 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 County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the project site is the San Diego – Kearny Villa Road monitoring station, located approximately 1.7 miles north of the Airport's northern border at 6125 Kearny Villa Road. There are no monitoring stations in San Diego County with data for PM_{10} in the last three years. The most recently available air quality data are shown in Table 3, *Air Quality Monitoring Data*.

Table 3
AIR QUALITY MONITORING DATA

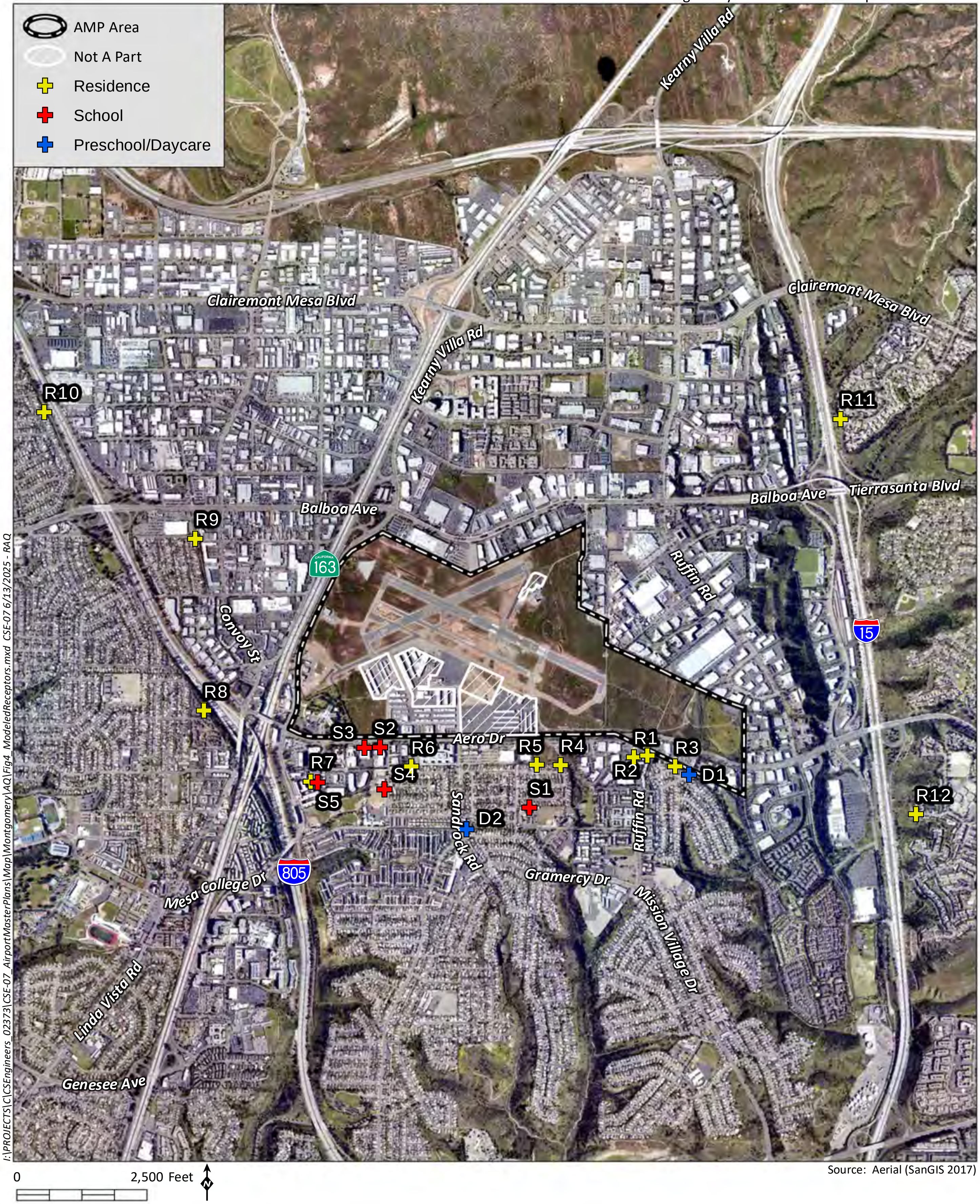
Pollutant Standards	2021	2022	2023
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.095	0.095	0.091
Maximum concentration 8-hour period (ppm)	0.071	0.083	0.079
Days above 1-hour state standard (>0.09 ppm)	1	1	0
Days above 8-hour state/federal standard (>0.070 ppm)	2	2	3
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.060	0.051	0.038
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)	0.007	0.008	0.006
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (μg/m^3)	20.9	13.9	24.5
Days above federal standard (>35 μg/m^3)	0	0	0
Annual average (μg/m^3)	7.6	6.8	7.0
Exceed state and federal annual standard (12 μg/m^3)	No	No	No

Source: CARB 2025c.
ppm = parts per million; μg/m^3 = micrograms per cubic meter.

As shown in Table 3, monitoring data at the Kearny Villa Road station from 2021 to 2023 reported: one exceedance of the 1-hour state ozone standard in 2021 and 2022; exceedance of the 8-hour state/federal ozone standard on 2 days in 2021 and 2022, and on 3 days in 2023; no federal standard for $PM_{2.5}$; and no exceedances of the state or federal standards for NO_2 (CARB 2025c).

3.2.3 Aircraft Exhaust Lead Cancer Risk

As discussed in Section 2.2.4 above, the exhaust from piston-engine powered aircraft can contain lead, a known TAC. A health risk assessment (HRA) was conducted to evaluate potential increases in health risks from aircraft lead exhaust emissions. As part of this HRA, the cancer risk to sensitive receptors near the Airport was evaluated for 2017 aircraft operations at MYF and is shown in Table 4, *2017 Aircraft Exhaust Lead Cancer Risk*. See Section 4.1.3 below for the methodology and assumptions for the HRA. Cancer risk from exposure to a specific TAC source is evaluated in terms of chances per million for that exposure beyond the individual's risk of developing cancer from existing background levels of pollutants in the ambient air. Aircraft exhaust is considered a mobile transportation source of emissions, and neither the City nor the SDAPCD has adopted thresholds to determine acceptable cancer risk to existing sensitive land uses from existing mobile transportation sources of TAC emissions. The 2017 cancer risk estimation data from exposure to aircraft exhaust lead for modeled sensitive receptor locations near the Airport are presented here for informational purposes. See Figure 4, *Modeled Sensitive Receptor Locations*, for a map of the evaluated sensitive receptor locations.



Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Modeled Sensitive Receptor Locations

Figure 4

Table 4
2017 AIRCRAFT EXHAUST LEAD CANCER RISK

Receptor ID	Receptor Description	Chances per Million[1]
R1	Multi-family residential	8.6
R2	Multi-family residential	8.3
R3	Single-Family Residential	5.6
R4	Single-Family Residential	4.9
R5	Single-Family Residential	4.3
R6	Single-Family Residential	1.7
R7	Multi-family residential	0.7
R8	Multi-family residential	0.8
R9	Single-Family Residential	1.3
R10	Single-Family Residential	0.7
R11	Multi-family residential	0.8
R12	Multi-family residential	3.7
S1	Wegeforth Elementary School	1.3
S2	Soille San Diego Hebrew Day School	0.9
S3	La Petite Ecole du Lycée Français de San Diego	0.8
S4	Angier Elementary School	0.6
S5	SET High School	0.4
D1	Montessori School of Kearny Mesa	2.5
D2	Imagine Montessori Bilingual Preschool	0.7

Source: Lakes AERMOD View and CARB ADMRT. See Appendix B for model inputs, outputs, and risk isopleths. See Figure 4 for modeled receptor locations.

[1] Incremental excess cancer risk in chances per million from exposure to lead in the exhaust of aircraft operating at MYF beyond the individual's risk of developing cancer from existing background levels of pollutants in the ambient air.

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 along Ruffin Road, approximately 920 feet southwest of the Runway 28R approach path and 1,240 feet southeast of the Runway 28R runup area. There are also single-family residences along Haveteur Way, approximately 600 feet south of the existing aircraft tiedown and hangar area on the north side of Aero Drive, and single-family residences approximately 920 feet southwest of the Runway 28R approach path along Dorchester Drive. The closest schools to aircraft operations at the Airport are the La Petite Ecole du Lycée Français de San Diego and the Soille San Diego Hebrew Day School, both approximately 435 feet south of the proposed new hangar and aircraft tiedown area north of Aero Drive, and the Wegeforth Elementary School, approximately 2,135 feet southwest of the Runway 28R runup area. Additional schools and preschools/daycare centers in the Airport vicinity include the Angier Elementary School located approximate 1,275 feet south of the proposed new hangar and aircraft tiedown area north of Aero Drive, the SET High School located approximately 1,305 feet southwest of the proposed new hangar and aircraft tiedown area north of Aero Drive, the Montessori School of Kearny Mesa located approximate 1,470 feet south of the aircraft tiedown area north of Aero Drive, and the Imagine Montessori Bilingual Preschool located approximately 920 feet southwest of the Runway 28R approach path along Dorchester Drive. There are no hospitals within 0.5 mile of the Airport. See Figure 4.

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 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 trucks, 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. CalEEMod output files for the project are included in Appendix A to this report.

4.1.1.1 Construction Phasing

Airport improvements identified in the proposed AMP are proposed over the 20-year planning period and are broken down into two 5-year periods (Phase I and Phase II) and one 10-year period (Phase III) based on improvements included in the Airport Layout Plan. Table 5, *MYF Airport Layout Plan Phasing*, lists the improvement tasks and the phasing (C&S 2024). See Figure 3 for improvement task locations. All tasks are assumed to occur sequentially (no overlap), starting in the first year of each phase. Phase 1 construction is assumed to commence on January 2, 2026, followed by Phase II construction in January 2028 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
MYF AIRPORT LAYOUT PLAN PHASING

Task #	Improvement
	Phase I Near-Term 0 - 5 Years
1-1	Runway 10L/28R grooving and marking
1-2	Runway 10R/28L, Taxiways B/C/F and Taxilane A rehabilitation, Taxiways E demolition, and compass calibration pad
1-3	Taxiways H/A/J/B rehabilitation; Runway 28L runup area improvements
1-4	Taxiway K and Terminal apron rehabilitation, and “No-Taxi” island
1-5	Coast Air leasehold development to include new box hangars
1-6[1]	Crownair leasehold development to include new box hangars
1-7[1]	Corporate Helicopters leasehold development to include new box hangars
1-8[1]	San Diego Fire Department development to include large box hangar and apron
1-9	Construct VSR between Taxilane P and Taxilane J. Close portion of VSR near Runway 28R end
1-10	Relocate segmented circle and wind cones out of safety areas
1-11	Avigation easements for Runway 28R existing approach runway protection zone
1-12[1]	Executive Airpark leasehold development to include FBO expansion and vehicle parking
1-13	Unleaded avgas fuel tank
1-14	Property to be released
	Phase II Mid-Term 6 - 10 Years
2-1	Preventative maintenance on section of Runway 10L/28R
2-2	Hangar area pavement
2-3	Construct hangars south of Taxiway G
2-4[1]	Executive Airpark leasehold development to include new hangars, tie-downs, wash rack, fuel tanks, solar panels on shade hangars, and vehicle parking.
2-5	Airfield lighting and electrical upgrades
2-6	Perimeter fencing improvements
2-7	Reserved for future aeronautical land uses
	Phase III Long-Term 11 - 20 Years
3-1	Runway 10L non-precision markings and avigation easements for future approach RPZ
3-2	Public viewing area
3-3	Terminal expansion

Task #	Improvement
3-4	Runway 5 end relocation and new connector taxiways
3-5	Construct large conventional hangar
3-6	Runway 28R threshold relocation (Taxiway A fillet), reduce runway width to 100 feet, and avigation easements for future approach RPZ
3-7	Runway 28R threshold relocation – Navigational aids (glidescope equipment and PAPI) and MALSR relocation
3-8	New hangars in the Spiders area (north of the Four Points by Sheraton hotel)

[1] These improvements are within the private leasehold and are excluded from the analysis within this report.

4.1.1.2 Runway Grooving

Runway grooving is a process in which transverse grooves, typically 0.25 inches wide by 0.25 inches deep on 1.5-inch centers, are cut into a runway to reduce aircraft hydroplaning. Grooving is typically done with a specialized machine that uses a wet grinding process. Water for the process is provided by an accompanying tank truck. The resulting concrete or asphalt waste slurry is either vacuumed by the grooving machine and pumped to the tank truck or flushed from the runway with water. It is assumed that a sweeper/scrubber would be used to further clean the runway at the end of each grinding shift. For the project, runway 10L/28R grooving is assumed to require a 400 horsepower (hp) grooving machine, processing approximately 25,000 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 of 712 hp (2 engines). Marking work rate is assumed to be 35,000 SF per day.

4.1.1.4 Pavement Maintenance

AMP tasks identified as runway or taxiway improvements are assumed to be pavement maintenance treatments in accordance with the *Pavement Maintenance Management Plan* (C & S 2019a). 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 is assumed to be removed during shallow patching, and six inches of material is 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. Rehabilitation work rate is assumed to be 10,000 SF per day. The percentage of each rehabilitation area impacted 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 project site. A new layer of asphalt concrete would be placed by a paving machine, followed by a roller. It is assumed that the rehabilitated areas would require new pavement marking. 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 loaders and exporting the material from the site. New surfaces are assumed to be typically 12 inches of subgrade laid by a paving machine and 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. 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. Pavement demolition work rate is assumed to be approximately 10,000 SF per day.

4.1.1.5 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 forklift on a concrete slab foundation. For a typical 50-foot by 50-foot hangar, the foundation is assumed to require five workdays, and assembly of the building to require five days. For a series of hangars, the work rate is assumed to be approximately 500 SF per day.

4.1.1.6 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 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

Activity Type	Equipment	Quantity	Hours per Day
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
Runway Grooving	Grooving Machine	1	7
	Tank Truck	1	7
	Sweeper/Scrubber	1	1
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

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 6,400 SF terminal building and the 92 new hangars were modeled. Operational emissions were modeled for the first full year of operation following the earliest anticipated completion of all proposed improvements – 2032.

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 *Montgomery-Gibbs Executive Airport Transportation Impact Analysis and Local Mobility Analysis*. Project trip generation was based on vehicle counts for airport driveways during one week in February 2025, and on airport flight operations during the same week. Trips and employees per flight operation were calculated and used to estimate 151 new daily airport trips in 2037 (CR Associates 2025). 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 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 was modeled using CalEEMod defaults. Hangars were assumed to use only CalEEMod default electricity, not subject to Title 24 (e.g., lighting, plug-in appliances, and tools).

4.1.3 Impacts to Sensitive Receptors

As discussed in Section 2.1, criteria pollutants that would be generated by the project are associated with some form of health risk. Existing models have limited sensitivity to small changes in criteria pollutant concentrations; attempting to correlate the small amount of project-generated criteria pollutants to specific health effects or additional days of nonattainment would not yield meaningful results. Consequently, an analysis of specific impacts on human health associated with project-generated regional criteria pollutant and precursors emissions is not included in this assessment. However, localized concentrations of pollutants generated by a project can directly affect nearby sensitive receptors. Therefore, the analysis in this assessment focuses only on those pollutants with the greatest potential to result in a significant, material impact on human health, which are TACs.

4.1.3.1 Lead Emissions

Some of the proposed improvements in the AMP would result in changes to the aircraft taxi and flight patterns that could result in changes in the localized concentration of lead from aircraft exhaust. The improvement most likely to result in a change in flight patterns would be the removal of the existing Runway 28R displaced threshold. The improvement that would likely result in a taxi pattern change would be the addition of new aircraft hangars and tiedown spaces east and north of the Sheraton Four Points Hotel. To determine the potential health risks due to changes in localized lead concentrations resulting from implementation of the proposed AMP, dispersion modeling of aircraft exhaust containing lead was performed for three scenarios: Baseline Conditions (2017 operations); No Project Conditions (2037 operations); and Project Conditions (2037 operations). The resulting community health risks were estimated following the OEHHA's *Air Toxics Hot Spots Program – Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015).

Lead Emissions Inventory

Piston-engine aircraft in the U.S. primarily burn one-hundred octane low-lead (100LL) avgas. In 2016, the FAA certified Swift Fuels 94 octane unleaded avgas (UL94) for use in some aircraft (those with a type certificate or supplemental type certificate to run on lower octane fuels). In 2024, UL94 became available at MYF (City 2024). In September 2022, the FAA approved use of GAMI one-hundred octane unleaded (G100UL) avgas for all aircraft certified to use 100LL (although each individual aircraft is required to obtain a supplement type certificate to allow the use of G100UL; FAA 2025a). At the time of this analysis, G100UL was not available at MYF or at any other airport in southern California. Due to potential material compatibility issues with unleaded avgas and availability concerns, in April 2025, the

FAA mandated that all airports that receive funding through the Airport Improvement Program grant assurances shall not restrict or prohibit the sale of 100 LL avgas until December 31, 2030 (FAA 2025b). Because 100LL will continue to be available at MFY until at least 2031, this analysis conservatively assumes that all piston-engine powered aircraft (piston aircraft) operations at the Airport would continue to use 100LL through the AMP planning horizon of 2037, and through the 30-year risk analysis exposure period. Turbine-powered aircraft typically use jet fuel, which does not contain lead additives. Therefore, emissions from turbine-powered aircraft are not included in this analysis.

The USEPA commissioned a study to develop a modeling methodology to estimate near-source localized concentrations of lead emissions and compare the modeling results with lead monitoring data collected around an airport. In the study, *Development and Evaluation of an Air Quality Modeling Approach for Lead Emissions from Piston-Engine Aircraft Operating on Leaded Aviation Gasoline* (Santa Monica study), lead emissions at the Santa Monica Airport were modeled and compared to lead monitoring data USEPA 2010b). This analysis followed the basic mythology of the Santa Monica Study and breaks the landing and takeoff (LTO) cycle emissions into seven operational modes for fixed-wing aircraft:

- Taxi-out – the aircraft travels under low power on the ground from its parking spot or hangar to a designated engine run-up area near the end of the departure runway.
- Run-up – the aircraft engine is run at approximately 75 percent of maximum revolutions per minute for thirty seconds to two minutes to check the operation of various engine and propeller systems (e.g., magnetos, carburetor heat, propeller governors).
- Queue – the aircraft waits near the runway hold line for clearance to takeoff.
- Takeoff roll – an initial acceleration on the ground to reach lift-off speed.
- Climb – the aircraft climbs from the point of lift-off for approximately 1.5 miles. The climb is assumed to be at the best-rate-of-climb speed for the aircraft.
- Approach – the aircraft descends from 1.5 miles from the runway threshold at a typically low power setting.
- Landing and Taxi-In – the aircraft touches down and decelerates to taxi speed with the engine typically at idle followed by travel under low power on the ground from the runway to its parking spot or hangar.

Modeling of helicopter operations was broken into 4 modes:

- Taxi-out – the helicopter travels in hover near the ground from its parking spot to the helicopter pad.
- Climb – the helicopter climbs from the helicopter pad at its best-rate-of-climb speed for approximately 1.5 miles.
- Approach – the helicopter approaches the Airport at or above 1,000 AGL, then descends from the Airport perimeter to the helicopter pad.
- Taxi-in – the helicopter travels in hover near the ground from the helicopter pad to its parking spot.

Lead is added to avgas in the form of tetraethyl lead (TEL). The ASTM International standard for lead concentration in 100LL is 2.12 grams per gallon (EPA 2010a). Approximately 5 percent of the lead is retained in the engine oil and exhaust system, and the remaining 95 percent is emitted in the engine exhaust (EPA 2010a). The lead emissions per LTO cycle were estimated by multiplying the average fuel consumption during each mode by the average time in each mode and the lead content in the fuel.

A weighted average fuel consumption and time-in-mode for the climb and approach modes was calculated based on the modeled average daily arrivals and departures from the Technical Memorandum *Airport Master Plan Study for Montgomery-Gibbs Executive Airport - Baseline Noise and Air Quality Modeling Assumptions* (HMMH 2017). The average time-in-mode for taxi out, run-up, queue, and landing/taxi-in was estimated based on the measured data from the Santa Monica Study, the average taxi distance for the Airport, and on the reported FAA default taxi-out time of 19 minutes for the Airport[2]. The weighted average fuel consumption for each was based on performance data for typical aircraft using the engines in the *Baseline Noise and Air Quality Modeling Assumptions* Technical Memorandum and on data from the Santa Monica Study. The fuel consumption used in the modeling is shown in Table 7, *Average Fuel Consumption*. The complete assumptions and calculations are provided in Appendix B to this report.

Table 7
AVERAGE AND FUEL CONSUMPTION

Mode	Fuel Consumption (grams per second)		
	Single-Engine	Multi-Engine	Helicopter
Taxi-out	1.6	5.1	14.8
Run-up	3.8	9.9	-
Queue	1.6	5.1	-
Takeoff roll	12.9	39.4	-
Climb	12.9	39.4	19.7
Approach	5.8	18.2	9.1
Landing/Taxi-in	1.6	5.1	14.8

Source: EPA 2010b; HMMH 2017.

The maximum hourly emissions of lead were estimated by multiplying the lead emissions per LTO cycle by one-half of the peak hour operations[3]. Peak hour operations for piston aircraft were estimated from the 2017 and 2037 operations forecast presented in the working papers for the *Montgomery-Gibbs Executive Airport Master Plan, Section 2 – Forecast*, and are shown in Table 8, *Piston Aircraft Operations*. The peak hour is estimated to be on a Thursday in July between 9:00 a.m. and 10:00 a.m. (C & S 2019b). Helicopter operations shown are for piston-engine powered helicopters, which represent approximately 26 percent of helicopter operations at the Airport (HMMH 2017). Emissions were apportioned to the six runways at the Airport (5, 10 Left [10L], 10 Right [10R], 23, 28 Left [28L], and 28 Right [28R]) based on the runway utilization. The primary runway is 28R with 72.2 percent of arrivals and 48.7 percent of departures. Runway 28L is second in utilization with 25.2 percent of arrivals and 44.5 percent of departures (HMMH 2017). Complete runway utilization and maximum hourly lead emissions calculations are provided in Appendix B to this report.

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2 The average FAA taxi-out time is assumed to be the total of the modeled taxi-out, run-up, and queue times.
3 An airport operation equals one landing or one takeoff. Therefore, and LTO cycle equals two operations.

Table 8
PISTON AIRCRAFT OPERATIONS

	Single-Engine[1,2]	Multi-Engine[1,2]	Helicopter[1,2]
2017 Operations			
Annual Operations	167,351	20,087	1,304
Peak Hour Operations	76.4	9.2	0.6
2037 Operations Forecast			
Annual Operations	181,484	21,701	1,792
Peak Hour Operations	83.4	10.0	0.8

Source: Montgomery-Gibbs Executive Airport Master Plan Section 2 – Forecast, Table 2.13, and Figures 2.7, 2.8, and 2.9 (C&S 2019); Technical Memorandum - Airport Master Plan Study for Montgomery-Gibbs Executive Airport - Baseline Noise and Air Quality Modeling Assumptions, Table 2 (HMMH 2017).
Notes:
1 An airport operation equals one takeoff or one landing.
2 Does not include turbine powered aircraft (aircraft with jet or turboprop engines).

Flight training can comprise a significant portion of the operation at typical general aviation airports. Many flight training operations (such as a touch-and-go where the aircraft lands, rolls briefly, then takes off again) have abbreviated ground operations and significantly lower lead emissions. Because data was not available on training operations, all operations in the analysis were conservatively assumed to use all LTO cycle modes.

Lead Dispersion Modeling

Localized concentrations of lead were modeled using the Lakes AERMOD View version 13.0.0. The Lakes program utilizes the USEPA's AERMOD version 24142 gaussian air dispersion model as well as the meteorological preprocessor AERMET version 24142 and the terrain preprocessor AERMAP version 24142 (USEPA 2025d). Terrain data was taken from the United States Geological Survey (USGS) National Elevation Data Set with 30-meter resolution.

The SDAPCD provides pre-processed meteorological data suitable for use with AERMOD. The available data set most representative of conditions in the project vicinity was from the Montgomery Field Airport station (located on the project site). The Montgomery Field Airport data set includes 5 years of data collected from 2009 to 2014. A wind rose for the Airport is included in Appendix B to this report. Urban dispersion coefficients were selected in the model to reflect the developed nature of the project vicinity.

Emissions sources involving moving aircraft, including taxi-out, takeoff roll, climb, approach, and landing/taxi-in, were modeled as volume line sources. To account for the initial spread of the plume due to the propeller, lift from the wings, and wake, the initial plume height was set at two times the typical aircraft height of 3 meters (9.8 feet), and the initial plume width was set at 2 times the typical aircraft wingspan of 10.5 meters (34.5 feet). The release height was set at the typical aircraft exhaust stack height of 1 meter (3.3 feet).

Due to the complexity of modeling all possible aircraft approach patterns, the approach line sources were modeled extending 1.5 miles straight into the threshold (or displaced threshold) of each runway. Although many light aircraft can fly approach paths as steep as 10 degrees, to be conservative, the approach angle was set to the visual glide slope approach light system's angle of 3 degrees for runways 28L and 28R and 3.4 degrees for runways 10L and 10R. Runways 5 and 23 do not have visual glide slope light systems and were assumed to have 3-degree approach angles. The approach line source for runway 28R for the Project Scenario assumes that existing displaced threshold for landing aircraft would be moved to coincide with the takeoff threshold. The touchdown point for all approaches was assumed to be 300 feet past the threshold or displaced threshold of each runway.

Due to the complexity of modeling all possible aircraft departure patterns, the climb line sources were modeled extending from the point of liftoff to a position 1.5 miles straight out from each runway. The climb angle was set at 4.8 degrees, representing the average best rate of climb performance for representative aircraft utilizing the engines reported in the *Baseline Noise and Air Quality Modeling Assumptions* Technical Memorandum (HMMH 20017).

Similarly, to simplify modeling of aircraft taxi patterns, all aircraft were assumed to travel from several prominent hangar and tiedown areas to the runway 28R hold line and from 28R at taxiway M back to the hangar/tiedown location. Taxi-out line sources for the Baseline and No Project Scenarios were modeled from three primary hangar and tiedown locations on taxiways K, L, and JJ. Taxi-out and taxi-in line sources for the Project Scenario included 2 additional paths leading from/to the proposed new hangars and tiedowns east and north of the Four Points Sheraton Hotel.

Aircraft run-up and queue emissions were modeled as area sources in the designated run-up areas. Because runways 5, 10L, and 10R do not have a designated runup areas, departures from these runways were assumed to use a common run-up area near the runway 5 hold line and taxiway G. Aircraft queue areas were modeled near the hold line for each runway.

Helicopter emissions sources were modeled using volume line sources and the same parameters as for fixed-wing aircraft, described above. Because helicopters are not tied to runway use, their flight patterns can vary widely. For this analysis, all helicopters were assumed to fly the most common routes depicted in *Helicopter Procedure, MYF Midport* (City 2013). Approaching helicopters were modeled to fly approximately along Aero Drive before turning when opposite the runway 28R threshold and descending to the helipad. Departing helicopters were modeled lifting off from the helipad and climbing to the southwest, parallel to runway 23. Helicopter taxi was modeled as a hover flight near the ground between the helipad and the furthest of the designated helicopter parking spaces to the west.

Variable emissions factors consisting of the fraction of the peak hour emissions were applied to all emissions sources for each hour of the day, day of the week, and month of the year. The variable emissions factors were based on the peak period figures for Operation by Month, Operations by Day, and Departures by time of Day contained in the *Montgomery-Gibbs Executive Airport Master Plan, Section 2 – Forecast* (C & S 2019b). The variable emissions factors used are included in Appendix B to this report.

Risk Determination

To develop risk isopleths (linear contours showing equal level of risk), and ensure the area of maximum impact was captured, receptors were placed in a cartesian grid, 7,800 meters (4.85 miles) by 3,800 meters (2.36 miles) covering the project site and the modeled aircraft flight paths. Additional discrete receptors were placed at the closest residential building and schools/preschools to the project boundary and to the modeled flight paths. The locations of the selected discrete receptors are shown in Figure 4,. All receptors were placed at a flagpole height of 1.2 meters (4 feet) above the ground.

Health risks resulting from localized concentration of lead were estimated using the CARB Hotspots Analysis and Reporting Program (HARP), Air Dispersion Modeling and Risk Tool (ADMRT) version 22118 (CARB 2022). The plot files of localized concentrations of lead from AERMOD were imported into the ADMRT model to determine health risks. The pathways selected to evaluate include inhalation, soil, dermal, mother's milk, and homegrown produce. The OEHHA derived method intake rate percentile was selected. For the dermal pathway, warm climate was selected. For the residential cancer risk, an exposure duration of 30 years was selected in accordance with the OEHHA guidelines (OEHHA 2015). The model conservatively assumes that residents would be standing and breathing at the location outside their residential building closest to the Airport or flight path every day between 17 and 21 hours per day (depending on the age group, starting with infants in utero in the third trimester of pregnancy) for 30 years. The schools and preschools/daycare centers in the Airport vicinity offer a variety of programs for children from infants to 18 years old. Therefore, to be conservative, school and preschool/daycare cancer risk was analyzed for an exposure duration of 18 years starting at age zero with eight hour breathing rates and moderate activity levels, assuming a student attending the same school from preschool/daycare through grade 12.

The list of OEHHA/CARB approved risk assessment health values for lead does not include any RELs for non-cancer chronic or acute health effects (CARB 2025d). Therefore, only cancer risks for exposure to aircraft lead exhaust are evaluated.

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 implementation of the proposed AMP 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 daycare 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 receptors to substantial TAC concentrations. In Rule 1200, the SDAPCD has adopted thresholds for the significance of cancer and non-cancer health effects for stationary sources of TACs from a facility subject to permitting by the SDAPCD (SDAPCD 2025b). The health risk thresholds can be used as screening criteria to determine the significance of a project's emissions of TACs.

For CEQA purposes, these screening criteria were used as numeric methods to determine if implementation of the proposed AMP would result in a significant impact to air quality. The screening thresholds are shown in Table 9, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 9
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 2025; SDAPCD 2021b; SDAPCD 2019.
T-BACT = Toxics-Best Available Control Technology.

Health impacts associated with cancer effects from exposure to TACs are evaluated using the increased risk of developing cancer for an exposed individual receptor expressed as chances per million. SDAPCD Rule 1200 establishes that the incremental increase in cancer risk resulting from exposure to a project's

TAC emissions would be significant if it would exceed 1 in 1 million or 10 in 1 million with implementation of Toxics Best Available Control Technology (T-BACT).[4]

Health risks associated with non-cancer chronic health effects and acute health effects from TAC exposure are quantified using the maximum hazard index (HI). HI is the potential exposure to a substance divided by the Reference Exposure Limits (REL; the level at which no adverse effects are expected). An HI of less than one indicates no adverse health effects are expected from the potential exposure to the substance.

For aircraft-related emissions, project impacts are compared against the future buildout of the Airport (2037) to determine the change due to the project compared to changes in future aircraft operations that would occur without the project.

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, or damage to property. It is generally accepted that the considerable number of persons required 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 implementing the proposed AMP.

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 SDAPCD’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 relies on the SIP, which 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 and SIP.

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[4] Toxics Best Available Control Technology (T-BACT) means the most effective emission limitation or control device or technique which has been achieved in practice for that source or has been determined to be technologically feasible.

The RAQS and Attainment Plan rely on information from CARB and SANDAG, including projected growth in the County, and mobile, area, and all other source emissions, in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. The CARB mobile source emission projections and SANDAG's growth projections are based on population and vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by these land use 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 usable 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. Implementation of proposed AMP would not result in regional growth of population or employment beyond that anticipated in the General Plan and Kearny Mesa Community Plan. Therefore, implementation of the proposed AMP would not result in a regional increase in population and employment growth beyond the growth assumptions utilized in developing the RAQS and Attainment Plan.

5.1.2 Significance of Impacts

Because implementation of the proposed AMP would not conflict with or obstruct implementation of the San Diego RAQS 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, the proposed AMPs emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 9).

5.2.1.1 Construction

Construction activities associated with the 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 1-11 would establish or modify avigation easements, and improvement project task numbers 1-14 would remove property from the Airport; neither of these tasks would require 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 10, *Construction Criteria Pollutant and Precursor Emissions*. The emissions estimates assume compliance with SDAPCD Rule 55 via watering exposed areas a minimum of twice per day and limiting speeds to 15 mph on unpaved surfaces. The CalEEMod output files are included as Appendix A to this report.

Table 10
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						
Runway Grooving	0.6	3.9	5.0	<0.1	0.2	0.15
Pavement Demolition	1.4	18.9	15.5	<0.1	6.7	1.7
New surface Grading	0.9	22.1	11.7	<0.1	5.2	2.0
New Surface Paving	2.8	6.0	4.8	<0.1	1.0	0.3
Pavement Rehabilitation	0.5	3.6	5.3	<0.1	0.3	0.1
Pavement Reconstruction	1.1	17.8	12.1	<0.1	2.5	0.9
Pavement Marking	25.2	5.2	4.9	<0.1	0.3	0.2
Hangar Construction	0.6	4.9	7.8	<0.1	0.4	0.2
Fencing, Seg. Circle & Windsock	<0.1	0.9	1.8	<0.1	<0.1	<0.1
Phase II Mid-Term						
New Surface Grading	0.9	23.8	12.7	0.1	6.0	2.2
New Surface Paving	2.3	6.7	5.2	<0.1	1.2	0.4
Pavement Rehabilitation	0.5	3.3	5.2	<0.1	0.2	0.1
Pavement Reconstruction	1.1	17.1	11.9	<0.1	2.5	0.9
Pavement Marking	47.2	5.2	4.8	<0.1	0.3	0.2
Hangar Construction	0.5	4.4	7.7	<0.1	0.3	0.2
Airfield Lighting & Perimeter Fencing	<0.1	0.8	1.8	<0.1	<0.1	<0.1
Phase III Long-Term						
New Surface Grading	0.8	21.4	12.3	0.1	5.7	2.1
New Surface Paving	1.9	6.3	5.1	<0.1	1.2	0.4
Pavement Demolition	2.2	25.0	22.0	<0.1	7.5	2.0
Pavement Marking	86.5	3.4	4.7	<0.1	0.2	0.1
Terminal Expansion	0.9	8.4	13.0	<0.1	0.3	0.2

	Maximum Emissions (pounds per day)					
Hangar Construction	0.5	4.1	7.5	<0.1	0.3	0.2
28R Lighting/Navaids	<0.1	0.8	1.8	<0.1	<0.1	<0.1
Maximum Daily Emissions	**86.5**	**25.0**	**22.0**	**0.1**	**7.5**	**2.2**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold exceeded?	*No*	*No*	*No*	*No*	*No*	*No*

Source: CalEEMod; Thresholds City 2022.

As shown in Table 10, emissions of all criteria pollutants and precursors related to project construction would be below the SDAPCD's screening thresholds.

5.2.2 Operation

Existing sources of criteria pollutants and precursors associated with operation of the Airport include mobile sources such as exhaust from Airport user, employee, and vendor vehicles, and aircraft; and 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 terminal building expansion and new hangars would 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 11, *Operation Criteria Pollutant and Precursor Emissions (Non-Aircraft Related)*.

Table 11
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	0.5	0.3	3.9	<0.1	1.1	0.3
Area	14.4	0.2	21.0	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total[1]	**14.9**	**0.6**	**25.0**	**<0.1**	**1.1**	**0.3**
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 11, 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.

5.2.3 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 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.

5.2.4 Mitigation Framework

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

5.2.5 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. As described in Section 5.2, emissions during construction and operation would not result in the violation of 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 activities related to implementation of the proposed AMP would not exceed the SDAPCD screening thresholds. Therefore, emissions of criteria pollutants and precursors related to implementation of the proposed AMP would be less than cumulatively considerable.

5.3.2 Mitigation Framework

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

5.3.3 Significance After Mitigation

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

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.[5]

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 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 Balboa Avenue and Kearny Villa Road, which is forecast to carry 79,700 vehicles per day, or approximately 7,970 vehicles during the peak hour in 2035 (SANDAG 2019). The project's addition of 151 vehicles per day, or 15 vehicles during the peak hour, would result in the intersection carrying approximately 7,985 vehicles during the peak hour. This would be far below the screening level of 44,000 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

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 in 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. Construction activities for individual improvement projects, as part of the proposed AMP implementation, are estimated to last approximately from a few weeks to six months. According to the Office of Environmental Health Hazard Assessment, health risk assessments (HRAs) used to determine the exposure of sensitive receptors to TAC emissions should be based on a 30-year exposure period; however, such assessments should also be limited to the period/duration associated with

[5] 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.

construction activities which implement the proposed project. Thus, if the duration of potentially harmful construction activities near a sensitive receptor was six months, the exposure would be approximately 1.5 percent of the total exposure period used for typical health risk calculations. Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur intermittently and at various locations over the span of the 20-year implementation of the proposed AMP, implementation of the proposed project would not expose sensitive receptors to substantial construction-related DPM concentrations. Therefore, this impact would be less than significant.

Construction Asbestos and Lead Based Paint

Asbestos may be a component of building materials such as walls, ceilings, insulation, or fireproofing in older (pre-1979) buildings. Demolition or renovation of existing buildings on the project site could result in the disturbance of ACMs. 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 (SDPACD 2017). In addition, airborne asbestos is regulated in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations. Following notification of the SDAPCD and other applicable local agencies, and following identification of friable ACMs, SDAPCD Rule 1206, and federal and state Occupational and Safety Health Administration (OSHA) regulations, require that asbestos trained and certified abatement personnel perform asbestos abatement and that all ACM removed from the project site must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers.

LBP may be present in older (pre-1978 buildings). Demolition or renovation activities, such as paint scraping and grinding or burning of material coated with LPB, could result in the release of airborne lead particulate matter. The USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb LBP in homes, child care facilities, and pre-schools 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. Compliance with SDPACD, 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.

Operational Aircraft Exhaust Lead

Some of the proposed improvements in the AMP would result in changes to the aircraft taxi and flight patterns that could result in changes in localized concentration of lead from aircraft exhaust. The most substantial flight pattern change would result from removing the existing Runway 28R displaced threshold. The most relevant taxi pattern change would result from the addition of new aircraft hangars and tiedown spaces east and north of the Sheraton Four Points Hotel. As described in section 4.1.2, localized concentrations of lead emissions from aircraft operations at the Airport were modeled using the Lakes AERMOD View, and risks were evaluated using the CARB ADMRT program.

The incremental excess cancer risk is an estimate of the chance a person exposed to a specific source of a TAC may have of developing cancer from that exposure beyond the individual's risk of developing cancer from existing background levels of pollutants in the ambient air. For context, the average cancer risk from pollutants in the ambient air for an individual living in an urban area of California is 830 in 1 million (CARB 2015). Cancer risk estimates do not mean, and should not be interpreted to mean, that a person will develop cancer from estimated exposures to toxic air pollutants. The only available T-BACT for aircraft lead exhaust emissions is for aircraft to use unleaded avgas, which may not be feasible for all piston-engine powered aircraft. Therefore, cancer risks are compared to the more conservative 1 in 1 million without T-BACT threshold. The resulting change in incremental excess cancer risk between the Project and No Project conditions is shown in Table 12, *Aircraft Exhaust Lead Increased Incremental Excess Cancer Risk*. As shown in Table 12, the maximum change in incremental excess cancer risk for nearby sensitive receptors due to changes in concentrations of lead from aircraft exhaust resulting from implementation of the proposed AMP would be 0.4 in 1 million and would not exceed the threshold risk of 1 in 1 million. The maximum change in incremental excess cancer risk would occur at receptor location R12, a multi-family residential building approximately 1.25 miles southeast of runway 25R.

Table 12
AIRCRAFT EXHAUST LEAD INCREASED INCREMENTAL EXCESS CANCER RISK

Receptor ID	Receptor Description	No Project (2037)	Project (2037)	Change	Exceed 1 in 1 million threshold?[1]
R1	Multi-family residential	9.4	9.6	0.2	*No*
R2	Multi-family residential	9.0	9.3	0.3	*No*
R3	Single-Family Residential	6.1	6.3	0.2	*No*
R4	Single-Family Residential	5.4	5.5	0.1	*No*
R5	Single-Family Residential	4.7	4.7	<0.1	*No*
R6	Single-Family Residential	1.8	2.1	0.3	*No*
R7	Multi-family residential	0.8	0.9	0.1	*No*
R8	Multi-family residential	0.9	0.9	<0.1	*No*
R9	Single-Family Residential	1.5	1.5	<0.1	*No*
R10	Single-Family Residential	0.8	0.8	<0.1	*No*
R11	Multi-family residential	0.9	0.9	<0.1	*No*
R12	Multi-family residential	4.0	4.4	0.4	*No*
S1	Wegeforth Elementary School	1.4	1.4	<0.1	*No*
S2	Soille San Diego Hebrew Day School	1.0	1.2	0.2	*No*
S3	La Petite Ecole du Lycée Français de San Diego	0.8	1.1	0.3	*No*
S4	Angier Elementary School	0.7	0.8	0.1	*No*
S5	SET High School	0.4	0.5	0.1	*No*
D1	Montessori School of Kearny Mesa	2.7	2.8	0.1	*No*
D2	Imagine Montessori Bilingual Preschool	0.8	0.9	0.1	*No*

Source: Lakes AERMOD View and CARB ADMRT. See Appendix B for model inputs, outputs, and risk isopleths. See Figure 4 for modeled receptor locations.

[1] Incremental excess cancer risk in chances per million from exposure to lead in the exhaust of aircraft operating at MYF beyond the individual's risk of developing cancer from existing background levels of pollutants in the ambient air.

Other long-term operational emissions include toxic substances, such as cleaning agents in use on-site, and compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of substances such as cleaning agents is regulated by the 1990 Federal

CAA Amendments as well as State-adopted regulations for the chemical composition of consumer products. Therefore, long-term operation of the Airport would not result in the exposure of sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

5.4.2 Significance of Impacts

Construction of the improvement tasks within the AMP would not expose sensitive receptors to substantial concentrations of DPM, asbestos, or lead, or other TACs. Long-term operation of the Airport would not result in significant increased incremental excess cancer risks to sensitive receptors from localized concentrations of lead in aircraft exhaust, or from 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 that 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.

Implementation of the proposed AMP could produce odors during construction activities resulting from diesel equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Accordingly, the construction activities related to implementation of the proposed AMP would not create objectionable odors affecting a substantial number of people.

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 Airport operation. 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

Construction activities associated with implementation of the proposed AMP would not create objectionable odors affecting 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.

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Appendix A

CalEEMod Output

MYF AMP Near-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MYF AMP Near-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)	19.8
Location	32.814332086156156, -117.13892910180705
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6901
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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.	25.2	17.8	12.1	0.07	0.45	2.02	2.47	0.38	0.55	0.93	10,363
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.82	22.1	15.5	0.09	0.60	6.14	6.75	0.53	1.58	1.97	14,038
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.25	5.41	5.14	0.02	0.16	0.66	0.81	0.14	0.19	0.33	2,756
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.99	0.94	< 0.005	0.03	0.12	0.15	0.03	0.04	0.06	456

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	25.2	17.8	12.1	0.07	0.45	2.02	2.47	0.38	0.55	0.93	10,363
2027	0.09	0.87	1.78	< 0.005	0.03	0.02	0.05	0.02	< 0.005	0.03	278
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

2026	2.82	22.1	15.5	0.09	0.60	6.14	6.75	0.53	1.58	1.97	14,038
2027	0.55	4.68	7.65	0.01	0.17	0.18	0.35	0.15	0.04	0.20	1,534
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	2.25	5.41	5.14	0.02	0.16	0.66	0.81	0.14	0.19	0.33	2,756
2027	0.10	0.85	1.40	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	278
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.41	0.99	0.94	< 0.005	0.03	0.12	0.15	0.03	0.04	0.06	456
2027	0.02	0.15	0.25	< 0.005	0.01	0.01	0.01	0.01	< 0.005	0.01	46.0

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	—	—	—	—	—	4.51	4.51	—	0.68	0.68	—
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	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	23.0
Demolition	—	—	—	—	—	0.05	0.05	—	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	3.82
Demolition	—	—	—	—	—	0.01	0.01	—	< 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	0.05	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	7.66	2.86	0.04	0.11	1.51	1.62	0.07	0.41	0.49	6,017
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.48
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	0.02	0.02	< 0.005	< 0.005	0.01	66.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.24
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	10.9

3.3. 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	0.62	5.52	5.35	0.01	0.26	—	0.26	0.24	—	0.24	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	0.05	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	77.6
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—
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	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.8
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	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	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	44.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.26	16.6	6.20	0.08	0.23	3.27	3.50	0.16	0.89	1.05	13,016
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.57
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	1.31	0.49	0.01	0.02	0.26	0.28	0.01	0.07	0.08	1,035

Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.59
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	171

3.5. Hangar 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	0.12	1.15	1.65	< 0.005	0.05	—	0.05	0.04	—	0.04	313
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	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	51.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	42.9
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.3
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.10
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.03
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. 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)	—	—	—	—	—	—	—	—	—	—	—
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	0.08	0.80	1.22	< 0.005	0.03	—	0.03	0.03	—	0.03	231

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	0.15	0.22	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	38.2
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)	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	31.1
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.84
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	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.15
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.46
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. 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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.22	3.11	< 0.005	0.10	—	0.10	0.09	—	0.09	474

Paving	2.49	—	—	—	—	—	—	—	—	—	—
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	0.24	2.22	3.11	< 0.005	0.10	—	0.10	0.09	—	0.09	474
Paving	2.49	—	—	—	—	—	—	—	—	—	—
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	0.02	0.18	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	37.6
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	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.23
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)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	70.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	3.64	1.40	0.02	0.05	0.74	0.80	0.04	0.20	0.24	2,968
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	0.06	3.77	1.41	0.02	0.05	0.74	0.80	0.04	0.20	0.24	2,963
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.36

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	236
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.89
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	39.0

3.11. 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	24.5	—	—	—	—	—	—	—	—	—	—
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	0.04	0.34	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	136
Architectural Coatings	1.61	—	—	—	—	—	—	—	—	—	—
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	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.5
Architectural Coatings	0.29	—	—	—	—	—	—	—	—	—	—

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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.91
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	0.98
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 (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
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.46	0.65	< 0.005	0.02	—	0.02	0.01	—	0.01	173
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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	28.6
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)	—	—	—	—	—	—	—	—	—	—	—
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	0.16	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	133
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	15.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.2
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.55
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.02

3.15. 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
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	106
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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.5
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)	—	—	—	—	—	—	—	—	—	—	—
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	0.16	9.42	3.62	0.05	0.14	1.93	2.07	0.09	0.53	0.62	7,691
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	3.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.40	0.15	< 0.005	0.01	0.08	0.08	< 0.005	0.02	0.03	316
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.61
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	0.03	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	52.3

3.17. Fencing, Seg. Circle & Windsock (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	0.08	0.87	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	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	0.02	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.98
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	23.2
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.60
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. Runway Grooving (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	0.59	3.91	4.72	0.02	0.14	—	0.14	0.13	—	0.13	2,173

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	0.23	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	125
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	20.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.64
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	1/31/2026	2/5/2026	5.00	4.00	—
New Surface Grading	Grading	2/6/2026	3/18/2026	5.00	29.0	—
Hangar Construction	Building Construction	9/1/2026	3/31/2027	5.00	152	—
New Surface Paving	Paving	3/19/2026	4/28/2026	5.00	29.0	—
Pavement Marking	Architectural Coating	7/29/2026	8/31/2026	5.00	24.0	—
Pavement Rehabilitation	Trenching	4/29/2026	7/7/2026	5.00	50.0	—
Pavement Reconstruction	Trenching	7/8/2026	7/28/2026	5.00	15.0	—
Fencing, Seg. Circle & Windsock	Trenching	4/1/2027	4/14/2027	5.00	10.0	—
Runway Grooving	Trenching	1/2/2026	1/30/2026	5.00	21.0	—

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
Hangar Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Hangar Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20

Hangar 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
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
Runway Grooving	Off-Highway Trucks	Diesel	Average	1.00	7.00	376	0.38
Runway Grooving	Surfacing Equipment	Diesel	Average	1.00	7.00	400	0.30
Runway Grooving	Sweepers/Scrubbers	Diesel	Average	1.00	1.00	36.0	0.46

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	81.5	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	176	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
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
Runway Grooving	—	—	—	—
Runway Grooving	Worker	7.50	12.0	LDA,LDT1,LDT2
Runway Grooving	Vendor	—	7.63	HHDT,MHDT
Runway Grooving	Hauling	0.00	20.0	HHDT
Runway Grooving	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	126,953

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	1,304	—
New Surface Grading	20,452	20,452	1.31	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	27.6
Pavement Rehabilitation	288	288	0.00	0.00	—
Pavement Reconstruction	3,755	3,755	0.00	0.00	—

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
2026	0.00	589	0.03	< 0.005

2027	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	8.91	annual days of extreme heat
Extreme Precipitation	2.80	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.11	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	42.6
AQ-PM	33.5
AQ-DPM	90.0
Drinking Water	29.0
Lead Risk Housing	8.29
Pesticides	32.4
Toxic Releases	33.2
Traffic	78.7
Effect Indicators	—
CleanUp Sites	95.4
Groundwater	90.7

Haz Waste Facilities/Generators	98.9
Impaired Water Bodies	0.00
Solid Waste	99.3
Sensitive Population	—
Asthma	48.3
Cardio-vascular	20.6
Low Birth Weights	61.7
Socioeconomic Factor Indicators	—
Education	26.9
Housing	67.7
Linguistic	48.7
Poverty	18.9
Unemployment	13.2

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	65.78981137
Employed	68.92082638
Median HI	67.35531888
Education	—
Bachelor's or higher	77.67226999
High school enrollment	19.96663673
Preschool enrollment	67.90709611
Transportation	—
Auto Access	82.44578468
Active commuting	41.78108559

Social	—
2-parent households	53.53522392
Voting	63.04375722
Neighborhood	—
Alcohol availability	73.3478763
Park access	60.25920698
Retail density	96.62517644
Supermarket access	29.34684974
Tree canopy	11.66431413
Housing	—
Homeownership	46.58026434
Housing habitability	49.36481458
Low-inc homeowner severe housing cost burden	24.90696779
Low-inc renter severe housing cost burden	76.10676248
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	63.35172591
Arthritis	81.7
Asthma ER Admissions	51.4
High Blood Pressure	90.0
Cancer (excluding skin)	49.7
Asthma	76.7
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	87.3
Life Expectancy at Birth	18.5
Cognitively Disabled	82.5
Physically Disabled	57.4

Heart Attack ER Admissions	87.0
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5
Obesity	80.7
Pedestrian Injuries	99.6
Physical Health Not Good	84.3
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	10.6
Current Smoker	62.2
No Leisure Time for Physical Activity	71.9
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	7.3
Elderly	70.8
English Speaking	36.9
Foreign-born	50.7
Outdoor Workers	88.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.4
Traffic Density	86.9
Traffic Access	72.8
Other Indices	—
Hardship	26.3
Other Decision Support	—
2016 Voting	65.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	53.0
Healthy Places Index Score for Project Location (b)	70.0
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. Off-Highway Truck for grooving = tank truck. 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 (6 inches uncompressed asphalt). Hangar 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.

MYF AMP Mid-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MYF AMP Mid-Term Construction
Construction Start Date	1/2/2028
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.8
Location	32.814332086156156, -117.13892910180705
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6901
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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	1,201	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.	47.1	17.1	11.9	0.07	0.44	2.02	2.46	0.37	0.55	0.92	9,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.27	23.8	12.7	0.11	0.52	5.45	5.97	0.41	1.77	2.18	16,117
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.11	5.30	5.45	0.02	0.14	0.75	0.89	0.12	0.23	0.35	2,902
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.97	0.99	< 0.005	0.03	0.14	0.16	0.02	0.04	0.06	480

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)	—	—	—	—	—	—	—	—	—	—	—
2028	47.1	17.1	11.9	0.07	0.44	2.02	2.46	0.37	0.55	0.92	9,972
2029	0.52	4.21	7.65	0.01	0.14	0.18	0.32	0.13	0.04	0.17	1,535
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

2028	2.27	23.8	12.7	0.11	0.52	5.45	5.97	0.41	1.77	2.18	16,117
2029	0.51	4.22	7.56	0.01	0.14	0.18	0.32	0.13	0.04	0.17	1,525
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2028	1.11	5.30	5.45	0.02	0.14	0.75	0.89	0.12	0.23	0.35	2,902
2029	0.14	1.15	2.06	< 0.005	0.04	0.05	0.09	0.03	0.01	0.05	414
Annual	—	—	—	—	—	—	—	—	—	—	—
2028	0.20	0.97	0.99	< 0.005	0.03	0.14	0.16	0.02	0.04	0.06	480
2029	0.03	0.21	0.38	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	68.5

3. Construction Emissions Details

3.1. New Surface Grading (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	0.59	5.05	5.28	0.01	0.23	—	0.23	0.22	—	0.22	977
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	0.06	0.51	0.53	< 0.005	0.02	—	0.02	0.02	—	0.02	99.1
Dust From Material Movement	—	—	—	—	—	0.14	0.14	—	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	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.4
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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	42.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.32	18.7	7.28	0.10	0.28	3.99	4.27	0.19	1.09	1.28	15,097
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.89	0.73	0.01	0.03	0.40	0.43	0.02	0.11	0.13	1,531
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
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	0.34	0.13	< 0.005	0.01	0.07	0.08	< 0.005	0.02	0.02	253

3.3. 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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.30	6.91	0.01	0.15	—	0.15	0.14	—	0.14	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	0.46	4.30	6.91	0.01	0.15	—	0.15	0.14	—	0.14	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	0.18	1.69	2.72	< 0.005	0.06	—	0.06	0.05	—	0.05	515
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	0.31	0.50	< 0.005	0.01	—	0.01	0.01	—	0.01	85.2
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	0.78	0.00	0.00	0.17	0.17	0.00	0.04	0.04	182
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
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	0.03	0.02	0.27	0.00	0.00	0.07	0.07	0.00	0.02	0.02	68.2

Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	19.3
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	11.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.19
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. Hangar Construction (2029) - 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	0.45	4.11	6.89	0.01	0.14	—	0.14	0.13	—	0.13	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	0.45	4.11	6.89	0.01	0.14	—	0.14	0.13	—	0.13	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	0.12	1.09	1.83	< 0.005	0.04	—	0.04	0.03	—	0.03	348
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	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.73	0.00	0.00	0.17	0.17	0.00	0.04	0.04	179
Vendor	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.6
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	0.64	0.00	0.00	0.17	0.17	0.00	0.04	0.04	169
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.5
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	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	45.3
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.7
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	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.09
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 (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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	2.07	3.10	< 0.005	0.08	—	0.08	0.07	—	0.07	474
Paving	1.95	—	—	—	—	—	—	—	—	—	—
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	0.21	2.07	3.10	< 0.005	0.08	—	0.08	0.07	—	0.07	474
Paving	1.95	—	—	—	—	—	—	—	—	—	—
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	0.02	0.21	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	48.0
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	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.95
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)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	68.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	4.49	1.79	0.02	0.07	0.99	1.06	0.05	0.27	0.32	3,756
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	64.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	4.65	1.81	0.02	0.07	0.99	1.06	0.05	0.27	0.32	3,751
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.59
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	0.47	0.18	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	380

Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.09
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	63.0

3.9. Pavement Marking (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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.15	4.43	0.02	0.18	—	0.18	0.17	—	0.17	2,063
Architectural Coatings	46.5	—	—	—	—	—	—	—	—	—	—
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	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.6
Architectural Coatings	0.51	—	—	—	—	—	—	—	—	—	—
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	3.74
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
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	91.0
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
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	0.95
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	0.16
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. Pavement Rehabilitation (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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.07	4.70	0.01	0.09	—	0.09	0.09	—	0.09	1,263
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.31	0.48	< 0.005	0.01	—	0.01	0.01	—	0.01	128
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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	21.2
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)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.48	0.00	0.00	0.11	0.11	0.00	0.02	0.02	114
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	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	127
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	11.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.8
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.82
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	2.12

3.13. Pavement Reconstruction (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)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	8.32	8.05	0.02	0.30	—	0.30	0.28	—	0.28	2,569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.33
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)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	91.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.16	8.74	3.49	0.05	0.14	1.93	2.07	0.09	0.53	0.62	7,312

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	0.47
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	40.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
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	6.63

3.15. Airfield Lighting & Perimeter Fencing (2029) - 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	0.08	0.82	1.68	< 0.005	0.02	—	0.02	0.02	—	0.02	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	0.02	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.98
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	22.4
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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

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	1/2/2028	2/22/2028	5.00	37.0	—
Hangar Construction	Building Construction	6/14/2028	5/16/2029	5.00	241	—
New Surface Paving	Paving	2/23/2028	4/13/2028	5.00	37.0	—
Pavement Marking	Architectural Coating	6/8/2028	6/13/2028	5.00	4.00	—
Pavement Rehabilitation	Trenching	4/14/2028	6/5/2028	5.00	37.0	—
Pavement Reconstruction	Trenching	6/6/2028	6/7/2028	5.00	2.00	—
Airfield Lighting & Perimeter Fencing	Trenching	5/17/2029	5/30/2029	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
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
Hangar Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Hangar Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Hangar 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
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
Airfield Lighting & Perimeter Fencing	Tractors/Loaders/Backhoes	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
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	215	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	53.4	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
Airfield Lighting & Perimeter Fencing	—	—	—	—
Airfield Lighting & Perimeter Fencing	Worker	2.50	12.0	LDA,LDT1,LDT2
Airfield Lighting & Perimeter Fencing	Vendor	—	7.63	HHDT,MHDT
Airfield Lighting & Perimeter Fencing	Hauling	0.00	20.0	HHDT
Airfield Lighting & Perimeter Fencing	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)
Pavement Marking	0.00	0.00	0.00	0.00	40,084

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	31,826	31,826	1.31	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	27.6
Pavement Rehabilitation	308	308	0.00	0.00	—
Pavement Reconstruction	573	573	0.00	0.00	—

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
2028	0.00	589	0.03	< 0.005
2029	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	8.91	annual days of extreme heat
Extreme Precipitation	2.80	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.11	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	42.6
AQ-PM	33.5
AQ-DPM	90.0
Drinking Water	29.0
Lead Risk Housing	8.29
Pesticides	32.4
Toxic Releases	33.2
Traffic	78.7
Effect Indicators	—
CleanUp Sites	95.4
Groundwater	90.7
Haz Waste Facilities/Generators	98.9
Impaired Water Bodies	0.00
Solid Waste	99.3
Sensitive Population	—
Asthma	48.3
Cardio-vascular	20.6
Low Birth Weights	61.7

Socioeconomic Factor Indicators	—
Education	26.9
Housing	67.7
Linguistic	48.7
Poverty	18.9
Unemployment	13.2

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	65.78981137
Employed	68.92082638
Median HI	67.35531888
Education	—
Bachelor's or higher	77.67226999
High school enrollment	19.96663673
Preschool enrollment	67.90709611
Transportation	—
Auto Access	82.44578468
Active commuting	41.78108559
Social	—
2-parent households	53.53522392
Voting	63.04375722
Neighborhood	—
Alcohol availability	73.3478763
Park access	60.25920698
Retail density	96.62517644

Supermarket access	29.34684974
Tree canopy	11.66431413
Housing	—
Homeownership	46.58026434
Housing habitability	49.36481458
Low-inc homeowner severe housing cost burden	24.90696779
Low-inc renter severe housing cost burden	76.10676248
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	63.35172591
Arthritis	81.7
Asthma ER Admissions	51.4
High Blood Pressure	90.0
Cancer (excluding skin)	49.7
Asthma	76.7
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	87.3
Life Expectancy at Birth	18.5
Cognitively Disabled	82.5
Physically Disabled	57.4
Heart Attack ER Admissions	87.0
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5
Obesity	80.7
Pedestrian Injuries	99.6
Physical Health Not Good	84.3
Stroke	84.7

Health Risk Behaviors	—
Binge Drinking	10.6
Current Smoker	62.2
No Leisure Time for Physical Activity	71.9
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	7.3
Elderly	70.8
English Speaking	36.9
Foreign-born	50.7
Outdoor Workers	88.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.4
Traffic Density	86.9
Traffic Access	72.8
Other Indices	—
Hardship	26.3
Other Decision Support	—
2016 Voting	65.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	53.0
Healthy Places Index Score for Project Location (b)	70.0
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. 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 (6 inches uncompressed asphalt). Hangar 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.

MYF AMP Long-Term Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MYF 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)	19.8
Location	32.814332086156156, -117.13892910180705
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6901
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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	1,043	1000sqft	23.9	0.00	0.00	—	—	—

General Office Building	6.40	1000sqft	0.15	6,400	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.	86.4	25.0	22.0	0.07	0.80	6.66	7.46	0.74	1.22	1.96	9,435
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.89	21.4	13.0	0.11	0.40	5.34	5.74	0.38	1.75	2.13	14,870
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.90	6.85	7.60	0.03	0.18	0.88	1.05	0.16	0.25	0.42	3,273
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	1.25	1.39	< 0.005	0.03	0.16	0.19	0.03	0.05	0.08	542

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	86.4	25.0	22.0	0.07	0.80	6.66	7.46	0.74	1.22	1.96	9,435

2031	0.49	3.94	7.54	0.01	0.12	0.18	0.30	0.11	0.04	0.15	1,526
2032	0.47	3.80	7.47	0.01	0.11	0.18	0.29	0.10	0.04	0.14	1,520
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	1.89	21.4	13.0	0.11	0.40	5.34	5.74	0.38	1.75	2.13	14,870
2031	0.48	3.95	7.46	0.01	0.12	0.18	0.30	0.11	0.04	0.15	1,516
2032	0.47	3.80	7.39	0.01	0.11	0.18	0.29	0.10	0.04	0.14	1,512
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2030	1.90	6.85	7.60	0.03	0.18	0.88	1.05	0.16	0.25	0.42	3,273
2031	0.34	2.82	5.33	0.01	0.09	0.13	0.21	0.08	0.03	0.11	1,084
2032	0.12	0.99	1.93	< 0.005	0.03	0.05	0.08	0.03	0.01	0.04	394
Annual	—	—	—	—	—	—	—	—	—	—	—
2030	0.35	1.25	1.39	< 0.005	0.03	0.16	0.19	0.03	0.05	0.08	542
2031	0.06	0.51	0.97	< 0.005	0.02	0.02	0.04	0.01	0.01	0.02	179
2032	0.02	0.18	0.35	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.01	65.2

3. Construction Emissions Details

3.1. Pavement Demolition (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	2.09	18.1	18.7	0.03	0.72	—	0.72	0.66	—	0.66	3,438
Demolition	—	—	—	—	—	4.89	4.89	—	0.74	0.74	—
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	0.45	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	84.8
Demolition	—	—	—	—	—	0.12	0.12	—	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	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.0
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	0.05	0.03	0.52	0.00	0.00	0.13	0.13	0.00	0.03	0.03	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	6.86	2.85	0.04	0.08	1.64	1.72	0.08	0.45	0.53	5,865
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	3.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	145
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
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	23.9

3.3. 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	0.56	4.53	5.29	0.01	0.22	—	0.22	0.20	—	0.20	977
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	0.06	0.48	0.57	< 0.005	0.02	—	0.02	0.02	—	0.02	104
Dust From Material Movement	—	—	—	—	—	0.15	0.15	—	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	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.3
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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	41.5

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.22	16.8	6.82	0.10	0.18	3.88	4.07	0.18	1.06	1.25	13,852
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.48
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	1.80	0.72	0.01	0.02	0.41	0.43	0.02	0.11	0.13	1,481
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.74
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	0.33	0.13	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	245

3.5. 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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	4.01	6.89	0.01	0.13	—	0.13	0.12	—	0.12	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	0.07	0.60	1.04	< 0.005	0.02	—	0.02	0.02	—	0.02	197
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	0.11	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	32.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	25.2
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.95
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.15
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. Hangar Construction (2031) - 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	0.43	3.85	6.87	0.01	0.12	—	0.12	0.11	—	0.11	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	0.43	3.85	6.87	0.01	0.12	—	0.12	0.11	—	0.11	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	0.30	2.75	4.91	0.01	0.09	—	0.09	0.08	—	0.08	935
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	0.06	0.50	0.90	< 0.005	0.02	—	0.02	0.01	—	0.01	155
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	0.64	0.00	0.00	0.17	0.17	0.00	0.04	0.04	173
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	44.5
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	0.05	0.04	0.56	0.00	0.00	0.17	0.17	0.00	0.04	0.04	163
Vendor	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	44.5
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	0.04	0.03	0.41	0.00	0.00	0.12	0.12	0.00	0.03	0.03	117
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	31.8
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	0.01	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	19.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.26
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. Hangar Construction (2032) - 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	0.42	3.71	6.84	0.01	0.11	—	0.11	0.10	—	0.10	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	0.42	3.71	6.84	0.01	0.11	—	0.11	0.10	—	0.10	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	0.11	0.96	1.77	< 0.005	0.03	—	0.03	0.03	—	0.03	338
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	0.18	0.32	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	56.0
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	0.61	0.00	0.00	0.17	0.17	0.00	0.04	0.04	169
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.9
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	0.05	0.04	0.53	0.00	0.00	0.17	0.17	0.00	0.04	0.04	160

Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.9
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	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	41.9
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11.1
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.93
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.83
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 Expansion (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	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	2,405
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	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	2,405
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	0.29	2.60	3.99	0.01	0.08	—	0.08	0.07	—	0.07	745
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	0.05	0.47	0.73	< 0.005	0.01	—	0.01	0.01	—	0.01	123
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	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	18.0
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.2
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	0.01	0.01	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	17.0
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.2
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	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.31
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.48
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	0.88
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.24
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. 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)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.20	1.96	3.09	< 0.005	0.07	—	0.07	0.06	—	0.06	474
Paving	1.61	—	—	—	—	—	—	—	—	—	—
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	0.20	1.96	3.09	< 0.005	0.07	—	0.07	0.06	—	0.06	474
Paving	1.61	—	—	—	—	—	—	—	—	—	—
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	0.02	0.21	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	50.6
Paving	0.17	—	—	—	—	—	—	—	—	—	—
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	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.38
Paving	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	66.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	4.14	1.72	0.02	0.05	0.99	1.04	0.05	0.27	0.32	3,539
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	0.06	4.30	1.74	0.02	0.05	0.99	1.04	0.05	0.27	0.32	3,536

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.71
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	0.46	0.18	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	378
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.11
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	0.02	0.02	< 0.005	0.01	0.01	62.6

3.15. Pavement Marking (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	0.55	3.36	4.34	0.02	0.13	—	0.13	0.12	—	0.12	2,063
Architectural Coatings	85.9	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	28.3
Architectural Coatings	1.18	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.68

Architectural Coatings	0.21	—	—	—	—	—	—	—	—	—	—
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	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	88.0
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
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	1.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.19
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

3.17. 28R Lighting/Navaids (2032) - 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	0.08	0.77	1.68	< 0.005	0.02	—	0.02	0.02	—	0.02	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	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.79
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	0.46
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	< 0.005	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	21.1
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	0.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	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	0.04
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

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	4/20/2030	5/2/2030	5.00	9.00	—
New Surface Grading	Grading	1/2/2030	2/25/2030	5.00	39.0	—
Hangar Construction	Building Construction	10/16/2030	5/11/2032	5.00	410	—
Terminal Expansion	Building Construction	5/10/2030	10/15/2030	5.00	113	—
New Surface Paving	Paving	2/26/2030	4/19/2030	5.00	39.0	—
Pavement Marking	Architectural Coating	5/3/2030	5/9/2030	5.00	5.00	—
28R Lighting/Navaids	Trenching	5/12/2032	5/17/2032	5.00	4.00	—

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	8.00	33.0	0.73
Pavement Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Pavement Demolition	Rubber Tired Dozers	Diesel	Average	2.00	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
Hangar Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Hangar Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Hangar Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Terminal Expansion	Cranes	Diesel	Average	1.00	7.00	367	0.29
Terminal Expansion	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Terminal Expansion	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Terminal Expansion	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Terminal Expansion	Welders	Diesel	Average	1.00	8.00	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
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
28R Lighting/Navaids	Tractors/Loaders/Backhoes	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
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	209	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	53.4	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
28R Lighting/Navaids	—	—	—	—

28R Lighting/Navaids	Worker	2.50	12.0	LDA,LDT1,LDT2
28R Lighting/Navaids	Vendor	—	7.63	HHDT,MHDT
28R Lighting/Navaids	Hauling	0.00	20.0	HHDT
28R Lighting/Navaids	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
Pavement Demolition	—	—	—	—
Pavement Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Pavement Demolition	Vendor	—	7.63	HHDT,MHDT
Pavement Demolition	Hauling	88.6	20.0	HHDT
Pavement Demolition	Onsite truck	—	—	HHDT
Terminal Expansion	—	—	—	—
Terminal Expansion	Worker	2.05	12.0	LDA,LDT1,LDT2
Terminal Expansion	Vendor	1.05	7.63	HHDT,MHDT
Terminal Expansion	Hauling	0.00	20.0	HHDT
Terminal Expansion	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	92,600

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	3,186	—
New Surface Grading	32,660	32,660	1.31	0.00	—
New Surface Paving	0.00	0.00	0.00	0.00	23.9

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	23.9	100%
General Office Building	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
2031	0.00	589	0.03	< 0.005
2032	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	8.91	annual days of extreme heat
Extreme Precipitation	2.80	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.11	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	42.6
AQ-PM	33.5
AQ-DPM	90.0
Drinking Water	29.0
Lead Risk Housing	8.29
Pesticides	32.4
Toxic Releases	33.2
Traffic	78.7
Effect Indicators	—
CleanUp Sites	95.4
Groundwater	90.7
Haz Waste Facilities/Generators	98.9
Impaired Water Bodies	0.00
Solid Waste	99.3

Sensitive Population	—
Asthma	48.3
Cardio-vascular	20.6
Low Birth Weights	61.7
Socioeconomic Factor Indicators	—
Education	26.9
Housing	67.7
Linguistic	48.7
Poverty	18.9
Unemployment	13.2

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	65.78981137
Employed	68.92082638
Median HI	67.35531888
Education	—
Bachelor's or higher	77.67226999
High school enrollment	19.96663673
Preschool enrollment	67.90709611
Transportation	—
Auto Access	82.44578468
Active commuting	41.78108559
Social	—
2-parent households	53.53522392
Voting	63.04375722

Neighborhood	—
Alcohol availability	73.3478763
Park access	60.25920698
Retail density	96.62517644
Supermarket access	29.34684974
Tree canopy	11.66431413
Housing	—
Homeownership	46.58026434
Housing habitability	49.36481458
Low-inc homeowner severe housing cost burden	24.90696779
Low-inc renter severe housing cost burden	76.10676248
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	63.35172591
Arthritis	81.7
Asthma ER Admissions	51.4
High Blood Pressure	90.0
Cancer (excluding skin)	49.7
Asthma	76.7
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	87.3
Life Expectancy at Birth	18.5
Cognitively Disabled	82.5
Physically Disabled	57.4
Heart Attack ER Admissions	87.0
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5

Obesity	80.7
Pedestrian Injuries	99.6
Physical Health Not Good	84.3
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	10.6
Current Smoker	62.2
No Leisure Time for Physical Activity	71.9
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	7.3
Elderly	70.8
English Speaking	36.9
Foreign-born	50.7
Outdoor Workers	88.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.4
Traffic Density	86.9
Traffic Access	72.8
Other Indices	—
Hardship	26.3
Other Decision Support	—
2016 Voting	65.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	53.0

Healthy Places Index Score for Project Location (b)	70.0
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. 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 (6 inches uncompressed asphalt). Hangar Construction and terminal expansion 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.

MYF AMP Operation Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MYF AMP Operation
Operational Year	2032
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.8
Location	32.816075617216484, -117.14144817567308
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6901
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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	476	1000sqft	10.9	475,530	0.00	—	—	—

General Office Building	6.40	1000sqft	0.15	6,400	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.	14.9	0.56	25.0	0.01	0.05	1.06	1.11	0.04	0.27	0.31	1,761
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.4	0.42	3.72	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,624
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.1	0.50	14.1	0.01	0.03	1.05	1.08	0.02	0.27	0.29	1,675
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.39	0.09	2.57	< 0.005	0.01	0.19	0.20	< 0.005	0.05	0.05	277

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	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
Area	14.4	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5

Energy	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	440
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	14.9	0.56	25.0	0.01	0.05	1.06	1.11	0.04	0.27	0.31	1,761
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
Area	10.9	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	440
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	11.4	0.42	3.72	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,624
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.48	0.36	3.68	0.01	0.01	1.05	1.06	0.01	0.27	0.27	1,078
Area	12.6	0.09	10.3	< 0.005	0.02	—	0.02	0.01	—	0.01	42.7
Energy	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	440
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	13.1	0.50	14.1	0.01	0.03	1.05	1.08	0.02	0.27	0.29	1,675
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179
Area	2.30	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	72.9
Water	—	—	—	—	—	—	—	—	—	—	2.15
Waste	—	—	—	—	—	—	—	—	—	—	16.7
Refrig.	—	—	—	—	—	—	—	—	—	—	< 0.005

Total	2.39	0.09	2.57	< 0.005	0.01	0.19	0.20	< 0.005	0.05	0.05	277

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	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
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
Total	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
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
Total	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179
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
Total	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179

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	—	—	—	—	—	—	—	—	—	—	325
General Office Building	—	—	—	—	—	—	—	—	—	—	49.9
Total	—	—	—	—	—	—	—	—	—	—	374
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	325
General Office Building	—	—	—	—	—	—	—	—	—	—	49.9
Total	—	—	—	—	—	—	—	—	—	—	374
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	53.7
General Office Building	—	—	—	—	—	—	—	—	—	—	8.27
Total	—	—	—	—	—	—	—	—	—	—	62.0

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	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	65.9
Total	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	65.9
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	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	65.9
Total	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	65.9
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.9
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.9

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	10.3	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.44	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5
Total	14.4	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.3	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—
Total	10.9	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.88	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06
Total	2.30	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06

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	—	—	—	—	—	—	—	—	—	—	13.0

Total	—	—	—	—	—	—	—	—	—	—	13.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	13.0
Total	—	—	—	—	—	—	—	—	—	—	13.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	2.15
Total	—	—	—	—	—	—	—	—	—	—	2.15

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	—	—	—	—	—	—	—	—	—	—	89.7
General Office Building	—	—	—	—	—	—	—	—	—	—	11.2
Total	—	—	—	—	—	—	—	—	—	—	101
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	89.7
General Office Building	—	—	—	—	—	—	—	—	—	—	11.2
Total	—	—	—	—	—	—	—	—	—	—	101
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	14.8
General Office Building	—	—	—	—	—	—	—	—	—	—	1.86
Total	—	—	—	—	—	—	—	—	—	—	16.7

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	—	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	< 0.005

Total	—	—	—	—	—	—	—	—	—	—	< 0.005

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

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

4.9. 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	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. 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	151	151	151	55,195	1,505	1,505	1,505	549,372
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	722,895	240,965	—

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	690,082	170	0.0330	0.0040	0.00
General Office Building	106,205	170	0.0330	0.0040	204,947

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	1,137,496	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	47.6	—
General Office Building	5.95	—

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

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	8.91	annual days of extreme heat
Extreme Precipitation	2.80	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.11	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	42.6
AQ-PM	33.5
AQ-DPM	90.0
Drinking Water	29.0
Lead Risk Housing	8.29
Pesticides	32.4
Toxic Releases	33.2
Traffic	78.7
Effect Indicators	—
CleanUp Sites	95.4
Groundwater	90.7

Haz Waste Facilities/Generators	98.9
Impaired Water Bodies	0.00
Solid Waste	99.3
Sensitive Population	—
Asthma	48.3
Cardio-vascular	20.6
Low Birth Weights	61.7
Socioeconomic Factor Indicators	—
Education	26.9
Housing	67.7
Linguistic	48.7
Poverty	18.9
Unemployment	13.2

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	65.78981137
Employed	68.92082638
Median HI	67.35531888
Education	—
Bachelor's or higher	77.67226999
High school enrollment	19.96663673
Preschool enrollment	67.90709611
Transportation	—
Auto Access	82.44578468
Active commuting	41.78108559

Social	—
2-parent households	53.53522392
Voting	63.04375722
Neighborhood	—
Alcohol availability	73.3478763
Park access	60.25920698
Retail density	96.62517644
Supermarket access	29.34684974
Tree canopy	11.66431413
Housing	—
Homeownership	46.58026434
Housing habitability	49.36481458
Low-inc homeowner severe housing cost burden	24.90696779
Low-inc renter severe housing cost burden	76.10676248
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	63.35172591
Arthritis	81.7
Asthma ER Admissions	51.4
High Blood Pressure	90.0
Cancer (excluding skin)	49.7
Asthma	76.7
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	87.3
Life Expectancy at Birth	18.5
Cognitively Disabled	82.5
Physically Disabled	57.4

Heart Attack ER Admissions	87.0
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5
Obesity	80.7
Pedestrian Injuries	99.6
Physical Health Not Good	84.3
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	10.6
Current Smoker	62.2
No Leisure Time for Physical Activity	71.9
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	7.3
Elderly	70.8
English Speaking	36.9
Foreign-born	50.7
Outdoor Workers	88.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.4
Traffic Density	86.9
Traffic Access	72.8
Other Indices	—
Hardship	26.3
Other Decision Support	—
2016 Voting	65.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	53.0
Healthy Places Index Score for Project Location (b)	70.0
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 (151 ADT) per AMP Transportation Impact Analysis and Local Mobility Analysis (CR Associates 2025).
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.

MYF AMP Operation Mitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MYF AMP Operation Mitigated
Operational Year	2032
Lead Agency	City of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.8
Location	32.816075617216484, -117.14144817567308
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6901
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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	476	1000sqft	10.9	475,530	0.00	—	—	—

General Office Building	6.40	1000sqft	0.15	6,400	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.	14.9	0.50	24.9	0.01	0.04	1.06	1.11	0.03	0.27	0.30	1,724
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.4	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,587
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.1	0.44	14.0	0.01	0.02	1.05	1.07	0.02	0.27	0.29	1,637
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.39	0.08	2.56	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	271

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	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
Area	14.4	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5

Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	403
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	14.9	0.50	24.9	0.01	0.04	1.06	1.11	0.03	0.27	0.30	1,724
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
Area	10.9	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	403
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	11.4	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,587
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.48	0.36	3.68	0.01	0.01	1.05	1.06	0.01	0.27	0.27	1,078
Area	12.6	0.09	10.3	< 0.005	0.02	—	0.02	0.01	—	0.01	42.7
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	403
Water	—	—	—	—	—	—	—	—	—	—	13.0
Waste	—	—	—	—	—	—	—	—	—	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	0.02
Total	13.1	0.44	14.0	0.01	0.02	1.05	1.07	0.02	0.27	0.29	1,637
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179
Area	2.30	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	66.7
Water	—	—	—	—	—	—	—	—	—	—	2.15
Waste	—	—	—	—	—	—	—	—	—	—	16.7
Refrig.	—	—	—	—	—	—	—	—	—	—	< 0.005

Total	2.39	0.08	2.56	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	271

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	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
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
Total	0.49	0.33	3.95	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,121
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
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
Total	0.48	0.36	3.67	0.01	0.01	1.06	1.07	0.01	0.27	0.28	1,070
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179
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
Total	0.09	0.06	0.67	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	179

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	—	—	—	—	—	—	—	—	—	—	325
General Office Building	—	—	—	—	—	—	—	—	—	—	78.2
Total	—	—	—	—	—	—	—	—	—	—	403
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	325
General Office Building	—	—	—	—	—	—	—	—	—	—	78.2
Total	—	—	—	—	—	—	—	—	—	—	403
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	53.7
General Office Building	—	—	—	—	—	—	—	—	—	—	12.9
Total	—	—	—	—	—	—	—	—	—	—	66.7

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	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

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	10.3	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.44	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5
Total	14.4	0.18	21.0	< 0.005	0.04	—	0.04	0.03	—	0.03	86.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.3	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—
Total	10.9	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.88	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06
Total	2.30	0.02	1.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.06

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	—	—	—	—	—	—	—	—	—	—	13.0

Total	—	—	—	—	—	—	—	—	—	—	13.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	13.0
Total	—	—	—	—	—	—	—	—	—	—	13.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	2.15
Total	—	—	—	—	—	—	—	—	—	—	2.15

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	—	—	—	—	—	—	—	—	—	—	89.7
General Office Building	—	—	—	—	—	—	—	—	—	—	11.2
Total	—	—	—	—	—	—	—	—	—	—	101
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	89.7
General Office Building	—	—	—	—	—	—	—	—	—	—	11.2
Total	—	—	—	—	—	—	—	—	—	—	101
Annual	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	14.8
General Office Building	—	—	—	—	—	—	—	—	—	—	1.86
Total	—	—	—	—	—	—	—	—	—	—	16.7

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	—	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	< 0.005

Total	—	—	—	—	—	—	—	—	—	—	< 0.005

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

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

4.9. 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	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. 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	151	151	151	55,195	1,505	1,505	1,505	549,372
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	722,895	240,965	—

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	690,082	170	0.0330	0.0040	0.00
General Office Building	166,255	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	1,137,496	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	47.6	—
General Office Building	5.95	—

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

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	8.91	annual days of extreme heat
Extreme Precipitation	2.80	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.11	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	42.6
AQ-PM	33.5
AQ-DPM	90.0
Drinking Water	29.0
Lead Risk Housing	8.29
Pesticides	32.4
Toxic Releases	33.2
Traffic	78.7
Effect Indicators	—
CleanUp Sites	95.4
Groundwater	90.7

Haz Waste Facilities/Generators	98.9
Impaired Water Bodies	0.00
Solid Waste	99.3
Sensitive Population	—
Asthma	48.3
Cardio-vascular	20.6
Low Birth Weights	61.7
Socioeconomic Factor Indicators	—
Education	26.9
Housing	67.7
Linguistic	48.7
Poverty	18.9
Unemployment	13.2

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	65.78981137
Employed	68.92082638
Median HI	67.35531888
Education	—
Bachelor's or higher	77.67226999
High school enrollment	19.96663673
Preschool enrollment	67.90709611
Transportation	—
Auto Access	82.44578468
Active commuting	41.78108559

Social	—
2-parent households	53.53522392
Voting	63.04375722
Neighborhood	—
Alcohol availability	73.3478763
Park access	60.25920698
Retail density	96.62517644
Supermarket access	29.34684974
Tree canopy	11.66431413
Housing	—
Homeownership	46.58026434
Housing habitability	49.36481458
Low-inc homeowner severe housing cost burden	24.90696779
Low-inc renter severe housing cost burden	76.10676248
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	63.35172591
Arthritis	81.7
Asthma ER Admissions	51.4
High Blood Pressure	90.0
Cancer (excluding skin)	49.7
Asthma	76.7
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	87.3
Life Expectancy at Birth	18.5
Cognitively Disabled	82.5
Physically Disabled	57.4

Heart Attack ER Admissions	87.0
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5
Obesity	80.7
Pedestrian Injuries	99.6
Physical Health Not Good	84.3
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	10.6
Current Smoker	62.2
No Leisure Time for Physical Activity	71.9
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	7.3
Elderly	70.8
English Speaking	36.9
Foreign-born	50.7
Outdoor Workers	88.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.4
Traffic Density	86.9
Traffic Access	72.8
Other Indices	—
Hardship	26.3
Other Decision Support	—
2016 Voting	65.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	53.0
Healthy Places Index Score for Project Location (b)	70.0
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 (151 ADT) per AMP Transportation Impact Analysis and Local Mobility Analysis (CR Associates 2025).
Operations: Energy Use	No natural gas use and Non-Title 24 electricity use only for hangars. Terminal expansion natural gas converted to kWh (1 kBtU = 0.293 kWh) and added to 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.

Appendix B

Lead Modeling Calculations and Output

Lead Emissions Inventory for Dispersion Modeling

Lead in 100LL (g/gal)[1]	2.12
Mass of 100LL (g/gal)[2]	2,730.6
Lead retention rate[3]	5%
grams per pound	453.5924

MYF 2017 Operations [4,5]				
	Total	Single-engine	Multi-engine	Helicopter[6]
Annual Operations	201,631	167,351	20,087	1,325
Peak Hour Operations	46	38.2	4.6	0.3

Climb and Approach Time and Angle Calculations													
		Single Engine				Multi Engine				Helicopter			
		Speed (mph)	Time (sec)	Rate (fpm)	Angle (deg)	Speed (mph)	Time (sec)	Rate (fpm)	Angle (deg)	Speed (mph)	Time (sec)	Rate (fpm)	Angle (deg)
Climb distance (miles)	1.5	84	64	600	4.6	102	53	800	5.1	69	44	800	7.5
Approach distance (miles)	1.5	86	63	-	3	105	51	-	3	69	96	-	-

MYF 2017 Lead Emissions [6]										
	Single-engine			Multi-engine			Helicopter			Emissions
Mode	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Max 1-hr (g/sec)
Taxi out 1	301	1.6	0.11840	301	5.1	0.37741	-	-	-	0.0008681
Taxi Out 2	345	1.6	0.13571	345	5.1	0.43258	-	-	-	0.0009950
Taxi Out 3	524	1.6	0.20613	524	5.1	0.65702	-	-	-	0.0015112
Runup	89	3.8	0.24945	89	9.9	0.64987	-	-	-	0.0017364
Queue	661	1.6	0.78005	652	5.1	2.45256	-	-	-	0.0056974
Takeoff Roll	16	12.9	0.15233	16	39.4	0.46546	-	-	-	0.0011040
Climb-out	64	12.9	0.61202	53	39.4	1.54012	-	-	-	0.0042256
Approach	63	5.8	0.26902	51	18.2	0.69051	-	-	-	0.0018660
Landing Roll/Taxi In 1	370	1.6	0.14555	370	5.1	0.46393	-	-	-	0.0010671
Landing Roll/Taxi In 2	247	1.6	0.09716	247	5.1	0.30970	-	-	-	0.0007123
Landing Roll/Taxi In 3	296	1.6	0.11644	296	5.1	0.37114	-	-	-	0.0008537
Helicopter taxi out	-	-	-	-	-	-	120	14.8	1.30910	0.0000550
Helicopter climb-out	-	-	-	-	-	-	44	19.7	0.64000	0.0000269
Helicopter approach	-	-	-	-	-	-	69	9.1	0.46322	0.0000194
Helicopter taxi in	-	-	-	-	-	-	120	14.8	1.30910	0.0000550

MYF 2037 Operations Forecast [4,5]				
	Total	Single-engine	Multi-engine	Helicopter[6]
Annual Operations	221,896	181,484	21,701	1,792
Peak Hour Operations	51	41.7	5.0	0.4

MYF 2037 No Project Lead Emissions [7]										
	Single-engine			Multi-engine			Helicopter			Emissions
Mode	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Max 1-hr (g/sec)
Taxi out 1	301	1.6	0.11840	301	5.1	0.37741	-	-	-	0.0009474
Taxi Out 2	345	1.6	0.13571	345	5.1	0.43258	-	-	-	0.0010859
Taxi Out 3	524	1.6	0.20613	524	5.1	0.65702	-	-	-	0.0016493
Runup	89	3.8	0.24945	89	9.9	0.64987	-	-	-	0.0018953
Queue	661	1.6	0.78005	652	5.1	2.45256	-	-	-	0.0062180
Takeoff Roll	16	12.9	0.15233	16	39.4	0.46546	-	-	-	0.0012049
Climb-out	64	12.9	0.61202	53	39.4	1.54012	-	-	-	0.0046125
Approach	63	5.8	0.26902	51	18.2	0.69051	-	-	-	0.0020369
Landing Roll/Taxi In 1	370	1.6	0.14555	370	5.1	0.46393	-	-	-	0.0011646
Landing Roll/Taxi In 2	247	1.6	0.09716	247	5.1	0.30970	-	-	-	0.0007774
Landing Roll/Taxi In 3	296	1.6	0.11644	296	5.1	0.37114	-	-	-	0.0009317
Helicopter taxi out	-	-	-	-	-	-	120	14.8	1.30910	0.0000749
Helicopter climb-out	-	-	-	-	-	-	44	19.7	0.64000	0.0000366
Helicopter approach	-	-	-	-	-	-	69	9.1	0.46322	0.0000265
Helicopter taxi in	-	-	-	-	-	-	120	14.8	1.30910	0.0000749

MYF 2037 Project Lead Emissions [7]										
	Single-engine			Multi-engine			Helicopter			Emissions
Mode	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Time (sec)	Fuel Cons. (g/sec)	Pb (g/LTO)	Max 1-hr (g/sec)
Taxi out 1	301	1.6	0.07104	301	5.1	0.22645	-	-	-	0.0005684
Taxi Out 2	345	1.6	0.08143	345	5.1	0.25955	-	-	-	0.0006515
Taxi Out 3	524	1.6	0.12368	524	5.1	0.39421	-	-	-	0.0009896
Taxi Out 4	566	1.6	0.13359	566	5.1	0.70969	-	-	-	0.0012655
Taxi Out 5	552	1.6	0.13028	552	5.1	0.41528	-	-	-	0.0010425
Runup	89	3.8	0.24945	89	9.9	0.64987	-	-	-	0.0018953
Queue	661	1.6	0.78005	652	5.1	2.45256	-	-	-	0.0062180
Takeoff Roll	16	12.9	0.15233	16	39.4	0.46546	-	-	-	0.0012049
Climb-out	64	12.9	0.61202	53	39.4	1.54012	-	-	-	0.0046125
Approach	63	5.8	0.26902	51	18.2	0.69051	-	-	-	0.0020369
Landing Roll/Taxi In 1	370	1.6	0.08733	370	5.1	0.27836	-	-	-	0.0006987
Landing Roll/Taxi In 2	247	1.6	0.05830	247	5.1	0.18582	-	-	-	0.0004665
Landing Roll/Taxi In 3	296	1.6	0.06986	296	5.1	0.22269	-	-	-	0.0005590
Landing Roll/Taxi In 4	413	1.6	0.09748	413	5.1	0.31071	-	-	-	0.0007800
Landing Roll/Taxi In 5	401	1.6	0.09464	401	5.1	0.30168	-	-	-	0.0007573
Helicopter taxi out	-	-	-	-	-	-	120	14.8	1.30910	0.0000749
Helicopter climb-out	-	-	-	-	-	-	44	19.7	0.64000	0.0000366
Helicopter approach	-	-	-	-	-	-	69	9.1	0.46322	0.0000265
Helicopter taxi in	-	-	-	-	-	-	120	14.8	1.30910	0.0000749

Notes:
1. 100LL Avgas lead concentration = 2.12 g/gallon (USEPA 2010a).
2. Mass of 100LL avgas = 2,730.6 g/gallon (USEPA 2010b).
3. Lead from avgas retained in the engine = 5% (USEPA 2010a).
4. An operation = one takeoff or one landing (an LTO in the EPA national emissions inventory methodology = 2 operations).
5. Montgomery-Gibbs Field 2017 and 2037 Operations forecast from Working Paper Montgomery-Gibbs Executive Airport Master Plan, Section 2 Forecast. Recommended Demand Forecast : 201,631 annual operations in 2017 (+0.48% from 2016); 221,896 annual operations in 2037 (+10.58% from 2016). Peak hour in 2016 = 46 operations (9:00 A.M. on a Thursday in July); peak hour in 2017 = 46 *1.0048 = 102 operations; peak hour in 2037 = 46 *1.1058 = 51 operations.
6. Per the Baseline Noise and Air Quality Modeling Assumptions, 26% of helicopter operations are piston-engine powered helicopters (HMMH 20917).

Weighted Average Fuel Consumption Calculations

Mass of 100LL (g/gal)	2730.6

Representative Aircraft	AEDT Type	Engine	Operations	Best Rate Climb				Approach			
				mph		**gal/hr**		**mph**		**gal/hr**	
Single Engine											
Cessna 150	GASEPF	O-200	4.934	84	*414.46*	9	*44.41*	86	424.32	4.5	*22.20*
Cessna 150	GASEPF	O-200	50.3	84	*4225.20*	9	*452.70*	86	4325.80	4.5	*226.35*
Cessna 172N	CNA172	O-320	13.866	84	*1164.74*	14.5	*201.06*	86	1192.48	6.4	*88.74*
Cessna 172N	CNA172	O-320	141.621	84	*11896.16*	14.5	*2053.50*	86	12179.41	6.4	*906.37*
Cessna 172N	GASEPF	O-320	2.552	84	*214.37*	14.5	*37.00*	86	219.47	6.4	*16.33*
Cessna 172N	GASEPF	O-320	26.065	84	*2189.46*	14.5	*377.94*	86	2241.59	6.4	*166.82*
Cessna 172R	GASEPF	IO-360-B	2.552	84	*214.37*	19	*48.49*	86	219.47	7.5	*19.14*
Cessna 172R	GASEPF	IO-360-B	26.065	84	*2189.46*	19	*495.24*	86	2241.59	7.5	*195.49*
Cessna 206	COMSEP	TIO-540-J2B2	2.042	102	*208.28*	26	*53.09*	105	214.41	12	*24.50*
Cessna 206	COMSEP	TIO-540-J2B2	20.852	102	*2126.90*	26	*542.15*	105	2189.46	12	*250.22*
Cessna 206	GASEPFV	TIO-540-J2B2	50.39	102	*5139.78*	26	*1310.14*	105	5290.95	12	*604.68*
Cessna 206	GASEPFV	TIO-540-J2B2	21.299	102	*2172.50*	26	*553.77*	105	2236.40	12	*255.59*
Subtotal			362.538			gal/hr	17.02			gal/hr	7.66
			Weighted Average	**mph**	**87.6**	**g/sec**	**12.9**	**mph**	**91.0**	**g/sec**	**5.8**
Twin Engine											
Beechcraft Baron 58	BEC58P	TIO-540-J2B2	7.273	121		52		125		24	
Beechcraft Baron 58	BEC58P	TIO-540	7.793	121		52		125		24	
Beechcraft Baron 58	BEC58P	TIO-540	5.195	121		52		125		24	
Beechcraft Baron 58	BEC58P	TIO-540	5.715	121		52		125		24	
Beechcraft Baron 58	BEC58P	TIO-540	1.039	121		52		125		24	
Subtotal			27.015			39.4				18.2	
		Weighted Average	**mph**	**121**	**g/sec**	**39.4**	**mph**	**125**	**g/sec**	**18.2**	
Single Engine Helicopter											
Robinson R44	R44	TIO-540-J2B2	1.1	69		26		69		12	
Robinson R44	R44	TIO-540-J2B2	3.299	69		26		69		12	
Subtotal			4.399	69		19.7		69		9.1	
		Weighted Average	**mph**	**69**	**g/sec**	**19.7**	**mph**	**69**	**g/sec**	**9.1**	

Runway Usage Calculation

		Operations by Runway											
	Total MYF	**05**		**23**		**10L**		**10R**		**28L**		**28R**	
Arrivals	139.71	1.0%	1.40	1.0%	1.40	0.9%	1.26	0.5%	0.70	25.2%	35.21	72.2%	100.87
Departures	139.71	1.1%	1.54	3.1%	4.33	1.1%	1.54	1.5%	2.10	44.5%	62.17	48.7%	68.04
Circuits	270.356	0.0%	0.00	0.1%	0.27	17.8%	48.12	0.3%	0.81	0.0%	0.00	76.1%	205.74
Total Arrivals	274.89	**0.5%**	1.40	**0.6%**	1.53	**9.2%**	25.32	**0.4%**	1.10	**12.8%**	35.21	**74.1%**	203.74
Total Departures	274.89	**0.6%**	1.54	**1.6%**	4.47	**9.3%**	25.60	**0.9%**	2.50	**22.6%**	62.17	**62.2%**	170.91

Lead Emissions by Mode and Runway

MYF 2017 Emissions (g/sec)														
		Runway												
		05		23		10L		10R		28L		28R		5/10 Runup
	Mode	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Max Hour
Departure	Taxi Out 1											TAXIO1	8.6808E-04	
	Taxi Out 2											TAXIO2	9.9497E-04	
	Taxi Out 3											TAXIO3	1.5112E-03	
	Runup	10Runup	9.7074E-06	23Runup	2.8211E-05	10Runup	1.6170E-04	10Runup	1.5799E-05	28LRunup	3.9271E-04	28RRunup	1.0796E-03	1.8720E-04
	Queue	05Queue	3.1852E-05	23Queue	9.2567E-05	10LQueue	5.3056E-04	10RQueue	5.1840E-05	28LQueue	1.2886E-03	28RQueue	3.5423E-03	
	Takeoff Roll	05TORoll	6.1720E-06	23TORoll	1.7937E-05	10LTORoll	1.0281E-04	10RTORoll	1.0045E-05	28LTORoll	2.4969E-04	28RTORoll	6.8640E-04	
	Climb	05Climb	2.3624E-05	23Climb	6.8655E-05	10LClimb	3.9350E-04	10RClimb	3.8449E-05	28LClimb	9.5570E-04	28RClimb	2.6272E-03	
Arrival	Approach	05Appch	9.4840E-06	23Appch	1.0402E-05	10LAppch	1.7187E-04	10RAppch	7.4949E-06	28LAppch	2.3900E-04	28RAppch	1.3831E-03	
	Landing Roll/Taxi In 1											TAXII1	1.0671E-03	
	Landing Roll/Taxi In 2											TAXII2	7.1234E-04	
	Landing Roll/Taxi In 3											TAXII3	8.5366E-04	
Helicopter	Climb							HCLIMB	2.6870E-05					
	Approach							HAPPCH	1.9448E-05					
	Taxi							HTAXI	1.0992E-04					

MYF 2037 No Project Emissions (g/sec)														
		Runway												
		05		23		10L		10R		28L		28R		5/10 Runup
	Mode	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Max Hour
Departure	Taxi Out 1											TAXIO1	9.4740E-04	
	Taxi Out 2											TAXIO2	1.0859E-03	
	Taxi Out 3											TAXIO3	1.6493E-03	
	Runup	10Runup	1.0596E-05	23Runup	3.0794E-05	10Runup	1.7650E-04	10Runup	1.7245E-05	28LRunup	4.2866E-04	28RRunup	1.1784E-03	2.0434E-04
	Queue	05Queue	3.4763E-05	23Queue	1.0103E-04	10LQueue	5.7905E-04	10RQueue	5.6578E-05	28LQueue	1.4063E-03	28RQueue	3.8660E-03	
	Takeoff Roll	05TORoll	6.7363E-06	23TORoll	1.9577E-05	10LTORoll	1.1221E-04	10RTORoll	1.0963E-05	28LTORoll	2.7251E-04	28RTORoll	7.4914E-04	
	Climb	05Climb	2.5787E-05	23Climb	7.4941E-05	10LClimb	4.2953E-04	10RClimb	4.1969E-05	28LClimb	1.0432E-03	28RClimb	2.8678E-03	
Arrival	Approach	05Appch	1.0352E-05	23Appch	1.1354E-05	10LAppch	1.8761E-04	10RAppch	8.1811E-06	28LAppch	2.6088E-04	28RAppch	1.5097E-03	
	Landing Roll/Taxi In 1											TAXII1	1.1646E-03	
	Landing Roll/Taxi In 2											TAXII2	7.7743E-04	
	Landing Roll/Taxi In 3											TAXII3	9.3166E-04	
Helicopter	Climb							HCLIMB	3.6611E-05					
	Approach							HAPPCH	2.6498E-05					
	Taxi							HTAXI	1.4977E-04					

MYF 2037 Project Emissions (g/sec)														
		Runway												
		05		23		10L		10R		28L		28R		5/10 Runup
	Mode	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Source ID	Max Hour	Max Hour
Departure	Taxi Out 1											TAXIO1	5.6844E-04	
	Taxi Out 2											TAXIO2	6.5153E-04	
	Taxi Out 3											TAXIO3	9.8958E-04	
	Taxi Out 4											TAXIO4	1.2655E-03	
	Taxi Out 5											TAXIO5	1.0425E-03	
	Runup	10Runup	0.0000106	23Runup	0.0000308	10Runup	0.0001765	10Runup	0.0000172	28LRunup	0.0004287	28RRunup	1.1784E-03	0.0002043
	Queue	05Queue	0.0000348	23Queue	0.0001010	10LQueue	0.0005790	10RQueue	0.0000566	28LQueue	0.0014063	28RQueue	3.8660E-03	
	Takeoff Roll	05TORoll	0.0000067	23TORoll	0.0000196	10LTORoll	0.0001122	10RTORoll	0.0000110	28LTORoll	0.0002725	28RTORoll	7.4914E-04	
	Climb	05Climb	0.0000258	23Climb	0.0000749	10LClimb	0.0004295	10RClimb	0.0000420	28LClimb	0.0010432	28RClimb	2.8678E-03	
Arrival	Approach	05Appch	0.0000104	23Appch	0.0000114	10LAppch	0.0001876	10RAppch	0.0000082	28LAppch	0.0002609	28RAppch	1.5097E-03	
	Landing Roll/Taxi In 1											TAXII1	6.9875E-04	
	Landing Roll/Taxi In 2											TAXII2	4.6646E-04	
	Landing Roll/Taxi In 3											TAXII3	5.5900E-04	
	Landing Roll/Taxi In 4											TAXII4	7.7995E-04	
	Landing Roll/Taxi In 5											TAXII5	7.5729E-04	
Helicopter	Climb								0.0000366					
	Approach								0.0000265					
	Taxi								0.0001498					

Janaury							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.030	0.036	0.039	0.040	0.038	0.033	0.031
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.020	0.024	0.026	0.027	0.025	0.022	0.020
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.010	0.012	0.013	0.013	0.013	0.011	0.010
6:00	0.059	0.072	0.078	0.080	0.076	0.067	0.061
7:00	0.089	0.109	0.117	0.120	0.114	0.100	0.092
8:00	0.256	0.314	0.338	0.348	0.329	0.290	0.266
9:00	0.266	0.326	0.351	0.361	0.341	0.301	0.276
10:00	0.453	0.556	0.598	0.615	0.581	0.513	0.470
11:00	0.443	0.543	0.585	0.602	0.569	0.502	0.460
12:00	0.364	0.447	0.481	0.495	0.467	0.412	0.378
13:00	0.433	0.531	0.572	0.589	0.556	0.491	0.450
14:00	0.374	0.459	0.494	0.508	0.480	0.424	0.388
15:00	0.384	0.471	0.507	0.522	0.493	0.435	0.399
16:00	0.325	0.399	0.429	0.441	0.417	0.368	0.337
17:00	0.315	0.386	0.416	0.428	0.404	0.357	0.327
18:00	0.286	0.350	0.377	0.388	0.366	0.323	0.296
19:00	0.207	0.254	0.273	0.281	0.265	0.234	0.215
20:00	0.187	0.229	0.247	0.254	0.240	0.212	0.194
21:00	0.079	0.097	0.104	0.107	0.101	0.089	0.082
22:00	0.030	0.036	0.039	0.040	0.038	0.033	0.031
23:00	0.020	0.024	0.026	0.027	0.025	0.022	0.020
0:00	0.030	0.036	0.039	0.040	0.038	0.033	0.031

February							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.013	0.016	0.017	0.017	0.016	0.014	0.013
6:00	0.076	0.094	0.101	0.104	0.098	0.086	0.079
7:00	0.114	0.140	0.151	0.156	0.147	0.130	0.119
8:00	0.331	0.406	0.437	0.449	0.424	0.374	0.343
9:00	0.343	0.421	0.454	0.467	0.441	0.389	0.356
10:00	0.585	0.718	0.773	0.795	0.751	0.662	0.607
11:00	0.572	0.702	0.756	0.778	0.734	0.648	0.594
12:00	0.471	0.577	0.622	0.639	0.604	0.533	0.488
13:00	0.560	0.686	0.739	0.760	0.718	0.634	0.581
14:00	0.483	0.593	0.638	0.657	0.620	0.547	0.502
15:00	0.496	0.608	0.655	0.674	0.636	0.562	0.515
16:00	0.420	0.515	0.554	0.570	0.539	0.475	0.436
17:00	0.407	0.499	0.538	0.553	0.522	0.461	0.422
18:00	0.369	0.452	0.487	0.501	0.473	0.418	0.383
19:00	0.267	0.328	0.353	0.363	0.343	0.302	0.277
20:00	0.242	0.296	0.319	0.328	0.310	0.274	0.251
21:00	0.102	0.125	0.134	0.138	0.131	0.115	0.106
22:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040
23:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
0:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040

March							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.042	0.051	0.055	0.057	0.054	0.047	0.043
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.013	0.016	0.017	0.017	0.016	0.014	0.013
6:00	0.076	0.094	0.101	0.104	0.098	0.086	0.079
7:00	0.114	0.140	0.151	0.156	0.147	0.130	0.119
8:00	0.331	0.406	0.437	0.449	0.424	0.374	0.343
9:00	0.343	0.421	0.454	0.467	0.441	0.389	0.356
10:00	0.585	0.718	0.773	0.795	0.751	0.662	0.607
11:00	0.572	0.702	0.756	0.778	0.734	0.648	0.594
12:00	0.471	0.577	0.622	0.639	0.604	0.533	0.488
13:00	0.560	0.686	0.739	0.760	0.718	0.634	0.581
14:00	0.483	0.593	0.638	0.657	0.620	0.547	0.502
15:00	0.496	0.608	0.655	0.674	0.636	0.562	0.515
16:00	0.420	0.515	0.554	0.570	0.539	0.475	0.436
17:00	0.407	0.499	0.538	0.553	0.522	0.461	0.422
18:00	0.369	0.452	0.487	0.501	0.473	0.418	0.383
19:00	0.267	0.328	0.353	0.363	0.343	0.302	0.277
20:00	0.242	0.296	0.319	0.328	0.310	0.274	0.251
21:00	0.102	0.125	0.134	0.138	0.131	0.115	0.106
22:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040
23:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
0:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040

April							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.041	0.050	0.054	0.055	0.052	0.046	0.042
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.027	0.033	0.036	0.037	0.035	0.031	0.028
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.014	0.017	0.018	0.018	0.017	0.015	0.014
6:00	0.081	0.100	0.107	0.110	0.104	0.092	0.084
7:00	0.122	0.149	0.161	0.166	0.156	0.138	0.126
8:00	0.352	0.432	0.465	0.478	0.452	0.399	0.365
9:00	0.366	0.448	0.483	0.497	0.469	0.414	0.379
10:00	0.623	0.764	0.823	0.846	0.799	0.705	0.646
11:00	0.609	0.747	0.805	0.828	0.782	0.690	0.632
12:00	0.501	0.614	0.662	0.681	0.643	0.567	0.520
13:00	0.596	0.731	0.787	0.809	0.764	0.674	0.618
14:00	0.515	0.631	0.680	0.699	0.660	0.582	0.534
15:00	0.528	0.648	0.697	0.717	0.678	0.598	0.548
16:00	0.447	0.548	0.590	0.607	0.573	0.506	0.464
17:00	0.433	0.531	0.572	0.589	0.556	0.491	0.450
18:00	0.393	0.482	0.519	0.533	0.504	0.445	0.407
19:00	0.284	0.349	0.376	0.386	0.365	0.322	0.295
20:00	0.257	0.316	0.340	0.349	0.330	0.291	0.267
21:00	0.108	0.133	0.143	0.147	0.139	0.123	0.112
22:00	0.041	0.050	0.054	0.055	0.052	0.046	0.042
23:00	0.027	0.033	0.036	0.037	0.035	0.031	0.028
0:00	0.041	0.050	0.054	0.055	0.052	0.046	0.042

May							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.013	0.016	0.017	0.017	0.016	0.014	0.013
6:00	0.076	0.094	0.101	0.104	0.098	0.086	0.079
7:00	0.114	0.140	0.151	0.156	0.147	0.130	0.119
8:00	0.331	0.406	0.437	0.449	0.424	0.374	0.343
9:00	0.343	0.421	0.454	0.467	0.441	0.389	0.356
10:00	0.585	0.718	0.773	0.795	0.751	0.662	0.607
11:00	0.572	0.702	0.756	0.778	0.734	0.648	0.594
12:00	0.471	0.577	0.622	0.639	0.604	0.533	0.488
13:00	0.560	0.686	0.739	0.760	0.718	0.634	0.581
14:00	0.483	0.593	0.638	0.657	0.620	0.547	0.502
15:00	0.496	0.608	0.655	0.674	0.636	0.562	0.515
16:00	0.420	0.515	0.554	0.570	0.539	0.475	0.436
17:00	0.407	0.499	0.538	0.553	0.522	0.461	0.422
18:00	0.369	0.452	0.487	0.501	0.473	0.418	0.383
19:00	0.267	0.328	0.353	0.363	0.343	0.302	0.277
20:00	0.242	0.296	0.319	0.328	0.310	0.274	0.251
21:00	0.102	0.125	0.134	0.138	0.131	0.115	0.106
22:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040
23:00	0.025	0.031	0.034	0.035	0.033	0.029	0.026
0:00	0.038	0.047	0.050	0.052	0.049	0.043	0.040

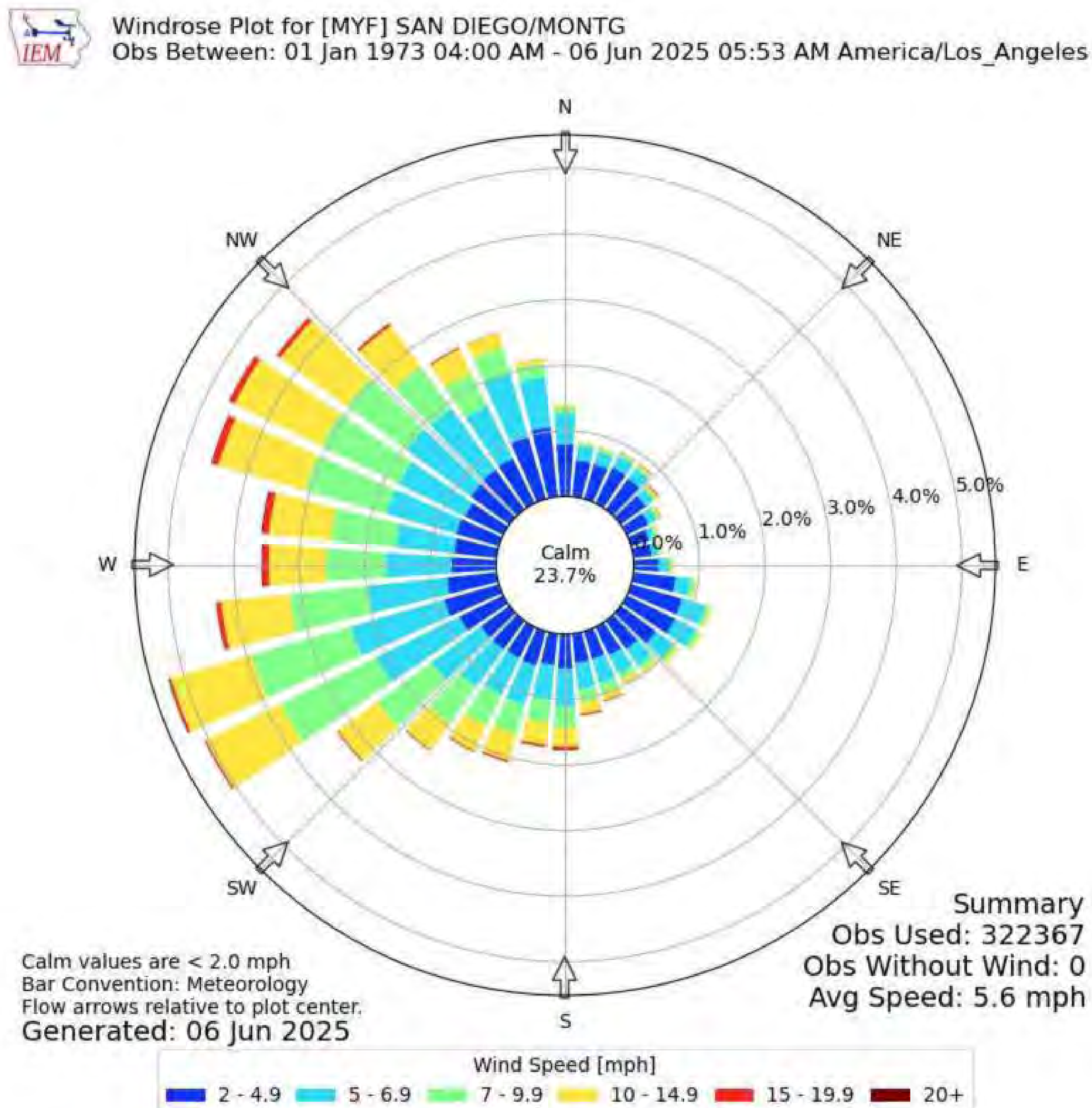
June							
Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.029	0.035	0.038	0.039	0.037	0.033	0.030
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.014	0.018	0.019	0.020	0.018	0.016	0.015
6:00	0.086	0.106	0.114	0.117	0.111	0.098	0.089
7:00	0.129	0.159	0.171	0.176	0.166	0.146	0.134
8:00	0.373	0.458	0.493	0.507	0.479	0.423	0.387
9:00	0.388	0.476	0.512	0.527	0.497	0.439	0.402
10:00	0.661	0.810	0.873	0.897	0.848	0.748	0.686
11:00	0.646	0.793	0.854	0.878	0.829	0.732	0.671
12:00	0.531	0.652	0.702	0.722	0.682	0.602	0.551
13:00	0.632	0.775	0.835	0.858	0.811	0.715	0.656
14:00	0.546	0.669	0.721	0.741	0.700	0.618	0.566
15:00	0.560	0.687	0.740	0.761	0.719	0.634	0.581
16:00	0.474	0.581	0.626	0.644	0.608	0.537	0.492
17:00	0.460	0.564	0.607	0.624	0.590	0.520	0.477
18:00	0.416	0.511	0.550	0.566	0.534	0.471	0.432
19:00	0.302	0.370	0.398	0.410	0.387	0.341	0.313
20:00	0.273	0.335	0.360	0.371	0.350	0.309	0.283
21:00	0.115	0.141	0.152	0.156	0.147	0.130	0.119
22:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045
23:00	0.029	0.035	0.038	0.039	0.037	0.033	0.030
0:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045

Operations by Time Period					
Hour		Day		Month	
1:00	3	Mo	530	Jan	12000
2:00	0	Tu	650	Feb	15500
3:00	2	We	700	Mar	17000
4:00	0	**Th**	**720**	Apr	16500
5:00	1	Fr	680	May	15500
6:00	6	Sa	600	Jun	17500
7:00	9	Su	550	**Jul**	**19500**
8:00	26			Aug	19000
9:00	27			Sep	17000
10:00	**46**			Oct	17500
11:00	45			Nov	18000
12:00	37			Dec	16000
13:00	44				
14:00	38				
15:00	39				
16:00	33				
17:00	32				
18:00	29				
19:00	21				
20:00	19				
21:00	8				
22:00	3				
23:00	2				
0:00	3				

July								August							
Hour	Mo	Tu	We	Th	Fr	Sa	Su	Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.048	0.059	0.063	0.065	0.062	0.054	0.050	1:00	0.047	0.057	0.062	0.064	0.060	0.053	0.049
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.032	0.039	0.042	0.043	0.041	0.036	0.033	3:00	0.031	0.038	0.041	0.042	0.040	0.035	0.032
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.016	0.020	0.021	0.022	0.021	0.018	0.017	5:00	0.016	0.019	0.021	0.021	0.020	0.018	0.016
6:00	0.096	0.118	0.127	0.130	0.123	0.109	0.100	6:00	0.094	0.115	0.124	0.127	0.120	0.106	0.097
7:00	0.144	0.177	0.190	0.196	0.185	0.163	0.149	7:00	0.140	0.172	0.185	0.191	0.180	0.159	0.146
8:00	0.416	0.510	0.550	0.565	0.534	0.471	0.432	8:00	0.405	0.497	0.535	0.551	0.520	0.459	0.421
9:00	0.432	0.530	0.571	0.587	0.554	0.489	0.448	9:00	0.421	0.516	0.556	0.572	0.540	0.477	0.437
10:00	0.736	0.903	0.972	1.000	0.944	0.833	0.764	10:00	0.717	0.880	0.947	0.974	0.920	0.812	0.744
11:00	0.720	0.883	0.951	0.978	0.924	0.815	0.747	11:00	0.702	0.861	0.927	0.953	0.900	0.794	0.728
12:00	0.592	0.726	0.782	0.804	0.760	0.670	0.614	12:00	0.577	0.708	0.762	0.784	0.740	0.653	0.599
13:00	0.704	0.864	0.930	0.957	0.903	0.797	0.731	13:00	0.686	0.841	0.906	0.932	0.880	0.777	0.712
14:00	0.608	0.746	0.803	0.826	0.780	0.688	0.631	14:00	0.592	0.727	0.783	0.805	0.760	0.671	0.615
15:00	0.624	0.765	0.824	0.848	0.801	0.707	0.648	15:00	0.608	0.746	0.803	0.826	0.780	0.688	0.631
16:00	0.528	0.648	0.697	0.717	0.678	0.598	0.548	16:00	0.515	0.631	0.680	0.699	0.660	0.582	0.534
17:00	0.512	0.628	0.676	0.696	0.657	0.580	0.531	17:00	0.499	0.612	0.659	0.678	0.640	0.565	0.518
18:00	0.464	0.569	0.613	0.630	0.595	0.525	0.482	18:00	0.452	0.555	0.597	0.614	0.580	0.512	0.469
19:00	0.336	0.412	0.444	0.457	0.431	0.380	0.349	19:00	0.327	0.402	0.432	0.445	0.420	0.371	0.340
20:00	0.304	0.373	0.402	0.413	0.390	0.344	0.316	20:00	0.296	0.363	0.391	0.402	0.380	0.335	0.307
21:00	0.128	0.157	0.169	0.174	0.164	0.145	0.133	21:00	0.125	0.153	0.165	0.169	0.160	0.141	0.129
22:00	0.048	0.059	0.063	0.065	0.062	0.054	0.050	22:00	0.047	0.057	0.062	0.064	0.060	0.053	0.049
23:00	0.032	0.039	0.042	0.043	0.041	0.036	0.033	23:00	0.031	0.038	0.041	0.042	0.040	0.035	0.032
0:00	0.048	0.059	0.063	0.065	0.062	0.054	0.050	0:00	0.047	0.057	0.062	0.064	0.060	0.053	0.049

September								October							
Hour	Mo	Tu	We	Th	Fr	Sa	Su	Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.042	0.051	0.055	0.057	0.054	0.047	0.043	1:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.028	0.034	0.037	0.038	0.036	0.032	0.029	3:00	0.029	0.035	0.038	0.039	0.037	0.033	0.030
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.014	0.017	0.018	0.019	0.018	0.016	0.014	5:00	0.014	0.018	0.019	0.020	0.018	0.016	0.015
6:00	0.084	0.103	0.111	0.114	0.107	0.095	0.087	6:00	0.086	0.106	0.114	0.117	0.111	0.098	0.089
7:00	0.126	0.154	0.166	0.171	0.161	0.142	0.130	7:00	0.129	0.159	0.171	0.176	0.166	0.146	0.134
8:00	0.363	0.445	0.479	0.493	0.465	0.411	0.376	8:00	0.373	0.458	0.493	0.507	0.479	0.423	0.387
9:00	0.377	0.462	0.497	0.512	0.483	0.426	0.391	9:00	0.388	0.476	0.512	0.527	0.497	0.439	0.402
10:00	0.642	0.787	0.848	0.872	0.823	0.726	0.666	10:00	0.661	0.810	0.873	0.897	0.848	0.748	0.686
11:00	0.628	0.770	0.829	0.853	0.805	0.711	0.651	11:00	0.646	0.793	0.854	0.878	0.829	0.732	0.671
12:00	0.516	0.633	0.682	0.701	0.662	0.584	0.536	12:00	0.531	0.652	0.702	0.722	0.682	0.602	0.551
13:00	0.614	0.753	0.811	0.834	0.788	0.695	0.637	13:00	0.632	0.775	0.835	0.858	0.811	0.715	0.656
14:00	0.530	0.650	0.700	0.720	0.680	0.600	0.550	14:00	0.546	0.669	0.721	0.741	0.700	0.618	0.566
15:00	0.544	0.667	0.719	0.739	0.698	0.616	0.565	15:00	0.560	0.687	0.740	0.761	0.719	0.634	0.581
16:00	0.460	0.565	0.608	0.625	0.591	0.521	0.478	16:00	0.474	0.581	0.626	0.644	0.608	0.537	0.492
17:00	0.446	0.548	0.590	0.606	0.573	0.505	0.463	17:00	0.460	0.564	0.607	0.624	0.590	0.520	0.477
18:00	0.405	0.496	0.534	0.550	0.519	0.458	0.420	18:00	0.416	0.511	0.550	0.566	0.534	0.471	0.432
19:00	0.293	0.359	0.387	0.398	0.376	0.332	0.304	19:00	0.302	0.370	0.398	0.410	0.387	0.341	0.313
20:00	0.265	0.325	0.350	0.360	0.340	0.300	0.275	20:00	0.273	0.335	0.360	0.371	0.350	0.309	0.283
21:00	0.112	0.137	0.147	0.152	0.143	0.126	0.116	21:00	0.115	0.141	0.152	0.156	0.147	0.130	0.119
22:00	0.042	0.051	0.055	0.057	0.054	0.047	0.043	22:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045
23:00	0.028	0.034	0.037	0.038	0.036	0.032	0.029	23:00	0.029	0.035	0.038	0.039	0.037	0.033	0.030
0:00	0.042	0.051	0.055	0.057	0.054	0.047	0.043	0:00	0.043	0.053	0.057	0.059	0.055	0.049	0.045

November								December							
Hour	Mo	Tu	We	Th	Fr	Sa	Su	Hour	Mo	Tu	We	Th	Fr	Sa	Su
1:00	0.044	0.054	0.059	0.060	0.057	0.050	0.046	1:00	0.039	0.048	0.052	0.054	0.051	0.045	0.041
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.030	0.036	0.039	0.040	0.038	0.033	0.031	3:00	0.026	0.032	0.035	0.036	0.034	0.030	0.027
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.015	0.018	0.020	0.020	0.019	0.017	0.015	5:00	0.013	0.016	0.017	0.018	0.017	0.015	0.014
6:00	0.089	0.109	0.117	0.120	0.114	0.100	0.092	6:00	0.079	0.097	0.104	0.107	0.101	0.089	0.082
7:00	0.133	0.163	0.176	0.181	0.171	0.151	0.138	7:00	0.118	0.145	0.156	0.161	0.152	0.134	0.123
8:00	0.384	0.471	0.507	0.522	0.493	0.435	0.399	8:00	0.341	0.419	0.451	0.464	0.438	0.386	0.354
9:00	0.399	0.489	0.527	0.542	0.512	0.452	0.414	9:00	0.355	0.435	0.468	0.482	0.455	0.401	0.368
10:00	0.679	0.833	0.897	0.923	0.872	0.769	0.705	10:00	0.604	0.741	0.798	0.821	0.775	0.684	0.627
11:00	0.665	0.815	0.878	0.903	0.853	0.753	0.690	11:00	0.591	0.725	0.780	0.803	0.758	0.669	0.613
12:00	0.547	0.670	0.722	0.742	0.701	0.619	0.567	12:00	0.486	0.596	0.642	0.660	0.623	0.550	0.504
13:00	0.650	0.797	0.858	0.883	0.834	0.736	0.674	13:00	0.578	0.709	0.763	0.785	0.741	0.654	0.600
14:00	0.561	0.688	0.741	0.763	0.720	0.635	0.582	14:00	0.499	0.612	0.659	0.678	0.640	0.565	0.518
15:00	0.576	0.707	0.761	0.783	0.739	0.652	0.598	15:00	0.512	0.628	0.676	0.696	0.657	0.580	0.531
16:00	0.487	0.598	0.644	0.662	0.625	0.552	0.506	16:00	0.433	0.531	0.572	0.589	0.556	0.491	0.450
17:00	0.473	0.580	0.624	0.642	0.606	0.535	0.491	17:00	0.420	0.515	0.555	0.571	0.539	0.476	0.436
18:00	0.428	0.525	0.566	0.582	0.550	0.485	0.445	18:00	0.381	0.467	0.503	0.517	0.489	0.431	0.395
19:00	0.310	0.380	0.410	0.421	0.398	0.351	0.322	19:00	0.276	0.338	0.364	0.375	0.354	0.312	0.286
20:00	0.281	0.344	0.371	0.381	0.360	0.318	0.291	20:00	0.249	0.306	0.329	0.339	0.320	0.282	0.259
21:00	0.118	0.145	0.156	0.161	0.152	0.134	0.123	21:00	0.105	0.129	0.139	0.143	0.135	0.119	0.109
22:00	0.044	0.054	0.059	0.060	0.057	0.050	0.046	22:00	0.039	0.048	0.052	0.054	0.051	0.045	0.041
23:00	0.030	0.036	0.039	0.040	0.038	0.033	0.031	23:00	0.026	0.032	0.035	0.036	0.034	0.030	0.027
0:00	0.044	0.054	0.059	0.060	0.057	0.050	0.046	0:00	0.039	0.048	0.052	0.054	0.051	0.045	0.041


IEM
Windrose Plot for [MYF] SAN DIEGO/MONTG
Obs Between: 01 Jan 1973 04:00 AM - 06 Jun 2025 05:53 AM America/Los_Angeles
N
NE
E
SE
S
SW
W
NW
0.0%
1.0%
2.0%
3.0%
4.0%
5.0%
Calm
23.7%
Summary
Obs Used: 322367
Obs Without Wind: 0
Avg Speed: 5.6 mph
Calm values are < 2.0 mph
Bar Convention: Meteorology
Flow arrows relative to plot center.
Generated: 06 Jun 2025
Wind Speed [mph]
2 - 4.9
5 - 6.9
7 - 9.9
10 - 14.9
15 - 19.9
20+

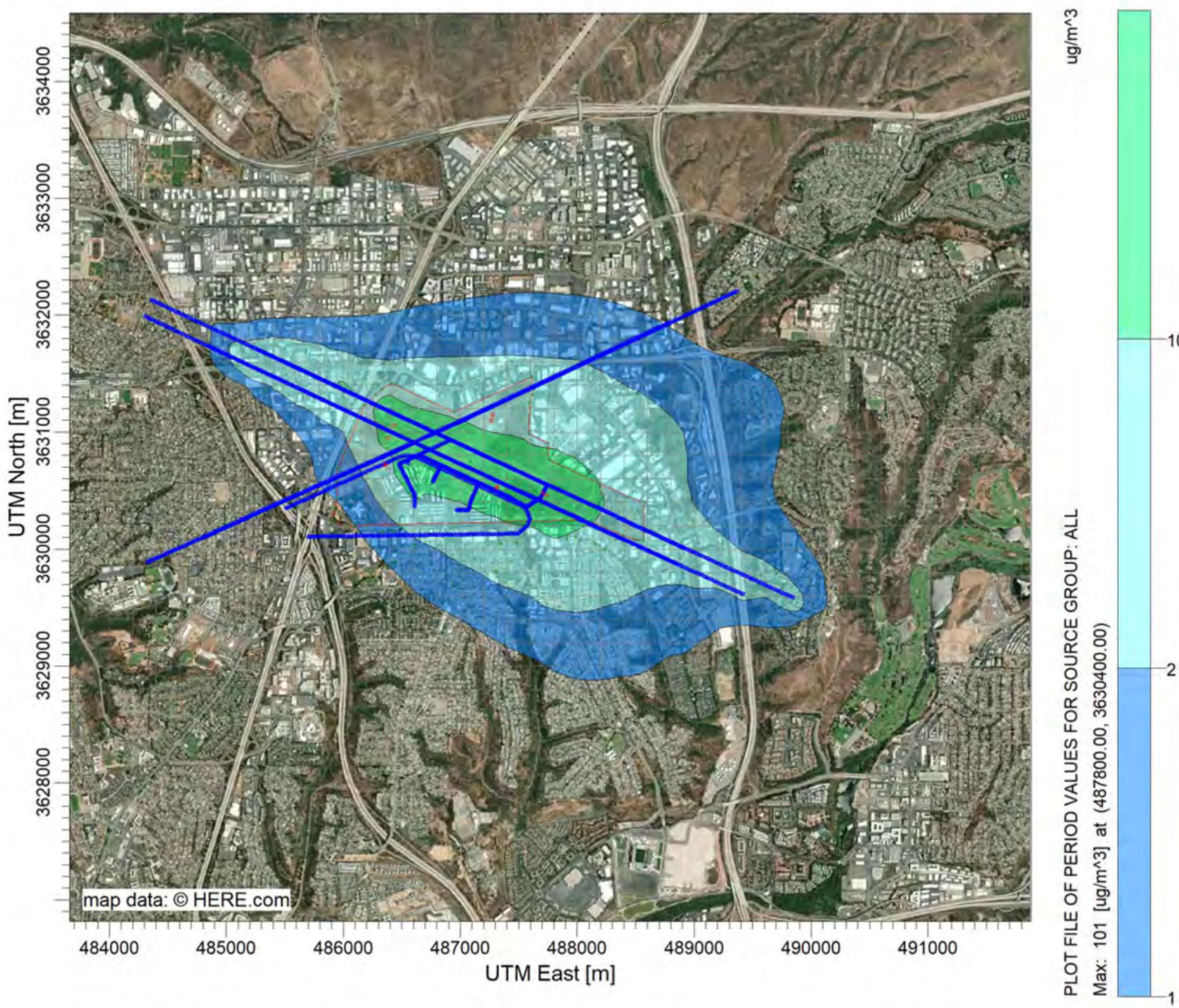
MFY AMP Lead Emissions HRA
Baseline (2017) Residential Cancer Risk

*HARP - HRACalc v22118 6/13/2025 12:32:31 PM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	CROP_RISK
801	ALL	R1	487915.31	3630094.65	8.64E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.10E-07	6.39E-06	1.56E-07	1.14E-07	1.77E-06
802	ALL	R2	487991.28	3630108.33	8.30E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.01E-07	6.14E-06	1.50E-07	1.10E-07	1.70E-06
803	ALL	R3	488154.9	3630045.2	5.57E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.35E-07	4.12E-06	1.00E-07	7.37E-08	1.14E-06
804	ALL	R4	487483	3630050.21	4.94E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.20E-07	3.65E-06	8.89E-08	6.53E-08	1.01E-06
805	ALL	R5	487346.68	3630048.82	4.32E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.05E-07	3.19E-06	7.78E-08	5.71E-08	8.83E-07
806	ALL	R6	486611.76	3630034.73	1.70E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	4.13E-08	1.26E-06	3.07E-08	2.25E-08	3.49E-07
807	ALL	R7	486033.86	3629941.91	7.11E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.72E-08	5.26E-07	1.28E-08	9.41E-09	1.45E-07
808	ALL	R8	485403.23	3630346.6	8.10E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.97E-08	6.00E-07	1.46E-08	1.07E-08	1.66E-07
809	ALL	R9	485329.75	3631361.13	1.35E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	3.27E-08	9.97E-07	2.43E-08	1.78E-08	2.76E-07
810	ALL	R10	484450.71	3632089.75	7.03E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.70E-08	5.20E-07	1.27E-08	9.30E-09	1.44E-07
811	ALL	R11	489105.37	3632087.11	8.10E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.97E-08	6.00E-07	1.46E-08	1.07E-08	1.66E-07
812	ALL	R12	489569.47	3629775.22	3.66E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	8.86E-08	2.70E-06	6.59E-08	4.84E-08	7.48E-07

PROJECT TITLE:

MYF AMP Lead Emissions HRA
Basesline (2017) Residential Cancer Risk Isopleths



COMMENTS:

Risk in chances per million

SOURCES:

37

RECEPTORS:

849

OUTPUT TYPE:

Concentration

MAX:

101 ug/m^3

COMPANY NAME:

HELIX Environmental Planning

DATE:

6/13/2025

SCALE: 1:52,870

0 1 km

PROJECT NO.:

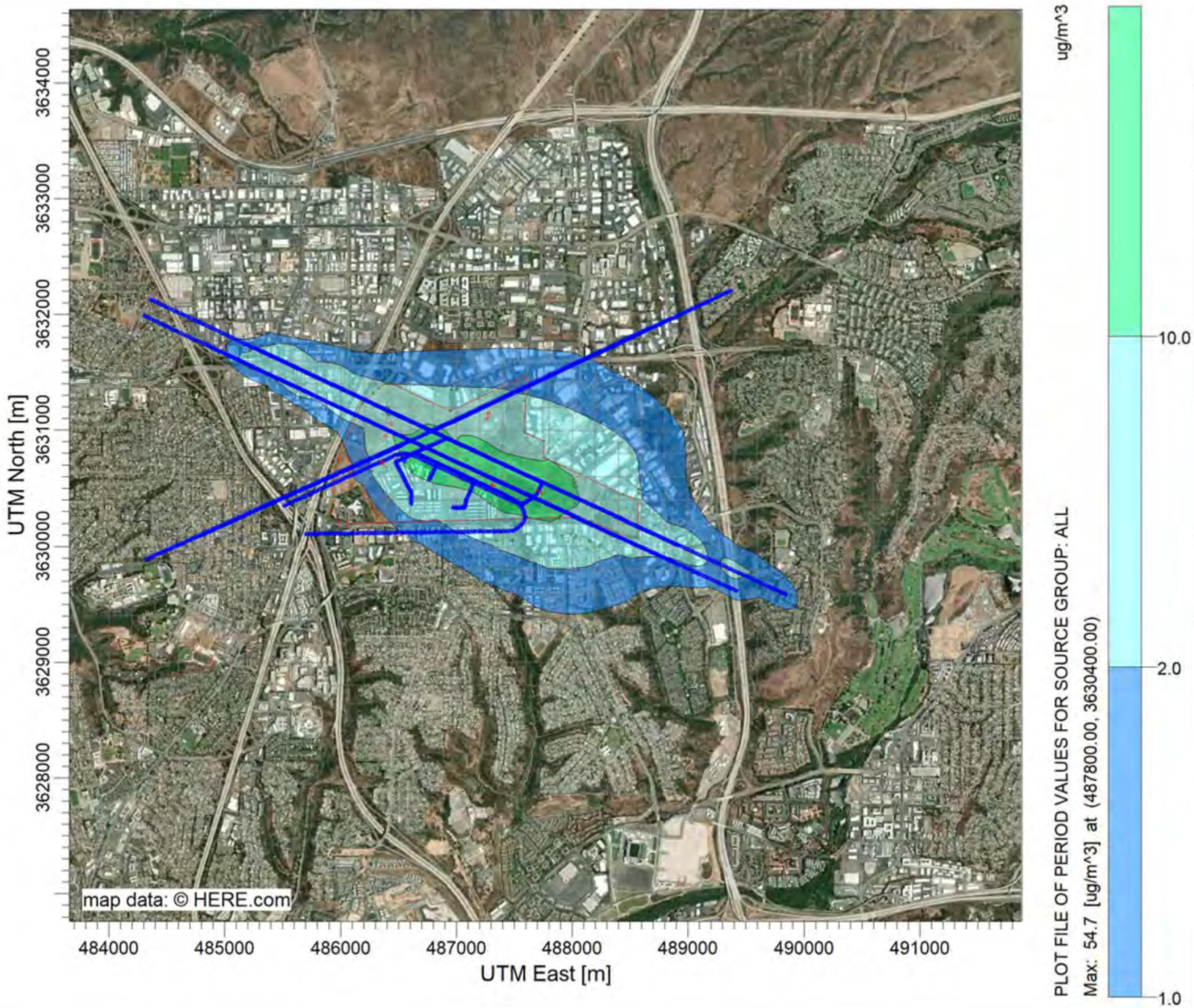
MFY AMP Lead Emissions HRA
Baseline (2017) School and Daycare Cancer Risk

*HARP - HRACalc v22118 6/12/2025 8:49:44 AM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK
813	ALL	S1	487311.3	3629805.4	1.26E-06	18YrCancerDerived_InhSoilDerm	5.35E-08	1.19E-06	1.93E-08
814	ALL	S2	486429.87	3630151.57	8.92E-07	18YrCancerDerived_InhSoilDerm	3.79E-08	8.40E-07	1.37E-08
815	ALL	S3	486335.42	3630147.98	7.57E-07	18YrCancerDerived_InhSoilDerm	3.22E-08	7.13E-07	1.16E-08
816	ALL	S4	486454.56	3629900.85	6.14E-07	18YrCancerDerived_InhSoilDerm	2.61E-08	5.78E-07	9.42E-09
817	ALL	S5	486068.11	3629934.29	3.99E-07	18YrCancerDerived_InhSoilDerm	1.69E-08	3.76E-07	6.12E-09
818	ALL	D1	488233.64	3629998.29	2.49E-06	18YrCancerDerived_InhSoilDerm	1.06E-07	2.35E-06	3.82E-08
819	ALL	D2	486935	3629689.55	7.48E-07	18YrCancerDerived_InhSoilDerm	3.18E-08	7.05E-07	1.15E-08

PROJECT TITLE:

MYF AMP Lead Emissions HRA
Basesline (2017) School and Daycare Cancer Risk Isopleths



COMMENTS:	Risk in chances per million
SOURCES:	**37**
RECEPTORS:	**849**
OUTPUT TYPE:	**Concentration**
MAX:	**54.7 ug/m^3**
COMPANY NAME:	**HELIX Environmental Planning**
DATE:	**6/13/2025**
SCALE:	1:53,600 (0 — 1 km)
PROJECT NO.:	

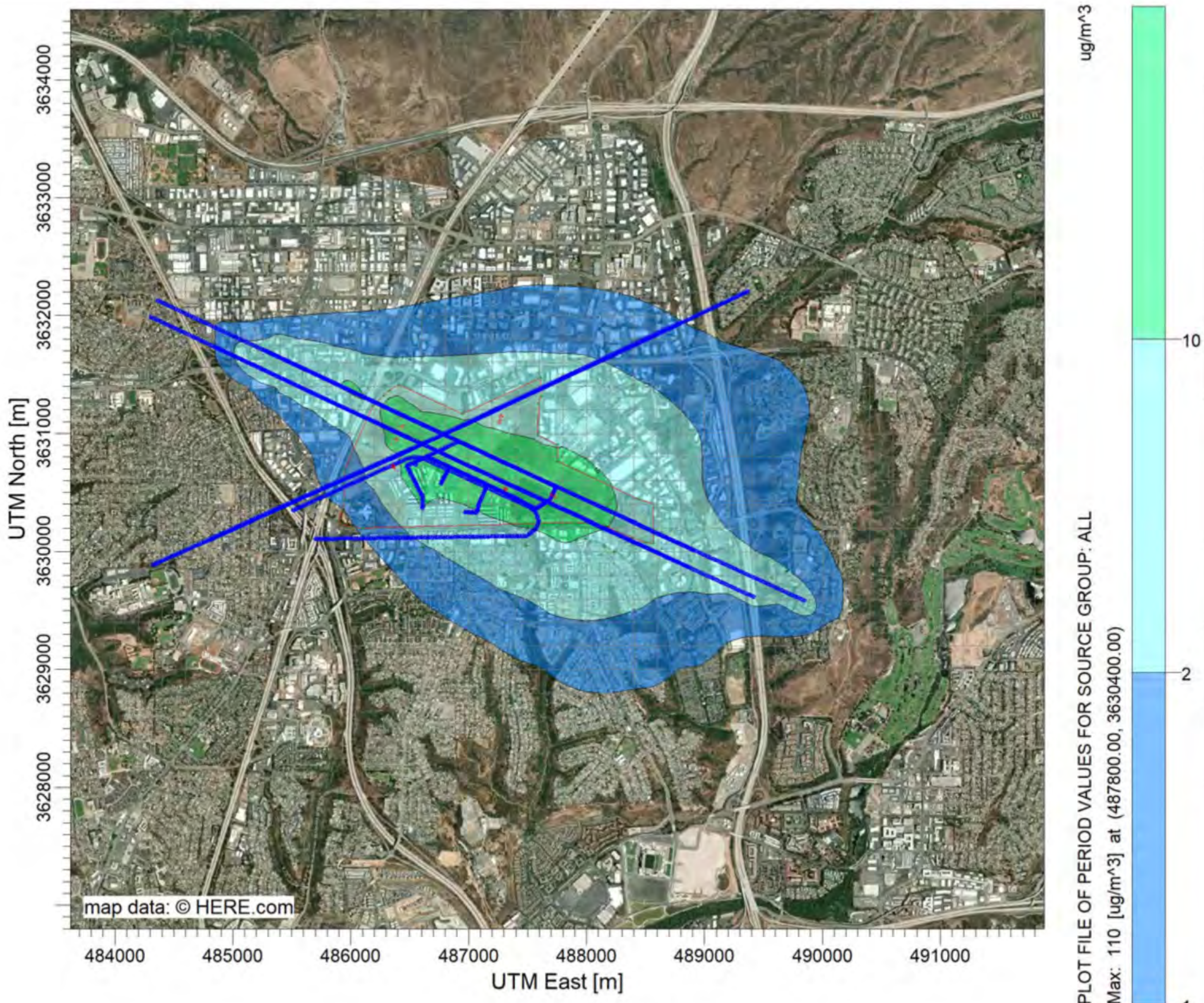
MFY AMP Lead Emissions HRA
No Project (2037) Residential Cancer Risk

*HARP - HRACalc v22118 6/13/2025 10:57:45 AM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	CROP_RISK
801	ALL	R1	487915.31	3630094.65	9.40E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.28E-07	6.96E-06	1.69E-07	1.24E-07	1.92E-06
802	ALL	R2	487991.28	3630108.33	9.03E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.19E-07	6.68E-06	1.63E-07	1.19E-07	1.85E-06
803	ALL	R3	488154.9	3630045.2	6.06E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.47E-07	4.49E-06	1.09E-07	8.02E-08	1.24E-06
804	ALL	R4	487483	3630050.21	5.37E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.30E-07	3.97E-06	9.67E-08	7.10E-08	1.10E-06
805	ALL	R5	487346.68	3630048.82	4.68E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.14E-07	3.46E-06	8.43E-08	6.19E-08	9.58E-07
806	ALL	R6	486611.76	3630034.73	1.84E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	4.45E-08	1.36E-06	3.31E-08	2.43E-08	3.76E-07
807	ALL	R7	486033.86	3629941.91	7.61E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.84E-08	5.63E-07	1.37E-08	1.01E-08	1.56E-07
808	ALL	R8	485403.23	3630346.6	8.77E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.13E-08	6.49E-07	1.58E-08	1.16E-08	1.79E-07
809	ALL	R9	485329.75	3631361.13	1.46E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	3.53E-08	1.08E-06	2.62E-08	1.93E-08	2.98E-07
810	ALL	R10	484450.71	3632089.75	7.69E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.86E-08	5.69E-07	1.39E-08	1.02E-08	1.57E-07
811	ALL	R11	489105.37	3632087.11	8.68E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.11E-08	6.43E-07	1.56E-08	1.15E-08	1.78E-07
812	ALL	R12	489569.47	3629775.22	3.99E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	9.67E-08	2.95E-06	7.18E-08	5.27E-08	8.15E-07

PROJECT TITLE:

MFY AMP Lead Emissions HRA
No Project (2037) Residential Cancer Risk Isopleths



COMMENTS:

Risk in chances per million

SOURCES:

37

RECEPTORS:

849

OUTPUT TYPE:

Concentration

MAX:

110 ug/m^3

COMPANY NAME:

HELIX Environmental Planning

DATE:

6/13/2025

SCALE: 1:53,098

0 1 km

PROJECT NO.:

AERMOD View - Lakes Environmental Software

C:\Users\MartinR\Desktop\Lead HRA\Lead Modeling\MYF_No_Project\MYF_No_Project.isc

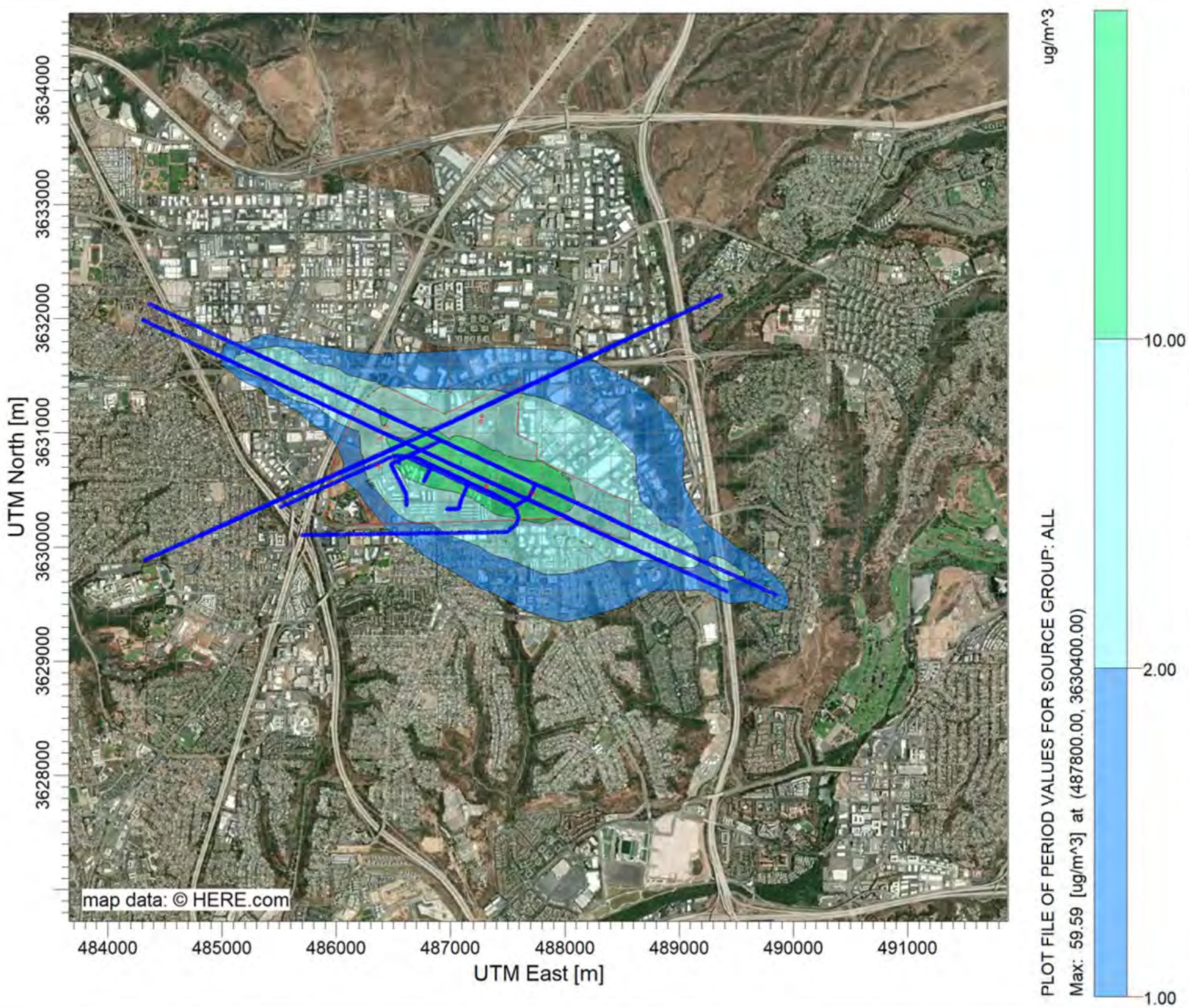
MFY AMP Lead Emissions HRA
No Project (2037) School and Daycare Cancer Risk

*HARP - HRACalc v22118 6/13/2025 12:24:03 PM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK
813	ALL	S1	487311.3	3629805.4	1.36E-06	18YrCancerDerived_InhSoilDerm	5.79E-08	1.28E-06	2.09E-08
814	ALL	S2	486429.87	3630151.57	9.63E-07	18YrCancerDerived_InhSoilDerm	4.09E-08	9.08E-07	1.48E-08
815	ALL	S3	486335.42	3630147.98	8.15E-07	18YrCancerDerived_InhSoilDerm	3.46E-08	7.68E-07	1.25E-08
816	ALL	S4	486454.56	3629900.85	6.54E-07	18YrCancerDerived_InhSoilDerm	2.78E-08	6.16E-07	1.00E-08
817	ALL	S5	486068.11	3629934.29	4.26E-07	18YrCancerDerived_InhSoilDerm	1.81E-08	4.01E-07	6.53E-09
818	ALL	D1	488233.64	3629998.29	2.71E-06	18YrCancerDerived_InhSoilDerm	1.15E-07	2.55E-06	4.15E-08
819	ALL	D2	486935	3629689.55	8.06E-07	18YrCancerDerived_InhSoilDerm	3.43E-08	7.60E-07	1.24E-08

PROJECT TITLE:

MFY AMP Lead Emissions HRA
No Project (2037) School and Daycare Cancer Risk Isopleths



COMMENTS:

Risk in chances per million

SOURCES:

37

RECEPTORS:

849

OUTPUT TYPE:

Concentration

MAX:

59.59 ug/m^3

COMPANY NAME:

HELIX Environmental Planning

DATE:

6/13/2025

SCALE: 1:54,138

0 — 1 km

PROJECT NO.:

AERMOD View - Lakes Environmental Software

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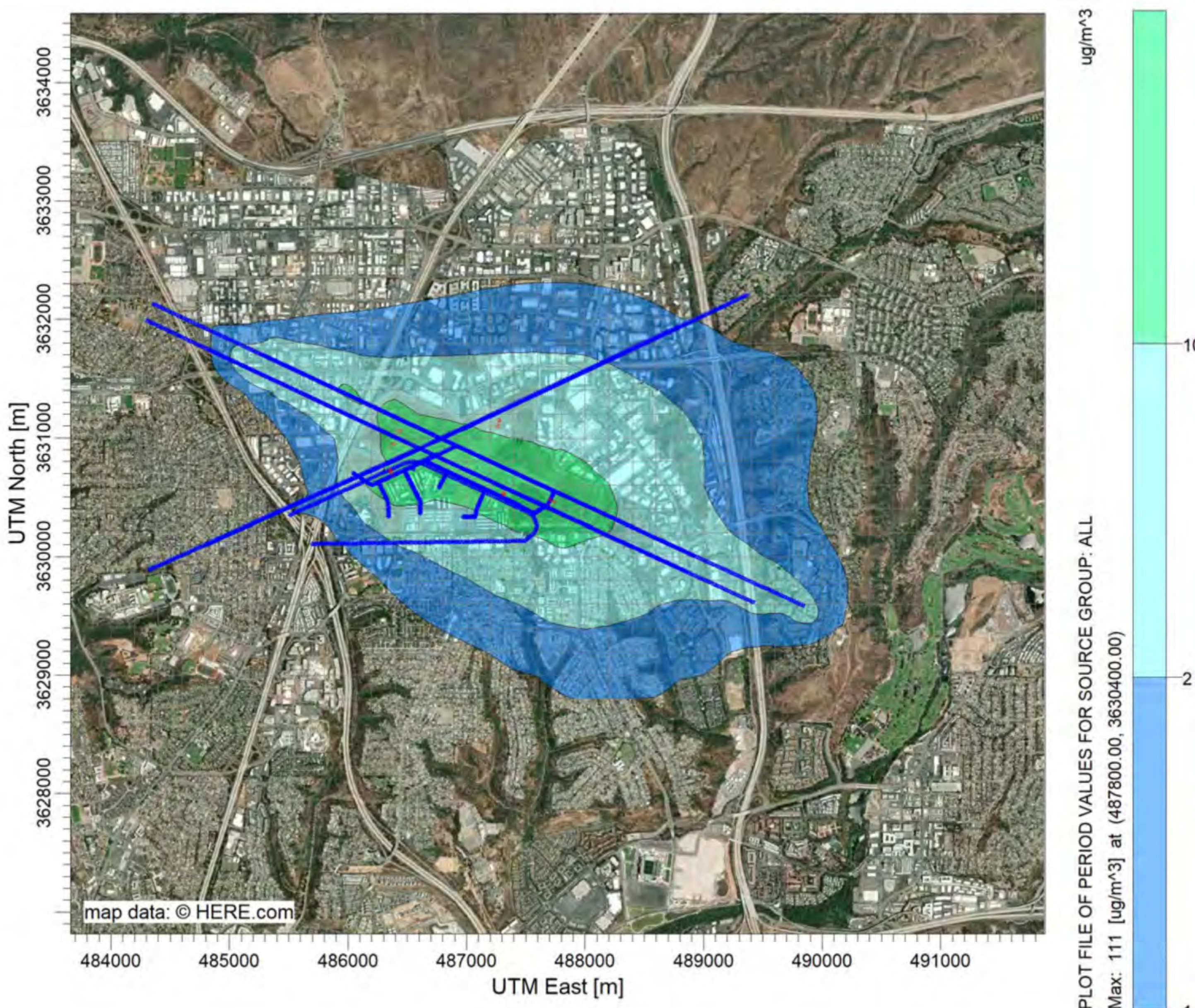
MFY AMP Lead Emissions HRA
Project (2037) Residential Cancer Risk

*HARP - HRACalc v22118 6/12/2025 9:10:29 AM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	CROP_RISK
801	ALL	R1	487915.31	3630094.65	9.62E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.33E-07	7.12E-06	1.73E-07	1.27E-07	1.97E-06
802	ALL	R2	487991.28	3630108.33	9.26E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.25E-07	6.85E-06	1.67E-07	1.23E-07	1.89E-06
803	ALL	R3	488154.9	3630045.2	6.25E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.52E-07	4.63E-06	1.13E-07	8.27E-08	1.28E-06
804	ALL	R4	487483	3630050.21	5.47E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.33E-07	4.05E-06	9.85E-08	7.23E-08	1.12E-06
805	ALL	R5	487346.68	3630048.82	4.73E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.15E-07	3.50E-06	8.52E-08	6.26E-08	9.68E-07
806	ALL	R6	486611.76	3630034.73	2.08E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	5.03E-08	1.54E-06	3.74E-08	2.75E-08	4.25E-07
807	ALL	R7	486033.86	3629941.91	9.10E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.21E-08	6.73E-07	1.64E-08	1.20E-08	1.86E-07
808	ALL	R8	485403.23	3630346.6	9.26E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.25E-08	6.85E-07	1.67E-08	1.23E-08	1.89E-07
809	ALL	R9	485329.75	3631361.13	1.51E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	3.65E-08	1.11E-06	2.71E-08	1.99E-08	3.08E-07
810	ALL	R10	484450.71	3632089.75	7.86E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.91E-08	5.81E-07	1.42E-08	1.04E-08	1.61E-07
811	ALL	R11	489105.37	3632087.11	9.18E-07	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	2.23E-08	6.79E-07	1.65E-08	1.21E-08	1.88E-07
812	ALL	R12	489569.47	3629775.22	4.45E-06	30YrCancerDerived_InhSoilDermMMilkCrops_FAH16to70	1.08E-07	3.29E-06	8.02E-08	5.89E-08	9.10E-07

PROJECT TITLE:

MFY AMP Lead Emissions HRA
Project (2037) Residential Cancer Risk Isopleths



COMMENTS:

Risk in chances per million

SOURCES:

41

RECEPTORS:

849

OUTPUT TYPE:

Concentration

MAX:

111 ug/m^3

COMPANY NAME:

HELIX Environmental Planning

DATE:

6/13/2025

SCALE: 1:52,870

0 1 km

PROJECT NO.:

AERMOD View - Lakes Environmental Software

C:\Users\MartinR\Desktop\Lead HRA\Lead Modeling\MYF_Project\MYF_Project.isc

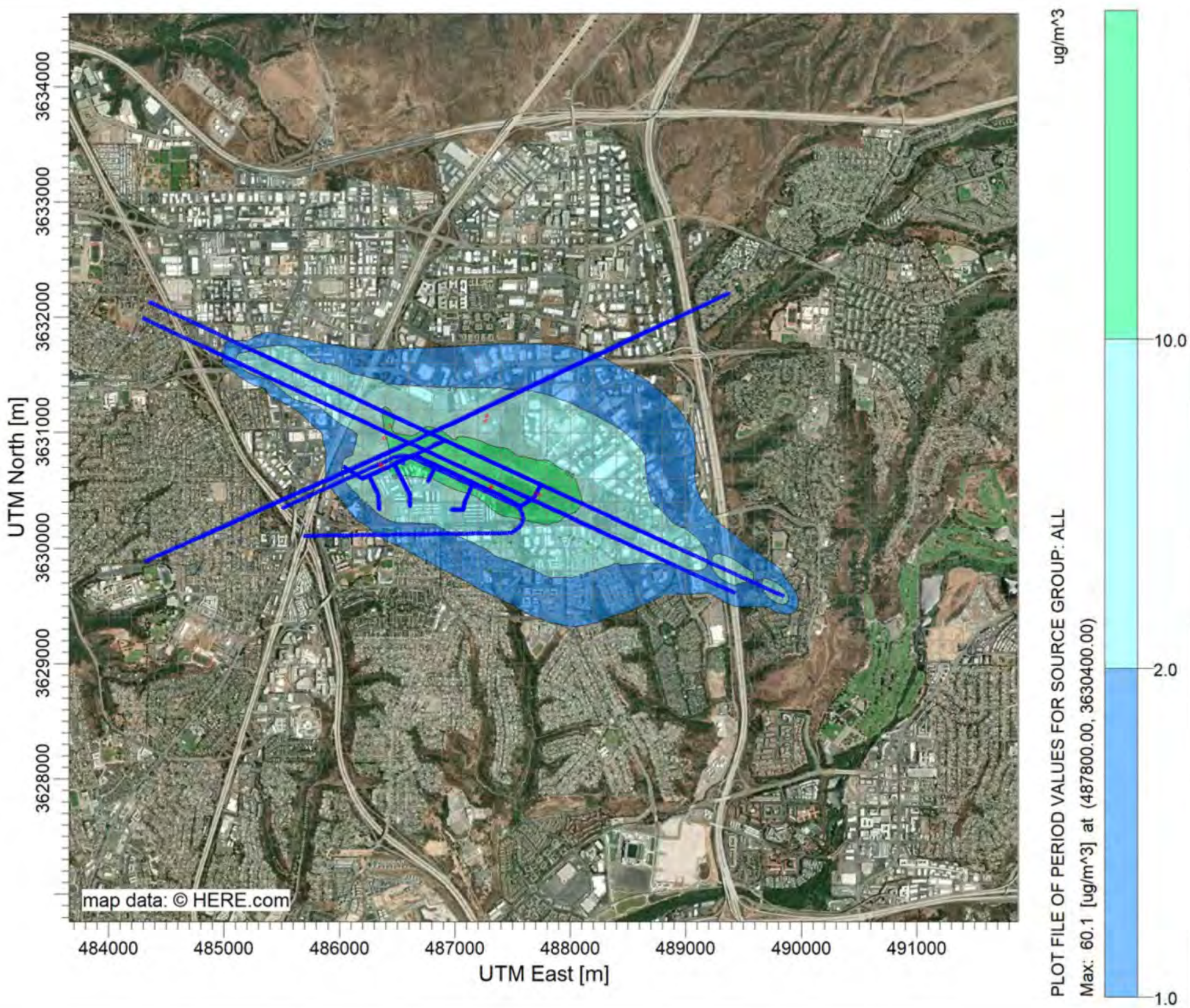
MFY AMP Lead Emissions HRA
Project (2037) School and Daycare Cancer Risk

*HARP - HRACalc v22118 6/13/2025 12:50:24 PM - Cancer Risk

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_RISK	
813	ALL	S1	487311.3	3629805.4	1.40E-06	18YrCancerDerived_InhSoilDerm	5.96E-08	1.32E-06	2.15E-08	1.4
814	ALL	S2	486429.87	3630151.57	1.25E-06	18YrCancerDerived_InhSoilDerm	5.29E-08	1.17E-06	1.91E-08	1.2
815	ALL	S3	486335.42	3630147.98	1.09E-06	18YrCancerDerived_InhSoilDerm	4.63E-08	1.03E-06	1.67E-08	1.1
816	ALL	S4	486454.56	3629900.85	7.62E-07	18YrCancerDerived_InhSoilDerm	3.24E-08	7.18E-07	1.17E-08	0.8
817	ALL	S5	486068.11	3629934.29	5.06E-07	18YrCancerDerived_InhSoilDerm	2.15E-08	4.77E-07	7.77E-09	0.5
818	ALL	D1	488233.64	3629998.29	2.80E-06	18YrCancerDerived_InhSoilDerm	1.19E-07	2.64E-06	4.30E-08	2.8
819	ALL	D2	486935	3629689.55	8.56E-07	18YrCancerDerived_InhSoilDerm	3.64E-08	8.06E-07	1.31E-08	0.9

PROJECT TITLE:

MFY AMP Lead Emissions HRA
Project (2037) School and Daycare Cancer Risk Isopleths



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL

Max: 60.1 [ug/m^3] at (487800.00, 3630400.00)

COMMENTS:

Risk in chances per million

SOURCES:

41

RECEPTORS:

849

OUTPUT TYPE:

Concentration

MAX:

60.1 ug/m^3

COMPANY NAME:

HELIX Environmental Planning

DATE:

6/13/2025

SCALE: 1:53,600

0 1 km

PROJECT NO.:

Control Pathway

AERMOD

Dispersion Options

Titles
C:\Users\martinr\Desktop\MontgomeryField\MontgomeryField.isc

Dispersion Options

- [x] Regulatory Default
- [ ] Non-Default Options

Dispersion Coefficient

Urban
Population:
Name (Optional):
Roughness Length:

Output Type

- [x] Concentration
- [ ] Total Deposition (Dry & Wet)
- [ ] Dry Deposition
- [ ] Wet Deposition

Plume Depletion

- [ ] Dry Removal
- [ ] Wet Removal

Output Warnings

- [ ] No Output Warnings
- [ ] Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

LEAD

Averaging Time Options

Hours

1	2	3	4	6	8	12	24
[x]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

- [ ] Month
- [x] Period
- [ ] Annual

Exponential Decay

Half Life of 4 hrs will be used / Option not available

Terrain Height Options

- [ ] Flat
- [x] Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

- [x] Yes
- [ ] No

Default Height = 1.20 m

Control Pathway

Optional Files

☐ Re-Start File	☐ Init File	☐ Multi-Year Analyses	☐ Event Input File	☒ Error Listing File

Detailed Error Listing File

Filename: MontgomeryField.err

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	484000.00	3628800.00	40	20	200.00	200.00

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	487915.31	3630094.65		125.64	
2	487991.28	3630108.33		125.96	
3	488154.90	3630045.20		124.99	
4	487483.00	3630050.21		122.68	
5	487346.68	3630048.82		126.00	
6	486611.76	3630034.73		123.03	
7	486033.86	3629941.91		123.28	
8	485403.23	3630346.60		132.76	
9	485329.75	3631361.13		133.40	
10	484450.71	3632089.75		118.87	
11	489105.37	3632087.11		99.30	
12	489569.47	3629775.22		97.16	
13	487311.30	3629805.40		124.99	
14	486429.87	3630151.57		122.21	
15	486335.42	3630147.98		122.02	
16	486454.56	3629900.85		120.34	
17	486068.11	3629934.29		123.43	
18	488233.64	3629998.29		125.06	
19	486935.00	3629689.55		125.39	

Plant Boundary Receptors

Receptor Pathway

AERMOD

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	485890.10	3630255.35	FENCEPRI	118.04	
2	485929.18	3630349.23	FENCEPRI	119.81	
3	485947.43	3630431.69	FENCEPRI	120.94	
4	485940.25	3630582.24	FENCEPRI	122.06	
5	485950.56	3630686.57	FENCEPRI	122.39	
6	486004.09	3630824.57	FENCEPRI	123.80	
7	486187.05	3631231.61	FENCEPRI	124.79	
8	486277.92	3631321.49	FENCEPRI	125.00	
9	486328.96	3631365.60	FENCEPRI	125.03	
10	486408.73	3631413.82	FENCEPRI	125.75	
11	486946.13	3631166.17	FENCEPRI	128.03	
12	487613.71	3631472.91	FENCEPRI	130.10	
13	487618.75	3631318.40	FENCEPRI	130.64	
14	487591.04	3631252.07	FENCEPRI	130.42	
15	487585.22	3630985.93	FENCEPRI	129.46	
16	487752.70	3630904.67	FENCEPRI	130.58	
17	487753.32	3630764.70	FENCEPRI	129.83	
18	488441.24	3630442.10	FENCEPRI	124.33	
19	488565.63	3630399.08	FENCEPRI	130.84	
20	488567.86	3630071.38	FENCEPRI	108.14	
21	488498.68	3630079.29	FENCEPRI	111.74	
22	488391.96	3630115.85	FENCEPRI	125.11	
23	488250.65	3630178.11	FENCEPRI	127.71	
24	488166.65	3630214.67	FENCEPRI	127.93	
25	488098.47	3630231.47	FENCEPRI	128.07	
26	488009.53	3630248.27	FENCEPRI	127.77	
27	487889.96	3630246.29	FENCEPRI	127.94	
28	486100.47	3630204.69	FENCEPRI	123.61	
29	486019.48	3630207.27	FENCEPRI	122.16	
30	485931.78	3630234.61	FENCEPRI	119.80	

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: MET Data\722903.SFC

Format Type: Default AERMET format

Profile Met Data

Filename: MET Data\722903.PFL

Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 127.10 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2009			
Upper Air		2009			

Data Period

Data Period to Process

Start Date: 1/1/2009 Start Hour: 1 End Date: 1/2/2014 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Output Pathway

Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1	[x]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		No

Contour Plot Files (PLOTFILE)

Path for PLOTFILES: MontgomeryField.AD

Averaging Period	Source Group ID	High Value	File Name
1	ALL	1st	01H1GALL.PLT
Period	ALL	N/A	PE00GALL.PLT

HARP Project Summary Report 6/13/2025 2:29:56 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: MYF_PROJECT_RISK

HARP Database: NA

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH25003
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
7439921	Lead	0.042	0.0085				

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

ResCancerRisk.csv
ResCancerRiskSumByRec.csv
ResGLCList.csv
ResHRAInput.hra
ResOutput.txt
ResPathwayRec.csv
ResPolDB.csv
SchCancerRisk.csv
SchCancerRiskSumByRec.csv
SchGLCList.csv
SchHRAInput.hra
SchOutput.txt
SchPathwayRec.csv
SchPolDB.csv

Spatial averaging files (\sa\)