APPENDIX A

AIR QUALITY AND GREENHOUSE GAS TECHNICAL MEMORANDUM

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LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: November 19, 2024

TO: Brian Lee, General Manager, San Antonio Water Company

FROM: Ronald Brugger, Senior Air Quality Specialist, LSA Associates, Inc.

SUBJECT: Air Quality and Greenhouse Gas Technical Memorandum for the Proposed San Antonio Water Headquarters in Upland, California (LSA Project No. 20241723)

INTRODUCTION

LSA has prepared this Air Quality and Greenhouse Gas Technical Memorandum to evaluate the impacts associated with the construction and operation of the San Antonio Water Company (SAWCO) Headquarters Project (project) in Upland, California. This analysis was prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the South Coast Air Quality Management District (SCAQMD) in its *CEQA Air Quality Handbook* and associated updates.[1] This analysis includes an assessment of criteria pollutant emissions and an assessment of the project's greenhouse gas (GHG) emissions.

PROJECT LOCATION

The approximately 4.92-acre project site is located at 400 East 20th Street in Upland, San Bernardino County (Assessor's Parcel Number 1044-091-22). The project site is located in northwest Upland in an area primarily consisting of residential, commercial, and industrial uses. The project site is bound by East 20th Street to the north, undeveloped open space to the east, State Route 210 (SR 210) to the south, and Flower Court to the west. The project location is shown on Figure 1 (all figures are provided in Attachment A).

PROJECT DESCRIPTION

The project would result in the construction of a new 3,698-square-foot SAWCO headquarters and associated improvements, including a 4,066-square-foot maintenance building, maintenance yard, driveway, parking, solar cover, landscaping, and utility improvements, as shown on Figure 2. The headquarters building would feature office space, meeting and conference rooms, a lobby, an archive room, a break room, two Americans with Disabilities Act (ADA) restrooms, a quiet room, a copy room, and a work area. The maintenance building would include storage space, an outdoor

[1] South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook.* Website: www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed November 2024).

welding area, a motor repair room, electrical rooms, an ADA restroom, a locker room, and a maintenance office/break room. The buildings would not use any natural gas (all electric), be a maximum height of 23 feet, and have a Floor Area Ratio of 0.7. It is anticipated that approximately 10 people would be employed on the project site.

The project would include a citrus grove buffer along the eastern half of the northern property line, along with various trees and shrubs around the parking areas and the main headquarters building. Approximately 46,077 square feet of landscaped area would be provided. Up to two of the existing street trees would be removed to accommodate the driveway off East 20th Street, and various shrubs and associated grassland would be removed to accommodate the driveway off Campus Avenue and East 20th Street. The three existing trees at the southwestern corner of the project site would remain in place, and 51 new ornamental trees and 64 new citrus trees would be planted as part of the project's landscape design.

The visitor and customer parking lot would be located south of the citrus grove and north of the main headquarters building and would provide 14 surface parking spaces, including two ADA compliant parking spots. The employee parking area would be located east of the main headquarters building, would be covered by photovoltaic panels, and would include 14 surface parking spaces, including 2 ADA compliant parking spots. The project would also provide 8 covered truck parking spots west of the maintenance building.

Existing developments include a 1-million-gallon water storage tank located at the northwestern corner of the parcel, a pump station located at the southwestern corner of the parcel, and a signal building and tower located at the southeastern corner of the parcel. Approximately five SAWCO employees within the Operations Department use the project site on a daily basis for equipment and material storage. The existing water storage tank, pump station, and signal buildings and tower would remain in place.

The proposed use is not currently consistent with the existing Single-Family Residential Low (SFR-L) General Plan land use designation and RS-10 zoning. To comply with the City of Upland's (City) General Plan and zoning regulations, the project will require a General Plan amendment, and a zone change to Public Utilities (PU) land use designation and Public/Institutional (PB/I) zoning. The PU designation accommodates landfills, flood control/recharge facilities, and public utilities, including gas, electricity, and water. The purpose of the PB/I zone is to allow for public and quasi-public facilities that serve Upland residents and visitors. The PU designation and PB/I zone permit a maximum Floor Area Ratio of 0.5.

Construction of the project is anticipated to begin in Spring 2025 and be completed by the end of 2026. The proposed project would require approximately 1,700 tons of roadway debris to be removed from the site and approximately 900 cubic yards of soil to be imported to the site. No natural gas would be used during construction.

EXISTING LAND USES IN THE PROJECT AREA

As shown in Figure 3, the project site is generally surrounded by a mix of residential, commercial, and industrial uses. To the north, the project site is bound by East 20th Street, across which are

single-family residential uses. The project site is immediately bound to the east by undeveloped open space owned by Southern California Edison Company. Further east are commercial and industrial uses, including a concrete supplier and gravel mine. To the south, the project site is bound by SR 210, across which are two large water storage tanks, single-family residential uses, and commercial uses. To the west, the project site is bound by Flower Court, across which are single-family residential uses.

For the purposes of this analysis, sensitive receptors are areas of population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, daycare centers, hospitals, parks, and similar uses which are sensitive to air quality. Impacts on sensitive receptors are of particular concern because they are the population most vulnerable to the effects of air pollution.

The nearest sensitive receptors are the existing single-family residences to the west approximately 90 feet from the proposed project boundary. Although the majority of the construction activities would occur in the eastern half of the proposed project site much further from these residences, this analysis assumes that at some point construction equipment could operate along the western boundary of the project site. As the proposed project's operational emissions would occur in the eastern portion of the project site around the proposed buildings, the closest sensitive receptors to these emissions are the existing single-family residences to the north approximately 300 feet from the centroid of the operational area. Table A summarizes the distance of sensitive receptors to the proposed project by impact categories.

Table A: Summary of Analysis Distances by Impact Category

Activity	Nearest Sensitive Receptor	Points of Analysis	Distance (feet)
Construction[1]	Single-family homes along Flower Court	Perimeter of construction activities to centroid of nearest residence.	90
Operations	Single-family homes along East 20th Street	Emissions sources on site generalized at the centroid of the project site to centroid of nearest residence.	300

Source: Compiled by LSA (2024).

[1] Distance for construction air quality impact potential includes the assumption that heavy construction equipment would operate adjacent to the proposed project boundary, which is approximately 90 feet from the center of the nearest off-site structures where a person would live.

ENVIRONMENTAL SETTING

Air Quality Background

Air quality is primarily a function of local climate, local sources of air pollution, and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and, for photochemical pollutants, sunshine.

A region's topographic features have a direct correlation with air pollution flow and therefore are used to determine the boundary of air basins. The proposed project is in Upland, San Bernardino County, and is within the jurisdiction of SCAQMD, which regulates air quality in the South Coast Air Basin (Basin).

The Basin comprises approximately 10,000 square miles and covers all of Orange County and the urban parts of Los Angeles, Riverside, and San Bernardino Counties. The Basin is on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east, forming the inland perimeter.

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and Pb are considered local pollutants that tend to accumulate in the air locally.

Air quality monitoring stations are located throughout the nation and are maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the United States Environmental Protection Agency (USEPA) to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable National Ambient Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment (e.g., marginal, moderate, serious, severe, and extreme) are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and to comply with the NAAQS. As shown in Table B, the Basin is designated as nonattainment by the federal standards for O_3 and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and nonattainment by the State standards for O_3, particulate matter less than 10 microns in diameter (PM_{10}), and $PM_{2.5}$.

O_3 levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by SCAQMD and other regional, State, and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Basin still exceeds the State standard for 1-hour and 8-hour O_3 levels. The USEPA lowered the 1997 0.80 parts per million (ppm) federal 8-hour ozone standard to 0.75 ppm in 2008 and then to 0.70 ppm on October 1, 2015. The Basin is classified nonattainment for the 1-hour and 8-hour ozone standards at the State and federal level.

Table B: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Unclassified/Attainment (1-hour) Attainment/Maintenance (Annual)
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Lead	Attainment[1]	Unclassified/Attainment[1]
All Others	Attainment/Unclassified	Attainment/Unclassified

Source: NAAQS and CAAQS Attainment Status for South Coast Air Basin (SCAQMD 2024). Website: www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf (accessed November 2024).

[1] $PM_{2.5}$ federal attainment status shown is based on the 2012 12.0 µg/m^3 NAAQS, status based on the 2024 9.0 µg/m^3 NAAQS is pending.

[2] Only the Los Angeles County portion of the South Coast Air Basin is in nonattainment for lead.

CAAQS = California Ambient Air Quality Standards
CO = carbon monoxide
EPA = United States Environmental Protection Agency
N/A = not applicable
NAAQS = National Ambient Air Quality Standards
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide

From 2021 to 2023, the Fontana-Arrow Highway Air Monitoring Station located at 14360 Arrow Boulevard in the City of Fontana (the closest monitoring station to the project limits) recorded the following exceedances of the State and federal 1-hour and 8-hour O_3 standards (full data included in Attachment C):[2]

- The State and federal 8-hour O_3 standard (which are the same) had 81 exceedances in 2021, 68 in 2022, and 74 in 2023.
- The State 1-hour O_3 standard had 44 exceedances in 2021, 4 in 2022, and 56 in 2023.

National and State standards have also been established for $PM_{2.5}$ over 24-hour and yearly averaging periods. $PM_{2.5}$, because of the small size of individual particles, can be especially harmful to human health. $PM_{2.5}$ is emitted by common combustion sources such as cars, trucks, buses, and power plants, in addition to ground-disturbing activities. On December 17, 2006, the USEPA strengthened the 24-hour $PM_{2.5}$ NAAQS from 65 micrograms per cubic meter (µg/m^3) to 35 µg/m^3, and the Basin was subsequently designated "moderate" nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS on December 14, 2009. On February 7, 2024, the USEPA strengthened the NAAQS for $PM_{2.5}$ by revising the primary (health-based) annual standard from 12.0 µg/m^3 to 9.0 µg/m^3; however, a new attainment designation has not been issued. The Basin is also considered a nonattainment area for

[2] California Air Resources Board (CARB). 2024. iADAM Air Quality Data Statistics. Website: www.arb.ca.gov/adam/topfour/topfour1.php (accessed November 2024).

the $PM_{2.5}$ standard at the State level. From 2021 to 2023, the Fontana-Arrow Highway Monitoring Station recorded the following exceedances of the federal 24-hour $PM_{2.5}$.

- The federal 24-hour $PM_{2.5}$ standard had 2 exceedances in 2021 with 1 in 2022 and 2023.

The Basin is classified as a PM_{10} nonattainment area at the State level and was redesignated from serious nonattainment to attainment of the federal PM_{10} standard on July 26, 2013. Because the Basin was redesignated from nonattainment to attainment, a PM_{10} maintenance plan was adopted in 2013 and is required to be updated every 10 years. From 2021 to 2023, the 1630 Fontana-Arrow Highway Air Monitoring Station recorded the following exceedances of the State and federal 24-hour PM_{10} standards:

- The State 24-hour PM_{10} standard had 3 exceedances in 2021, 6 exceedances in 2022, and 8 in 2023.

- The federal 24-hour PM_{10} standard had no exceedances in 2021, 2022, or 2023.

All areas of the Basin have continued to remain below the federal CO standards (35 ppm 1-hour and 9 ppm 8-hour) since 2003. The USEPA redesignated the Basin to attainment of the federal CO standards, effective June 11, 2017. The Basin is also well below the State CO standards (20 ppm 1-hour CO and 9 ppm 8-hour CO). From 2021 to 2023, the 1630 Fontana-Arrow Highway Air Monitoring Station recorded no exceedances of the State and federal 1-hour and 8-hour CO standards.

Greenhouse Gas Background

GHGs are present in the atmosphere naturally, are released by natural sources, or form from secondary reactions taking place in the atmosphere. Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. Although manmade GHGs include naturally occurring GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), some gases like hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3), and sulfur hexafluoride (SF_6) are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere (atmospheric lifetime). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition

of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalents (CO_2e).

REGULATORY SETTING

Air Quality

This section provides regulatory background information for air quality at the federal, State, and local levels.

Federal Regulations

The 1970 Federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required for areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

State Regulations

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with the authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

The California Air Resources Board (CARB) is the State's "clean air agency." CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Regional Regulations

The proposed project would be required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 1113 limits the volatile organic compound (VOC) content of architectural coatings. Applicable dust suppression techniques from SCAQMD Rule 403 and low VOC content in paints under SCAQMD Rule 1113 are summarized below. Implementation of these dust

suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.[3]

South Coast Air Quality Management District Rule 403 Measures.

- Water active sites at least two times daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour or less.

South Coast Air Quality Management District Rule 1113 Measures. SCAQMD Rule 1113 governs the sale, use, and manufacture of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction and operation of the proposed project. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Local Regulations

City of Upland General Plan 2010. The City of Upland addresses air quality in the Open Space and Conservation and Circulation Element of the City of Upland General Plan 2015.[4] The General Plan contains goals and policies that work to protect air, water, and energy resources from pollution and overuse. The following policies are applicable to the proposed project:

- Cooperate with the South Coast Air Quality Management District (SCAQMD) and other regional agencies to implement and enforce regional air quality management plans.
- Support alternative transportation modes, alternative technologies, and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.
- Encourage development that incorporates pedestrian- and transit-oriented design and landscape elements.

Greenhouse Gas Emissions

This section describes regulations related to global climate change at the federal, State, and local levels.

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3 SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

4 City of Upland. 2015. *Upland General Plan*, Open Space and Conservation and Circulation Element. Website: www.uplandca.gov/general-plan-map (accessed November 2024).

Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the CAA.

Although there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change, including the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that seven GHGs (CO_2, CH_4, N_2O, HFCs, NF_3, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

State Regulations

CARB is the lead agency for implementing climate change regulations in the State. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is Assembly Bill (AB) 32, passed by the State Legislature on August 31, 2006. This effort set a target to reduce GHG emissions to 1990 levels by 2020. CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT CO_2e requires the reduction of 169 MMT CO_2e from the State's projected business-as-usual 2020 emissions of 596 MMT CO_2e. AB 32 requires CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. CARB approved the Scoping Plan on December 11, 2008, which contains the main strategies California will implement to achieve the reduction goals and includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in Executive Orders (EOs) S-3-05 and B-16-2012. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[5] to reflect the 2030 target that was set by EO B-30-15 and codified by Senate Bill (SB) 32.

[5] CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November.

The 2022 Scoping Plan[6] was approved in December 2022 and assesses progress toward the statutory 2030 target while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California be zero-emission by 2035 and that all other fleets transition to zero-emission as fully as possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.[7]

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB-approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). CARB may update the targets every 4 years and must update them every 8 years. MPOs, in turn, must demonstrate how their plans, policies, and transportation investments meet the targets set by CARB through Sustainable Community Strategies (SCSs). The SCSs are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction targets, it may prepare an Alternative Planning Strategy. The Alternative Planning Strategy identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target and, therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy

6 CARB. 2022. *2022 Scoping Plan Update*. May 10. Website: ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed November 2024).

7 Ibid.

measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent.
- Increase energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016, the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emission reduction target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emission trajectory that would stabilize atmospheric GHG concentrations at 450 ppm CO_2e and reduce the likelihood of catastrophic impacts from climate change.

AB 197, the companion bill to SB 32, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California's renewable portfolio standard requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs CARB to work with relevant State agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning that not only

should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279. AB 1279 was signed in September 2022 and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant State agencies to achieve these goals.

Title 24, Building Efficiencies Standards, and the California Green Building Standards Code. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen) (California Code of Regulations Title 24, Part 11), which sets performance standards for residential and nonresidential development to reduce environmental impacts and to encourage sustainable construction practices. CALGreen addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. CALGreen is updated every 3 years and was most recently updated in 2022 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2023.

Regional Regulations

Southern California Association of Governments. The Southern California Association of Governments (SCAG) is a regional council consisting of the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In total, the SCAG region encompasses 191 cities and more than 38,000 square miles within Southern California. SCAG is the MPO serving the region under federal law and serves as the Joint Powers Authority, the Regional Transportation Planning Agency, and the Council of Governments under State law. As the Regional Transportation Planning Agency, SCAG prepares long-range transportation plans for the Southern California region, including the RTP/SCS and the 2008 Regional Comprehensive Plan.[8]

On April 4, 2024, SCAG adopted *Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy* (2024–2050 RTP/SCS).[9] In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 8 percent below 2005 per-capita emission levels by 2020 and 19 percent below 2005 per capita emission levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emission reduction targets. Land use strategies to achieve the region's targets

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8 Southern California Association of Governments (SCAG). 2008. *Final 2008 Regional Comprehensive Plan*. Website: scag.ca.gov/sites/main/files/file-attachments/f2008rcp_complete.pdf?1604263359 (accessed November 2024).

9 SCAG. 2020. *Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed November 2024).

include planning for new growth around high-quality transit areas and livable corridors and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles.[10] However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

South Coast Air Quality Management District. In 2008, the SCAQMD formed a GHG CEQA Significance Threshold Working Group (Working Group) to identify GHG emission thresholds for land use projects that could be used by local lead agencies in the SCAQMD. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* (2008) that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting No. 15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. SCAQMD has not presented a finalized version of these thresholds to the governing board.

SCAQMD identifies the emission level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State's mandated emissions reductions. Overall, SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the 2020 and post-2020 emission targets required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State would be able to accommodate expected population growth and achieve economic development objectives while also abiding by AB 32's emission target and future post-2020 targets. The SCAQMD has established a flowchart for evaluating GHG significance and indicates that when a project is exempt from California Environmental Quality Act (CEQA), no further analysis is required.

Local Regulations

City of Upland General Plan 2010. The City's General Plan[11] contains extensive policies directly related to GHGs and climate change. This includes measures to improve transit efficiency, reduce truck idling, increase ridesharing, promote mixed land uses, and requiring the implementation of Renewable energy systems, water efficient landscaping, and energy efficient, sustainable building standard. The Open Space and Conservation Element also includes greenhouse gas emissions assessments, monitoring, and reduction policies.

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10 SCAG. 2020. *Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed November 2024).

11 City of Upland. 2015. *Upland General Plan*, Open Space and Conservation Element. Website: www.uplandca.gov/general-plan-map (accessed November 2024).

METHODOLOGY

Construction Emissions

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short-term impacts can contribute to exceedances of air quality standards. Construction activities include site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive dust from soil disturbance and fuel combustion by mobile heavy-duty, diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips.

LSA used the California Emissions Estimator Model version 2022.1 (CalEEMod) computer program to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site. As mentioned in the Project Description section, construction of the proposed project would include site preparation, grading, building construction, paving, and architectural coating activities, which was included in CalEEMod. This analysis assumes that construction would begin in Spring 2025 and be completed by the end of 2026. The proposed project would require approximately 1,700 tons of roadway debris to be removed from the site and approximately 900 cubic yards of soil to be imported to the site, which was included in CalEEMod. This analysis assumes compliance with SCAQMD Rule 403 measures.[12] All other construction details are not yet known; therefore, default assumptions (e.g., construction equipment and construction hauling and vendor truck trips and fleet activities) from CalEEMod were used.

Operational Emissions

This air quality analysis includes estimating emissions associated with long-term operation of the project. Indirect emissions of criteria pollutants with regional impacts would be emitted by project-generated vehicle trips. In addition, localized air quality impacts (i.e., higher CO concentrations or "hot-spots") near intersections or roadway segments in the project vicinity would also potentially occur due to project-generated vehicle trips.

Consistent with SCAQMD guidance for estimating emissions associated with land use development projects, the CalEEMod computer program was used to calculate the long-term operational emissions associated with the project. As discussed in the Project Description section, the proposed project would construct two buildings: a 3,698-square-foot SAWCO headquarters and a 4,066-square-foot maintenance building. Additionally, a maintenance yard, driveway, parking lot, solar cover, landscaping, and utility improvements would be constructed. The headquarters building would feature office space, meeting and conference rooms, a copy room, and a work area. The maintenance building would include storage space, an outdoor welding area, a motor repair room, electrical rooms, an ADA restroom, a locker room, and a maintenance office/break room. Therefore, this analysis was conducted using the CalEEMod land use codes for *Government Office Building, Automobile Care Center,* and *Parking Lot*.

[12] SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

Greenhouse Gas Emissions

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term GHG emissions associated with project operations, including project-related vehicular exhaust and energy consumption. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that for determining a project's contribution to GHG emissions, lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area. The CalEEMod results were used to quantify GHG emissions generated by the proposed project.

THRESHOLDS OF SIGNIFICANCE

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under applicable federal or State ambient air quality standards;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

Certain air districts (e.g., SCAQMD) have created guidelines and requirements to conduct air quality analysis. The SCAQMD's current guidelines, the *CEQA Air Quality Handbook*[13] with associated updates, were followed in this assessment of air quality impacts for the proposed project.

Regional Emissions Thresholds

SCAQMD has established daily emission thresholds for construction and operation of proposed projects. The emission thresholds were established based on the attainment status of the Basin with regards to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks. Table C lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

[13] SCAQMD. 1993. *CEQA Air Quality Handbook.* Website: www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed November 2024).

Table C: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operations	55	55	550	150	150	55

Source: Air Quality Significance Thresholds (SCAQMD 2024). Website: www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf (accessed November 2024).

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Projects in the SCAQMD with construction- or operations-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which the SCAQMD developed and which apply throughout the SCAQMD, apply as both project and cumulative thresholds. If a project exceeds these standards, it would be considered to have a project-specific and cumulative impact.

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the project vicinity are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the SCAQMD, a project would be considered to have a significant CO impact if project emissions would result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

Localized Impacts Analysis

SCAQMD published its Final Localized Significance Threshold Methodology in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[14] This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the Source Receptor Area (SRA), and the distance to the project. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As described in the Project Description section and in Table A, the nearest sensitive receptors are 90 feet to the west during construction and 300 feet to the north after construction during operations.

LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the Northwest San Bernardino Valley area (SRA 32). SCAQMD provides LST screening tables for

14 SCAQMD. 2008. *Final Localized Significance Threshold Methodology*. July.

25-, 50-, 100-, 200-, and 500-meter source-receptor distances. As identified above, the closest sensitive receptors nearby the project limits include single-family residential uses located approximately 90 feet from the western boundaries of the project limits. it is assumed that the maximum daily disturbed acreage for the proposed project could be 4.92 acres (the entire site). Table D lists the emissions thresholds that apply during project construction and operation (derived by interpolating the SCAQMD screening tables).

Table D: SCAQMD Localized Significance Thresholds

Emissions Source	Pollutant Emissions Threshold (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Construction (4.92-acres, 90-foot distance)	270	2,230	18	9
Operations (4.92-acre site, 300-foot distance)	361	4,742	18	5

Source: *Final Localized Significance Threshold Methodology* (SCAQMD 2008).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District

Greenhouse Gas Thresholds

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse greenhouse gas emissions impact if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Section 15064.4 of the *State CEQA Guidelines* states that: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a Working Group. Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD proposed to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1—Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2—Consistency with a Locally Adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3—Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD, under Option 1, is proposing a "bright-line" screening-level threshold of 3,000 metric tons (MT) of CO_2e (or MT CO_2e) per year (or MT CO_2e/year) for all land use types or, under Option 2, the following land use-specific thresholds: 1,400 MT CO_2e for commercial projects; 3,500 MT CO_2e for residential projects, or 3,000 MT CO_2e for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research (OPR) database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4—Performance Standards:** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. The SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended approach is per-capita efficiency targets. The SCAQMD is not recommending use of a percentage emissions reduction target. Instead, the SCAQMD proposes proposed a 2020 efficiency target of 4.8 MT CO_2e per year per service population for project-level analyses and 6.6 MT CO_2e per year per service population for plan-level projects (e.g., program-level projects such as General Plans).

For the purpose of this analysis, the proposed project will be compared to the threshold of 3,000 MT CO_2e per year for all land use types. The project is also evaluated for compliance with the CARB Scoping Plan and SCAG's RTP/SCS.

IMPACT ANALYSIS

This section identifies potential air quality and GHG impacts associated with implementation of the proposed project.

Air Quality Impacts

Air pollutant emissions associated with the project would occur over the short term from construction activities and over the long term from project-related vehicular trips and energy consumption.

Consistency with Applicable Air Quality Plans

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Air quality plan strategies are typically based on projections from local General Plans.

The proposed project would develop an existing undeveloped portion of SAWCO land into new SAWCO headquarters. It is anticipated that approximately 10 people would be employed in the new headquarters. The proposed project is not considered a project of statewide, regional, or area-wide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries; a residential development of more than 500 dwelling units; or shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space) as defined in the California Code of Regulations (Title 14, Division 6, Chapter 3, Article 13, Section 15206(b)). Because the proposed project would not be defined as a regionally significant project under CEQA, it does not meet the SCAG's Intergovernmental Review criteria.

To comply with the City's General Plan and zoning regulations, the project will require a General Plan amendment and a zone change. Currently, the project site has an SFR-L General Plan designation and is within the Single-Family Residential 76,500 (RS-7.5) zone. The proposed use is not currently permitted at the site. However, the City plans to revise their General Plan and zoning to accommodate this project.

The City of Upland General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines[15] and the SCAQMD Air Quality Management Plan (AQMP).[16] The revisions to accommodate this project will not change that. Pursuant to the methodology provided in the SCAQMD *CEQA Air Quality Handbook*,[17] consistency with the Basin AQMP is affirmed when a project (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated below; therefore, the project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

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15 SCAG. 2008. *Final 2008 Regional Comprehensive Plan*. Website: scag.ca.gov/sites/main/files/file-attachments/f2008rcp_complete.pdf?1604263359 (accessed November 2024).

16 SCAQMD. 2022. *2022 Air Quality Management Plan*. Website: www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16 (accessed November 2024).

17 SCAQMD. 1993. *CEQA Air Quality Handbook.* Website: www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed November 2024).

2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities; therefore, the proposed project is not defined as significant. According to SCAG's 2024–2050 RTP/SCS, the City of Upland households and jobs are forecast to increase by approximately 5,700 households and 4,900 jobs, respectively, between 2019 and 2050. Based on information provided by the Project Applicant, the proposed project would have approximately 10 employees. The number of new employees generated by the proposed project would fall within the 4,900 projected jobs for the City. Accordingly, the proposed project's labor demand would not be expected to substantially increase population, households, or employment in Upland since the number of employees associated with the proposed project would be a small fraction (approximately 0.2 percent) of the projected job growth for the City. Therefore, implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2024–2050 RTP/SCS.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP.

Criteria Pollutant Analysis

The Basin is currently designated as nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the PM_{10} standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by ground disturbance, paving, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxides (NO_x), VOC, directly emitted $PM_{2.5}$ or PM_{10}, and toxic air contaminants such as diesel exhaust particulate matter.

Project construction activities would include grubbing and land clearing, grading, drainage, utilities, building construction, and paving activities. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, whereas fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SCAQMD has established Rule 403: Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. The Rule 403 measures that were incorporated in this analysis include:[18]

- Water active sites at least twice daily (locations where earth disturbance is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.

- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, sulfur oxides (SO_x), NO_x, VOCs, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using CalEEMod and are summarized in Table E. Attachment B includes the CalEEMod output sheets.

The results shown in Table E indicate the proposed project would not exceed the significance criteria for daily VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions. Therefore, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

[18] SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

Table E: Short-Term Regional Construction Emissions

Construction Phase	Maximum Daily Regional Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	Total PM_{10}	Total $PM_{2.5}$
Site Preparation	1.3	12.1	12.7	<1	2.3	1.3
Grading	1.6	14.1	15.3	<1	2.6	1.5
Building Construction	1.1	9.1	11.3	<1	<1	<1
Architectural Coating	0.4	0.9	1.3	<1	<1	<1
Paving	0.5	4.5	7.4	<1	<1	<1
Peak Daily Emissions	**1.6**	**14.1**	**15.3**	**<1**	**2.6**	**1.5**
SCAQMD Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
Note: The maximum emissions of summer and winter modeling results were used to evaluate construction emissions impacts. CalEEMod output sheets are provided in Attachment B. Values may not appear to add up correctly due to rounding.
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides
VOC = volatile organic compounds

Operational Air Quality Impacts. Long-term air pollutant emissions associated with operation of the proposed project include emissions from area, energy, and mobile sources. Area-source emissions include architectural coatings, consumer products, and landscaping. Energy-source emissions result from utility plants generating electricity used by the project. Typically, energy-source emissions would also include emissions from natural gas consumption, however, the proposed project would not use natural gas. Mobile-source emissions are from vehicle trips associated with operation of the project. Mobile source emissions include VOC and NO_X emissions that contribute to the formation of O_3. Additionally, PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways.

Long-term operational emissions associated with the proposed project were calculated using CalEEMod. The proposed project is a new 3,698-square-foot SAWCO headquarters and associated improvements and a 4,066-square-foot maintenance building, maintenance yard, driveway, parking, solar cover, and landscaping. The SAWCO headquarters was represented in CalEEMod as a *Government Office Building* and the maintenance building as an *Automotive Care Center*. Additionally, a 1.19-acre parking lot was specified to include all pavement onsite and the driveway expansion. The trip generation rates were changed to match the Traffic Impact Analysis,[19] the natural gas use was set to zero with the electricity use increased to result in the same energy consumption, and all other parameters were left at CalEEMod defaults.

Table F provides the estimated existing emission estimates and the proposed project's estimated operational emissions.

[19] LSA Associates, Inc. (LSA). 2024. *Traffic Impact Analysis San Antonio Water Headquarters Project*. November.

Table F: Project Operational Emissions

Emission Type	Pollutant Emissions (lbs/day)					
	VOCs	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	0.4	0.5	4.5	<0.1	1.1	0.3
Area Sources	0.2	<0.1	0.3	<0.1	<0.1	<0.1
Energy Sources	0	0	0	0	0	0
Total Project Emissions	**0.6**	**0.5**	**4.8**	**<0.1**	**1.1**	**0.3**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
Note: The maximum of summer and winter modeling results were used to evaluate the operational emission impacts. CalEEMod output sheets are provided in Attachment B. Some values may not appear to add correctly due to rounding.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

The results shown in Table F indicate the proposed project would not exceed the significance criteria for daily VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under applicable NAAQS or CAAQS.

Long-Term Microscale (CO Hot-Spot) Analysis. Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the vicinity of the proposed project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited. Under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, thereby affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Fontana-Arrow Highway station (the closest station to the project site), showed a highest recorded 1-hour concentration of 1.9 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.4 ppm (the State standard is 9 ppm) from 2021 to 2023 (see Attachment C). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Reduced speeds and vehicular congestion at intersections result in increased CO emissions.

The proposed project is expected to generate 85 new average daily trips, with 8 net new trips occurring in the a.m. peak hour and 10 net new trips occurring in the p.m. peak hour.[20] Therefore, given the extremely low level of CO concentrations in the project area and the lack of traffic impacts at any intersections, project-related vehicles are not expected to result in CO concentrations exceeding the State or federal CO standards. No CO hot spots would occur, and the project would not result in any project-related impacts on CO concentrations.

Localized Significance Thresholds Analysis

An LST analysis was completed to show the construction and operational impacts to the nearest sensitive receptors to the project site, based on a 4.92-acre daily disturbance area for construction and a 4.92-acre area for operations. As described in the Project Description section and in Table A, the nearest sensitive receptors are 90 feet to the west during construction and 300 feet to the north after construction during operations.

By design, the localized impact analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions detailed in Table G assume all area- and energy-source emissions would occur on site, and 5 percent of the project-related new mobile sources (which is an estimate of the amount of project-related vehicle travel would occur on site). Considering the total trip length included in CalEEMod, the 5 percent assumption is conservative. Table G shows the results of the LST analysis during project construction and operation.

Table G: Project Localized Construction and Operational Emissions

Source	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction Emissions				
On-Site Emissions	14	15	3	2
Localized Significance Threshold	**270**	**2,230**	**18**	**9**
Significant?	**No**	**No**	**Yes**	**Yes**
Operational Emissions				
On-Site Emissions	<1	<1	<0.1	<0.1
Localized Significance Threshold	**361**	**4,742**	**18**	**5**
Significant?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
Note: Source Receptor Area 32, emissions based on construction disturbing the entire site and operations occurring on the full project site. LSTs at a distance of 90 feet for construction and 300 feet for operations.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

As shown in Table G, the proposed project would not result in an exceedance of a SCAQMD LST during project construction or operation. During construction, construction contractors would be required to implement measures to reduce or eliminate emissions by implementing SCAQMD Rule

[20] LSA. 2024. *Traffic Impact Analysis San Antonio Water Headquarters Project*. November.

403 dust control measures.[21] In addition, the maximum daily emissions associated with project construction emissions are identified in Table E and indicate the project would not exceed the significance criteria for VOCs, NO, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions. Therefore, the emissions associated with construction of the proposed project would not be expected to exceed the most stringent applicable federal or State ambient air quality standards. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set low to protect children, the elderly, and those with existing respiratory problems. Therefore, given the temporary nature of short-term construction impacts, and the absence of any exceeded threshold of significance related to construction impacts, construction of the proposed project would not exceed SCAQMD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations. No significant health risk would occur from project construction emissions.

Similarly, as indicated in Table F, operation of the proposed project would not exceed the significance criteria for VOCs, NO, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions.

The SCAQMD's numeric regional mass daily emissions thresholds are based in part on Section 180 (e) of the federal Clean Air Act. It should be noted that the numeric regional mass daily emissions thresholds have not changed since their adoption as part of SCAQMD's *CEQA Air Quality Handbook* published in 1993 (over 30 years ago).[22] The numeric regional mass daily emission thresholds are also intended to provide a means of consistency in significance determination within the environmental review process.

As noted in the Brief of Amicus Curiae by the SCAQMD,[23] the SCAQMD has acknowledged that for criteria pollutants, it would be extremely difficult, if not impossible, to quantify health impacts for various reasons, including modeling limitations as well as where in the atmosphere air pollutants interact and form.

Additionally, the SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient levels of O_3 in the air (concentration) that an individual person breathes. The SCAQMD goes on to state that it would take a large amount of additional emissions to result in a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on its own modeling in its 2012 AQMP,[24] a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels

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21 SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

22 SCAQMD. 1993. *CEQA Air Quality Handbook.* Website: www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993) (accessed November 2024).

23 SCAQMD. 2015. *Amicus Curiae Brief of South Coast Air Quality Management District*. April. Website: www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf (accessed November 2024).

24 SCAQMD. 2012. Final 2012 Air Quality Management Plan. Website: https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan (accessed November 2024).

at the highest monitored site by only 9 parts per billion (ppb). As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects that are not regional in scope) due to photochemistry and regional model limitations (see page 11 of the SCAQMD Brief of Amicus Curiae).

To underscore this point, the SCAQMD goes on to state that it has only been able to correlate potential health outcomes for very large emissions sources. As part of its rulemaking activity, specifically 6,620 pounds per day (lbs/day) of NO_X and 89,180 lbs/day of VOCs were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3. As identified in Tables E and F, NO_X and VOC emissions during project construction and operation would be well below 6,620 lbs/day of NO_X and 89,180 lbs/day of VOCs.

Due to the small size of the proposed project in relation to the overall Basin, the level of emissions is not sufficiently high to use a regional modeling program to correlate health effects on a Basin-wide level. On a regional scale, the quantity of emissions from the project is incrementally minor. Because the SCAQMD has not identified any other methods to quantify health impacts from small projects and due to the size of the project, it is speculative to assign any specific health effects to small project-related emissions. However, based on this localized analysis, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would not expose sensitive receptors to substantial levels of pollutant concentrations, impacts would be less than significant.

Odors

Heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. However, the construction activity would cease after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project during construction.

The proposed project would be required to comply with SCAQMD Rule 402. SCAQMD Rule 402 regarding nuisances states, "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."[25]

Examples of odor-generating projects are wastewater treatment plants, compost facilities, landfills, solid-waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The proposed project would include a 1,350 sf Starbucks coffee shop with drive-through and associated improvements; therefore, the proposed project would not include land uses that would be expected to generate odors.

[25] SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

Once operational, the proposed project would involve minor odor-generating activities (e.g., trash, landscape equipment, application of exterior paints, etc.). However, unlike the odor-generating land uses identified above, these are not considered potential generators of odor that could affect a substantial number of people. Further, project-generated refuse would be stored in covered containers and would be removed at regular intervals to minimize odors. In addition, the proposed project be required to comply with the CalRecycle waste diversion program and recycling of solid and organic waste. Therefore, operational uses are not anticipated to emit any objectionable odors. Therefore, the proposed project would not result in other emissions (e.g., those leading to odors) adversely affecting a substantial number of people.

Greenhouse Gas Emission Impacts

The following sections describe the proposed project's construction- and operation-related GHG impacts and consistency with applicable GHG reduction plans.

Generation of Greenhouse Gas Emissions

This section describes the proposed project's construction- and operation-related GHG emissions and contribution to global climate change. The SCAQMD has not addressed emission thresholds for construction in its *CEQA Air Quality Handbook*; however, SCAQMD requires quantification and disclosure. Thus, this section discusses construction emissions.

Construction Greenhouse Gas Emissions. Construction activities associated with the proposed project would produce combustion emissions from various sources. Construction would emit GHGs through the operation of construction equipment and from worker and builder supply vendor vehicles for the duration of the approximately 15-month construction period. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, the fueling of heavy equipment emits CH_4. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

As indicated above, SCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. The SCAQMD then requires the construction GHG emissions to be amortized over the life of the project (which is defined as 30 years), added to the operational emissions, and compared to the applicable interim GHG significance threshold tier. Based on CalEEMod, it is estimated that the project would generate 396 MT CO_2e during construction of the project. When amortized over the 30-year life of the project, annual emissions would be 13 MT CO_2e.

Operational Greenhouse Gas Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, and refrigerant fugitive emissions.

As described in the Project Description section above, the proposed project is a new 3,698-square-foot SAWCO headquarters and associated improvements and a 4,066-square-foot maintenance building, maintenance yard, driveway, parking, solar cover, and landscaping.

As discussed in the traffic memorandum[26] for the proposed project, upon completion of construction activities, operation of the proposed project would result in approximately 85 new daily vehicle trips.

GHG emissions were estimated using CalEEMod. Table H shows the estimated operational GHG emissions for the proposed project. Motor vehicle emissions are the largest source of GHG emissions for the project, at approximately 49 percent of the project total. Refrigerant sources are the next largest category, at approximately 35 percent. Energy, water, and waste sources represent approximately 14 percent, 1 percent, and 2 percent of the total emissions, respectively. Area sources make up less than 1 percent of the total emissions.

Table H: Greenhouse Gas Emissions

Emission Type	Operational Emissions (MT/yr)					
	CO_2	CH_4	N_2O	Refrigerant	CO_2e	Percentage of Total
Mobile Source	190	<0.1	<0.1	—	193	49
Area Source	<1	<0.1	<0.1	—	<1	<1
Energy Source	55	<0.1	<0.1	—	56	14
Water Source	3	<0.1	<0.1	—	4	1
Waste Source	2	<0.1	<0.1	—	6	2
Refrigerant Source	—	—	—	140	140	35
Total Operational Emissions						**399**
Amortized Construction Emissions						13
Total Annual Emissions						**412**
SCAQMD Threshold						**3,000**
Exceedance?						**No**

Source: Compiled by LSA (November 2024).
Note: Figures may not appear to add correctly due to rounding.
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
SCAQMD = South Coast Air Quality Management District

As discussed above, a project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 3,000 MT CO_2e per year. Based on the analysis results, the proposed project would result in approximately 412 MT CO_2e per year, which would not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Therefore, project-level and cumulative GHG emissions would be less than significant, and operation of the proposed project would not generate GHG emissions that would have a significant effect on the environment.

Consistency with Greenhouse Gas Reduction Plans

The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan and SCAG's 2020–2045 RTP/SCS.

2022 Scoping Plan. EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. SB 32 affirms the importance of addressing climate change by

[26] LSA. 2024. *Traffic Impact Analysis San Antonio Water Headquarters Project*. November.

codifying into statute the GHG emissions reduction target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. CARB released the 2017 Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32.[27] SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. AB 197, the companion bill to SB 32, provides additional direction to CARB that is related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 that is intended to provide easier public access to air emission data collected by CARB was posted in December 2016. AB 1279 codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter.

In addition, the 2022 Scoping Plan[28] assesses progress toward the statutory 2030 target while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California be zero-emission by 2035 and that all other fleets transition to zero-emission as fully as possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

- **Energy-efficient measures** are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would develop an existing undeveloped portion of SAWCO land into new SAWCO headquarters. As mentioned above, the proposed project would not be powered by natural gas, and no natural gas would be used during construction or operation of the proposed project. The elimination of natural gas in new development would help projects implement their "fair share" of achieving long-term 2045 carbon neutrality consistent with State goals. As such, if a project does not use natural gas, a lead agency can conclude that it would be consistent with achieving the 2045 neutrality goal and

[27] CARB. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality.* December. Website: ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf (accessed November 2024).

[28] CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November.

will not have a cumulative considerable impact on climate change. The proposed project does not include natural gas. In addition, the proposed project would comply with the latest Title 24 standards regarding energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy measures.

- **Water conservation and efficiency measures** are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the latest Title 24 standards, which include a variety of different measures, including reduction of wastewater and water use. The proposed project would also include low water landscape in their design. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

- The goal of **transportation and motor vehicle measures** is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards reduces GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulted in a 3 percent decrease in average vehicle emissions for all vehicles as of 2020. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

The proposed project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in the 2022 Scoping Plan, EO B-30-15, SB 32, AB 197, and AB 1279.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy. SCAG's 2024–2050 RTP/SCS[29] identifies land use strategies that focus on new housing and job growth in areas served by high-quality transit, and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The core vision in the 2024–2050 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe for all roadway users, preserve the transportation system, and expand transit and foster development in transit-oriented communities. The 2024–2050 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as providing a forecast development pattern that is generally consistent with regional-level General Plan data. The forecast development pattern, when integrated with the financially constrained transportation investments identified in the 2024–2050 RTP/SCS, would reach the regional target of reducing GHG emissions from automobiles and light-duty trucks by 8 percent by 2020 and 19 percent by 2035 (compared to 2005 levels per capita

[29] SCAG. 2020. *Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed November 2024).

emission levels). The 2024–2050 RTP/SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the 2024–2050 RTP/SCS, but it provides incentives for consistency for governments and developers.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. As demonstrated in the Consistency with Applicable Air Quality Plans section, the proposed project does not meet the criteria identified in *State CEQA Guidelines* Section 15205.b.2 (Projects of Statewide, Regional, or Areawide Significance) for projects of statewide, regional, or areawide significance. In addition, while the proposed project would require a change to the General Plan land use designation and the current zoning, the City plans to update both the General Plan and zoning to accommodate the project. As demonstrated in Table H, the proposed project would not generate significant levels of GHGs, thus would not interfere with SCAG's ability to achieve the region's GHG reduction target of 19 percent below 2005 per capita emissions levels by 2035. Furthermore, the proposed project is not regionally significant per *State CEQA Guidelines* Section 15206, and, as such, it would not conflict with the SCAG RTP/SCS targets since those targets were established and are applicable on a regional level.

CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SCAQMD thresholds of significance. Compliance with SCAQMD Rule 403: Fugitive Dust[30] would further reduce construction dust impacts. Emissions released during construction of the proposed project are estimated to be minimal and would not be cumulatively considerable. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed project would also not result in objectionable odors affecting a substantial number of people. GHG emissions released during construction and operation of the project are estimated to be minimal and would not be cumulatively considerable. In addition, the proposed project would generally be consistent with both the CARB Scoping Plan[31] and the SCAG RTP/SCS.[32]

Attachments: A: Figures
B: CalEEMod Output
C: Fontana-Arrow Highway Air Quality Monitoring Data

30 SCAQMD. 2024. South Coast AQMD Rule Book. Website: www.aqmd.gov/home/rules-compliance/rules (accessed November 2024).

31 CARB. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality.* December. Website: ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf (accessed November 2024).

32 SCAG. 2020. *Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176 (accessed November 2024).

ATTACHMENT A

FIGURES

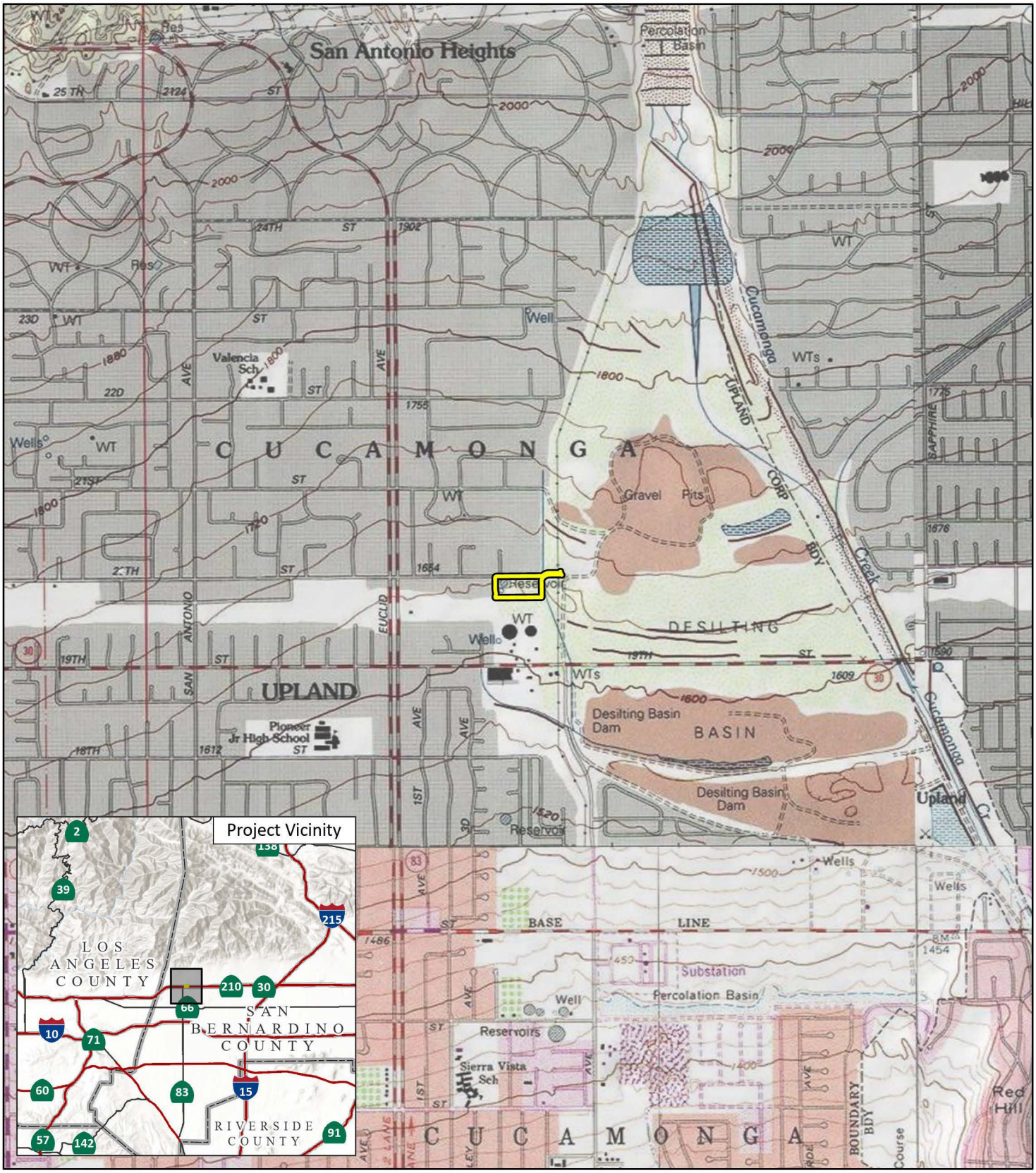

FIGURE 1

0 1000 2000
FEET

San Antonio Water Company Headquarters

Project Location and Vicinity

SOURCE: *Mt. Baldy CA*, 7.5' Quad (USGS 1988)

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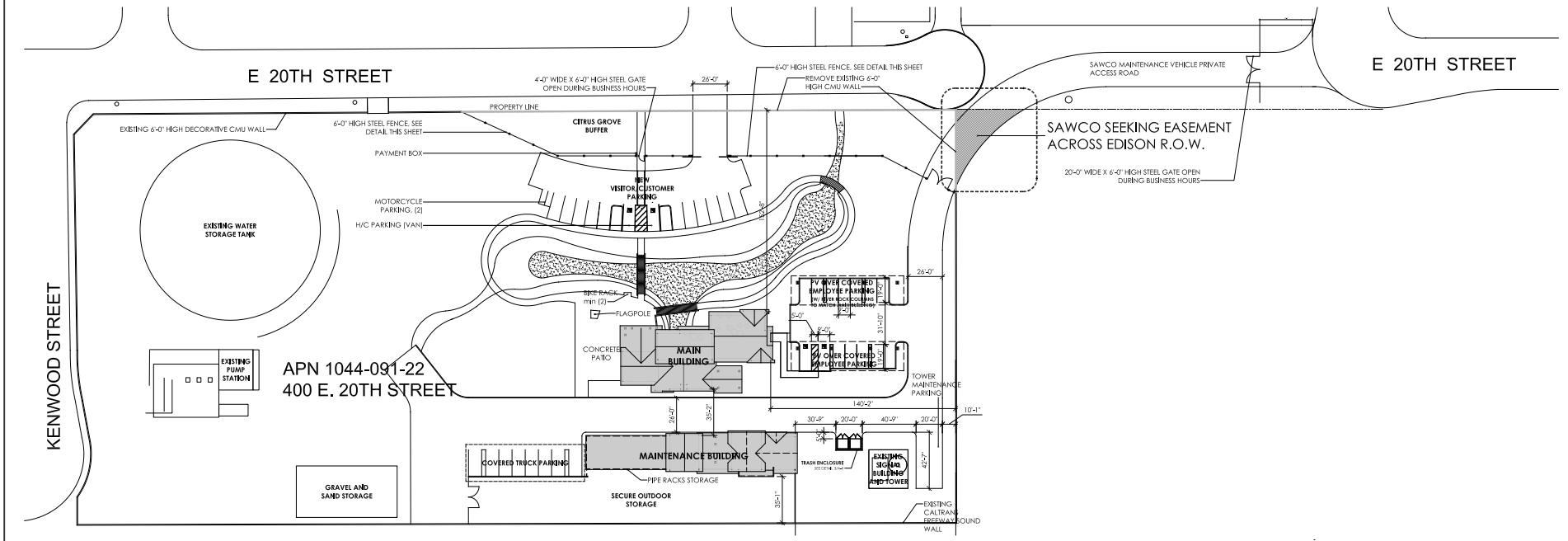

LSA

FIGURE 2

N

0 60 120

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SOURCE: CEDG, Inc.

San Antonio Water Company Headquarters

Conceptual Site Plan

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LSA

Project Location

FIGURE 3

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SOURCE: Google Imagery (2024)

San Antonio Water Company Headquarters

Project Location

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ATTACHMENT B

CALEEMOD OUTPUT

San Antonio Water HQ Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	San Antonio Water HQ
Construction Start Date	4/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	2.20
Location	34.13563245525083, -117.64489903150591
County	San Bernardino-South Coast
City	Upland
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5225
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.28

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
Government Office Building	3.70	1000sqft	0.08	3,698	26,077	0.00	—	Main Building

Automobile Care Center	4.07	1000sqft	0.09	4,066	20,000	0.00	—	Maintenance Building
Parking Lot	51.7	1000sqft	1.19	0.00	0.00	0.00	—	Total Paving

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.56	14.1	15.3	0.02	0.64	1.97	2.62	0.59	0.92	1.51	—	2,596	2,596	0.11	0.03	0.95	2,606
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.47	9.55	12.1	0.02	0.33	0.25	0.56	0.30	0.06	0.35	—	2,201	2,201	0.09	0.03	0.02	2,212
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.79	5.38	7.15	0.01	0.19	0.15	0.33	0.17	0.04	0.21	—	1,266	1,266	0.05	0.02	0.24	1,273
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.98	1.31	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	—	210	210	0.01	< 0.005	0.04	211
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.56	14.1	15.3	0.02	0.64	1.97	2.62	0.59	0.92	1.51	—	2,596	2,596	0.11	0.03	0.95	2,606
2026	1.48	9.54	12.4	0.02	0.32	0.25	0.56	0.29	0.06	0.35	—	2,222	2,222	0.09	0.03	0.95	2,234
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.14	9.07	11.0	0.02	0.33	0.22	0.55	0.30	0.05	0.35	—	2,047	2,047	0.09	0.03	0.02	2,058
2026	1.47	9.55	12.1	0.02	0.32	0.25	0.56	0.29	0.06	0.35	—	2,201	2,201	0.08	0.03	0.02	2,212
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.62	4.96	6.01	0.01	0.18	0.15	0.33	0.17	0.04	0.21	—	1,111	1,111	0.05	0.02	0.22	1,117
2026	0.79	5.38	7.15	0.01	0.19	0.15	0.33	0.17	0.04	0.21	—	1,266	1,266	0.05	0.02	0.24	1,273
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.91	1.10	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	—	184	184	0.01	< 0.005	0.04	185
2026	0.14	0.98	1.31	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	—	210	210	0.01	< 0.005	0.04	211

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.61	0.46	4.84	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,567	1,579	1.31	0.06	847	2,477
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	0.49	3.66	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,489	1,501	1.31	0.06	843	2,395
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.57	0.50	4.04	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,502	1,514	1.31	0.06	845	2,410
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.09	0.74	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	2.05	249	251	0.22	0.01	140	399
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.37	0.45	4.51	0.01	0.01	1.04	1.05	0.01	0.26	0.27	—	1,214	1,214	0.05	0.05	4.18	1,234
Area	0.24	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.39
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.02	< 0.005	—	336
Water	—	—	—	—	—	—	—	—	—	—	2.14	16.8	18.9	0.22	0.01	—	26.1
Waste	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Total	0.61	0.46	4.84	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,567	1,579	1.31	0.06	847	2,477
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.35	0.49	3.66	0.01	0.01	1.04	1.05	0.01	0.26	0.27	—	1,137	1,137	0.05	0.05	0.11	1,154
Area	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.02	< 0.005	—	336
Water	—	—	—	—	—	—	—	—	—	—	2.14	16.8	18.9	0.22	0.01	—	26.1
Waste	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Total	0.53	0.49	3.66	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,489	1,501	1.31	0.06	843	2,395
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.35	0.50	3.81	0.01	0.01	1.04	1.05	0.01	0.26	0.27	—	1,149	1,149	0.05	0.05	1.80	1,168
Area	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.95	0.95	< 0.005	< 0.005	—	0.95
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.02	< 0.005	—	336
Water	—	—	—	—	—	—	—	—	—	—	2.14	16.8	18.9	0.22	0.01	—	26.1
Waste	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.8

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Total	0.57	0.50	4.04	0.01	0.01	1.04	1.05	0.01	0.26	0.27	12.4	1,502	1,514	1.31	0.06	845	2,410
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.09	0.70	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	190	190	0.01	0.01	0.30	193
Area	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	55.4	55.4	< 0.005	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	—	0.35	2.78	3.14	0.04	< 0.005	—	4.31
Waste	—	—	—	—	—	—	—	—	—	—	1.69	0.00	1.69	0.17	0.00	—	5.92
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	0.10	0.09	0.74	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	2.05	249	251	0.22	0.01	140	399

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	1.63	1.63	—	0.78	0.78	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4
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	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
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	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.58	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	106	106	< 0.005	< 0.005	0.39	107
Vendor	0.00	0.00	0.00	0.00	0.00	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	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	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	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	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	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
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	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47
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	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.78	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.44	1.44	< 0.005	< 0.005	< 0.005	1.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	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	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	—	0.24	0.24	< 0.005	< 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	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	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	4.67	5.24	0.01	0.17	—	0.17	0.16	—	0.16	—	941	941	0.04	0.01	—	944
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.85	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	156	156	0.01	< 0.005	—	156
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.25	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	225	225	0.01	0.01	0.84	229
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.3	39.3	< 0.005	0.01	0.11	41.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.08	0.94	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	207	207	0.01	0.01	0.02	209
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.3	39.3	< 0.005	0.01	< 0.005	41.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	110	110	0.01	< 0.005	0.19	111
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.5	20.5	< 0.005	< 0.005	0.03	21.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.03	18.4
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.40	3.40	< 0.005	< 0.005	< 0.005	3.56
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.97	4.62	0.01	0.14	—	0.14	0.12	—	0.12	—	835	835	0.03	0.01	—	838
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.73	0.84	< 0.005	0.02	—	0.02	0.02	—	0.02	—	138	138	0.01	< 0.005	—	139
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	1.15	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	221	221	0.01	0.01	0.76	224
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.6	38.6	< 0.005	0.01	0.10	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.87	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	203	203	< 0.005	0.01	0.02	205
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.6	38.6	< 0.005	0.01	< 0.005	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.42	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	95.3	95.3	< 0.005	< 0.005	0.15	96.5
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.02	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.03	16.0
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.96	2.96	< 0.005	< 0.005	< 0.005	3.11

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.94	1.38	< 0.005	0.04	—	0.04	0.04	—	0.04	—	212	212	0.01	< 0.005	—	213
Paving	< 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	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.1	35.1	< 0.005	< 0.005	—	35.2

Paving	< 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	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	173	173	0.01	0.01	0.59	175
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	160
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	34.3	34.3	< 0.005	< 0.005	0.05	34.8
Vendor	0.00	0.00	0.00	0.00	0.00	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	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	—	5.68	5.68	< 0.005	< 0.005	0.01	5.75
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.38	0.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.0	60.0	< 0.005	< 0.005	—	60.2
Architectural Coatings	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.93	9.93	< 0.005	< 0.005	—	9.97
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.09	28.0
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.3	25.3	< 0.005	< 0.005	< 0.005	25.6
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.91	1.91	< 0.005	< 0.005	< 0.005	1.94
Vendor	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	0.32	0.39	3.87	0.01	0.01	0.89	0.90	0.01	0.23	0.23	—	1,042	1,042	0.04	0.04	3.59	1,060
Automobile Care Center	0.05	0.06	0.64	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	171	171	0.01	0.01	0.59	174
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.37	0.45	4.51	0.01	0.01	1.04	1.05	0.01	0.26	0.27	—	1,214	1,214	0.05	0.05	4.18	1,234
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	0.30	0.42	3.15	0.01	0.01	0.89	0.90	0.01	0.23	0.23	—	976	976	0.04	0.05	0.09	991
Automobile Care Center	0.05	0.07	0.52	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	160	160	0.01	0.01	0.02	163
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.35	0.49	3.66	0.01	0.01	1.04	1.05	0.01	0.26	0.27	—	1,137	1,137	0.05	0.05	0.11	1,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	0.05	0.08	0.60	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	163	163	0.01	0.01	0.26	166

Automobile Care Center	0.01	0.01	0.10	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	26.8	26.8	< 0.005	< 0.005	0.04	27.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.09	0.70	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	190	190	0.01	0.01	0.30	193

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	137	137	0.01	< 0.005	—	138
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	131	131	0.01	< 0.005	—	132
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	66.1	66.1	< 0.005	< 0.005	—	66.3
Total	—	—	—	—	—	—	—	—	—	—	—	335	335	0.02	< 0.005	—	336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	137	137	0.01	< 0.005	—	138

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	131	131	0.01	< 0.005	—	132
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	66.1	66.1	< 0.005	< 0.005	—	66.3
Total	—	—	—	—	—	—	—	—	—	—	—	335	335	0.02	< 0.005	—	336
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	—	22.7	22.7	< 0.005	< 0.005	—	22.8
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	—	21.8	21.8	< 0.005	< 0.005	—	21.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	10.9	10.9	< 0.005	< 0.005	—	11.0
Total	—	—	—	—	—	—	—	—	—	—	—	55.4	55.4	< 0.005	< 0.005	—	55.7

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Governm ent Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Automob ile Care Center	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.39
Total	0.24	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.39
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Total	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	1.41	10.5	11.9	0.15	< 0.005	—	16.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	0.73	6.28	7.01	0.08	< 0.005	—	9.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2.14	16.8	18.9	0.22	0.01	—	26.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	1.41	10.5	11.9	0.15	< 0.005	—	16.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	0.73	6.28	7.01	0.08	< 0.005	—	9.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2.14	16.8	18.9	0.22	0.01	—	26.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Governm Office Building	—	—	—	—	—	—	—	—	—	—	0.23	1.74	1.98	0.02	< 0.005	—	2.75
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	0.12	1.04	1.16	0.01	< 0.005	—	1.56
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.35	2.78	3.14	0.04	< 0.005	—	4.31

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.19	0.00	—	6.48
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	8.37	0.00	8.37	0.84	0.00	—	29.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Government	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.19	0.00	—	6.48
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	8.37	0.00	8.37	0.84	0.00	—	29.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	0.31	0.00	0.31	0.03	0.00	—	1.07
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	0.00	—	4.85
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.69	0.00	1.69	0.17	0.00	—	5.92

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	843	843
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2025	4/2/2025	5.00	2.00	—
Grading	Grading	4/3/2025	4/8/2025	5.00	4.00	—
Building Construction	Building Construction	4/9/2025	8/25/2026	5.00	360	—

Paving	Paving	8/26/2026	12/11/2026	5.00	78.0	—
Architectural Coating	Architectural Coating	3/1/2026	10/15/2026	5.00	164	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	16.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.27	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	11,646	3,882	3,104

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.19

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Government Office Building	0.00	0%
Automobile Care Center	0.00	0%
Parking Lot	1.19	36%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

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
Government Office Building	73.0	73.0	73.0	26,644	1,258	1,258	1,258	459,062
Automobile Care Center	12.0	12.0	12.0	4,378	207	207	207	75,430
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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	11,646	3,882	3,104

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Government Office Building	94,277	532	0.0330	0.0040	0.00
Automobile Care Center	90,187	532	0.0330	0.0040	0.00
Parking Lot	45,321	532	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)
Government Office Building	734,644	418,774
Automobile Care Center	382,534	321,182
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Government Office Building	3.44	—

Automobile Care Center	15.5	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	No demolition planned. Construction from 4/25 thru 12/26. Assumed architectural coatings applied during the building construction and paving phases.
Construction: Architectural Coatings	Assume all architectural coatings comply with SCAQMD Rule 1113.
Construction: Paving	Project plans specify 33,312sf of concrete and 18,424sf of asphalt.
Operations: Vehicle Data	Trip rates per traffic study - 20 employee, 12 maintenance truck, and 53 customer trips per day. Assigned all employee and customer trips to the Govt Office Bldg.
Operations: Architectural Coatings	Assumed all architectural coatings comply with SCAQMD Rule 1113.
Construction: Trips and VMT	Adjusted worker trips from defaults to expected amounts.
Operations: Energy Use	No natural gas use allowed, adjusted electricity use up to compensate. Used 1 kWh = 3,412 BTU of natural gas.

ATTACHMENT C

FONTANA-ARROW HIGHWAY AIR QUALITY MONITORING DATA

Fontana-Arrow Highway Air Quality Monitoring Data

2021 Monitoring Data

Parameter Name	Duration Description	Pollutant Standard	Units of Measure	Arithmetic Mean	First Maximum Value	Second Maximum Value	Third Maximum Value	Fourth Maximum Value	50th Perecentile	75th Perecentile	90th Perecentile	95th Perecentile	98th Perecentile	99th Perecentile	Address
Carbon monoxide	1 HOUR	CO 1-hour 1971	Parts per million	0.283842	1.9	1.9	1.7	1.5	0.2	0.4	0.6	0.7	0.9	1	14360 ARROW BLVD., FONTANA
Carbon monoxide	8-HR RUN AVG E	CO 8-hour 1971	Parts per million	0.287105	1.4	1.4	1.3	1.3	0.2	0.4	0.6	0.7	0.8	0.9	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 1-hour 2010	Parts per billion	34.070879	67.2	64.6	61.7	61.1	34.7	41.1	49.4	53.6	60.7	61.1	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 Annual 1971	Parts per billion	18.951218	67.2	64.6	62.1	61.7	16.5	27.8	35.9	40.1	45.9	49.8	14360 ARROW BLVD., FONTANA
Ozone	1 HOUR	Ozone 1-hour 1979	Parts per million	0.06264	0.125	0.123	0.122	0.122	0.057	0.081	0.098	0.107	0.118	0.122	14360 ARROW BLVD., FONTANA
Ozone	8-HR RUN AVG E	Ozone 8-hour 2015	Parts per million	0.052427	0.103	0.101	0.101	0.099	0.05	0.069	0.081	0.089	0.094	0.099	14360 ARROW BLVD., FONTANA
PM10 Total 0-10um STP	24 HOUR	PM10 24-hour 2006	Micrograms/cubic n	32.886792	73	62	61	52	33	41	49	61	62	73	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 24-hour 2012	Micrograms/cubic n	12.0975	55.1	43.7	33.4	33.4	11.3	14.2	16.9	29.4	33.4	43.7	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 Annual 2012	Micrograms/cubic n	12.0975	55.1	43.7	33.4	33.4	11.3	14.2	16.9	29.4	33.4	43.7	14360 ARROW BLVD., FONTANA
Sulfur dioxide	1 HOUR	SO2 1-hour 2010	Parts per billion	0.552198	5	3.7	2.7	1.9	0.6	0.8	1	1.2	1.5	1.9	14360 ARROW BLVD., FONTANA
Sulfur dioxide	3-HR BLK AVG	SO2 3-hour 1971	Parts per billion	0.231348	2.7	2	1.5	1.2	0.3	0.4	0.6	0.7	0.8	0.9	14360 ARROW BLVD., FONTANA

2022 Monitoring Data

Parameter Name	Duration Description	Pollutant Standard	Units of Measure	Arithmetic Mean	First Maximum Value	Second Maximum Value	Third Maximum Value	Fourth Maximum Value	50th Perecentile	75th Perecentile	90th Perecentile	95th Perecentile	98th Perecentile	99th Perecentile	Address
Carbon monoxide	1 HOUR	CO 1-hour 1971	Parts per million	0.259474	1.6	1.5	1.5	1.3	0.2	0.3	0.5	0.6	0.8	0.9	14360 ARROW BLVD., FONTANA
Carbon monoxide	8-HR RUN AVG E	CO 8-hour 1971	Parts per million	0.263678	1.0	1.0	1.0	1.0	0.2	0.3	0.5	0.5	0.6	0.7	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 1-hour 2010	Parts per billion	32.215042	68.7	55	53.2	52.5	33.8	40.1	45.2	48.7	50.5	52.5	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 Annual 1971	Parts per billion	17.701232	68.7	55	53.2	52.8	15.3	26.4	34.1	37.9	41.7	44.2	14360 ARROW BLVD., FONTANA
Ozone	1 HOUR	Ozone 1-hour 1979	Parts per million	0.064081	0.144	0.122	0.121	0.119	0.06	0.083	0.098	0.106	0.115	0.119	14360 ARROW BLVD., FONTANA
Ozone	8-HR RUN AVG E	Ozone 8-hour 2015	Parts per million	0.053432	0.107	0.099	0.098	0.095	0.051	0.067	0.079	0.084	0.094	0.095	14360 ARROW BLVD., FONTANA
PM10 Total 0-10um STP	24 HOUR	PM10 24-hour 2006	Micrograms/cubic n	31.533333	62	62	60	58	29	43	53	60	62	62	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 24-hour 2012	Micrograms/cubic n	10.915833	38.1	30.6	28.1	22.4	10.1	13.5	17.9	20.4	28.1	30.6	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 Annual 2012	Micrograms/cubic n	10.915833	38.1	30.6	28.1	22.4	10.1	13.5	17.9	20.4	28.1	30.6	14360 ARROW BLVD., FONTANA
Sulfur dioxide	1 HOUR	SO2 1-hour 2010	Parts per billion	0.761143	2.7	2.4	2.1	1.9	0.7	0.9	1.2	1.4	1.7	2.1	14360 ARROW BLVD., FONTANA
Sulfur dioxide	3-HR BLK AVG	SO2 3-hour 1971	Parts per billion	0.431421	2.1	1.8	1.4	1.3	0.4	0.6	0.7	0.8	0.9	1	14360 ARROW BLVD., FONTANA

2023 Monitoring Data

Parameter Name	Duration Description	Pollutant Standard	Units of Measure	Arithmetic Mean	First Maximum Value	Second Maximum Value	Third Maximum Value	Fourth Maximum Value	50th Perecentile	75th Perecentile	90th Perecentile	95th Perecentile	98th Perecentile	99th Perecentile	Address
Carbon monoxide	1 HOUR	CO 1-hour 1971	Parts per million	0.199884	1.5	1.4	1.3	1.3	0.1	0.3	0.4	0.6	0.7	0.8	14360 ARROW BLVD., FONTANA
Carbon monoxide	8-HR RUN AVG E	CO 8-hour 1971	Parts per million	0.204426	1.0	1.0	1.0	0.9	0.2	0.3	0.4	0.5	0.6	0.7	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 1-hour 2010	Parts per billion	30.390503	63.2	59.6	58.4	57.8	30.8	37.6	44.8	50.5	54.5	57.8	14360 ARROW BLVD., FONTANA
Nitrogen dioxide (NO2)	1 HOUR	NO2 Annual 1971	Parts per billion	16.59102	63.2	61.5	59.6	58.4	13.8	24.3	32.5	36.6	41.3	45.4	14360 ARROW BLVD., FONTANA
Ozone	1 HOUR	Ozone 1-hour 1979	Parts per million	0.062239	0.131	0.13	0.124	0.121	0.054	0.083	0.102	0.111	0.118	0.121	14360 ARROW BLVD., FONTANA
Ozone	8-HR RUN AVG E	Ozone 8-hour 2015	Parts per million	0.052491	0.111	0.107	0.106	0.105	0.047	0.068	0.083	0.091	0.099	0.105	14360 ARROW BLVD., FONTANA
PM10 Total 0-10um STP	24 HOUR	PM10 24-hour 2006	Micrograms/cubic n	33.068966	132	103	58	58	30	42	54	58	103	132	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 24-hour 2012	Micrograms/cubic n	11.243697	101.1	27.3	25	22.7	9.7	12.8	17.2	19.8	25	27.3	14360 ARROW BLVD., FONTANA
PM2.5 - Local Conditions	24 HOUR	PM25 Annual 2012	Micrograms/cubic n	11.243697	101.1	27.3	25	22.7	9.7	12.8	17.2	19.8	25	27.3	14360 ARROW BLVD., FONTANA
Sulfur dioxide	1 HOUR	SO2 1-hour 2010	Parts per billion	0.440169	3.3	3	1.4	1.4	0.4	0.6	0.8	1	1.2	1.4	14360 ARROW BLVD., FONTANA
Sulfur dioxide	3-HR BLK AVG	SO2 3-hour 1971	Parts per billion	0.201126	2.9	1.5	1.4	1.2	0.2	0.3	0.5	0.5	0.7	0.8	14360 ARROW BLVD., FONTANA