Appendix G

Greenhouse Gas Technical Report

WILEY CANYON MIXED USE PROJECT

Greenhouse Gas Technical Report

Prepared for
City of Santa Clarita
23920 Valencia Boulevard
Suite 300
Santa Clarita, CA 91355

January 2024

ESA

WILEY CANYON MIXED USE PROJECT

Greenhouse Gas Technical Report

Prepared for
City of Santa Clarita
23920 Valencia Boulevard
Suite 300
Santa Clarita, CA 91355

January 2024

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300
esassoc.com

D201900894.00

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Wiley Canyon Mixed Use Project
Greenhouse Gas Technical Report

Exhibits

Page

List of Tables

WILEY CANYON MIXED USE PROJECT

Greenhouse Gas Technical Report

Executive Summary

The Project is the development of a mixed-use facility on an approximately 32-acre site located on Wiley Canyon Road between Lyons Avenue and Calgrove, Boulevard, immediately adjacent to Interstate-5 (I-5) on the west. The Project address is 24924 Hawkbryn Avenue, Santa Clarita. The Project would consist of 596 residential units; including a 217-unit Senior Living Facility, a 379 multi-family residential units, and up to 10,886 square feet of commercial. The Project would also contain approximately 15 acres of open space and recreation areas. The area surrounding the Project Site includes a small commercial area to the south, residential uses on the north and east, and I-5 on the west.

This report summarizes the potential for the Project to generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, or to conflict with applicable plans, policies, and regulations for the purposes of reducing GHG emissions. The findings are as follows:

- The Project would not conflict with applicable GHG emission reduction plans, policies, or regulations included within the 2022 Climate Change Scoping Plan, Southern California Association of Governments (SCAG) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (Connect SoCal), City of Santa Clarita General Plan, City of Santa Clarita Climate Action Plan, and the City of Santa Clarita Code Green Building Standards Code.

1.0 Introduction

The Wiley Canyon Mixed-Use Project Site is regionally located in the northern foothills of the Santa Susana Mountains in unincorporated Los Angeles County (County), at the westerly perimeter of the Santa Clarita Valley. Locally, the Project Site is immediately east of Interstate 5 (I-5), north of Calgrove Boulevard, and south of Hawkbryn Avenue. The Project Site consists of two parcels that are currently used for agricultural uses. A portion of the South Fork of the Santa Clara River runs along the eastern boundary of the property with the north end of the drainage being channelized. The City of Santa Clarita General Plan Land Use Designation of Mixed-Use Neighborhood (MX-N) encompasses the entire property and is included as the Calgrove Corridor/Smiser Ranch Special Development Area. The Project Site has no corresponding zone in the County, and currently has a City zoning of Mixed Use Overlay (MU).

The Project Site is a total of approximately 32 acres of which 18 acres will be impacted by the proposed mixed-use development footprint and the remaining approximately15 acres will be retained for open space, recreation, and drainage purposes. The Project would consist of 596 residential units; including a 217-unit Senior Living Facility, a 379 multi-family residential units, and up to 10,886 square feet of commercial uses. The area surrounding the Project Site includes a small commercial area to the south, residential uses on the north and east, and I-5 on the west.

This Greenhouse Gas Technical Report evaluates the Project's potential greenhouse gas impacts, as well as its potential cumulative impacts, generated by construction and operation of the Project. This report estimates the greenhouse gas emissions generated by Project construction and operation, and whether Project emissions would conflict with or obstruct implementation of the applicable greenhouse gas reduction plans or policies.

2.0 Environmental Setting

2.1 Greenhouse Gas Background

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, data indicates that the current global conditions differ from past climate changes in rate and magnitude. The current changes in global climate have been attributed to anthropogenic (human-caused) activities by the Intergovernmental Panel on Climate Change.[1] The term GHG refers to gases that trap long-wave radiation or heat in the atmosphere, which heats the surface of the Earth. Without human intervention, the Earth maintains an approximate balance between the GHG emissions in the atmosphere and the storage of GHGs in the oceans and terrestrial ecosystems. GHGs are the result of both natural and anthropogenic activities. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

The Federal Government and State of California recognized that anthropogenic GHG emissions are contributing to changes in the global climate, and that such changes are having and will have adverse effects on the environment, the economy, and public health. While worldwide contributions of GHG emissions are expected to have widespread consequences, it is not possible to link particular changes to the environment of California or elsewhere to GHGs emitted from a particular source or location. In other words, emissions of GHGs have the potential to cause global impacts rather than local impacts. Increased concentrations of GHGs in the Earth's atmosphere have been linked to global climate change and such conditions as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increased frequency and magnitude of severe weather conditions.[2] Existing climate change models also show that climate warming portends a variety of impacts on agriculture, including loss of microclimates that

[1] International Panel on Climate Change (IPCC), 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. https://www.ipcc.ch/report/ar5/syr/. Accessed October 29, 2021.

[2] IPCC, 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

support specific crops, increased pressure from invasive weeds and diseases, and loss of productivity due to changes in water reliability and availability.[3] In addition, rising temperatures and shifts in microclimates associated with global climate change are expected to increase the frequency and intensity of wildfires.[4]

State law defines GHGs to include the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) (see e.g., State *CEQA Guidelines* Section 15364.5 and Health and Safety Code, Section 38505(g)). The most common GHG that results from human activity is CO_2, which represents 76 percent of total anthropogenic GHG emissions in the atmosphere (as of 2010 data),[5] followed by CH_4 and N_2O. Scientists have established a Global Warming Potential (GWP) to gauge the potency of each GHG's ability to absorb and re-emit long-wave radiation and these GWP ratios are available from the IPCC. The GWP of a gas is determined using CO_2 as the reference gas with a GWP of 1 over 100 years. For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. The sum of each GHG multiplied by its associated GWP is referred to as carbon dioxide equivalents (CO_2e). The measurement unit CO_2e is used to report the combined potency of GHG emissions.

Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). In 2007, the IPCC updated the GWP values based on the latest science at the time in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. In 2013, the IPCC again updated the GWP values based on the latest science in its Fifth Assessment Report (AR5).[6] However, United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines for national inventories require the use of GWP values from the AR4. To comply with international reporting standards under the UNFCCC, official emission estimates for California and the U.S. are reported using AR4 GWP values. Therefore, statewide and national GHG inventories have not yet updated their GWP values to the AR5 values. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. Compounds that are regulated as GHGs are discussed below and their respective GWPs are summarized in **Table 1,** *Regulated Greenhouse Gas's Reported GWP Values*.

[3] California Natural Resources Agency (CNRA), 2018. Safeguarding California Plan: 2018 Update to California's Climate Adaptation Strategy. https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf. Accessed December 15, 2021.

[4] United States Global Change Research Program, 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II. https://nca2018.globalchange.gov/. Accessed December 15, 2021.

[5] IPCC, 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

[6] IPCC, 2013. Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change: Chapter 8: Anthropogenic and Natural Radiative Forcing. https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf. Accessed December 15, 2021.

TABLE 1
REGULATED GREENHOUSE GAS'S REPORTED GWP VALUES

Regulated GHG Compound	IPCC SAR GWP	IPCC AR4 GWP	IPCC AR5 GWP
Carbon Dioxide (CO_2)	1	1	1
Methane (CH_4)	21	25	28
Nitrous Oxide (N_2O)	310	298	265
Hydrofluorocarbons (HFCs)	140 to 11,700	124 to 14,800	138 to 12,400
Perfluorocarbons (PFCs)	6,500 to 9,200	7,390 to 17,700	6,630 to 17,400
Sulfur Hexafluoride (SF_6)	23,900	22,800	23,500

SOURCES: IPCC. 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, https://www.ipcc.ch/report/ar5/syr/. Accessed: October 29, 2021.

Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

Methane (CH_4): CH_4 is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH_4 is 21 in the IPCC SAR, 25 in the IPCC AR4, and 28 in the IPCC AR5.

Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N_2O is 310 in the IPCC SAR, 298 in the IPCC AR4, and 265 in the IPCC AR5.

Hydrofluorocarbons (HFCs): HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR, 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4, and 138 for HFC-152a to 12,400 for HFC-23 in the IPCC AR5.

Perfluorocarbons (PFCs): PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 6,500 to 9,200 in the IPCC SAR, 7,390 to 17,700 in the IPCC AR4, and 6,630 to 17,400 in the IPCC AR5.

Sulfur Hexafluoride (SF_6): SF_6 is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF_6 has a GWP of 23,900 in the IPCC SAR, 22,800 in the IPCC AR4, and 23,500 in the IPCC AR5.

Nitrogen Trifluoride (NF_3): NF_3 is a fluorinated compound consisting of nitrogen and fluoride. It is an inorganic, colorless, non-flammable, toxic gas with a slightly musty odor. NF_3 is a chemical released in some high-tech industries, including in the manufacture of many electronics and semi-conductors. NF_3 has a GWP of 17,200 in the IPCC AR4, and 16,100 in the IPCC AR5.

2.2 Regulatory Framework

2.2.1 Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) encourage voluntary reductions by large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and National Highway Traffic Safety Administration (NHTSA) actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.[7]

Executive Order 13432

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation.

Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. In August 2012, standards were adopted for model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO_2 per mile (Phase II standards). By 2025, vehicles will achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the USEPA, under these standards a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[8] In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022–2025.

In August 2018, the USEPA and NHTSA proposed the Safer Affordable Fuel-Efficient Vehicles Rule that would, if adopted, maintain the CAFE and CO_2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO_2 standards for model year 2020 are 43.7 mpg and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. The proposal, if adopted, would also exclude CO_2-

[7] A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

[8] USEPA and NHTSA, 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks, August. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF. Accessed December 15, 2021.

equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[9] The proposed Safer Affordable Fuel-Efficient Vehicles Rule's public comment period was extended to October 26, 2018.[10] As of March 31, 2020, the SAFE Vehicles Rule, issued by NHTSA and USEPA, was finalized and set fuel economy and CO_2 standards that increase 1.5% in stringency each year for model years 2021 through 2026 for passenger cars and light trucks. (This is less stringent than the 2012 proposed standard, which would have required increases of 5% each year.) The anticipated average required fuel economy would be 40.4 mpg by model year 2026.[11]

On January 20, 2021, President Biden issued Executive Order 13990 "Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis" directing EPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks," promulgated in April 2020. As of August 2021, the USEPA is proposing to revise the GHG standards to be more stringent than the SAFE rule standards in each model year from 2023 through 2026. USEPA is also proposing to include several flexibilities to incentivize the production and sale of vehicles with zero and near-zero emissions technology to reduce compliance costs and to address the lead time of the proposed standards.[12]

Heavy-Duty Engines and Vehicles Fuel Efficiency Standards

On October 25, 2010, the USEPA and the United States Department of Transportation (USDOT) proposed the first national standards to reduce GHG and improve fuel efficiency of heavy-duty trucks and buses (also known as "Phase 1"). For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the USEPA and USDOT jointly finalized additional standards (called "Phase 2") for medium- and heavy-duty vehicles through model year 2027 that will

9 NHTSA and USEPA, 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf. Accessed October 29, 2021.

10 NHSTA, 2020. The Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule, https://www.nhtsa.gov/corporate-average-fuel-economy/safe. Accessed October 29, 2021.

11 NHSTA, 2020. The Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule.

12 USEPA, 2021. Federal Register/Vol.86, No. 151/ Tuesday August 10, 2021/ Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards. https://www.govinfo.gov/content/pkg/FR-2021-08-10/pdf/2021-16582.pdf. Accessed October 29, 2021.

improve fuel efficiency and cut carbon pollution. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons.

2.2.2 State of California

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State.

California Greenhouse Gas Reduction Targets

Assembly Bill 32 (California Global Warming Solutions Act of 2006) and Senate Bill 32 (Emissions Limit)

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. AB 32 defines GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under AB 32, CARB has the primary responsibility for reducing GHG emissions. AB 32 required CARB to adopt rules and regulations directing State actions that would achieve GHG emissions reductions equivalent to 1990 Statewide levels by 2020.

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown to update AB 32 and include an emissions reduction's goal for the year 2030. SB 32 and AB 197 amend AB 32 and establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure the benefits of State climate policies reach into disadvantaged communities. SB 32 suggests approaches to achieving the new reduction target, which include increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. Since 2016, two more scoping plans have been adopted. The 2017 Climate Change Scoping Plan and the most recent scoping plan, the 2022 Scoping Plan for Achieving Carbon Neutrality are discussed below.

2017 Climate Change Scoping Plan

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan (2017 Scoping Plan) at a public meeting held in December 2017.[13] The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target, which build on the Cap-and-Trade Regulation, the Low Carbon Fuel Standards (LCFS), improved vehicle, truck and freight movement emissions standards, increasing renewable energy, and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California's energy needs. CARB's projected Statewide 2030 emissions takes into account 2020 GHG reduction policies and programs. The 2017 Scoping Plan also comprehensively addresses

[13] CARB, 2017. California's 2017 Climate Change Scoping Plan, November. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents. Accessed October 29, 2021.

GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The adopted 2017 Scoping Plan includes ongoing and statutorily required programs and continuing the Cap-and-Trade Program. This Scoping Plan Scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398.[14]

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals."[15] Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons),[16] and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030.

The 2017 Scoping Plan discusses the role of local governments in meeting the State's GHG reductions goals because local governments have jurisdiction and land use authority related to: community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations.[17] Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures.[18]

Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34 to 79 $MMTCO_2$ of the 2030 reduction obligation.[19] The short-lived GHG strategy is expected to cover approximately 17 to 35 $MMTCO_2e$. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 $MMTCO_2$. The mobile source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of zero emission vehicles, and improving the freight system efficiency, and is expected to cover approximately 11 to 13 $MMTCO_2$. Under the Scoping Plan Scenario, CARB expects that the doubling of the energy efficiency savings by 2030 would cover approximately 7 to 9 $MMTCO_2$ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

14 AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

15 CARB, 2017. California's 2017 Climate Change Scoping Plan, November.

16 Short-lived climate pollutants include methane, fluorinated gases, and black carbon. These GHGs are much more potent than carbon dioxide and can have detrimental effects on human health and climate change. CARB, 2017. Short-Lived Climate Pollutant Reduction Strategy. Available online at: https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf. Accessed November 2021.

17 CARB, 2017. California's 2017 Climate Change Scoping Plan, November, page 97.

18 CARB, 2017. California's 2017 Climate Change Scoping Plan, November, page 97.

19 CARB, 2017. California's 2017 Climate Change Scoping Plan, Appendix G, November. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_appg_alt-ab197aq-health_final.pdf. Accessed October 29, 2021.

Assembly Bill 1279 (The California Climate Crisis Act)

The Legislature enacted AB 1279[20], The California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero GHG emissions, carbon neutrality[21], as soon as possible, but no later than 2045 and achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 ensures that by 2045 Statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for carbon dioxide removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the Scoping Plan's goals.

2022 Scoping Plan for Achieving Carbon Neutrality

The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), adopted by CARB in December 2022, expands on prior Scoping Plans and responds to more recent legislation by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier.[22] The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing GHGs to meet the anthropogenic target and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches. The major element of the 2022 Scoping Plan is the decarbonization of every sector of the economy. This requires rapidly moving to zero-emission transportation for cars, buses, trains, and trucks; phasing out the use of fossil gas for heating; clamping down on chemicals and refrigerants; providing communities with sustainable options such as walking, biking, and public transit to reduce reliance on cars; continuing to build out solar arrays, wind turbine capacity, and other resources to provide clean, renewable energy to displace fossil-fuel fired electrical generation; scaling up new options such as renewable hydrogen for hard-to-electrify end uses and biomethane where needed. "Successfully achieving the outcomes called for in the Scoping Plan would reduce demand for liquid petroleum by 94 percent and total fossil fuels by 86 percent by 2045 relative to 2022".[23] Despite these efforts, some amount of residual emissions will remain from hard-to-abate industries such as cement, internal combustion vehicles still on the road, and other sources of GHGs, including high global warming chemicals used as refrigerants. The 2022 Scoping Plan addresses the remaining emissions by re-envisioning natural and working lands (such as forests, shrublands/chaparral, croplands, wetlands, and other lands) to ensure they incorporate and store as much carbon as possible. Since working lands will not provide enough sequestration or carbon

[20] California Legislative Information, 2022. AB-1279 The California Climate Crisis Act. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1279. Accessed January 2023.

[21] *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology net zero and the 2022 Scoping Plan uses the terminology carbon neutrality or carbon neutral. These terms mean the same thing and are used interchangeably.

[22] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[23] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

storage on their own to address the residual emissions, additional methods of capturing, removing, and storing carbon dioxide need to be explored, developed and deployed.

The 2022 Scoping Plan shows that the state must take unprecedented and substantial action to achieve its climate goals, far beyond anything CARB has considered in prior scoping plans. In CARB's own words, the 2022 Scoping Plan "is the most comprehensive and far-reaching Scoping Plan developed to date" and "[m]odeling for this Scoping Plan shows that this decade must be one of transformation on a scale never seen before to set us up for success in 2045".[24] The 2022 Scoping Plan includes the Scoping Plan Scenario, which "builds on and integrates efforts already underway to reduce the state's GHG, criteria pollutant, and toxic air contaminant emissions by identifying the clean technologies and fuels that should be phased in as the state transitions away from combustion of fossil fuels.".[25] The 2022 Scoping Plan approaches decarbonization from two perspectives: (1) managing a phasedown of existing energy sources and technology and (2) ramping up, developing, and deploying alternative clean energy sources and technology over time.[26] Key actions to support success of the 2022 Scoping Plan include, but are not limited to:

- Transportation Sector
  - Decarbonizing the transportation sector, including transitioning to 100 percent sales of light-duty zero emission vehicles (ZEVs) by 2035 and medium- and heavy-duty vehicles by 2040; achieving a 20 percent zero emission target for the aviation sector, and developing a rapid and robust network of ZEV refueling infrastructure.
  - Ensuring that an adequate supply of zero-carbon alternative fuel which will require building the production and distribution network for zero-carbon fuels; strengthening the Cap-and-Trade Program; and increasing the stringency and scope of the Low Carbon Fuel Standard (LCFS).
  - Achieving a per capita vehicle miles traveled (VMT) reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045 by reimagining roadway projects to decrease VMT, investing in public transit, implementing equitable roadway pricing; expanding and completing planned networks of high-quality active transportation infrastructure; deploying autonomous vehicles, ride-hailing services, and other options which have higher occupancy and low VMT; streamlining access to public transportation; and ensuring alignment of land use, housing, transportation; conservation and planning in adopted regional plans and accelerating infill development and housing production in transportation efficient places.
- Clean Electricity Grid
  - Long-term planning to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment; completing systemwide and local

[24] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[25] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[26] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

reliability assessments; facilitating resource development such as long-duration energy storage and hydrogen production; maximizing opportunities for demand response; enhancing decarbonization, reliability, and affordability in regional markets; addressing resource build-out challenges; and doubling statewide energy efficiency savings in electricity and fossil gas end uses by 2030; achieving 90 percent, 95 percent, and 100 percent renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively;

- Sustainable Manufacturing and Buildings

  – Using best available control technology (BACT) for stationary sources; prioritizing alternative fuel transitions and pilot projects to identify options to reduce materials and process emissions along with energy emissions in industrial manufacturing facilities; strengthening the Cap-and-Trade Program; developing infrastructure for Carbon Capture Sequestration (CCS) and hydrogen production; establishing markets for low-carbon products and recycled materials; developing a net-zero cement strategy; incentivizing the installation of energy efficiency and renewable energy technologies; evaluating the role of hydrogen in meeting GHG reduction goals; and addressing cost barriers to promote low-carbon fuels for hard-to-electrify industrial applications.

  – Achieving three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed by 2030; strengthening building standards to support zero-emission new construction and developing building performance standards for existing buildings and by adopting a zero-emission standard for new space and water heaters beginning in 2030; expanding use of low-GWP refrigerants within buildings; increasing funding to decarbonize existing buildings and appliance replacements; and implementing biomethane procurement targets for investor-owned utilities.

- Carbon Dioxide Removal (CDR) and Capture

  – Incorporating CCS into other sectors, besides transportation, where cost-effective and technologically feasible options are not currently available and to achieve the 85 percent reduction in anthropogenic sources below 1990 levels; addressing market barriers for CCS and CDR; evaluating the role for CCS in cement decarbonization; supporting carbon management infrastructure projects; exploring carbon capture applications; consider carbon capture infrastructure when developing hydrogen roadmaps; and streamlining permitting barriers to project implementation.

- Short-Lived Climate Pollutants (Non-Combustion Gases)

  – Installing anaerobic digesters, maximizing biomethane capture, and directing biomethane to sectors that are hard to decarbonize or as a feedstock for energy; increasing alternative manure management projects; implementing enteric fermentation strategies; accelerating demand for diary and livestock product substitutes such as plant-based or cell-cultured dairy and livestock products to achieve reductions in animal populations; and deploying methane migration strategies and developing regulations to ensure that the 2030 target is achieved.

  – Maximizing and expanding existing infrastructure to reduce landfill disposal; expanding markets for products made from organic waste; recovering edible food to combat food

insecurity; infrastructure to support organic recycling; and directing biomethane captured from landfills and organic waste digesters to sectors that are hard to decarbonize.

  - Mitigating emissions from leaks; utilizing zero emission equipment alternatives wherever feasible; identifying and addressing methane leaks form oil infrastructure near communities; minimizing emission from equipment that must vent fossil gas by design; installing vapor collection systems on high emitting equipment; phasing out venting and routine flaring of associated gas; reducing pipeline and compressor blowdown emissions; utilizing remote sensing capability to mitigate leaks.

  - Expanding the use of very low- or no-GWP technologies in all hydrofluorocarbon (HFC) end-use sectors; converting large HFC emitters such as existing refrigeration systems to the lowest practical GWP technologies; and improving recovery, reclamation, and reuse of refrigerants by limiting sales of new or virgin high-GWP refrigerants and requiring the use of reclaimed refrigerants.

  - Reducing fuel combustion from reductions in transportation emissions and agricultural equipment emissions and investing in residential woodsmoke reduction.

- Natural and Working Lands (NWL)

  - Increasing climate smart forest, shrubland, and grassland management to at least 2.3 million acres a year−an approximately 10-fold increase from current levels; increasing climate smart agricultural practices by at least 78,000 acres adopted a year, annually conserving at least 8,000 acres a year of croplands, and increasing organic agriculture to comprise at least 20 percent of cultivated acres by 2045−an approximately 7.5-fold increase in healthy soils practices from previous levels and a 2-fold increase in total acres of organic agriculture; increasing annual investment in urban trees in developed lands by at least 200 percent above historic levels and establishing defensible space on all parcels by 2045; restoring at least 60,000 acres, or approximately 15 percent of all Sacramento-San Joaquin River Delta wetlands by 2045; and cutting land conversion of deserts and sparsely vegetated landscapes by at least 50 percent annually from current levels, starting in 2025.

  - Establishing and expanding mechanism that ensure NWL are protected from land conversion and parcelization and pairing land conservation projects with management plans that increase carbon sequestration.

  - Accelerating the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025; establishing and expanding mechanisms that ensure forests, shrublands, and grasslands are protected from land conversion; accelerating the deployment of long-term carbon storage from waste woody biomass residues; expanding infrastructure to facilitate processing of biomass; and streamlining permitting to accelerate implementation of climate smart forest management.

  - Establishing and expanding mechanisms that ensure grasslands are protected from conversion/parcelization and that support ongoing management actions that improve carbon sequestration and to deliver waste diversion goals through nature-based solutions.

  - Accelerating healthy soils practices to 80,000 acres annually by 2025, conserving at least 8,000 acres of annual crops annually, and increasing organic agriculture to 20 percent of

all cultivated acres by 2045; accelerating deployment of healthy soils practices, organic farming, and climate smart agriculture practices.

– Restoring 60,000 acres of Delta wetlands annually by 2045 to reduce methane emissions from wetlands and reverse the resulting subsidence.

– Increasing urban forestry investment annually by 200 percent relative to business as usual.

– Establishing and expanding mechanisms that ensure sparsely vegetated lands are protected from conversion.

Under the Scoping Plan Scenario, the demand for liquid petroleum would decrease by 94 percent and total fossil fuels by 86 percent in 2045 relative to 2022.[27] Unfortunately, some residual emissions would remain from hard-to-abate industries such as cement, internal combustion vehicles still on the road, and other sources of GHGs, including high global warming chemicals used as refrigerants.[28] The 2022 Scoping Plan addresses these remaining emissions through increased sequestration rates in NWL. However, the 2022 Scoping Plan modeling indicates that NWL, on their own, will not provide enough sequestration and storage to address all the residual emissions so it will be necessary to research, develop, and deploy additional methods of capturing CO_2 that include pulling it from smokestacks of facilities, or drawing it out of the atmosphere itself and then safely and permanently utilizing and storing it.[29] Additionally, carbon removal will be necessary to achieve net negative emissions to address historical GHGs already in the atmosphere.[30] The 2022 Scoping Plan does not specify how the residual emissions will be removed, as this will require new CCS and DAC technologies to be developed which will need governmental or other incentive support to overcome technology and market barriers.[31]

The 2022 Scoping Plan also discusses the role of local governments in meeting the state's GHG reductions goals because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. Local governments' efforts to reduce GHG emissions within their jurisdictions are critical to achieving the State's long-term climate goals. Furthermore, local governments make critical decisions on how and when to deploy transportation infrastructure and can choose to support transit, walking, bicycling, and neighborhoods that allow people to transition away from cars; they can adopt building ordinances that exceed statewide building code requirements; and they play a critical role in facilitating the rollout of ZEV infrastructure.[32] The 2022 Scoping Plan encourages local governments to take

[27] California Air Resources Board. 2022. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. scoping plan (ca.gov). Accessed December 20, 2022.

[28] California Air Resources Board. 2022. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. scoping plan (ca.gov). Accessed December 20, 2022.

[29] California Air Resources Board. 2022. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. scoping plan (ca.gov). Accessed December 20, 2022.

[30] California Air Resources Board. 2022. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. scoping plan (ca.gov). Accessed December 20, 2022.

[31] California Air Resources Board. 2022. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. scoping plan (ca.gov). Accessed December 20, 2022.

[32] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

ambitious, coordinated climate action at the community scale; action that is consistent with and supportive of the state's climate goals. [33] These could include:

- Developing local CAPS and strategies consistent with the State's GHG emission reduction goals.
- Incorporating State-level GHG priorities into their processes for approving land use and individual plans and individual projects.
- Implementing CEQA mitigation, as needed, to reduce GHG emissions associated with new land use development projects, and
- Leveraging opportunities for regional collaboration.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which involved the following:

- Established a new interim Statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all State agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-55-18

Executive Order B-55-18 was signed by Governor Brown on September 10, 2018. The order establishes an additional Statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Senate Bill 1383

This bill (Chapter 395, Statutes of 2016) creates goals for short-lived climate pollutant (SLCP) reductions in various industry sectors. The SLCPs included under this bill – including methane, fluorinated gases, and black carbon – are GHGs that are much more potent than carbon dioxide and can have detrimental effects on human health and climate change. SB 1383 requires the CARB to adopt a strategy to reduce methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. The methane emission reduction

[33] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

goals include a 75% reduction in the level of statewide disposal of organic waste from 2014 levels by 2025. In 2017, CARB adopted a SLCP Reduction Strategy to implement SB 1383.[34]

Land Use and Transportation Planning

SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. Under SB 375, CARB is required, in consultation with the State's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. In February 2011, CARB adopted the GHG emissions reduction targets of 8 percent by 2020 and 13 percent by 2035 relative to 2005 GHG emissions for the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization for the region in which the City is located.[35] Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the LCFS regulations.

Under SB 375, the reduction target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP or SCS.

In addition, on September 3, 2020, SCAG adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) also known as the Connect SoCal, which is an update to the previous 2012–2035 RTP/SCS and 2016–2040 RTP/SCS.[36] Using growth forecasts and economic trends, Connect SoCal provides a vision for transportation throughout the region for the next 25 years. Connect SoCal successfully achieves and exceeds the GHG emission-reduction targets set by CARB. Connect SoCal is further discussed in **Section 2.2.3** *Regional*.

In March 2018, CARB updated the SB 375 targets to require 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions.[37] This reduction target has been integrated into the most recent 2020–2045 RTP/SCS, which is further discussed in **Section 2.2.3** *Regional*.

Transportation Fuel

In response to the transportation sector accounting for a large percentage of California's CO_2 emissions, AB 1493 (HSC Section 42823 and 43018.5) (also referred to as the Pavley standards),

34 CARB, 2017. Short-Lived Climate Pollutant Reduction Strategy, March. https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf. Accessed October 29, 2021.

35 CARB, 2018. SB 375 Regional Plan Climate Targets, March. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed October 29, 2021.

36 Southern California Association of Governments (SCAG), 2020. 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS), September Available online: https://scag.ca.gov/read-plan-adopted-final-plan. Accessed November 3, 2021.

37 CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed November 3, 2021.

enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The federal CAA ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal CAA waiver from the USEPA. In June 2009, the USEPA granted California the waiver.

However, as discussed previously, the USEPA and USDOT adopted federal standards for model year 2012 through 2016 light-duty vehicles, which corresponds to the vehicle model years regulated under the State's Pavley Phase I standards. In addition, the USEPA and USDOT have adopted GHG emission standards for model year 2017 through 2025 vehicles, which corresponds to the vehicle model years regulated under the State's Pavley Phase II standards. These standards are slightly different from the State's model year 2017 through 2025 standards, but the State of California has agreed not to contest these standards, in part, due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally and is stringent enough to meet State GHG emission reduction goals. In 2012, CARB adopted regulations that allow manufacturers to comply with the 2017 through 2025 national standards to meet State law (i.e., the State's Pavley Phase II standards still apply by law; however, meeting the national standards for model year 2017 through 2025 also meets State law). These 2012 standards were then overridden with the SAFE Vehicles Rule, which were finalized in 2020 by USEPA and NHTSA. In September 2019, the USEPA announced its decision to withdraw California's waiver of preemption under Section 209 of the Clean Air Act. This preemption was proposed to be repealed on April 22, 2021. On August 10, 2021, NHTSA proposed new CAFE Standards for 2024–2026. The proposed rule would increase the stringency standards for light-duty vehicles for model years 2024–2026 from 1.5 percent per year to 8 percent per year.[38]

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to zero-emission vehicles (ZEVs), cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels.[39]

[38] NHTSA, Corporate Average Fuel Economy, https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy. Accessed October 29, 2021.

[39] CARB, 2016. 2016 Mobile Source Strategy, https://ww2.arb.ca.gov/resources/documents/2016-mobile-source-strategy. Accessed October 29, 2021.

In January 2007, Governor Brown enacted Executive Order S-01-07, which mandates the following: (1) establish a Statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) adopt an LCFS for transportation fuels in California. CARB identified the LCFS as one of the nine discrete early actions in the Climate Change Scoping Plan. The LCFS regulations were approved by CARB in 2009 and established a reduction in the carbon intensity of transportation fuels by 10 percent by 2020 with implementation beginning on January 1, 2011. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In April 2017, the LCFS was brought before the Court of Appeal challenging the analysis of potential nitrogen dioxide impacts from biodiesel fuels. The Court directed CARB to conduct an analysis of nitrogen dioxide impacts from biodiesel fuels and froze the carbon intensity targets for diesel and biodiesel fuel provisions at 2017 levels until CARB has completed this analysis. On March 6, 2018, CARB issued its *Draft Supplemental Disclosure Discussion of Oxides of Nitrogen Potentially Caused by the Low Carbon Fuel Standard Regulation*.[40] CARB posted modifications to the amendments on August 13, 2018, with a public comment period through August 30, 2018. Final approval of regulatory changes from CARB's analysis of nitrogen dioxide impacts from biodiesel fuels was made on January 4, 2019.[41] The 2017 Climate Change Scoping Plan also calls for increasing the mandatory reduction in carbon intensity of transportation fuels from 10 percent to 18 percent by 2030.

Energy

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2022 Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The major efficiency improvements to the residential Standards involve requirements for solar photovoltaics for low-rise residential, improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2017 national standards. For residential and non-residential, the Standards include requirements high-efficiency air filters for certain buildings. The 2022 Energy Code encourages electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more.[42]

[40] CARB, 2019. Low Carbon Fuel Standard and Alternative Diesel Fuels Regulation. https://www.arb.ca.gov/regact/2018/lcfs18/lcfs18.htm. Accessed October 29, 2021.

[41] CARB, 2019. Low Carbon Fuel Standard and Alternative Diesel Fuels Regulation.

[42] CEC, *2022 Building Energy Efficiency Standards*, August 11, 2021. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency. Accessed October 2022.

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[43] As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the State. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was updated in 2022 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2023.[44]

The State has adopted regulations to increase the proportion of electricity from renewable sources. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08,[45] which expands the State's Renewables Portfolio Standard to 33 percent renewable power by 2020. On April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statues of 2015) further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. On September 10, 2018, Governor Jerry Brown signed SB 100, which further increased California's Renewables Portfolio Standard and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Senate Bill 1020, Clean Energy, Jobs, and Affordability Act of 2022, approved September 16, 2022, revises SB 100, and instead requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to end use customers by December 31, 2035, 95 percent of all retail sales to end users by December 31, 2040, and 100 percent of all retail sales to end users by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.[46]

On September 16, 2022, Governor Newsome signed SB 1075, Hydrogen: green hydrogen: emissions of greenhouse gases, which requires CARB, CEC, California Public Utilities Commission (CPUC), and the California Workforce Development Board to conduct an evaluation on hydrogen by June 1, 2024, including policy recommendations to accelerate the production and

[43] California Building Standards Commission (CBSC), 2023. 2022 California Green Building Standards Code. https://www.dgs.ca.gov/BSC/CALGreen. Accessed January 22, 2023.

[44] CBSC, 2019. 2019 CALGreen (Part 11 of Title 24), https://codes.iccsafe.org/content/CAGBSC2019/title-page. Accessed October 29, 2021.

[45] Office of the Governor, 2008. Executive Order S-14-08, November 17. https://perma.cc/7S5K-MQT8. Accessed October 29, 2021.

[46] California Legislative Information, 2022. SB-1020 Clean Energy, Jobs, and Affordability Act of 2022. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1020, Accessed January 2023.

use of hydrogen, and specifically green hydrogen, and its role in decarbonizing the electrical and transportation sectors.[47]

Cap-and-Trade Program

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as a key strategy CARB will employ to help California meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020.[48] Under Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons CO_2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The Statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program's duration.[49] On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 Statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis.

If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

With the passage of AB 1279, the state has a statutory target to achieve carbon neutrality by 2045 and it is clear that additional GHG reductions will be required over this decade to achieve the accelerated 2030 target.[50] This will require changes to all major programs to increase their stringency between now and 2030 resulting in reductions in GHG emissions. As these GHG reductions increase, there will be less reliance on the Cap-and-Trade Program to "fill the gap" to

[47] California Legislative Information, 2022. SB-1075 Hydrogen: green hydrogen: emissions of greenhouse gases. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB1075. Accessed January 2023.

[48] 17 CCR §§ 95800 to 96023.

[49] See generally 17 CCR §§ 95811, 95812.

[50] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

meet the accelerated 2030 reduction target.[51] Since the timing of major program changes is uncertain, the Cap-and-Trade Program must continue to be able to scale across a range of possibilities, including potential program design and annual cap changes.[52]

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. Some of the regulations and measures that CARB has adopted to reduce particulate matter, nitrogen oxides, and other emissions have co-benefits of reducing GHG emissions. Regulations and measures include:

- In 2004, CARB adopted an Airborne Toxic Control Measure (ACTM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (Title 13 California Code of Regulations [CCR], Section 2485). This measure generally does not allow diesel-fueled commercial vehicles to idle for more than five (5) minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks.
- In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). In April 2014, amendments to the Truck and Bus Regulation were approved by CARB to help ensure that the air quality benefits originally envisioned by the regulation will be achieved, by providing some additional compliance flexibility and options to vehicle owners. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.
- In 2007, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models.
- In 2012, CARB approved the Advanced Clean Cars Program,[53] which includes low-emission-vehicle regulations that reduce criteria pollutant and GHG emissions from light- and medium-duty vehicles, and the zero-emissions vehicle regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018–2025 model years. The program aims to reduce smog-forming pollution from passenger vehicles by 75 percent by 2025, with the ultimate goal of total fleet electrification and elimination of tailpipe emissions. CARB is in the process of establishing the next set of

51 California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

52 California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

53 CARB, Advanced Clean Cars Program, 2021. https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program. Accessed October 2022.

low-emission-vehicle and ZEV requirements to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality targets.[54]

- In 2020, CARB approved the Advanced Clean Trucks Program which requires that manufacturers sell zero-emissions or near-zero-emissions trucks as an increasing percentage of their annual California sales beginning in 2024. The goal of this proposed strategy is to achieve nitrogen oxide (NOx) and GHG emission reductions through advanced clean technology, and to increase the penetration of the first wave of zero-emissions heavy-duty technology into applications that are well suited to its use. According to CARB, "Promoting the development and use of advanced clean trucks will help CARB achieve its emission reduction strategies as outlined in the State Implementation Plan (SIP), Sustainable Freight Action Plan, SB 350, and AB 32."[55] The percentage of zero-emissions truck sales is required to increase every year until 2035 when sales would need to be 55 percent of Classes 2b–3 (light/medium- and medium-duty trucks) truck sales, 75 percent of Classes 4–8 (medium- to heavy-duty trucks) straight truck sales, and 40 percent of truck tractor (heavy-duty trucks weighing 33,001 pounds or greater) sales. Additionally, large fleet operators (of 50 or more trucks) would be required to report information about shipments and services and their existing fleet operations. By transitioning to zero-emissions trucks, the state would move away from petroleum dependency and emit less GHGs from heavy-duty mobile sources.

While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies and reduction of idling times.

2.2.3 Regional

South Coast Air Quality Management District

The Project Site is located in the South Coast Air Basin, which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. The SCAQMD is responsible for air quality planning in the South Coast Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards.

The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:[56]

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;

[54] CARB, Advanced Clean Cars Program, 2021.

[55] CARB, Advanced Clean Trucks Program, https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks, July 12, 2022.

[56] South Coast Air Quality Management District (SCAQMD), 1993. CEQA Air Quality Handbook, April, page 3-7, April.

- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.[57,58,59] Within its October 2008 document, SCAQMD proposed the use of a percent emission reduction target to determine significant for commercial/residential projects that emit greater than 3,000 $MTCO_2e$ per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 $MTCO_2e$ per year would be assumed to have a less-than-significant impact on climate change. The SCAQMD's proposed 3,000 $MTCO_2e$ per year target was developed before 2020 and has never been considered for adoption and, thus, does not apply. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ for stationary source/industrial projects where the SCAQMD is the Lead Agency. A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.[60] The aforementioned Working Group has been inactive since 2011 and the SCAQMD has never formally adopted any GHG significance threshold for land use development projects.

Southern California Association of Governments

On September 3, 2020, the SCAG's Regional Council formally adopted the 2020–2045 RTP/SCS also known as the Connect SoCal, which is an update to the previous 2012–2035 RTP/SCS and 2016–2040 RTP/SCS.[61] Using growth forecasts and economic trends, both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS provide a vision for transportation throughout the region for the next several decades by considering the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. Both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS describe how the region can attain the GHG emission-reduction targets set by

57 SCAQMD, 2008a. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, Attachment E, October. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed October 29, 2021.

58 SCAQMD, 2008b. SCAQMD Governing Board Meeting, December 5, 2008, Agenda No. 31. http://www3.aqmd.gov/hb/2008/December/0812ag.html. Accessed October 29, 2021.

59 SCAQMD,2008c. Greenhouse Gases, CEQA Significance Thresholds, Board Letter – Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5, 2008, Agenda No. 3`. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2. Accessed October 29, 2021. The performance standards primarily focus on energy efficiency measures beyond Title 24. The SCAQMD adopted a GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial stationary source projects for which the SCAQMD is the lead agency.

60 SCAQMD, 2008d. Greenhouse Gases CEQA Significance Thresholds. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds. Accessed October 29, 2021.

61 Southern California Association of Governments (SCAG) 2020. 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS), Adopted September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176. Accessed October 29, 2021.

CARB by achieving an 8 percent reduction in per capita transportation GHG emissions by 2020 and a 19 percent reduction in per capita transportation emissions by 2035 compared to the 2005 level on a per capita basis.[62] Compliance with and implementation of the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions (e.g., nitrogen dioxide, carbon monoxide, etc.) associated with reduced per capita vehicle miles traveled (VMT).

The 2020–2045 RTP/SCS states that the SCAG region was home to approximately 18.8 million people in 2016 and included approximately 6.0 million homes and 8.4 million jobs.[63] By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with approximately 1.6 million more homes and 1.7 million more jobs.

SCAG's 2016–2040 RTP/SCS and 2020–2045 RTP/SCS provide specific strategies for implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation and cultures and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles.[64]

In addition, both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS include strategies to promote active transportation, support local planning and projects that serve short trips, promote transportation investments, investments in active transportation, more walkable and bikeable communities, that will result in improved air quality and public health, and reduced greenhouse gas emissions, and supports building physical infrastructure, regional greenways and first-last mile connections to transit, including to light rail and bus stations. The 2016–2040 RTP/SCS and 2020–2045 RTP/SCS align active transportation investments with land use and transportation strategies, increase competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation. CARB has accepted the SCAG GHG quantification determinations in the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS and both demonstrate achievement of the GHG emission reduction targets established by CARB.[65,66]

Although there are GHG emission reduction targets for passenger vehicles set by CARB for 2045, the 2020–2045 RTP/SCS GHG emission reduction trajectory shows that more aggressive

62 SCAG, 2020. 2020–2045 RTP/SCS, September.

63 SCAG, 2020. 2020–2045 RTP/SCS Demographics and Growth Forecast Technical Report, September. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579. Accessed October 29, 2021.

64 SCAG, 2020. 2020–2045 RTP/SCS, pages 69–72.

65 SCAG, 2020. 2020–2045 RTP/SCS, pages 48–86.

66 CARB, 2020. Executive Order G-20-239 Southern California Association of Governments (SCAG) 2020 Sustainable Communities Strategy CARB Acceptance of GHG Quantification Determination, October 30. https://ww2.arb.ca.gov/sites/default/files/2021-02/SCAG%202020%20SCS%20CARB%20Acceptance%20of%20GHG%20Quantification%20Determination%20Executive%20Order.pdf. Accessed October 29, 2021.

GHG emission reductions are projected for 2045. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an additional 4.1-percent reduction in GHG from transportation-related sources in the ten years between 2035 and 2045, the 2020–2045 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.[67]

2.2.4 Local

City of Santa Clarita General Plan

The City of Santa Clarita General Plan[68], adopted in 2011, serves as a foundation for making land use decisions based on goals and policies related to land use, transportation, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, public safety, infrastructure, and other related physical, social, and economic factors over the next 20 years. It also develops a clear set of development guidelines for citizens, developers, neighboring jurisdictions, and agencies, and provides the community with an opportunity to participate in the planning process. The Project Site is located within the City of Santa Clarita General Plan and is zoned Mixed Use - Neighborhood (MX-N) and is called out in the Land Use Element as a Special Development Area. The Project Site has several physical constraints that will limit the property from being developed to the maximum allowable standards, including oak trees, Caltrans right-of-way dedication, the future widening of Wiley Canyon Road to four lanes, electrical easements, and drainage. Due to these restraints, any proposed projects on the site shall not exceed 830,000 square feet (representing a floor area ratio of approximately 0.5) of total residential and commercial combined development, excluding parking facilities.

GHGs are covered under the Conservation and Open Space Element of The City of Santa Clarita General Plan and includes the following goals and policies relating to GHG and energy usage which will be implemented in connection with development of the Project, if applicable.[69]

> **Goal CO 8:** Development designed to improve energy efficiency, reduce energy and natural resource consumption, and reduce emissions of greenhouse gases.
>
> > **Objective CO 8.1:** Comply with the requirements of State law, including AB 32, SB 375 and implementing regulations, to reach targeted reductions of greenhouse gas (GHG) emissions.
> >
> > > **Policy CO 8.1.1:** Create and adopt a Climate Action Plan within 18 months of the One Valley One Vision adoption date of the City's General Plan Update that meets State requirements and includes the following components.

67 SCAG, 2020. 2020–2045 RTP/SCS Public Health Technical Report, September, page 53. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_public-health.pdf?1606001755. Accessed October 297, 2021.

68 City of Santa Clarita, 2011. General Plan. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/SantaClaritaGP.html. Accessed October 27, 2021.

69 City of Santa Clarita, 2000. General Plan Air Quality Element, May 23. https://www.santa-clarita.com/Home/ShowDocument?id=3402. Accessed October 27, 2021.

a. Plans and programs to reduce GHG emissions to State-mandated targets, including enforceable reduction measures;

   i. The CAP may establish goals beyond 2020, which are consistent with the applicable laws and regulations referenced in this paragraph and based on current science;

   ii. The CAP shall include specific and general tools and strategies to reduce the City's current and projected 2020 inventory and to meet the CAPs target for GHG reductions by 2020;

   iii. The CAP shall consider, among other GHG reduction strategies, the feasibility of development fees; incentive and rebate programs; and, voluntary and mandatory reduction strategies in areas of energy efficiency, renewable energy, water conservation and efficiency, solid waste, land use and transportation.

b. Mechanisms to ensure regular review of progress towards the emission reduction targets established by the Climate Action Plan;

c. Procedures for reporting on progress to officials and the public;

d. Procedures for revising the plan as needed to meet GHG emissions reduction targets; and,

e. Allocation of funding and staffing for Plan implementation;

After adoption of the Climate Action Plan, amend this General Plan if necessary to ensure consistency with the adopted Climate Action Plan.

Policy CO 8.1.2: Participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375.

Policy CO 8.1.3 Revise codes and ordinances as needed to address energy conservation, including but not limited to the following:

a. Strengthen building codes for new construction and renovation to achieve a higher level of energy efficiency, with a goal of exceeding energy efficiency beyond that required by Title 24;

b. Adopt a Green Building Program to encourage green building practices and materials, along with appropriate ordinances and incentives;

c. Require orientation of buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, promote effective use of daylight, and optimize opportunities for on-site solar generation;

d. Encourage mitigation of the "heat island" effect through use of cool roofs, light-colored paving, and shading to reduce energy consumption for air conditioning.

Policy CO 8.1.4: Provide information and education to the public about energy conservation and local strategies to address climate change.

Policy CO 8.1.5: Coordinate various activities within the community and appropriate agencies related to GHG emissions reduction activities.

Objective CO 8.2: Reduce energy and materials consumption and greenhouse gas emissions in public uses and facilities.

Policy CO 8.2.1: Ensure that all new City buildings, and all major renovations and additions, meet adopted green building standards, with a goal of achieving the LEED (Leadership in Energy and Environmental Design) Silver rating or above, or equivalent where appropriate.

Policy CO 8.2.2: Ensure energy efficiency of existing public buildings through energy audits and repairs, and retrofit buildings with energy efficient heating and air conditioning systems and lighting fixtures, with a goal of completing energy repairs in City facilities by 2012.

Policy CO 8.2.3: Support purchase of renewable energy for public buildings, which may include installing solar photovoltaic systems to generate electricity for city buildings and operations and other methods as deemed appropriate and feasible, in concert with significant energy conservation efforts.

Policy CO 8.2.4: Establish maximum lighting levels for public facilities, and encourage reduction of lighting levels to the level needed for security purposes after business hours, in addition to use of downward-directed lighting and use of low-reflective paving surfaces.

Policy CO 8.2.5: Support installation of photovoltaic and other renewable energy equipment on public facilities, in concert with significant energy conservation efforts.

Policy CO 8.2.6: Promote use of solar lighting in parks and along paseos and trails, where practical.

Policy CO 8.2.7: Support the use of sustainable alternative fuel vehicles for machinery and fleets, where practical, by evaluating fuel sources, manufacturing processes, maintenance costs and vehicle lifetime use.

Policy CO 8.2.8: Promote the purchase of energy-efficient and recycled products, and vendors and contractors who use energy-efficient vehicles and products, consistent with adopted purchasing policies.

Policy CO 8.2.9: Reduce heat islands through installation of trees to shade parking lots and hardscapes, and use of light-colored reflective paving and roofing surfaces.

Policy CO 8.2.10: Support installation of energy-efficient traffic control devices, street lights, and parking lot lights.

Policy CO 8.2.11: Implement recycling in all public buildings, parks, and public facilities, including for special events.

Policy CO 8.2.12: Provide ongoing training to appropriate City employees on sustainable planning, building, and engineering practices.

Policy CO 8.2.13: Support trip reduction strategies for employees as described in the Circulation Element.

Policy CO 5.2.14: Reduce extensive heat gain from paved surfaces through development standards wherever feasible.

Objective CO 8.3: Encourage the following green building and sustainable development practices on private development projects, to the extent reasonable and feasible.

Policy CO 8.3.1: Evaluate site plans proposed for new development based on energy efficiency pursuant to LEED (Leadership in Energy and Environmental Design) standards for New Construction and Neighborhood Development, including the following: a) location efficiency; b) environmental preservation; c) compact, complete, and connected neighborhoods; and d) resource efficiency, including use of recycled materials and water.

Policy CO 8.3.2: Promote construction of energy efficient buildings through requirements for LEED certification or through comparable alternative requirements as adopted by local ordinance.

Policy CO 8.3.3: Promote energy efficiency and water conservation upgrades to existing non-residential buildings at the time of major remodel or additions.

Policy CO 8.3.4: Encourage new residential development to include on-site solar photovoltaic systems, or pre-wiring, in at least 50% of the residential units, in concert with other significant energy conservation efforts.

Policy CO 8.3.5: Encourage on-site solar generation of electricity in new retail and office commercial buildings and associated parking lots, carports, and garages, in concert with other significant energy conservation efforts.

Policy CO 8.3.6: Require new development to use passive solar heating and cooling techniques in building design and construction, which may include but are not be limited to building orientation, clerestory windows, skylights, placement and type of windows, overhangs to shade doors and windows, and use of light colored roofs, shade trees, and paving materials.

Policy CO 8.3.7: Encourage the use of trees and landscaping to reduce heating and cooling energy loads, through shading of buildings and parking lots.

Policy CO 8.3.8: Encourage energy-conserving heating and cooling systems and appliances, and energy-efficiency in windows and insulation, in all new construction.

Policy CO 8.3.9: Limit excessive lighting levels, and encourage a reduction of lighting when businesses are closed to a level required for security.

Policy CO 8.3.10: Provide incentives and technical assistance for installation of energy-efficient improvements in existing and new buildings.

Policy CO 8.3.11: Consider allowing carbon off-sets for large development projects, if appropriate, which may include funding off-site projects or purchase of credits for other forms of mitigation, provided that any such mitigation shall be measurable and enforceable.

Policy CO 8.3.12: Reduce extensive heat gain from paved surfaces through development standards wherever feasible.

Objective CO 8.4: Reduce energy consumption for processing raw materials by promoting recycling and materials recovery by all residents and businesses throughout the community.

Policy CO 8.4.1: Encourage and promote the location of enclosed materials recovery facilities (MRF) within the Santa Clarita Valley.

Policy CO 8.4.2: Adopt mandatory residential recycling programs for all residential units, including single-family and multi-family dwellings.

Policy CO 8.4.3: Allow and encourage composting of greenwaste, where appropriate.

Policy CO 8.4.4: Promote commercial and industrial recycling, including recycling of construction and demolition debris.

Policy CO 8.4.5: Develop and implement standards for refuse and recycling receptacles and enclosures to accommodate recycling in all development.

Policy CO 8.4.6: Introduce and assist with the placement of receptacles for recyclable products in public places, including at special events.

Policy CO 8.4.7: Provide information to the public on recycling opportunities and facilities, and support various locations and events to promote public participation in recycling.

Policy CO 8.4.8: Take an active role in promoting, incubating, and encouraging businesses that would qualify under the Recycling Market Development Zone program or equivalent, including those that manufacture products made from recycled products, salvage, and resource recovery business parks.

City of Santa Clarita Climate Action Plan

In August 2012, the City of Santa Clarita adopted the Climate Action Plan (CAP), in compliance with Policy CO 8.1.1 of the City's General Plan, which outlines the City's strategy to reduce GHG emissions in the City by 4 percent below 2005 baseline levels and 17 percent below 2020 business-as-usual (BAU) emission levels, which is consistent with the overall Statewide goals of AB 32.[70] The CAP sets forth goals, policies, and ordinances in transportation, land use, energy, conservation, water conservation, and vegetation to achieve the City's GHG reduction target to comply with AB 32. The CAP meets the criteria in CEQA Guidelines 15183.5(b) for a "plan to reduce GHG emissions." However, since the CAP is only certified through 2020 and the Project is expected to be built out in 2024 the CAP was not used in the GHG plan consistency analysis since it is no longer applicable.

The CAP states that projects requiring a zone change/General Plan amendment and large-scale development projects will be required to demonstrate consistency with the CAP. Compliance with the CAP can be demonstrated by showing that the project can reduce its associated GHG emissions by 12 percent below the BAU scenario. Since this significance threshold is consistent

[70] City of Santa Clarita, 2012. City of Santa Clarita Climate Action Plan, August. https://greensantaclarita.com/files/2012/10/APPROVED-CAP-AUGUST-2012.pdf. Accessed November 1, 2021.

with the overall reduction expected in the CAP the goals, objectives, and policies approved under the General Plan are forecast to meet AB 32 GHG emission reduction targets. Therefore, development projects that can demonstrate consistency with the General Plan and zoning ordinance will by association demonstrate consistency with the CAP.

City of Santa Clarita Green Building Standards Code

The City of Santa Clarita Green Building Standards Code is provided in Title 25, Chapters 25.01 through 25.04 of the Santa Clarita Municipal Code (SCMC). The section of the SCMC formally adopts the 2022 California Green Building Standards Code. SCMC Chapter 25.04.010 provides an expedited, streamlined electric vehicle charging station (EVCS) permitting and inspection process that complies with AB 1236. SCMC Section 17.35 helps to create a mixture of commercial and residential uses that emphasize a sense of place, pedestrianism, and public transportation. The Non-Motorized Plan (SCMC 17.35 and 17.80.050) focuses on connections to transit, safe routes to schools that aren't auto dependent, and the relationship between trails and development. It impacts the design and connectivity of these systems throughout the City. The City's Construction and Demolition Ordinance (SCMC 15.46) requires all demolition projects, commercial projects over $200,000, all new commercial projects over 1,000 square feet, all new residential construction projects, and all residential additions and improvements that increase building area, volume, or size to recycle a minimum of 65% of all inert materials and 65% of all other materials.

2.3 Existing Conditions

2.3.1 Existing Statewide Greenhouse Gas Emissions

CARB compiles the State's GHG emissions inventory. The most updated inventory is referred to as the 2021 edition, which reports the State's GHG emissions inventory from calendar year 2019. Based on the 2019 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 418.2 million metric tons of CO_2e ($MMTCO_2e$) including emissions resulting from imported electrical power.[71] Between April 2010 and July 2020, the population of California grew by an annualized rate of 0.64 percent to a total of 39.78 million.[72] In addition, the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining. From 2000 to 2019, the carbon intensity of California's economy decreased by 45 percent while the GDP increased by 63 percent.[73] According to CARB, as of 2016, statewide GHG emissions dropped below the 2020 GHG Limit (431 $MMTCO_2e$) and have remained below the Limit since that time.

Table 2, *State of California Greenhouse Gas Emissions,* identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990

[71] CARB. 2021. California Greenhouse Gas Emissions for 2000–2019 Trends of Emissions and Other Indicators, July 28. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed November 29, 2021.

[72] California Department of Finance, 2020. "E-6. Population estimates and components of change by county 2010–2020," 2020, December. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-6/. Accessed November 1, 2021.

[73] CARB. 2021. California Greenhouse Gas Emissions for 2000–2019 Trends of Emissions and Other Indicators, July 28.

and 2019. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at 40 percent in 2019.

TABLE 2
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

Category	Total 1990 Emissions ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2019 Emissions ($MMTCO_2e$)	Percent of Total 2019 Emissions
Transportation	150.7	35%	166.1	39.7%
Electric Power	110.6	26%	58.8	14.1%
Commercial	14.4	3%	15.9	3.8%
Residential	29.7	7%	27.9	6.7%
Industrial	103.0	24%	88.2	21.1%
Recycling and Waste [a]	–	–	8.9	2.1%
High GWP/Non-Specified [b]	1.3	<1%	20.6	4.9%
Agriculture/Forestry	23.6	6%	31.8	7.6%
Forestry Sinks [c]	-6.7	–	– [c]	–
Net Total (IPCC SAR)	**426.6**	**100%**	–	–
Net Total (IPCC AR4) [d]	**431**	**100%**	**418.2**	**100%**

[a] Included in other categories for the 1990 emissions inventory.

[b] High GWP gases are not specifically called out in the 1990 emissions inventory.

[c] Forestry sinks were not calculated for 2019 pending a revised methodology under development. Forestry sinks are ecosystems carbon stored in plants and soils.

[d] CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

SOURCES: CARB, 2021. California Greenhouse Gas Emissions for 2000–2019. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed November 1, 2021.

2.3.2 Existing City of Santa Clarita Greenhouse Gas Emissions

The latest GHG inventory for the City of Santa Clarita is provided in the 2012 CAP. The 2005 baseline emission inventory for the City of Santa Clarita is shown below in **Table 3,** *City of Santa Clarita Greenhous Gas Emissions*. It should be noted that the emissions shown in Table 3 for the City are in units of metric tons (MT) whereas the emissions shown in Table 3 for the State are in units of million metric tons (MMT).

TABLE 3
CITY OF SANTA CLARITA GREENHOUSE GAS EMISSIONS

Category	Total 2005 Emissions ($MTCO_2e$)	Percent of Total [a]
Transportation	1,065,718	62.0
Building and Industrial	531,611	30.9
Waste	50,439	2.9
Water	49,641	2.9
Agricultural	11,619	0.7
Lighting	8,615	0.5

Category	Total 2005 Emissions ($MTCO_2e$)	Percent of Total [a]
Refrigerant	5	0.0
Total	**1,717,648**	**100**

[a] Column may not add due to rounding.

SOURCE: City of Santa Clarita, 2012. City of Santa Clarita Climate Action Plan, August. https://greensantaclarita.com/files/2012/10/APPROVED-CAP-AUGUST-2012.pdf. Accessed November 1, 2021.

2.3.3 Existing Project Site Greenhouse Gas Emissions

For the purposes of this analysis, no existing operational GHG emissions are assumed from the existing site because the Site is currently vacant. Therefore, existing operational GHG emissions are not required to be calculated and the Project's GHG emissions would be considered net new.

2.3.4 Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC, in its *Fifth Assessment Report, Summary for Policy Makers*, stated that, "it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings [*sic*] together."[74] A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity.[75] In the most recent IPCC *Sixth Assessment Report, Summary for Policy Makers*, it states "It is unequivocal that human influence has warmed the atmosphere, ocean, and land."[76]

According to CARB, the potential impacts in California due to global climate change may include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more large forest fires; more drought years; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and

74 Intergovernmental Panel on Climate Change (IPCC), 2014. Fifth Assessment Report, Summary for Policy Makers, page 5. https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf. Accessed November 1, 2021.

75 Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, 2010. Expert Credibility in Climate Change, Proceedings of the National Academy of Sciences of the United States of America. 2010 (27) 12107–12109. https://www.pnas.org/content/107/27/12107. Accessed November 1, 2021.

76 IPCC, 2021. Sixth Assessment Report, Summary for Policy Makers, page 5, August 7. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed November 1, 2021.

increased pest infestation.[77] Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect and, therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would exacerbate air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State.[78] However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires.

In 2018, the California Natural Resources Agency (CNRA) published the Safeguarding California Plan: 2018 Update, as a continuation of the policy vision Governor's Executive Order S-13-2008 and the 2009 CNRA California Climate Adaptation Strategy.[79] The CNRA plan lists specific actions and recommendations for State and local agencies to best adapt to the anticipated risks posed by a changing climate. In accordance with the 2009 CNRA California Climate Adaptation Strategy, the CEC developed the Cal-Adapt website, which became operational in 2011, that synthesizes climate change scenarios and impacts to benefit local decision makers.[80,81] As stated in the CNRA Safeguarding California Plan: 2018 Update, "the Cal-Adapt.org web portal is at the forefront of resources for specific communities to understand how climate change will raise temperatures and exacerbate extreme heat events, drought, snowpack loss, wildfire, and coastal flooding." The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios. The data are comprised of the average values (i.e., temperature, sea-level rise, snowpack) from a variety of scenarios and models and are meant to illustrate how the climate may change based on a variety of different potential social and economic factors. According to the Cal-Adapt website's "Local Climate Change Snapshot" database,[82] the City could see an average annual increase in maximum temperature to 81.4 °F to 82.4 °F in the mid-

77 California Environmental Protection Agency (Cal EPA), 2006. Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, December. https://research.fit.edu/media/site-specific/researchfitedu/coast-climate-adaptation-library/united-states/west-coast-amp-hawaix27i/california---statewide/Bonner-et-al.--2010.--Climate-Action-Team-Report-to-State-Officials.pdf. Accessed November 21, 2021.

78 Cal EPA, 2013, Preparing California for Extreme Heat: Guidance and Recommendations, October. https://healthyplacesindex.org/wp-content/uploads/2018/02/2013_cph_preparing_california_for_extreme_eat.pdf. Accessed November 1, 2021.

79 California Natural Resources Agency (CNRA), 2018, Safeguarding California Plan: 2018 Update, California's Climate Adaptation Strategy, January. https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf. Accessed November 1, 2021.

80 CNRA, 2009. Climate Action Team, 2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008. https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed November 1, 2021.

81 The Cal-Adapt website address is: http://cal-adapt.org.

82 Cal-Adapt, 2022. Local Climate Change Snapshot Santa Clarita California, United States, January 1.

century (2035–2064) and 82.6 °F to 85.9 °F at the end of the century (2070–2099) compared to 76.9 °F for the baseline period (1961–1990). The average annual number of extreme heat days could also increase to 15 to 20 days in the mid-century (2035–2064) and 21 to 40 days at the end of the century (2070–2099) compared to 2 days for the baseline period (1961–1990).

Water Supply

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. Studies have found that, "Considerable uncertainty about precise impacts of climate change on California hydrology and water resources will remain until we have more precise and consistent information about how precipitation patterns, timing, and intensity will change."[83] For example, some studies identify little change in total annual precipitation in projections for California while others show significantly more precipitation. [84] Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full.[85] Conversely, a reduced snowpack coupled with increased rainfall during winters could lead to reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.[86] According to the Cal-Adapt website's "Local Climate Change Snapshot" database,[87] the City could see an average annual length of dry spells of 143 to 144 days in the mid-century (2035–2064) and 143 to 151 days at the end of the century (2070–2099) compared to 133 days for the baseline period (1961–1990). The average annual precipitation could decrease to 16.2 inches in the mid-century (2035–2064) and 16.3 to 16.5 inches at the end of the century (2070–2099) compared to 16.7 inches for the baseline period (1961–1990).

The California Department of Water Resources report on climate change and effects on the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta, concludes that "climate change will likely have a significant effect on California's future water resources…[and] future water demand." It also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain."[88] It also reports that the relationship between climate change and its potential effect on water demand is not well understood, but "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future." Still, changes in water supply are expected to

83 Pacific Institute for Studies in Development (PISD), 2003. Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature, July. https://pacinst.org/wp-content/uploads/2003/07/climate_change_and_california_water_resources.pdf. Accessed November 1, 2021.

84 PISD, 2003, Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature.

85 PISD, 2003. Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature.

86 PISD, 2003. Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature.

87 Cal-Adapt, 2022. Local Climate Change Snapshot Santa Clarita California, United States, January 1.

88 California Department of Water Resources (CDWR), 2006. Progress on Incorporating Climate Change into Planning and Management of California's Water Resources, page 2-54, July. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=6454. Accessed November, 1, 2021.

occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows.[89] In its *Fifth Assessment Report*, the IPCC states "Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions."[90] The *Sixth Assessment Report* further states, "Continued global warming is projected to further intensify the global water cycle, including its variability, global monsoon precipitation and the severity of wet and dry events."[91]

Hydrology and Sea Level Rise

As discussed above, climate change could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a $30-billion agricultural industry that produces half the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thus affect their quality.[92]

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface temperature could rise by 2 °F–11.5 °F (1.1 °C–6.4 °C) by 2100, with significant regional variation.[93] Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as 2 feet along most of the United States coastline. Rising temperatures could have four major impacts on plants and animals: (1) timing of

89 CDWR, 2006. Progress on Incorporating Climate Change into Planning and Management of California's Water Resources, page 2-75, July.

90 IPCC, 2014. Fifth Assessment Report, Summary for Policy Makers, page 20.

91 IPCC, 2021. Sixth Assessment Report, Summary for Policy, page 25.

92 California Climate Change Center, 2006. Our Changing Climate: Assessing the Risks to California. https://www.ucsusa.org/sites/default/files/2019-09/our-changing-climate-final.pdf. Accessed November 1, 2021.

93 National Research Council, Advancing the Science of Climate Change, 2010, https://www.nap.edu/resource/12782/Science-Report-Brief-final.pdf. Accessed November 1, 2021.

ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes such as carbon cycling and storage.[94]

3.0 Project Impacts

3.1 Thresholds of Significance

In assessing the Project's potential impacts related to greenhouse gas emissions in this report, the County has determined to use Appendix G of the State CEQA Guidelines as its thresholds of significance. In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to GHG's if it would:

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

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

Amendments to Section 15064.4 of the State *CEQA Guidelines* were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. If a qualitative analysis is used, in addition to quantification, this section recommends certain qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs). The amendments to CEQA Guidelines Section 15064.4 do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)).

The California Natural Resources Agency has also clarified that the Guidelines Amendments focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)(3)).[95]

Although GHG emissions can be quantified as discussed under the Methodology section below, CARB, SCAQMD, and the City have not adopted quantitative project-level significance

94 Parmesan, C., and H. Galbraith, 2004. Observed Impacts of Global Climate Change in the U.S., Prepared for the Pew Center on Global Climate Change, November. https://www.c2es.org/site/assets/uploads/2004/11/observed-impacts-climate-change-united-states.pdf. Accessed November 1, 2021.

95 See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11–13, 14, and 16 (https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf); see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009 (http://www.valleyair.org/programs/ccap/documents/Transmittal_LetterOPRApril2009.pdf).

thresholds for GHG emissions that would be applicable to the Project. The Governor's Office of Planning and Research (OPR) released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that "lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice," and that while "climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment."[96] Furthermore, the technical advisory states that "CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project."[97]

The *CEQA Guidelines* were amended in response to SB 97. In particular, the *CEQA Guidelines* were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per *CEQA Guidelines* Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.[98] To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.[99] Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."[100]

96 Governor's Office of Planning and Research (GOPR), 2008. Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19. https://opr.ca.gov/docs/june08-ceqa.pdf. Accessed November 1, 2021.

97 GOPR, 2008. Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19.

98 California Code of Regulations (CCR), Title 14, Section 15064(h)(3).

99 California Code of Regulations (CCR), Title 14, Section 15064(h)(3).

100 California Code of Regulations (CCR), Title 14, Section 15064(h)(3).

Thus, *CEQA Guidelines* Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with a program and/or other regulatory schemes to reduce GHG emissions.[101]

CARB's Climate Change Scoping Plan, SCAG's 2020–2045 RTP/SCS (Connect SoCal), and the City of Santa Clarita General Plan and CAP all apply to the Project and are all intended to reduce GHG emissions to meet the Statewide targets set forth in AB 32 and as expanded by SB 32 and AB 1279. Thus, in the absence of any adopted quantitative threshold, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions, including CARB's 2022 Climate Change Scoping Plan, Connect SoCal, City of Santa Clarita General Plan, City of Santa Clarita CAP, and the City of Santa Clarita Code Green Building Standards Code.

3.2 Methodology

The analysis herein includes the determination of consistency with applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City. Although there is no applicable quantitative GHG significance threshold, this analysis also includes the quantification of GHG emissions for informational purposes only.

3.2.1 Quantification of Emissions

In addition to the evaluation of the Project's consistency with plans adopted for the purpose of reducing and/or mitigating GHG emissions, Section 3.2.2, this analysis also calculates for informational purposes the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The significance of the Project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project.

The California Climate Action Registry (Climate Registry) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-

[101] See, for example, San Joaquin Valley Air Pollution Control District (SJVAPCD), CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR-2025 (June 25, 2014), in which the SJVAPCD "determined that GHG emissions increases that are covered under ABR's Cap-and-Trade regulation cannot constitute significant increases under CEQA…" Furthermore, the SCAQMD has taken this position in CEQA documents it has produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 $MTCO_2e$/yr significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See SCAQMD, Final Negative Declaration for Ultramar Inc. Wilmington Refinery Cogeneration Project, SHC No. 2012041014 (October 2014); SCAQMD Final Negative Declaration for Phillips 99 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014); SCAQMD Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014); and SCAQMD Final Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No. 2014121014 (August 2015).

specific activities.[102] The GHG emissions provided in this report are consistent with the General Reporting Protocol framework. The General Reporting Protocol recommends separating GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include the following:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.[103]

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector.[104] For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research directs lead agencies to "make a good-faith effort, based on available information, to calculate, model, or estimate…GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities."[105] Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental challenge in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular project because the project may cause a shift in the locale for some type of GHG emissions, rather than simply causing "new" GHG emissions. As a result, there is a lack of clarity as to whether a project's GHG emissions represent a net global increase, reduction, or no change in GHGs that would exist if the project were not implemented.

It is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increases from emissions sources mentioned in the scope categories above such as emissions from the use of on-road mobile vehicles, electricity, and natural gas compared to existing conditions. This includes Project construction activities such as building construction, hauling, and construction worker trips. This analysis also considers indirect GHG emissions from water conveyance, wastewater generation,

[102] The Climate Registry, General Reporting Protocol Version 2.1, (2016).

[103] Embodied energy includes energy required for water pumping and treatment for end-uses. Third-party vehicles include vehicles used by visitors of the Project Site.

[104] CARB, 2010. Staff Report: Initial Statement of Reasons for Rulemaking, Revisions to the Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), page 27. https://www.arb.ca.gov/regact/2010/ghg2010/ghgisor.pdf. Accessed November1, 2021.

[105] GOPR, 2008. Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, page 5.

and solid waste handling. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis.

GHG emissions are estimated using the California Emissions Estimator Model (CalEEMod, version 2020.4.0), which is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.[106] In addition to CalEEMod, CARB's on road vehicle emissions factor model (EMFAC) 2021 emission factors were used to determine on-road vehicle emissions from construction activities.

Construction Emissions

GHG emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date). Construction anticipated by the Proposed Project may result in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from construction equipment and mobile sources, such as haul trucks and worker vehicles. Construction emissions were calculated using CalEEMod and applying emission factors from CARB's emissions factor (EMFAC) model 2021 emission factors to calculate mobile source emissions. CalEEMod is based on outputs from the CARB off-road emissions factor (OFFROAD) and EMFAC models, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles.

The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. Worker, vendor, and concrete truck trips were based on information obtained from the Applicant. The Project is not expected to export soil; however, approximately 62,000 cubic yards of soil would be imported on-site. Emissions from on-road vehicles were estimated outside of CalEEMod using EMFAC2021 emission factors. These values were applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Emissions from Project construction activities were estimated based on the construction phase in which the activity would be occurring. The Project's construction phasing and equipment list is available in **Exhibit A** of this technical report.

Project construction is estimated to start in 2023 and end in late 2024, but may commence at a later date. If this occurs, construction impacts would be lower than those analyzed due to the use of a more energy-efficient and cleaner burning construction vehicle fleet mix, pursuant to State regulations that require vehicle fleet operators to phase-in less polluting heavy-duty equipment.

[106] See: http://www.aqmd.gov/caleemod/.

As a result, should Project construction commence at a later date than analyzed in this analysis, GHG impacts would be lower than the impacts disclosed herein.

The SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions."[107] In accordance with SCAQMD guidance, GHG emissions from construction have been amortized (i.e., averaged annually) over the lifetime of the Project. The SCAQMD defines the lifetime of a project as 30 years. [108] Therefore, the Project's total construction GHG emissions were divided by 30 to determine an annual construction emission estimate comparable to operational emissions.

Operational Impacts

Similar to construction, operational GHG emissions are also estimated using CalEEMod, along with CARB's on-road vehicle EMFAC model, updated for EMFAC2021 values. CalEEMod was used to estimate GHG emissions from electricity, natural gas, solid waste, water and wastewater, mobile sources, and landscaping equipment.

As previously noted, operational mobile source GHG emissions are estimated based on CARB's on-road vehicle EMFAC model. The trip lengths are based on the location and setting of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type. For mobile sources, the estimated vehicle trips were provided for the Project uses in a project specific traffic study[109, 110] in accordance with the City of Santa Clarita's VMT analysis guidelines.

In addition, the operational mobile source GHG emissions estimates are based on GHG emission factors for the mobile sources utilizing EMFAC2021 and the GWP values for the GHGs emitted. Emissions of GHGs from motor vehicles are dependent on specific vehicle types and models that would travel to and from the Project Site. All vehicle types would visit the Project Site. Therefore, this assessment uses the Santa Clarita Valley Consolidated Traffic Model to estimate average home based trip lengths, vehicle trips, and population.

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Emissions of GHGs associated with energy usage under the Project's proposed land uses are calculated using the CalEEMod tool. Future fuel consumption rates are estimated based on specific square footage of the residential land uses, as well as predicted water supply needs of the Project. CalEEMod then bases GHG emissions related to the Project's estimated energy demand using the GHG emission factors for

[107] South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2. Accessed October 2018.

[108] SCAQMD, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, 2008, p. 5.

[109] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.

[110] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.

the electricity and natural gas utilities providers' CO_2e intensity factors for supplied electricity and natural gas.[111]

Emissions of GHGs associated with solid waste disposal under the Project's proposed land uses are calculated within CalEEMod using the default solid waste values. The emissions are based on the size of the land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted.[112]

The emissions of GHGs associated with water demand and wastewater generation from the Project are calculated within CalEEMod using the default water demand and wastewater generation values. The emissions are based on the size of the land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted.[113]

The emissions of GHGs associated with operational area sources under the Project are calculated within CalEEMod using landscaping equipment default values. The emissions for landscaping equipment are based on the size of the open space required based on the land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted.

Emissions calculations also include credits or reductions for GHG reducing measures, some of which are required by regulation, such as compliance with SCAQMD rules and regulations, including water exposed areas and reduce vehicle speed on unpaved roads and reductions in energy and water demand since the Project would comply with the 2022 Title 24 Building Standards. These reductions have been included as mitigation measures in CalEEMod.

3.2.2 Project Consistency with Applicable Plans and Policies

The Project's GHG emission impacts are evaluated by assessing the Project's consistency with applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City. As there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

[111] The electricity CO_2e emission factors used for energy calculations in CalEEMod are from SCE. For the buildout year, 2025, the electricity emissions factor was 306.1788 lbs CO2e/MWh. https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf and https://www.sce.com/sites/default/files/inline-files/SCE_2019PowerContentLabel.pdf

[112] California Air Pollution Control Officers Association (CAPCOA), 2021. California Emissions Estimator Model, User's Guide For CalEEMod Version 2020.4.0, http://www.aqmd.gov/caleemod/user's-guide. Accessed November 1, 2021.

[113] CAPCOA, 2021. California Emissions Estimator Model, User's Guide For CalEEMod Version 2020.4.0,.

A consistency analysis is provided and describes the Project's compliance with relevant regulations and the goals and strategies outlined in the applicable portions of the 2022 Climate Change Scoping Plan, SCAG 2020–2045 RTP/SCS, City of Santa Clarita General Plan and the City of Santa Clarita CAP.

3.3 Analysis of Project Impacts

Threshold 1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold 2 Consistency with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs

3.3.1 Impact 1 and 2

The Project would generate GHG emissions due to construction and operational activities. With implementation of Project components, the Project would be consistent with the plans, policies or regulations adopted for the purpose of reducing the emissions of GHGs. (Less than Significant)

Generation of Direct or Indirect GHG Emissions

Construction

The emissions of GHGs associated with construction of the Project were calculated for each phase of construction activity using CalEEMod and EMFAC2021. CalEEMod runs are located in **Exhibit B**. Results of the mitigated GHG emissions calculations are presented on **Table 4**, *Estimated Project Construction Greenhouse Gas Emissions*. As presented therein, construction of the Project is anticipated to generate approximately 7,266 $MTCO_2e$ during the construction period.

Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include them when assessing all of the long-term GHG emissions associated with a project. As recommended by the SCAQMD, construction-related GHG emissions were amortized over a 30-year project lifetime in order to include these emissions as part of a project's annualized lifetime total emissions. In accordance with this methodology, the estimated Project's construction GHG emissions have been amortized over a 30-year period and are added to the annualized operational GHG emissions. The amortized annual Project construction emissions would be 242 $MTCO_2e$ per year over 30 years. Due to the potential persistence of GHGs in the environment, impacts are based on annual emissions and, in accordance with SCAQMD methodology, construction-period impacts are not assessed independent of operational-period impacts, which are discussed in the next section.[114]

[114] South Coast Air Quality Management District, Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #12, July 29, 2009, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-12/ghg-meeting-12-minutes.pdf. Accessed July 2019.

TABLE 4
ESTIMATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS [a]

Construction Phase	GHG Emissions ($MTCO_2e$)
Demolition	46
Site Preparation	35
Grading/Excavation [b]	1,780
Drainage/Utilities/Sub-Grade	592
Foundations/Concrete Pour	193
Building Construction	2,331
Paving	2,207
Architectural Coating	83
Total	7,266
Amortized	242

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Exhibit B of this technical report.

[b] GHG emissions were calculated to account for the additional haul trucks associated with the additional 23,000 cy of imported soil.

c CO_2e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report: 25 for CH_4 and 298 for N_2O (Intergovernmental Panel on Climate Change, Fourth Assessment Report: The Physical Science Basis, Summary for Policy Makers, (2007)).

SOURCE: ESA 2023.

Operational

The emissions of GHGs associated with the operation of the Project were calculated using CalEEMod and EMFAC2021 as detailed in the Methodology Section. CalEEMod runs are located in Exhibit B. Results of the GHG emissions calculations are presented on **Table 5**, *Estimated Operational Greenhouse Gas Emissions for Buildout Year*. As presented therein, annual operation of the Project is anticipated to generate approximately 5,195 $MTCO_2e$, including the amortized construction emissions. Estimated vehicle trips for the Project were provided in the traffic study.[115]

TABLE 5
ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS FOR BUILDOUT YEAR [a]

Source	$MTCO_2e$/year
Area	10
Energy	1,157
Mobile	3,394
Waste	156
Water	236
Total Operational:	4,953
Amortized Construction[b]:	242
Total Project Emissions:	5,195

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Exhibit B of this technical report.

[b] GHG emissions were calculated to account for the additional haul trucks associated with the additional 23,000 cy of imported soil.

[115] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.

SOURCE: ESA 2023.

Natural gas usage factors are based on residential data from the California Energy Commission, and landscape equipment emissions are based on off-road emission factors from CARB. Emissions from the use of consumer products and the reapplication of architectural coatings are based on data provided in CalEEMod.

Post Buildout Emissions

The CARB 2022 Scoping Plan For Achieving Carbon Neutrality, was approved in December 2022 and expands on prior Scoping Plans and recent legislations, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier.[116] To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions.[117] The 2022 Scoping Plan includes the Scoping Plan Scenario, which "builds on and integrates efforts already underway to reduce the state's GHG, criteria pollutant, and toxic air contaminant emissions by identifying the clean technologies and fuels that should be phased in as the state transitions away from combustion of fossil fuels".[118] The 2022 Scoping Plan approaches decarbonization from two perspectives: (1) managing a phasedown of existing energy sources and technology and (2) ramping up, developing, and deploying alternative clean energy sources and technology over time.[119] Key actions to support success of the 2022 Scoping Plan include, but are not limited to:

- **Transportation Sector:** Decarbonizing the transportation sector through ZEVs; ensuring an adequate supply of zero-carbon alterative fuel; and achieving a per capita VMT of at least 25 percent below 2019 levels by 2030 and 30 percent below 2029 by 2045 by reimaging roadway project to decrease VMT, investing in public transit, streamlining access to public transportation, and ensuring alignment of land use.[120]
- **Clean Electricity Grid:** Support grid reliability and expansion of renewable and zero-carbon resources and infrastructure deployment; facilitating resource development such as long-duration energy storage and hydrogen production; enhancing decarbonization; doubling statewide energy efficiency saving in electricity and fossil gas end uses by 2030; building all electric and electric ready homes; strengthening building standards to support zero-emission

[116] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.
[117] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.
[118] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.
[119] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.
[120] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

new construction and developing building performance standards for existing buildings; zero-emission standards for new space and water heaters; and utilizing low-GWP refrigerants.[121]

- **Sustainable Manufacturing and Buildings:** Prioritizing alternative fuel transitions; reduce materials and process emissions and energy emissions from industrial facilities; develop CCS and hydrogen production infrastructure; establishing markets for low-carbon products and recycled materials; incentivizing the installation of energy efficiency and renewable energy technologies; and evaluating hydrogen to meet GHG reduction goals.[122]
- **CDR and DAC:** Incorporating CCS into other sectors besides transportation; addressing market barriers to CCS and CDR, evaluating using CCS in cement decarbonization; supporting carbon management infrastructure projects; exploring carbon capture applications, building carbon capture infrastructure and hydrogen roadmaps; and streamling permitting barriers.[123]
- **Short-Lived Climate Pollutants:** Installing anaerobic digesters; maximizing biomethane capture; maximizing and expanding existing infrastructure to reduce landfill disposal; expanding markets for products made from organic waste; recovering edible food; identifying and mitigating methane leaks; installing vapor collection systems on high emitting equipment; phasing out venting and flaring of gasses; expanding the use of very low- or no-GWP technologies in all HFC end-use sectors: and reducing fuel combustion from transportation emissions and reclaimed refrigerants.[124]
- **Natural and Working Lands:** increasing climate smart forest, shrubland, and grassland management; increasing climate smart agricultural practices; annually conserving croplands; increasing organic agriculture; increasing healthy soils practices; increasing annual investments in urban tress; restoring wetlands; and cutting land conversion of deserts and sparsely vegetated landscapes.[125]

The GHG Emissions Technical Analysis was prepared to determine the potential GHG impacts associated with the Project. Due to the technological shifts required and the unknown parameters of the regulatory framework in 2045, quantitatively analyzing the Project's impacts relative to the 2045 goal is speculative for purposes of CEQA. Due to the uncertainty regarding specific State and local actions that will be implemented to achieve the 2045 GHG emission reduction targets, calculating Project emissions levels for 2045 would be highly speculative. Nonetheless, Statewide efforts are underway to facilitate the State's achievement of those goals and it is reasonable to expect the Project's emissions level to decline as the regulatory initiatives identified by CARB in the 2022 Scoping Plan are implemented, and other technological innovations occur. Stated differently, the Project's emissions total at buildout represents the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. Project emissions once fully constructed and operational would be anticipated to

[121] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[122] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[123] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[124] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

[125] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

decline in future years, but mobile emissions would still result in the majority of the Project's GHG emissions.

Consistency with Plans, Policies and Regulations

As described above, compliance with a GHG emissions reduction plan renders a less-than-significant impact. The analyses below demonstrate that the Project is consistent with the applicable GHG emission reduction plans and policies included within the 2022 Climate Change Scoping Plan, SCAG 2020–2045 RTP/SCS, City of Santa Clarita General Plan, and City of Santa Clarita CAP.

CARB's Climate Change Scoping Plan

At the State level, B-30-15 is an order from the State's Executive Branch for the purpose of reducing GHG emissions. Executive Order B-30-15's goal to reduce GHG emissions to 40 percent below 1990 levels by 2030 was adopted by the Legislature in SB 32 and also codified into law in AB 32.

In support of AB 32, the State has promulgated specific laws and strategies aimed at GHG reductions that are applicable to the Project. The primary focus of many of the Statewide and regional plans, policies, and regulations is to address worldwide climate change. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the Project's increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. Newer construction materials and practices, energy efficiency requirements, and newer appliances tend to emit lower levels of air pollution emissions, including GHGs, as compared to those built years ago; however, the net effect is difficult to quantify. The GHGs emission of the Project alone would not likely cause a direct physical change in the environment. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[126] It is global GHG emissions in their aggregate that contribute to climate change, not any single source of GHG emissions alone.

There are several GHG reduction plans and programs that will be implemented at state and local levels which will indirectly reduce GHG emissions from the Project. These plans, programs and regulations are beyond control of the Project and will occur with or without the implementation of the Project. These include:

- **California Renewables Portfolio Standard (RPS) program (SB 100):** The Project complies with SB100 inasmuch as the Project is served by SCE, which achieved 43 percent of its customer deliveries from carbon-free resources in 2020.[127] Furthermore, per the updated requirements of SB 100, signed by Governor Brown on September 10, 2018, SCE would be required to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030 and should plan to achieve 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. The Project would incorporate energy efficient

[126] California Air Pollution Control Officers Association, CEQA & Climate change: Evaluating and Addressing Greenhous Gas Emissions from Projects Subject to the California Environmental Quality Act, (2008).

[127] SCE, 2020 Annual Report, https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2020-eix-sce-annual-report.pdf. Accessed December 2021.

measures as part of meeting applicable requirements of the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code or applicable version at the time of building permit issuance.

- **Assembly Bill 1109:** According to the CEC, energy savings from AB 1109 are achieved through codes and standards. Energy savings from AB 1109 are calculated as part of codes and standards savings.[128] The Project would meet or exceed the applicable requirements of the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code.
- **SB 1368, CCR Title 20, Cap and Trade Program**: Reduces GHG emissions from major sources (deemed "covered entities") by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. Under Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The Statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program's duration and on July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through 2030. The Project would be consistent with this regulation as the Project's GHG emissions associated with electricity usage are covered by the Cap-and-Trade Program as the Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.
- **AB 1493 (Pavley Regulations):** Reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020. The Project would be consistent with this regulation and would not conflict with implementation of the vehicle emissions standards. GHG emissions related to vehicular travel by the Project would benefit from this regulation because vehicle trips associated with the Project would be affected by AB 1493. Mobile source emissions generated by the Project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32.
- **Low Carbon Fuel Standard (Executive Order S-01-07):** Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels. This executive order establishes a Statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The Project would be consistent with this regulation and would not conflict with implementation of the transportation fuel standards. GHG emissions related to vehicular travel by the Project would benefit from this regulation and mobile source emissions generated by the Project would be reduced with implementation of LCFS consistent with reduction of GHG emissions under AB 32.
- **Advanced Clean Cars Program**: In 2012, CARB adopted the Advanced Clean Cars (ACC) program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC includes the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025

[128] California Energy Commission, 2013 California Energy Efficiency Potential and Goals Study, Appendix Volume I, February 5, 2014, http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=4021. Accessed October 2018.

model years. The standards would apply to all vehicles used by construction employees, residents, workers, and visitors associated with the Project.

- **Advanced Clean Cars II Program:** CARB approved the Advanced Clean Cars II Program (ACCII) for model years 2026 through 2025.in 2022. ACCII requires that all new passenger cars, trucks and SUVs sold in California be zero emissions by 2035. The regulation amends the ZEV Regulation to require an increasing number of zero-emission vehicles, and relies on advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and plug-in hybrid electric-vehicles, to meet air quality and climate change emissions standards, in support of EO N-79-20. The project would comply with CALGreen requirements meeting the number of electric-vehicle-ready and electric-vehicle-capable parking spaces to support zero-emissions vehicles and plug-in hybrid electric vehicles. As such, the project would support compliance with these regulations.
- **Advanced Clean Truck Regulation:** CARB approved the Advanced Clean Truck Program in 2021. Further, the project would benefit from implementation of the Advanced Clean Truck Regulation which aims to increase zero-emissions truck sales annually. This regulation achieves NOx and GHG emission reductions through advanced clean technology by accelerating the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. By 2035, zero-emissions truck/chassis sales would need to be 55 percent of Classes 2b–3 truck sales, 75 percent of class 4-8 truck sales, and 40 percent of truck tractor sales. Because deliveries to the project and product deliveries would be made by trucks subject to this regulation, the project would benefit from these measures.
- **SB 375:** SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the State's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. As demonstrated in Table 6 below, the Project would be consistent with SCAG RTP/SCS goals and objectives under SB 375.
- **Senate Bill X7-7:** The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment. The Project would utilize energy efficiency appliances and equipment and would meet the applicable energy standards in the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code, or applicable version at the time of building permit issuance.
- **California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341:** The IWMA mandated that State agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020. GHG emissions related to solid waste generation from the Project would benefit from this regulation as it would decrease the overall amount of solid waste disposed of at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. The Project would be served by a solid waste collection and recycling service that would be required to comply with this requirement.

The CARB 2022 Scoping Plan For Achieving Carbon Neutrality, was approved in December 2022, and expands on prior Scoping Plans and recent legislations, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier.[129] To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions. **Table 6, *Consistency Analysis with Applicable 2022 Scoping Plan Actions and Strategies***, contains a list of GHG emission reduction actions and strategies from the 2022 Scoping Plan and describes the proposed project's consistency with them.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
Transportation Technology Sector		
• Achieve 100 percent ZEV sales of light duty vehicles by 2035 and medium heavy-duty vehicles by 2040. • Achieve 20 percent zero-emission target for the aviation sector. • Develop a rapid and robust network of ZEV refueling infrastructure to support needed transition to ZEVs. • Ensure that the transition of ZEV technology is affordable for low income households and communities of color, and meets the needs of communities and small business. • Prioritize incentive funding for heavy-duty ZEV technology deployment in regions of the state with the highest concentrations of harmful criteria and toxic air contaminant emissions. • Promote private investment in the transition to ZEV technology, undergirded by regulatory certainty such as infrastructure credits in the Low Carbon Fuel Standard for hydrogen and electricity and hydrogen station grants from the CEC's Clean Transportation Program pursuant to Executive Order B-48-18. • Evaluate and continue to offer incentives similar to those through FARMER, Carl Moyer, the Clean Fuel Reward Program, the Community Air Protection Program, the Low Carbon Transportation, including CORE. Where feasible, prioritize and increase funding for clean transportation equity programs.	State agencies and local agencies	**No Conflict.** Vehicles must transition to zero emission technology to decarbonize the transportation sector. Executive Order N-79-20 reflects the urgency of transitioning to zero emission vehicles (ZEVs) by establishing target dates for reaching 100 percent ZEV sales or fleet transitions to ZEV technology. EO N-79-20 calls for 100 percent ZEV sales of new light-duty vehicles by 2035. The Advanced Clean Cars II regulation fulfills this goal and serves as the primary mechanism to help deploy ZEVs. A number of existing incentive programs also support this transition, including the Clean Cars 4 All Program. EO N-79-20 also sets targets for transitioning the medium- and heavy-duty fleet to zero emissions: by 2035 for drayage trucks and by 2045 for buses and heavy-duty long-haul trucks where feasible. Replacing heavy-duty vehicles with ZEV technology will significantly reduce GHG emissions and diesel PM emissions in low-income communities and communities of color adjacent to ports, distribution centers, and highways. The existing Advanced Clean Trucks regulation, paired with the proposed Advanced Clean Fleets regulation, are designed to transition a significant amount of the Off-road vehicles rely heavily on ICE technology and EO N-79-20 sets an off-road equipment target of transitioning the entire fleet to ZEV technology by 2035, where feasible. There are a number of funding sources available to support this transition, including FARMER, Carl Moyer, and Community Air Protection Incentives; as well as Low Carbon Transportation Incentives, including the Clean Off-Road Equipment (CORE) program.

[129] California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Continue and accelerate funding support for zero emission vehicles and refueling infrastructure through 2030 to ensure the rapid transformation of the transportation sector.		Refueling infrastructure is a crucial component of transforming transportation technology. Electric vehicle chargers and hydrogen refueling stations must become easily accessible for all drivers to support a wholesale transition to ZEV technology. Deployment of ZEV refueling infrastructure is currently supported by a number of existing local and state public funding mechanisms. Intrastate aviation relies on ICE technology today, but battery-electric and hydrogen fuel cell aviation applications are in development, along with sustainable aviation fuel. GHG emissions generated by project-related passenger and truck vehicular travel would benefit from the above regulations and programs, and mobile source emissions generated by the proposed project would be reduced as automobiles and truck fleets are transitioned to ZEV technology. Additionally, the project would include EV charging stations in accordance with regulations which would support the transition to EV technology. Thus, the Project would not conflict with actions under the transportation technology sector.

Transportation Fuels Sector
• Accelerate the reduction and replacement of fossil fuel production and consumption in California.
• Incentivize private investment in new zero-carbon fuel production in California.
• Incentivize the transition of existing fuel production and distribution assets to support deployment of low- and zero-carbon fuels while protecting public health and the environment.
• Invest in the infrastructure to support reliable refueling for transportation such as electricity and hydrogen refueling.
• Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program.
• Initiate a public process focused on options to increase the stringency and scope of the LCFS:
  ○ Evaluate and propose accelerated carbon intensity targets pre-2030 for LCFS.
  ○ Evaluate and propose further declines in LCFS post-2030 carbon intensity targets to align with this 2022 Scoping Plan.
  ○ Consider integrating opt-in sectors into the program.
	State agencies and local agencies	**No Conflict.** The state needs to support low-carbon liquid fuels for much harder sectors for ZEV technology such as aviation, locomotives, and marine applications. Biomethane currently displaces fossil fuels in transportation and will largely be needed for hard-to-decarbonize sectors but will likely continue to play a targeted role in some fleets while the transportation sector transitions to ZEVs.
		
		Private investment in alternative fuels will play a key role in diversifying the transportation fuel supply away from fossil fuels. EO N-79-20 calls on state agencies to support the transition of existing fuel production facilities away from fossil fuels and directs that this transition also protects and supports workers, public health, safety, and the environment. In line with this direction, existing refineries could be repurposed to produce sustainable aviation fuel, renewable diesel, and hydrogen.
		
		GHG emissions generated by project-related passenger and delivery trucks would benefit from the above regulations and programs, and mobile source emissions generated by the Project would be reduced with implementation of the wider use of zero-carbon fuels consistent with reduction of GHG emissions under AB 1279. Additionally, the project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, or

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
○ Provide capacity credits for hydrogen and electricity for heavy-duty fueling. • Monitor for and ensure that raw materials used to produce low-carbon fuels or technologies do not result in unintended consequences.		applicable version at the time of building permit issuance and will install ENERGY STAR compliant appliances which will reduce the amount of fossil fuel use and GHG emissions. During construction the Project will encourage emission reduction strategies, including alternative fueled vehicles, during operations the Project will secure on-site bicycle parking, construct a Class II bike lane, provide improvements to the pedestrian network, and provide effective internet access to encourage telecommuting and alternative work schedules. Thus, the Project would not conflict with actions in the transportation fuels sector.
Vehicles Miles Traveled Sector • Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. • Reimagine new roadway projects that decrease VMT in a way that meets community needs and reduces the need to drive. • Invest in making public transit a viable alternative to driving by increasing affordability, reliability, coverage, service frequency, and consumer experience. • Implement equitable roadway pricing strategies based on local context and need, reallocating revenues to improve transit, bicycling, and other sustainable transportation choices • Expand and complete planned networks of high-quality active transportation infrastructure. • Channel the deployment of autonomous vehicles, ride-hailing services, and other new mobility options toward high passenger-occupancy and low VMT-impact service models that complement transit and ensure equitable access for priority populations. • Streamline access to public transportation through programs such as the California Integrated Travel Project. • Ensure alignment of land use, housing, transportation, and conservation planning in adopted regional plans, such as regional transportation plans (RTP)/ sustainable communities strategies (SCS), regional housing needs assessments (RHNA), and local plans (e.g., general plans, zoning, and local transportation plans), and develop	State agencies and local agencies	**Consistent.** Managing total demand for transportation energy by reducing the miles people need to drive on a daily basis is also critical as the state aims for a sustainable transportation sector in a carbon neutral economy. VMT reductions will play an indispensable role in reducing overall transportation energy demand and achieving the state's climate, air quality, and equity goals. CARB did not set regulatory limits on VMT in the 2022 Scoping Plan because the authority to reduce VMT largely lies with state, regional, and local transportation, land use, and housing agencies, along with the Legislature and its budgeting choices. The Wiley Canyon Mixed-Use development would introduce senior housing, multi-family housing, commercial, and publicly accessible outdoor recreational space. The project also includes secure on-site bicycle parking, construction of a Class I bike trail and restriping of Calgrove Boulevard to provide Class II bike lanes to access the other parts of the City through the existing bicycle infrastructure, improvements to the pedestrian network, and effective internet access to encourage telecommuting and alternative work schedules all of which will help reduce VMTs. The project also complies with the general plan and the City's need for additional housing. Furthermore, the project is located within a half mile of public transit; City of Santa Clarita Transit Routes 4, 4, 6, and 14. These routes will allow residents to access the Newhall Metrolink station and McBean Regional Transit Center. Overall, the project results in a VMT reduction of 30.1 percent for both the residential portion and the employment portion of the project.[130] Thus, the Project supports a reduction in VMT in accordance with the goals of the 2022 Scoping Plan. As such, the Project supports

[130] Santec, 2022. Wiley Canyon Mixed-Use Project VMT Analysis Memo, July 11.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
tools to support implementation of these plans. • Accelerate infill development and housing production at all affordability levels in transportation-efficient places, with a focus on housing for lower income residents.		actions under the vehicle miles traveled sector.
Clean Electricity Grid Sector • Use long-term planning processes (Integrated Energy Policy Report, IRP, CAISO Transmission Planning Process, AB 32 Climate Change Scoping Plan) to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment. • Complete systemwide and local reliability assessments across CAISO and other balancing authority areas, using realistic assumptions for land use, build rates, statewide and distribution system level constraints, and energy needs. Such assessments should be completed before state agencies update their electricity sector GHG targets. • Prioritize actions to mitigate impacts to electricity reliability and affordability and provide sufficient flexibility in the state's decarbonization roadmap for adjustments as may be needed. • Facilitate long lead-time resource development through the IRP and the SB 100 interagency process and through technology development and demonstration funding376 that includes resources such as long-duration energy storage and hydrogen production. • Continue coordination between energy agencies and energy proceedings to maximize opportunities for demand response. • Continue to explore the benefits of regional markets to enhance decarbonization, reliability, and affordability. • Address resource build-out challenges, including permitting, interconnection, and transmission network upgrades. • Explore new financing mechanisms and rate designs to address affordability. • Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions. • Per SB 100 and SB 1020, achieve 90 percent, 95 percent, and 100 percent	State agencies and local agencies	**No Conflict.** Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The RPS Program and the Cap-and-Trade Program continue to incentivize dispatch of renewables over fossil generation to serve state demand. SB 100 increased RPS stringency to require 60 percent renewables by 2030 and for California to provide 100 percent of its retail sales of electricity from renewable and zero-carbon resources by 2045. Furthermore, SB 1020 has added interim targets to SB 100's policy framework to require renewable and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all electricity retail sales by 2040; establish a planning goal of at least 20 GW of offshore wind by 2045; and that state agencies plan for an energy transition that avoids the need for new fossil gas capacity to meet California's long-term energy goals. California also continues to advance its appliance and building energy efficiency standards to reduce growth in electricity consumption and meet the SB 350 goal to double statewide energy efficiency savings in electricity and fossil gas end uses by 2030. Increased transportation and building electrification and continued policy commitment to behind-the-meter solar and storage will continue to drive growth of microgrids and other distributed energy resources (DER). Continued transition to renewable and zero-carbon electricity resources will enable electricity to become a zero-carbon substitute for fossil fuels. To reach the 2045 target, the state will need to quadruple its current level of wind and solar capacity. This transformation will drive investments in a large fleet of generation and storage resources but will also require significant transmission to accommodate these new capacity additions. Resources such as storage and demand-side management are essential to maintain reliability with high concentrations of renewables. Hydrogen produced from renewable resources and renewable

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Target programs and incentives to support and improve access to renewable and zero-carbon energy projects (e.g., rooftop solar, community owned or controlled solar or wind, battery storage, and microgrids) for communities most at need, including frontline, low-income, rural, and indigenous communities. • Prioritize public investments in zero-carbon energy projects to first benefit the most overly burdened communities affected by pollution, climate impacts, and poverty.		feedstocks can serve a dual role as a low-carbon fuel for existing combustion turbines or fuel cells, and as energy storage for later use. The proposed project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, or applicable version at the time of building permit issuance and will install ENERGY STAR compliant appliances. During construction the Project will encourage emission reduction strategies, including alternative fueled vehicles, during operations the Project will secure on-site bicycle parking, construct a Class II bike lane, provide improvements to the pedestrian network, and provide effective internet access to encourage telecommuting and alternative work schedules. As such, the project supports actions under the clean electricity grid sector.
Sustainable Manufacturing and Buildings Industry Sector • Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need, including frontline, low-income, disadvantaged, rural, and tribal communities. • Prioritize alternative fuel transitions first in communities most in need, including frontline, low-income, disadvantaged, rural, and tribal communities. • Invest in research and development and pilot projects to identify options to reduce materials and process emissions along with energy emissions in California's industrial manufacturing facilities, leveraging programs like the CEC's Electric Program Investment Charge (EPIC). • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Support electrification with changes to industrial rate structures. • Develop infrastructure for CCS and hydrogen production to reduce GHG emissions where cost-effective and technologically feasible non-combustion alternatives are not available. • Implement SB 905. • Establish markets for low-carbon products and recycled materials using Buy Clean California Act and other mechanisms relying on robust data	State agencies and local agencies	**No Conflict.** Fossil gas is the primary gaseous fossil fuel used to produce heat at industrial facilities, as well as in residential and commercial buildings. Gaseous fossil fuel use can be displaced by four primary alternatives: zero-carbon electricity, solar thermal heat, hydrogen, and biogas/biomethane. The 2022 Scoping Plan reduces dependence on fossil gas in the industrial and building sectors by transitioning substantial energy demand to alternative fuels. Combustion of fossil gas, other gaseous fossil fuels, and solid fossil fuels provide energy to meet three broad industry needs: electricity, steam, and process heat. Non-combustion emissions result from fugitive emissions and from the chemical transformations inherent to some manufacturing processes. About 20 percent of the GHG emissions from the industrial sector are non-combustion emissions. Decarbonizing industrial facilities depends upon displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions. Emissions also can be reduced by implementing energy efficiency measures and using substitute raw materials that can reduce energy demand and some process emissions. Some remaining combustion emissions and some non-combustion CO2 emissions can be captured and sequestered. This sector has a continuing demand for fossil gas due to lack of non-combustion technologically feasible or cost-effective alternatives for certain industrial sectors. Microgrids powered by renewable resources and with battery storage are

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Develop a net-zero cement strategy to meet SB 596 targets for the GHG intensity of cement use in California. • Continue to leverage energy-efficiency programs, including the U.S. DOE's ENERGY STAR program, U.S. DOE's Superior Energy Performance program, and ISO 50001. • Evaluate and continue to offer incentives to install energy efficiency and renewable energy technologies through programs such as CPUC decisions as part of rulemaking R.19-09-009393 and the CEC's Food Production Investment Program (FPIP) and EPIC programs. • Leverage low-carbon hydrogen programs, including the Bipartisan Infrastructure Law, for regional hydrogen hubs, hydrogen electrolysis, and hydrogen manufacturing and recycling. • Evaluate the role of hydrogen in meeting GHG emission reductions, including policy recommendations regarding the use of hydrogen in California as required by SB 1075. • Address cost barriers to promote low-carbon fuels for hard-to-electrify industrial applications.		emerging as a key enabler of electrification and decarbonization at industrial facilities. The Project will utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, or applicable version at the time of building permit issuance and will install ENERGY STAR compliant appliances. During construction the Project will encourage emission reduction strategies, including alternative fueled vehicles, during operations the Project will secure on-site bicycle parking, construct a Class II bike lane, provide improvements to the pedestrian network, and provide effective internet access to encourage telecommuting and alternative work schedules. The Project will include components that will reduce VMT by 30.1 percent through a combination of GHG reduction strategies to encourage walking, biking, carpooling, alternative fueled vehicle use, and transit use which will decrease fossil fuel consumption. As such, the proposed project would not conflict with sustainable manufacturing buildings industry sector.
Sustainable Manufacturing and Buildings Building Sector • Prioritize California's most vulnerable residents with the majority of funds in the new $922 million Equitable Building Decarbonization program, created through the 2022–2023 state budget. This would include residents in frontline, low-income, disadvantaged, rural, and tribal communities. This program is dedicated to a statewide direct-install building retrofit program for low-income households to replace fossil fuel appliances with electric appliances, energy-efficient lighting, and building insulation and sealing while also coordinating reductions in gas infrastructure in specific geographic areas. • Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed statewide by 2030. • Expand incentive programs to support the holistic retrofit of existing buildings, especially for vulnerable communities. • Ensure that incentive programs prioritize energy affordability and tenant protections, promote affordable and low-income household retrofits that improve habitability	State agencies and local agencies	**Consistent.** Achieving carbon neutrality includes transitioning away from fossil gas in residential and commercial buildings and relying primarily on advancing energy efficiency while replacing gas appliances with non-combustion alternatives. This transition includes trimming back the existing gas infrastructure, so pockets of gas-fueled residential and commercial buildings do not require ongoing maintenance of the entire limb for gas delivery. Blending low-carbon fuels such as hydrogen and biomethane into the pipeline further displaces fossil gas. Pipeline safety and reliability must be evaluated to accommodate low-carbon fuels. This transition is achieved when all new buildings constructed include non-combustion appliances, and appliances in existing buildings are replaced at the end of their useful life with non-combustion alternatives. The project would have to comply with the 2022 CalGreen Code which requires, where applicable, electric heat pumps, electric-ready homes, solar PV system and battery storage requirements, and building ventilation requirements which would all reduce the reliance on fossil fuels and prepare for all

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
and reduce expenses, protect and empower small landlords and homeowners, address overlooked consumer groups, and pair decarbonization with other critically needed renovation efforts to ensure that buildings support human health and are climate- and weather-resistant. • End fossil gas infrastructure expansion for newly constructed buildings. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Strengthen California's building standards to support zero-emission new construction. • Develop building performance standards for existing buildings. • Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030, as specified in the 2022 State Strategy for the State Implementation Plan. • Expand use of low-GWP refrigerants within buildings. • Support electrification with changes to utility rate structures and by promoting load management programs. • Increase funding for incentive programs and expand financing assistance programs focused on existing buildings and appliance replacements. • Expand consumer education efforts to raise awareness and stimulate the adoption of decarbonized buildings and appliances, especially in vulnerable communities. • Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440 (Hueso, Chapter 739, Statutes of 2018) to reduce GHG emissions in remaining pipeline gas and reduce methane emissions from organic waste.		electric buildings. The Project would be consistent with policies or actions to decarbonize the building sector under the sustainable manufacturing buildings building sector.
Carbon Dioxide Removal and Capture Sector • Implement SB 905 • Convene a multi-agency Carbon Capture and Sequestration Group comprised of federal, state, and local agencies to engage with environmental justice advocates, tribes, academics, researchers, and community representatives to identify the current status, concerns, and outstanding questions concerning CCS, and develop a process to engage with communities to understand specific concerns and consider guardrails to ensure safe and effective deployment of CCS. • Iteratively update the CARB CCS Protocol with the best available science and implementation experience.	State agencies and local agencies	**No Conflict.** The deployment of CDR to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO2 or GHG emissions are to be achieved. Modeling shows that emissions from the AB 32 GHG Inventory sources will continue to persist even if all fossil related combustion emissions are phased out. These residual emissions must be compensated for to achieve carbon neutrality either with CDR, which includes both sequestration in natural and working lands and mechanical approaches like direct air capture, CCS, which is carbon capture from anthropogenic point sources involves capturing carbon from a smokestack of an emitting facility, or direct air capture, which captures carbon directly from the atmosphere.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Incorporate CCS into other sectors and programs beyond transportation where cost-effective and technologically feasible options are not currently available and to achieve the 85 percent reduction in anthropogenic sources below 1990 levels as called for in AB 1279. • Evaluate and propose, as appropriate, financing mechanisms and incentives to address market barriers for CCS and CDR. • Evaluate and propose, as appropriate, the role for CCS in cement decarbonization (SB 596) and as part of hydrogen production pathways (SB 1075). • Support carbon management infrastructure projects through core CEC research, development, and demonstration (RD&D) programs. • Continue to explore carbon capture applications for producing or leveraging zero-carbon power for reliability needs as part of SB 100. • Consider carbon capture infrastructure when developing hydrogen roadmaps and strategy, especially for non-electrolysis hydrogen production. • Evaluate and streamline permitting barriers to project implementation while protecting public health and the environment. • Explore options for how local air quality benefits can be achieved when CCS is deployed. • Explore opportunities for CCS and CDR developers to leverage existing infrastructure, including subsurface infrastructure. • Explore permitting options to allow for scaling the number of sources at carbon sequestration hubs.		The Project would not conflict with measures to increase carbon dioxide removal and capture. As such, the Project would not conflict with action under the carbon dioxide removal and capture sector.
Short-Lived Climate Pollutants (Non-Combustion Gases) Dairy and Livestock Methane Sector		
• Install state of the art anaerobic digesters that maximize air and water quality protection, maximize biomethane capture, and direct biomethane to sectors that are hard to decarbonize or as a feedstock for energy. • Increase alternative manure management projects, including but not limited to conversion to “solid,” “dry,” or “scrape” manure management; installation of a compost-bedded pack barn; an increase in the time animals spend on pasture; and implementation of solid-liquid separation technology into flush manure management systems.	State agencies and local agencies	**No Conflict.** SLCPs include black carbon, methane, and fluorinated gases. HFCs are the fastest growing source of GHG emissions, primarily driven by their use to replace ozone-depleting substances and an increased demand for cooling and refrigeration. Dairy and livestock are the largest source of methane emissions followed by landfills. Black Carbon, soot, comes primarily from transportation, specifically heavy-duty vehicles followed by fuel combustion for residential, commercial, and industrial applications. The Project would not conflict with SLCP dairy and livestock methane sector actions in the 2022 Scoping Plan. The Project is a mixed-

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Implement enteric fermentation strategies that are cost-effective, scientifically proven, safe for animal and human health, and acceptable to consumers, and that do not impact animal productivity. Provide financial incentives for these strategies as needed. • Accelerate demand for dairy and livestock product substitutes such as plant-based or cell-cultured dairy and livestock products to achieve reductions in animal populations. • In consideration of pace of deployment of methane mitigation strategies and the scale of complimentary incentives, consider regulation development to ensure that the 2030 target is achieved, assuming the conditions outlined in SB 1383 are met.		use development and does not include dairy or livestock. Thus, the Project would not conflict with actions under the SLCP dairy and livestock methane sector.
Short-Lived Climate Pollutants (Non-Combustion Gases) Landfill Methane Sector		
• Maximize existing infrastructure and expand it to reduce landfill disposal, with strategies including composting, anaerobic digestion, co-digestion at wastewater treatment plants, and other non-combustion conversion technologies. • Expand markets for products made from organic waste, including through recognition of the co-benefits of compost, biochar, and other products. • Recover edible food to combat food insecurity. • Invest in the infrastructure needed to support growth in organic recycling capacity. • Utilize existing digesters at wastewater treatment facilities to rapidly expand food waste digestion capacity. • Direct biomethane captured from landfills and organic waste digesters to sectors that are hard to decarbonize. • Implement improved technologies and best management practices at composting and digestion operations. • Reduce emissions from landfills through improvements in operational practices, lower permeability covers, advanced collection systems, and technologies to utilize landfill gas. • Leverage advances in remote sensing capabilities to quickly pinpoint large methane sources and mitigate leaks, improve understanding of the factors that lead to better capture efficiency, and explore new technologies and practices that can reliably improve methane control at landfills.	State agencies and local agencies	**No Conflict.** SB 1383 has a 75 percent organic waste disposal reduction target below the 2013 baseline by 2030. The state did not achieve the 50 percent reduction in organic waste disposal below 2014 levels by 2020. The CPUC approved a decision in February 2022 implementing the biomethane procurement program, which will require investor-owned utilities by 2025 to procure 17.6 billion cubic feet (BCF) of biomethane produced from organic wastes to support the landfill disposal reduction and SLCP target and reduce fossil gas reliance for residential and commercial customers. Organic waste will also be reduced by measure to remove edible food from the stream. Emissions can also be reduced by improvements in operational practices at landfills including lower permeability covers, advanced landfill gas collection systems, and increased monitoring to detect and repair leaks The Project is a mixed-use development and will comply with all recycling regulations. As such, the Project would not conflict with SLCP landfill methane sector actions in the 2022 Scoping Plan.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
Short-Lived Climate Pollutants (Non-Combustion Gases) Upstream Oil and Gas Methane Sector • Mitigate emissions from leaks by regular leak detection and repair (LDAR) surveys at all facilities. • Replace high emitting equipment with zero emission alternatives wherever feasible. • Have CARB and CalGEM lead a Task Force to identify and address methane leaks from oil infrastructure near communities. • Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data. • Minimize emissions from equipment that must vent fossil gas by design (e.g., fossil gas powered compressors). • Install vapor collection systems on high emitting equipment. • Phase out venting and routine flaring of associated gas (gas produced as a by-product during oil production). • Continuous ambient monitoring at fossil gas underground storage facilities to quickly detect large methane sources. • Reduce pipeline and compressor blowdown emissions. • Leverage advances in remote sensing capabilities to quickly pinpoint large methane sources and mitigate leaks.	State agencies and local agencies	**No Conflict.** California is currently on track to achieve a 41 percent reduction in methane emission from oil and gas production by 2025 relative to 2013. To meet the 2030 target, regulatory requirements to further reduce intentional venting of fossil gas from equipment are needed. The Project is a mixed-use development and does not include any oil or gas production, processing, or storage facilities. The Project would not conflict with SLCP upstream oil and gas methane sector actions in the 2022 Scoping Plan.
Short-Lived Climate Pollutants (Non-Combustion Gases) Hydrofluorocarbons Sector • Expand the use of very low- or no-GWP technologies in all HFC end-use sectors, including emerging sectors, like heat pumps for applications other than space conditioning, to maximize the benefits of building decarbonization. • Convert large HFC emitters such as existing refrigeration systems to the lowest practical GWP technologies. • Prioritize small-scale and independent grocers serving priority populations in addressing existing “banks” of high-GWP refrigerants • Improve recovery, reclamation, and reuse of refrigerants by limiting sales of new or virgin high-GWP refrigerants and requiring the use of reclaimed refrigerants where appropriate.	State agencies and local agencies	**No Conflict.** New targeted measures are needed to reduce HFCs, primarily from high-GWP refrigerants, to meet 2045 requirements. HFC emissions from new and existing sources need to be addressed in tandem with building decarbonization efforts to maximize reductions. The adoption of low-GWP refrigerants must occur in parallel with building decarbonization efforts. The sales prohibitions on newly produced refrigerants set forth in SB 1206 and the national/international HFC phasedown will help in reducing HFC emissions from existing equipment by restricting the supply of and increasing the value of existing high-GWP HFCs. The Project is a mixed-use development that would comply with the 2022 CalGreen Code for energy efficiency and use of high-GWP refrigerants and would not conflict with these policies or actions. Thus, the Project would not

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Assist low-income and disadvantaged communities in obtaining low-GWP space conditioning units to protect vulnerable communities from heat stress and wildfire smoke. • Accelerate technology transitions in California and the U.S. overall by collaborating with international partners committed to taking action on HFCs under the Kigali Amendment to the Montreal Protocol; this includes addressing barriers to adoption of very low- or no-GWP refrigerant technologies such as high upfront costs, shortage of trained technicians, and lag in updating safety standards and building codes.		conflict with SLCP hydrofluorocarbons sector actions in the 2022 Scoping Plan.
Short-Lived Climate Pollutants (Non-Combustion Gases) Anthropogenic Black Carbon Sector		
• Reduce fuel combustion commensurate with state's climate and air quality programs, particularly from reductions in transportation emissions and agricultural equipment emissions. • Invest in residential woodsmoke reduction.	State agencies and local agencies	**No Conflict.** Under current strategies, anthropogenic black carbon from transportation is expected to be reduced by over 60 percent in 2030. Continued reductions in combustion emissions across all sectors from both the state's climate and air quality programs will also reduce anthropogenic black carbon emissions. The Project is a mixed-use development that would not include fireplaces and would reduce VMTs which also results in a reduction of fuel combustion. As such, the Project would not conflict with SLCP anthropogenic black carbon sector actions in the 2022 Scoping Plan.
Natural and Working Lands: Strategies for all NWL • Implement AB 1757 and SB 27. • Implement the Climate Smart Strategy. • Accelerate the pace and scale of climate smart action, consistent with the management levels identified above, as part of a collective effort between federal, state, private, nonprofit, and individual land managers. • Prioritize and practice equity, including through meaningful community engagement and prioritizing implementation of nature-based solutions that benefit the communities most vulnerable to climate change. • Advance multi-benefit, collaborative, landscape-level approaches that engage communities and landowners, and incorporate adaptive managements. • Consult and partner with California Native American tribes to increase co-management and tribal management	State agencies and local agencies	**No Conflict.** AB 1757 calls for the development of an ambitious range of targets for the NWL sector to be integrated into the Scoping Plan and other state policies. SB 27 directed CARB to establish CO2 removal targets for 2030 and beyond. In response to EO N-82-20 and AB 1757, the proposed target for NWL for 2045 is a -4 percent change in total carbon stock from 2014. The Project is a mixed-use development which would not be constructed on any NWL. Thus, the Project would not conflict with NWL strategies for all NWL actions under the 2022 Scoping Plan.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
authority; restore, protect, and enhance natural cultural resources, traditional foods, and cultural landscapes; respect tribal sovereignty; and support tribes' implementation of tribal expertise and Traditional Ecological Knowledge and cultural easements. • Leverage existing innovative financial and market mechanisms, and explore new ones, between the public, private, and philanthropic sectors to secure funding of climate smart land management. • In partnership with communities, tribes, and the private sector, expand and develop new infrastructure for manufacturing and processing of climate smart agricultural and biomass products. • Leverage and support technical assistance providers: such as the UC Cooperative Extension and California's 98 Resource Conservation Districts, that have track records of providing technical assistance to local landowners and implementing agriculture, forestry, natural resource management, and restoration projects across the state. • Establish and expand mechanisms that ensure NWL are protected from land conversion and parcelization (e.g., conservation easements or Williamson Act), in line with the strategies outlined in CNRA's Pathways to 30x30 California. Pair land conservation projects with management plans that increase carbon sequestration, where feasible. • Increase opportunities for private and philanthropic investments in nature-based climate solutions, utilizing existing voluntary and compliance carbon markets, existing state and local programs, and the California Carbon Sequestration and Climate Resiliency Project Registry established pursuant to SB 27. • Expand monitoring and tracking of management actions and outcomes consistent with the tracking and monitoring recommendations of the Climate Smart Strategy		
Natural and Working Lands: Forest Shrublands and Chaparral • Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025, in line with the climate smart management strategies identified in this Scoping Plan, the NWL Climate Smart Strategy, and the Wildfire and Forest Resilience Action Plan. • Establish and expand mechanisms that ensure forests, shrublands, and grasslands	State agencies and local agencies	**No Conflict.** California is covered by 27 percent forests and 31 percent shrublands and chaparral. Climate smart management can help make forests more resilient to climate change and less prone to catastrophic wildfire. Climate-smart management in shrublands and chaparral face can provide protection for threatened communities and natural resources.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
are protected from land conversion and that support ongoing, rather than one-time, management actions. • In collaboration with state and local agencies, accelerate the deployment of long-term carbon storage from waste woody biomass residues resulting from climate smart management, including storage in durable wood products, underground reservoirs, soil amendments, and other mediums. • Expand infrastructure to facilitate processing of biomass resulting from climate smart management. • Expand permit streamlining in collaboration with state and local agencies to accelerate implementation of climate smart forest management while protecting natural resources.		The Project is a mixed-use development which would not be constructed on any NWL where forests, shrublands, and chaparral occur. Thus, the Project would not conflict with NWL strategies for forest, shrublands, and chaparral actions under the 2022 Scoping Plan.
Natural and Working Lands: Grasslands		
• Establish and expand mechanisms that ensure grasslands are protected from land conversion/parcelization and that support ongoing, rather than one-time, management actions that improve carbon sequestration. • Deploy grassland management strategies, like prescribed grazing, compost application, and other regenerative practices, to support soil carbon sequestration, biodiversity, and other ecological improvements. • Increase adoption of compost production on farms and application of compost in appropriate grassland settings for improved vegetation and carbon storage, and to deliver waste diversion goals through nature-based solutions.	State agencies and local agencies	**No Conflict.** California is covered by 9 percent grasslands. The protection of grasslands provides an opportunity to reduce sprawl and complement VMT reduction strategies. Climate smart strategies can increase grassland resilience to climate change by improving species diversity and maintaining or increasing soil carbon stocks. The Project is a mixed-use development project which would not be constructed on any NWL where grasslands occur. As such, the Project would not conflict with NWL strategies for grasslands actions under the 2022 Scoping Plan.
Natural and Working Lands: Croplands		
• Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045. • Utilize the recommendations included in CDFA's Farmer and Rancher-Led Climate Change Solutions report to accelerate deployment of healthy soils practices, organic farming, and climate smart agriculture practices. • Establish or expand financial mechanisms that support ongoing deployment of healthy soils practices and organic agriculture. • Support strategies that achieve co-benefits of safer, more sustainable pest	State agencies and local agencies	**No Conflict.** California is covered by 9 percent croplands. In addition to food, croplands provide considerable carbon storage in the soil and, in perennial croplands, in aboveground biomass. Climate smart practices can maintain or increase the climate resilience of cropland productivity through improved soil conditions and increased pollinator habitat. The Project is a mixed-use development project which would not be constructed on any NWL where croplands currently occur. Therefore, the Project would not conflict with NWL strategies for croplands actions under the 2022 Scoping Plan.

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
management practices and the health and preservation of ecosystems, such as implementing the California Department of Pesticide Regulation's (DPR's) Sustainable Pest Management Work Group recommendations. • Conduct research on the intersection of pesticides, soil health, GHGs, and pest resiliency via a multi-agency effort with DPR, CDFA, and CARB. • Conduct outreach and education to develop and facilitate the increased adoption of safer, more sustainable pest management practices and tools; reduce the use of harmful pesticides; promote healthy soils; improve water and air quality; and reduce public health impacts. • In collaboration with state and local agencies, accelerate the deployment of alternatives to agricultural burning that increase long-term carbon storage from waste agricultural biomass, including storage in durable wood products, underground reservoirs, soil amendments, and other mediums. • Work across state agencies to reduce regulatory and permitting barriers around some healthy soils practices (e.g., composting), where appropriate. • Utilize innovative agriculture energy use and carbon monitoring and planning tools to reduce on-farm GHG emissions from energy and fertilizer application or to increase carbon storage, as well as to promote on-farm energy production opportunities.		
Natural and Working Lands: Wetlands • Restore 60,000 acres of Delta wetlands annually by 2045 to reduce methane emissions from wetlands and reverse the resulting subsidence. • Identify and prioritize wetland restoration efforts around climate vulnerable communities. • Leverage other funding and institutions to support wetland restoration projects, including land trusts, local funding, federal funding, and private and philanthropic funding to support wetlands restoration projects. • Work across state agencies to reduce regulatory and permitting barriers around wetland restoration projects, where appropriate.	State agencies and local agencies	**No Conflict.** California is covered by 2 percent wetlands. Wetlands are hotspots for diversity, contain considerable carbon in the soil, are critical to the states' water supply, and protect upland areas from flooding due to sea level rise and storms. Climate smart strategies to restore and protect wetlands can reduce emissions while simultaneously improving the climate resilience of surrounding areas and improving the water quality and yield for the state. The Project is a mixed-use which would not be constructed on any NWL where wetlands occur. Thus, the Project would not conflict with NWL strategies for wetlands actions under the 2022 Scoping Plan.
Natural and Working Lands: Developed Lands		**No Conflict.** California is covered by 6 percent developed lands. Developed lands

TABLE 6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
• Increase urban forestry investment annually by 200 percent, relative to business as usual. • Increase public awareness of urban forest benefits and, where appropriate, prioritizing irrigation of trees over lawns. • Provide technical assistance and resources to disadvantaged communities to implement community urban greening projects to provide equitable access to the benefits of urban greening projects. • Work with state and local agencies to expand technical assistance for and enforcement of the defensible space requirements of PRC 4291 to reduce wildfire risk to homes and structures.	State agencies and local agencies	include urban, suburban, and rural areas, as well as transportation and supporting infrastructure. The vegetation within cities and communities are all part of developed lands. This vegetation provides numerous benefits to surrounding areas, including carbon storage, air and water filtration, reduced urban heat island effect, and access to nature, Climate smart strategies to protect and expand the urban forests, landscaping, green spaces, parks, and associated vegetation can increase their climate resilience and the benefits Californians derive from them. Urban forests have a significant potential to sequester carbon. The Project will be constructed on developed land and concentrated on approximately 18 acres of a 32-acre Project Site in order to preserve natural drainage, recreation and open space. Approximately 15 acres of natural and improved open space will be provided within the Project Site. As such, the Project would not conflict with NWL strategies for developed lands actions under the 2022 Scoping Plan.
Natural and Working Lands: Vegetated Lands		
• Establish and expand mechanisms that ensure sparsely vegetated lands are protected from land conversion, prioritizing those areas most vulnerable to climate change and loss.	State agencies and local agencies	**No Conflict.** California is covered by 10 percent sparsely vegetated lands. Vegetated lands include deserts, beaches, dunes, bare rock, and areas covered in ice and snow. Vegetated lands provide limited carbon storage, but nonetheless, are important for open space, unique habitats, and recreational opportunities. The Project is a mixed-use project which would not be constructed on vegetated lands. Thus, the Project would not conflict with NWL strategies for vegetated lands actions under the 2022 Scoping Plan.

SOURCE: ESA 2023.

As described above in Table 7, the Project would not conflict with applicable 2022 Scoping Plan actions that serve to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045.

These potential strategies include the decarbonization of every sector of the economy which will require rapidly moving to zero-emission transportation for cars, buses, trains, and trucks; phasing out the use of fossil gas for heating; clamping down on chemicals and refrigerants; providing communities with sustainable options such as walking, biking, and public transit to reduce reliance on cars; continuing to build out solar arrays, wind turbine capacity, and other resources to provide clean, renewable energy to displace fossil-fuel fired electrical generation; scaling up

new options such as renewable hydrogen for hard-to-electrify end uses and biomethane where needed. The Project would benefit from Statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. As previously discussed, the utility provider for the Project, SCE, currently provides 42 percent of electricity via carbon-free resources, and will be required to comply with SB 100 to meet future targets. The Project would comply with water and energy standards as detailed in the 2022 Title 24 Building Energy Efficiency Standards and the CALGreen Code. The Project would also benefit from Statewide efforts towards increasing the fuel economy standards of vehicles. Additionally, reductions in VMT from project components will result in a 30.1 percent decrease in VMT for both the residential and employment portions of the Project which is below the regional VMT threshold.[131] While CARB is in the process of expanding the regulatory framework to meet the 2045 reduction target based on the existing laws and strategies in the 2022 Scoping Plan, the Project would not conflict with implementation of these potential GHG reduction strategies with regard to energy identified by CARB for all the reasons summarized in Table 6, above.

With Statewide efforts underway to facilitate the State's achievement of those goals, it is reasonable to expect the Project's GHG emissions to decline from their opening year levels as reported in Table 6 as the regulatory initiatives identified by CARB in the 2022 Scoping Plan are implemented, and other technological innovations occur. Stated differently, the Project's emissions at buildout likely represents the maximum emissions for the Project as anticipated regulatory developments and technology advances are expected to reduce emissions associated with the Project, such as emissions related to electricity use and vehicle use. Based on the analysis above, the Project would not conflict with the 2022 Scoping Plan, including implementation of project components. Therefore, Project impacts would be less than significant.

SCAG's 2016 RTP/SCS and 2020–2045 RTP/SCS (Connect SoCal)

Transportation-related GHG emissions are the largest source of emissions from the Project. This finding is consistent with the findings in regional plans, including the 2016 RTP/SCS, which recognizes that the transportation sector is the largest contributor to the State's GHG emissions. SCAG's 2016 RTP/SCS was most recently updated with the 2020–2045 RTP/SCS, or Connect SoCal, which is the applicable plan adopted for the purpose of reducing GHGs.

The purpose of the SCAG 2016 RTP/SCS is to achieve the regional per capita GHG reduction targets for the passenger vehicle and light-duty truck sector established by CARB pursuant to SB 375.[132] The 2016 RTP/SCS seeks "improved mobility and accessibility… to reach desired destinations with relative ease and within a reasonable time, using reasonably available transportation choices."[133] The 2016 RTP/SCS seeks to implement "strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices."[134] As part of the 2016 RTP/SCS,

[131] Santec, 2022. Wiley Canyon Mixed-Use Project VMT Analysis Memo, July 11.

[132] Southern California Association of Governments, Program Environmental Impact Report – 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, 2015, page 3.8-37.

[133] Southern California Association of Governments, The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, page 160.

[134] Southern California Association of Governments, The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, page 14.

"transportation network improvements would be included, and more compact, infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand."[135] Moreover, the 2016 RTP/SCS states that while "[p]opulation and job growth would induce land use change (development projects) and increase VMT, and would result in direct and indirect GHG emissions," the 2016 RTP/SCS would "supports sustainable growth through a more compact, infill, and walkable development pattern."[136]

Similarly, Connect SoCal seeks improved mobility and accessibility and seeks to implement strategies that "alleviates development pressure in sensitive resource areas by promoting compact, focused infill development in established communities with access to high-quality transportation."[137,138] The 2020–2045 RTP/SCS includes "more compact, infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand."[139] Moreover, the 2020-2045 RTP/SCS states the focus would be "growth in existing urban regions and opportunity areas, where transit and infrastructure are already in place. Locating new growth near bikeways, greenways, and transit would increase active transportation options and the use of other transit modes, thereby reducing number of vehicle trips and trip lengths and associated emissions."[140]

As part of the project components, the Project would construct sidewalks and site improvements such as landscaping enhancements along I-5, Wiley Canyon Road, and Hawkbryn Avenue fronting the Project Site. Sidewalks will connect to the surrounding pedestrian system and include street and pedestrian lighting for safety. Pedestrian access to the Project Site will be provided along Wiley Canyon Road and Hawkbryn Avenue. Bicycle facilities include an existing Class II bike lane on Calgrove Boulevard east of Wiley Canyon Road and on Wiley Canyon Road north of Lyons Avenue. There is also a paseo with access on Wiley Canyon Road opposite Tournament Road and on the north side of Lyons Avenue between Avenida Entrana and Avenida Rotella. The Project would provide a Class I bike trail from the Project Site south to Calgrove Boulevard, and Calgrove Boulevard will be restriped to provide Class II bike lanes to connect cyclists at the Project Site to other parts of the city with existing bike infrastructure. Bicycle parking and alternative fueled vehicle spaces will be provided at the Project Site consistent with the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code. The Project Site additionally has access to four existing local Santa Clarita Transit routes (Line 4, Line 5, Line 6, and Line 14). Additionally, the Project would either make or contribute its fair share to improvements at four intersections to reduce transportation impacts to below thresholds. The resulting reductions in

135 Southern California Association of Governments, Program Environmental Impact Report – 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, 2015, page 3.8-35.

136 Southern California Association of Governments, Program Environmental Impact Report – 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, 2015, page 3.8-36.

137 SCAG, *2020–2045 RTP/SCS*, September 2020, p. 129.

138 SCAG, *2020–2045 RTP/SCS*, September 2020, p. 51.

139 SCAG, *Program Environmental Impact Report – 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, May 2020, p. 3.8-62.

140 SCAG, *Program Environmental Impact Report – 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, May 2020, p. 3.8-14, 65.

VMT from project components would be a 17.4 percent decrease in VMT for both the residential and employment portions of the Project which is below the regional VMT threshold. [141]

Table 7, *Project Consistency with Applicable Policies of the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, provides a detailed analysis of applicable RTP-SCS policies. As shown in the table, the Project would not conflict with applicable 2020–2045 RTP/SCS goals and strategies intended to improve mobility and access to diverse destinations and reduce vehicular demand and associated emissions. As such, the Project would not conflict with the applicable GHG reduction-related goals and strategies contained in the 2020–2045 RTP/SCS.

TABLE 7
PROJECT CONSISTENCY WITH APPLICABLE GOALS OF SCAG'S 2020–2045 RTP/SCS

Goal	Would the Project conflict?
Improve mobility, accessibility, reliability, and travel safety for people and goods.	**No Conflict.** The Project includes the development of 596 residential units; including a 217-unit Senior Living Facility, a 379 multi-family residential units, up to 10,886 square feet of commercial, and approximately 15 acres of natural and improved open space within the approximately. 32-acre Project Site. As described in the *Wiley Canyon Mixed-Use Traffic Analysis*[142], the Project will implement components to reduce residential and employment VMT impacts. Project components include constructing sidewalks and trails within the development and site improvements such as landscaping enhancements along roads fronting the Project Site. Sidewalks will connect to the surrounding pedestrian system and include street and pedestrian lighting for safety. Pedestrian access to the Project Site will be provided along Wiley Canyon Road and Hawkbryn Avenue. Bicycle facilities include an existing Class II bike lane on Calgrove Boulevard east of Wiley Canyon Road and on Wiley Canyon Road north of Lyons Avenue. There is also a paseo with access on Wiley Canyon Road opposite Tournament Road and on the north side of Lyons Avenue between Avenida Entrana and Avenida Rotella. The Project will provide a Class I bike trail from the Project site south to Calgrove Boulevard, and Calgrove Boulevard will be restriped to provide Class II bike lanes to connect cyclists at the Project site to other parts of the city with existing bike infrastructure. Bicycle parking and alternative fueled vehicle spaces will be provided at the Project site consistent with the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code. The Project site additionally has access to four existing local Santa Clarita Transit routes (Line 4, Line 5, Line 6, and Line 14). Additionally, the Project will either make or contribute its fair share to improvements at four intersections to reduce transportation impacts to below thresholds. The Project's residents and guests will be located near the I-5 and have easy access to the City of Santa Clarita, the City of Santa Clarita's transit options (bus, rail), and the greater Los Angeles area. Project components will reduce VMT by 17.4 percent for both the residential and employment portions of the Project through a combination of GHG reduction strategies to encourage walking, biking, carpooling, alternative fueled vehicle use, and transit use.[143] The provision of pedestrian and bicycle amenities and proximity to the I-5 will serve to improve mobility, accessibility, reliability, and travel safety for people and goods in support of this goal.
Enhance the preservation, security, and resilience of the regional transportation system.	**No Conflict.** See discussion above regarding the Project's location near the I-5 and the provision of pedestrian and bicycle amenities near the Project's residential uses. The proximity of the Project Site to various transportation modes would support the region's transportation investment and the sustainability of the regional transportation system in support of this goal.

[141] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.
[142] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.
[143] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.

TABLE 7
PROJECT CONSISTENCY WITH APPLICABLE GOALS OF SCAG'S 2020–2045 RTP/SCS

Goal	Would the Project conflict?
Increase person and goods movement and travel choices within the transportation system.	**No Conflict.** See discussion above regarding the Project's location near the I-5 and the provision of pedestrian and bicycle amenities near the Project's residential uses. These Project characteristics would not conflict with the goal to increase in person and goods movement and travel choices within the transportation system.
Reduce greenhouse gas emissions and improve air quality.	**No Conflict.** The Project will meet or exceed the applicable requirements of the Title 24 Building Energy Efficiency Standards and CALGreen Code or applicable version at the time of building permit issuance. The Project will provide accessible and electric vehicle parking per City and CALGreen Code requirements. As described above, the Project will include components that will reduce VMT by 17.4 percent through a combination of GHG reduction strategies to encourage walking, biking, carpooling, alternative fueled vehicle use, and transit use.[144] Based on the above, the Project's design and characteristics will serve to reduce GHG emissions and improve air quality, in support of this goal.
Support healthy and equitable communities.	**No Conflict.** As noted above, the Project includes components to reduce greenhouse gas emissions impacts, including compliance with the Title 24 Building Energy Efficiency Standards and CALGreen Code. The provision of pedestrian and bicycle amenities, provision of on-site rental housing assisted living/memory care and independent senior citizens and for-sale multi-family residential housing, and proximity to existing open space with trail connections will support this goal to support healthy and equitable communities.
Adapt to changing climate and support an integrated regional development pattern and transportation network.	**No Conflict.** See discussion above regarding the Project's location near the I-5 and the provision of pedestrian and bicycle amenities near the Project's residential uses. The Project's development will support an integrated regional development pattern and transportation network which will in turn serve to reduce GHG emissions in support of this goal.
Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**Not Applicable/No Conflict**. This goal pertains to SCAG leveraging new transportation technologies and data-driven solutions that result in more efficient travel. The Project will not adversely affect SCAG's ability to develop more efficient travel consistent with this goal.
Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**No Conflict**. See discussion above regarding the Project's location near the I-5 and the provision of pedestrian and bicycle amenities near the Project's residential uses. Additionally, the Project will be served by four bus lines. The Project includes the development of senior living, including independent, assisted, and memory care, as well as multi-family residential. As such, the Project will support this goal to encourage development of diverse housing types in areas that are supported by multiple transportation options.
Promote conservation of natural and agricultural lands and restoration of habitats.	**No Conflict.** Of the 32-acre Project site, 15 acres will be natural and improved open space. The Project site is zoned Mixed-Use Neighborhood (MX-N) in the City General Plan. The Project site has no corresponding zone in the County and is currently zoned Mixed-Use Overlay (MU) in the City of Santa Clarita. The Project site was used as a mule farm and is currently vacant. It is not considered as agricultural lands. The Project is retaining approximately 15 acres for use as natural drainage and improved open space for recreation. As such, the development of the Project will not conflict with this goal to promote conservation of natural agricultural lands and restoration of habitats.

SOURCE: ESA, 2022.

[144] Stantec, 2022. Wiley Canyon Mixed-Use Traffic Analysis, July 11.

City of Santa Clarita General Plan

The City of Santa Clarita General Plan[145] serves as a foundation for making land use decisions based on goals and policies related to land use, transportation, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, public safety, infrastructure, and other related physical, social, and economic factors over the next 20 years. As previously discussed, the City has identified goals and policies in the City of Santa Clarita General Plan Conservation and Open Space element that address GHG emissions reductions. **Table 8**, *Consistency with Applicable City of Santa Clarita General Plan*, contains a list of GHG-reducing strategies that are applicable to the Project. The analysis describes the consistency of the Project with the General Plan.

TABLE 8
CONSISTENCY WITH CITY OF SANTA CLARITA GENERAL PLAN

Actions and Strategies	Responsible Party	Compliance/Consistency Analysis
Los Angeles County General Plan		
Goal CO 8: Development designed to improve energy efficiency, reduce energy and natural resource consumption, and reduce emissions of greenhouse gases. **Objective CO 8.1**: Comply with the requirements of State law, including AB 32, SB 375 and implementing regulations, to reach targeted reductions of greenhouse gas (GHG) emissions. Policy CO 8.1.1: Create and adopt a Climate Action Plan within 18 months of the One Valley One Vision adoption date of the City's General Plan Update that meets State requirements and includes the following components. a. Plans and programs to reduce GHG emissions to State-mandated targets, including enforceable reduction measures, i. The CAP may establish goals beyond 2020, which are consistent with the applicable laws and regulations referenced in this paragraph and based on current science. ii. The CAP shall include specific and general tools and strategies to reduce the City's current and projected 2020 inventory and to meet the CAPs target for GHG reductions by 2020. iii. The CAP shall consider, among other GHG reduction strategies, the feasibility of development fees; incentive and rebate programs; and voluntary and mandatory reduction strategies in areas of energy efficiency, renewable energy, water conservation and efficiency, solid waste, land use and transportation. b. Mechanisms to ensure regular review of progress towards the emission reduction targets established by the Climate Action Plan,	City of Santa Clarita	**No Conflict/Not Applicable.** The Project will comply with the State and City's requirements to reduce GHG emissions through AB 32 and SB 375. The Project will adhere to the statewide and City's regulations related to the Climate Change Scoping Plan listed in **Table 5**. The Project will meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11. As such, the Project will not conflict with this goal. Policy CO 8.1.1 is a City requirement and does not pertain to the Project. The Project will not conflict with the goals of the Climate Action Plan, see discussion below. As shown in **Table 6**, the Project will not conflict with the RTP/SCS regional GHG emissions reduction targets required by SB 375. Policy CO 8.1.3 is a City action; however, the Project supports energy conservation as the Project will meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11. Thus, the Project will not conflict with this policy. Policies CO 8.1.4 and CO 8.1.5 are City requirements and do not pertain to the Project. The Project will not conflict with these policies.

[145] City of Santa Clarita, 2011. General Plan. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/SantaClaritaGP.html. Accessed October 27, 2021.

TABLE 8
CONSISTENCY WITH CITY OF SANTA CLARITA GENERAL PLAN

Actions and Strategies	Responsible Party	Compliance/Consistency Analysis
Los Angeles County General Plan		
c. Procedures for reporting on progress to officials and the public, d. Procedures for revising the plan as needed to meet GHG emissions reduction targets; and, e. Allocation of funding and staffing for Plan implementation. After adoption of the Climate Action Plan, amend this General Plan if necessary to ensure consistency with the adopted Climate Action Plan. Policy CO 8.1.2: Participate in the preparation of a regional Sustainable Communities Strategy (SCS) Plan to meet regional targets for greenhouse gas emission reductions, as required by SB 375. Policy CO 8.1.3 Revise codes and ordinances as needed to address energy conservation, including but not limited to the following: a. Strengthen building codes for new construction and renovation to achieve a higher level of energy efficiency, with a goal of exceeding energy efficiency beyond that required by Title 24, b. Adopt a Green Building Program to encourage green building practices and materials, along with appropriate ordinances and incentives, c. Require orientation of buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, promote effective use of daylight, and optimize opportunities for on-site solar generation, d. Encourage mitigation of the "heat island" effect through use of cool roofs, light-colored paving, and shading to reduce energy consumption for air conditioning. Policy CO 8.1.4: Provide information and education to the public about energy conservation and local strategies to address climate change. Policy CO 8.1.5: Coordinate various activities within the community and appropriate agencies related to GHG emissions reduction activities.		
Objective CO 8.2: Reduce energy and materials consumption and greenhouse gas emissions in public uses and facilities. Policy CO 8.2.1: Ensure that all new City buildings, and all major renovations and additions, meet adopted green building standards, with a goal of achieving the LEED (Leadership in Energy and Environmental Design) Silver rating or above, or equivalent where appropriate. Policy CO 8.2.2: Ensure energy efficiency of existing public buildings through energy audits and repairs and retrofit buildings with energy efficient heating and air conditioning systems and lighting fixtures, with a goal of completing energy repairs in City facilities by 2012. Policy CO 8.2.3: Support purchase of renewable energy for public buildings, which may include installing solar photovoltaic systems to generate electricity for city buildings and operations and other methods as deemed	City of Santa Clarita	**Not Applicable/No Conflict.** Although these policies pertain primarily to City owned buildings or public buildings and do not pertain to the Project, the Project will not conflict with these policies. The Project will meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11 to reduce energy usage and GHG emissions. The Project will adhere to City requirements regarding maximum lighting levels and may utilize downward-directed lighting and low-reflective paving surfaces where appropriate and feasible. The Project will reduce heat island effects by planting trees and using hardscapes in and around parking lots and possibly through the use of light-colored reflective paving and roofing systems. The Project will implement recycling. As such, the Project will not conflict with these policies.

appropriate and feasible, in concert with significant energy conservation efforts. Policy CO 8.2.4: Establish maximum lighting levels for public facilities and encourage reduction of lighting levels to the level needed for security purposes after business hours, in addition to use of downward-directed lighting and use of low-reflective paving surfaces. Policy CO 8.2.5: Support installation of photovoltaic and other renewable energy equipment on public facilities, in concert with significant energy conservation efforts. Policy CO 8.2.6: Promote use of solar lighting in parks and along paseos and trails, where practical. Policy CO 8.2.7: Support the use of sustainable alternative fuel vehicles for machinery and fleets, where practical, by evaluating fuel sources, manufacturing processes, maintenance costs and vehicle lifetime use. Policy CO 8.2.8: Promote the purchase of energy-efficient and recycled products, and vendors and contractors who use energy-efficient vehicles and products, consistent with adopted purchasing policies. Policy CO 8.2.9: Reduce heat islands through installation of trees to shade parking lots and hardscapes, and use of light-colored reflective paving and roofing surfaces. Policy CO 8.2.10: Support installation of energy-efficient traffic control devices, street lights, and parking lot lights. Policy CO 8.2.11: Implement recycling in all public buildings, parks, and public facilities, including for special events. Policy CO 8.2.12: Provide ongoing training to appropriate City employees on sustainable planning, building, and engineering practices. Policy CO 8.2.13: Support trip reduction strategies for employees as described in the Circulation Element. Policy CO 5.2.14: Reduce extensive heat gain from paved surfaces through development standards wherever feasible.		
Objective CO 8.3: Encourage the following green building and sustainable development practices on private development projects, to the extent reasonable and feasible. Policy CO 8.3.1: Evaluate site plans proposed for new development based on energy efficiency pursuant to LEED (Leadership in Energy and Environmental Design) standards for New Construction and Neighborhood Development, including the following: a) location efficiency; b) environmental preservation; c) compact, complete, and connected neighborhoods; and d) resource efficiency, including use of recycled materials and water. Policy CO 8.3.2: Promote construction of energy efficient buildings through requirements for LEED certification or through comparable alternative requirements as adopted by local ordinance. Policy CO 8.3.3: Promote energy efficiency and water conservation upgrades to existing non-residential buildings at the time of major remodel or additions. Policy CO 8.3.4: Encourage new residential development to include on-site solar photovoltaic systems, or pre-wiring, in at least 50% of the residential units, in concert with other significant energy conservation efforts.	City of Santa Clarita	**No Conflict.** The Project will meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11 to reduce energy usage and GHG emissions. The Project will retain approximately15 acres as natural drainage an open space out of 32 acres. The Project is a mixed-use development incorporating residential, commercial, and open space elements to connect it to the community. The Project would provide water efficiency features for indoor water usage that include use of ENERGY STAR appliances and water fixtures that would reduce water usage and have a corresponding reduction in wastewater generation. The Project would adhere to City requirements regarding passive solar heating and cooling techniques. Trees will be utilized throughout the Project site to reduce heating and cooling energy loads and to provide shade for buildings and parking lots. The Project will adhere to City requirements regarding maximum lighting levels and may utilize downward-directed lighting and low-reflective paving surfaces where appropriate and feasible. The Project will reduce heat island effects by planting trees and using hardscapes in and around parking lots and possibly through the use of light-colored reflective paving and roofing systems.

Policy CO 8.3.5: Encourage on-site solar generation of electricity in new retail and office commercial buildings and associated parking lots, carports, and garages, in concert with other significant energy conservation efforts. Policy CO 8.3.6: Require new development to use passive solar heating and cooling techniques in building design and construction, which may include but are not limited to building orientation, clerestory windows, skylights, placement and type of windows, overhangs to shade doors and windows, and use of light colored roofs, shade trees, and paving materials. Policy CO 8.3.7: Encourage the use of trees and landscaping to reduce heating and cooling energy loads, through shading of buildings and parking lots. Policy CO 8.3.8: Encourage energy-conserving heating and cooling systems and appliances, and energy-efficiency in windows and insulation, in all new construction. Policy CO 8.3.9: Limit excessive lighting levels and encourage a reduction of lighting when businesses are closed to a level required for security. Policy CO 8.3.10: Provide incentives and technical assistance for installation of energy-efficient improvements in existing and new buildings. Policy CO 8.3.11: Consider allowing carbon off-sets for large development projects, if appropriate, which may include funding off-site projects or purchase of credits for other forms of mitigation, provided that any such mitigation shall be measurable and enforceable. Policy CO 8.3.12: Reduce extensive heat gain from paved surfaces through development standards wherever feasible.		As such, the Project will not conflict with these policies.
Objective CO 8.4: Reduce energy consumption for processing raw materials by promoting recycling and materials recovery by all residents and businesses throughout the community. Policy CO 8.4.1: Encourage and promote the location of enclosed materials recovery facilities (MRF) within the Santa Clarita Valley. Policy CO 8.4.2: Adopt mandatory residential recycling programs for all residential units, including single-family and multi-family dwellings. Policy CO 8.4.3: Allow and encourage composting of greenwaste, where appropriate. Policy CO 8.4.4: Promote commercial and industrial recycling, including recycling of construction and demolition debris. Policy CO 8.4.5: Develop and implement standards for refuse and recycling receptacles and enclosures to accommodate recycling in all development. Policy CO 8.4.6: Introduce and assist with the placement of receptacles for recyclable products in public places, including at special events. Policy CO 8.4.7: Provide information to the public on recycling opportunities and facilities and support various locations and events to promote public participation in recycling. Policy CO 8.4.8: Take an active role in promoting, incubating, and encouraging businesses that would qualify under the Recycling Market Development Zone program or equivalent, including those that manufacture products made from recycled products, salvage, and resource recovery business parks.	City of Santa Clarita	**Not Applicable/No Conflict.** Although these policies pertain primarily to the City, the Project will not conflict with these policies. The Project will provide mandatory recycling containers to its residents in proper enclosures and will provide proper recycling containers in public spaces. Additionally, the Project will recycle at least 65 percent of its construction and demolition debris in accordance with city requirements. As such, the Project will not conflict with these policies.

SOURCE: ESA, 2022.

City of Santa Clarita Climate Action Plan

As discussed previously, the City's adopted CAP provides a local threshold of significance for GHG emissions that would constitute a significant impact under CEQA. Because the CAP is only certified through 2020 and the Project would be anticipated to become operational in 2024, the CAP is not applicable for a consistency analysis. However, the goals, objectives, and policies approved under the General Plan are forecast to meet the GHG emissions reduction targets mandated by AB 32 and SB 32, for which the CAP GHG significance threshold is based upon. Therefore, development projects that can demonstrate consistency with the General Plan will by association demonstrate consistency with the CAP and AB 32. Table 9, above, illustrates that the Project would not conflict with applicable policies in the City's General Plan and by association the CAP.

City of Santa Clarita Green Building Standards Code

The Project would comply with the City of Santa Clarita Green Building Codes as discussed below. The Project will meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11 to reduce energy usage and GHG emissions. The Project would provide water efficiency features for indoor water usage that include use of ENERGY STAR appliances and water fixtures that would reduce water usage and have a corresponding reduction in wastewater generation. The Project would adhere to City requirements regarding passive solar heating and cooling techniques. Trees will be utilized throughout the Project site to reduce heating and cooling energy loads and to provide shade for buildings and parking lots. The Project will adhere to City requirements regarding maximum lighting levels and may utilize downward-directed lighting and low-reflective paving surfaces where appropriate and feasible. The Project will reduce heat island effects by planting trees and using hardscapes in and around parking lots and possibly through the use of light-colored reflective paving and roofing systems. Additionally, the Project would provide accessible and electric vehicle parking as well as secure on-site bicycle parking, construction of a Class II bike lane, and improvements to the pedestrian network, The Project would also comply with eh Construction and Demolition Ordinance by recycling at a minimum 65% of all inert materials and 65% of all other materials. As such, the Project would comply with the City's Green Building Codes and impacts would be less than significant.

Conclusion

In summary, the consistency analysis presented above demonstrates that the Project is consistent with or would not conflict with the plans, policies, regulations, and GHG reduction action/strategies outlined in the 2208, 2014, and 2017 Scoping Plans, 2020–2045 RTP/SCS, the Santa Clarita General Plan, and Santa Clarita Green Building Standards Code. Since the Project is consistent and does not conflict with these plans, policies, and regulations, the Project's incremental increase in GHG emissions will not result in a significant impact on the environment. Therefore, Project impacts related to consistency with plans, policies and regulations are less than significant.

3.4 Cumulative Impacts

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. The State has mandated a goal of reducing Statewide emissions to 1990 levels by 2020 and reducing Statewide emissions to 40 percent below 1990 levels by 2030, even though Statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. Currently, there are no applicable CARB, SCAQMD, or City of Santa Clarita significance thresholds or specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative levels. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions. Therefore, consistent with CEQA Guidelines Section 15064h(3),[146] the City, as lead agency, has determined that the Project's contribution to cumulative GHG emissions and global climate change would be less than significant if the Project is consistent with the applicable regulatory plans and policies to reduce GHG emissions: the 2022 Climate Change Scoping Plan, SCAG 2020–2045 RTP/SCS, and Santa Clarita General Plan.

As outlined above in Section 3.3 Analysis of Project Impacts, the Project would be consistent with the applicable regulatory plans and policies to reduce GHG emissions with regard to mobile sources. The Project would be consistent with energy efficiency, water use, and waste goals from compliance with the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code. Additionally, project control measures would reduce residential and employment VMT miles by 17.4 percent. Thus, it is concluded that the Project would not contribute to a cumulatively considerable significant impact.

[146] As indicated above, the State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact insignificant. Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."

Exhibit A

Assumptions and Calculations

Wiley Canyon

Construction Assumptions

Project Site Acreage 31.8

Project Summary

Land Use	CalEEMod Landuse Type	Unit Amount	Size Metrics	Lot Acreage	Square Feet	% SQ FT	AERMOD Allocation	
Commercial	General Office Building	8.91	1000sqft	0.20	8,914	0.5%	Senior	
Parking	Enclosed Parking Structure	602	Space	5.42	240,800	14.0%	Apartment	
Parking	Enclosed Parking Structure	48	Space	0.43	19,200	1.1%	Senior	
Parking	Parking Lot	143	Space	1.29	57,200	3.3%	Apartment	
Parking	Parking Lot	176	Space	1.58	70,400	4.1%	Senior	
Recreational	City Park	15	Acre	15	653,400	38.1%	Total	
Recreational	Recreational Swimming Pool	2.07	1000sqft	0.1	2,069	0.1%	Apartment	
Residential	Retirement Community	217	Dwelling Unit	6.36	277,108	16.2%	Senior	Updated based on email from Anitra & Daryl 12/8/2022
Residential	Apartments Mid Rise	379	Dwelling Unit	8.79	382,972	22.3%	Apartment	Updated based on email from Anitra & Daryl 12/8/2022
Recreational	Health Club	2.40	1000sqft	0.1	2,400	0.1%	Apartment	
				39.28	1,714,463	1		

Notes

1 Information from file *1640_SITE_DEV_PLAN_FULL_120122A.pdf*
2 Total parking is 969 spots; 650 garage spaces and 319 parking lot spaces, split between senior living facility and apartments based on site plan.
3 Land use acreage is an estimate of the total site acreage of 5 acres
4 Building construction emissions will be apportioned to AERMOD sources based on ratio of square footage

Project Description

Location	CEC Forecasting Climate Zone	Start of Construction	Operational Year	Utility Company
Santa Clarita	9	2-Jan-23	12/21/2024	Southern California Edison

Construction Schedule

Phase Name	CalEEMod Phase Type	Start Date	End Date	Total Days	# of Workers per day	Total One-way Worker Trips per day	Trip Length	Vendor Trips per day*	Total One-Way Vendor Trips per day	Trip Length	Total Haul Trucks	Total One-way Haul Trips	Trucks per day	Trip Length
		1/2/2023	12/31/2025	1,094										
Demolition		1/2/2023	1/19/2023	14	10	20	14.7	0	0	6.9	8	16	2	20
Site Preparation		1/13/2023	2/1/2023	14	5	10	14.7	0	0	6.9	3	6	1.0	20
Grading/Excavation		2/4/2023	11/1/2023	193	15	30	14.7	0	0	6.9	4770	9540	14	20
Drainage/Utilities/Sub-Grade		6/16/2023	1/2/2024	143	10	20	14.7	0	0	6.9	572	1144	4	20
Foundations/Concrete Pour		1/2/2024	4/29/2024	85	25	50	14.7	0	0	6.9	170	340	2	20
Building Construction		4/30/2024	11/1/2025	394	50	100	14.7	235	470	6.9	3940	7880	10	20
Architectural Coatings		7/26/2025	12/31/2025	113	15	30	14.7	0	0	6.9	0	0	0	20
Paving		8/23/2025	10/15/2025	38	15	30	14.7	0	0	6.9	570	1140	15	20

* Taken From CalEEMod

Demolition, Site Preparation, and Grading/E xcavation Haul Trucks are taken from the "Preferred Data Needs". All other phase Haul Trucks were taken from the Equipment Table
12 months for grading and utility installation (i.e., horizontal infrastructure).
18 months for the construction of the senior facility and initial construction of the apartments, the latter starting in the north (across from the senior facility) until first occupancy – vertical construction.
An additional six months to complete the apartment construction.

	Revised	Original	
Import Material	85,000	62,000	CY
Total Trucks	6,539.0	4770	
Trucks per day		24.71503	
One-way trips	13078		
		4769.231	

For AERMOD

Phase Name	CalEEMod Phase Type	Start Date	End Date	Total Days
Demolition		1/2/2023	1/19/2023	14
Site Preparation		1/13/2023	2/1/2023	14
Grading/Excavation		2/4/2023	11/1/2023	193
Drainage/Utilities/Sub-Grade		6/16/2023	1/2/2024	143
Foundations/Concrete Pour		1/2/2024	4/29/2024	85
Building Construction_Total		4/30/2024	11/1/2025	394
Building Construction_Senior		4/30/2024	10/29/2025	392
Building Construction_Apartment		5/1/2025	11/1/2025	132
Architectural Coatings		7/26/2025	12/31/2025	113
Paving		8/23/2025	10/15/2025	38

Wiley Canyon

SEP Updated 1/29/24

Construction Annual GHG

	Metric Tons/Year			
Phase	**On-Road Mobile Sources**	**Construction Equipment**	**Water + Construction Office**	**Total**
Demolition	4	42	0.4	46
Site Preparation	2	33	0.4	35
Grading/Excavation	566	1,207	5.8	1,780
Drainage/Utilities/Sub-Grade	60	528	4.3	592
Foundations/Concrete Pour	1	189	2.6	193
Building Construction	1,451	868	11.9	2,331
Paving	1,724	480	3.4	2,207
Architectural Coating	15	66	1.1	83
Total	**3,823**	**3,413**	**30**	**7,266**
Amortized - 30 years	**127**	**114**	**1**	**242**

Wiley Canyon
Total On-Road Emissions

260 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	(MT/yr) Total CO2e
Demolition	2023															
Total Haul Trips	16															
Hauling	4	14	8	20	15	0.00	0.00	0.00	0.00	0.03	0.00	0.04	0.01	0.00	0.01	2.30
Vendor	0	14	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	14	8	15	0	0.01	0.06	0.80	0.00	0.06	0.00	0.06	0.01	0.00	0.01	1.34
					Total:	0.02	0.72	1.30	0.01	0.09	0.01	0.09	0.02	0.01	0.02	3.64
Site Preparation	2023															
Total Haul Trips	6															
Hauling	2	14	8	20	15	0.00	0.33	0.25	0.00	0.02	0.00	0.02	0.00	0.00	0.01	1.15
Vendor	0	14	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	14	8	15	0	0.01	0.03	0.40	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.67
					Total:	0.01	0.36	0.65	0.00	0.04	0.00	0.05	0.01	0.00	0.01	1.82
Grading	2023															
Total Haul Trips	13078															
Hauling	68	193	8	20	15	0.05	11.10	8.54	0.05	0.56	0.07	0.64	0.15	0.07	0.22	538.73
Vendor	0	193	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	193	8	15	0	0.02	0.09	1.20	0.00	0.08	0.00	0.09	0.02	0.00	0.02	27.76
					Total:	0.07	11.20	9.74	0.06	0.65	0.08	0.72	0.16	0.07	0.23	566.49
Drainage/Utilities/Sub-Grade	2023															
Total Haul Trips	1128															
Hauling	8	141	8	20	15	0.01	1.31	1.01	0.01	0.07	0.01	0.07	0.02	0.01	0.03	46.30
Vendor	0	141	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	141	8	15	0	0.01	0.06	0.80	0.00	0.06	0.00	0.06	0.01	0.00	0.01	13.52
					Total:	0.02	1.37	1.80	0.01	0.12	0.01	0.13	0.03	0.01	0.04	59.82
Drainage/Utilities/Sub-Grade	2024															
Total Haul Trips	16															
Hauling	8	2	8	20	15	0.01	1.27	0.99	0.01	0.07	0.01	0.07	0.02	0.01	0.03	0.65
Vendor	0	2	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	2	8	15	0	0.03	0.14	1.84	0.01	0.14	0.00	0.14	0.03	0.00	0.03	0.47
					Total:	0.04	1.41	2.83	0.01	0.21	0.01	0.22	0.04	0.01	0.05	1.11
Foundations/Concrete Pour	2024															
Total Haul Trips	340															
Hauling	4	85	8	20	15	0.00	0.63	0.50	0.00	0.03	0.00	0.04	0.01	0.00	0.01	13.72
Vendor	0	85	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	85	8	15	0	0.03	0.14	1.84	0.01	0.14	0.00	0.14	0.03	0.00	0.03	19.88
					Total:	0.04	0.77	2.33	0.01	0.17	0.01	0.18	0.03	0.01	0.04	33.60
Building Construction	2024															
Total Haul Trips	3520															
Hauling	20	176	8	20	15	0.01	3.17	2.49	0.02	0.16	0.02	0.19	0.04	0.02	0.06	142.06
Vendor	470	176	8	6.9	15	0.29	31.72	30.15	0.13	1.11	0.13	1.24	0.27	0.13	0.40	1192.58
Worker	100	176	8	15	0	0.07	0.28	3.67	0.01	0.28	0.01	0.29	0.05	0.01	0.06	82.32
					Total:	0.37	35.16	36.31	0.16	1.55	0.16	1.71	0.37	0.15	0.52	1416.96
Building Construction	2025															
Total Haul Trips	4360															
Hauling	20	218	8	20	15	0.01	3.08	2.46	0.02	0.16	0.02	0.19	0.04	0.02	0.06	172.74
Vendor	470	218	8	6.9	15	0.28	30.83	29.71	0.13	1.11	0.13	1.23	0.27	0.12	0.40	1451.30
Worker	100	218	8	15	0	0.06	0.25	3.41	0.01	0.28	0.01	0.29	0.05	0.01	0.06	99.59
					Total:	0.35	34.16	35.59	0.15	1.55	0.15	1.70	0.37	0.15	0.51	1723.63
Architectural Coating	2025															
Total Haul Trips	0															
Hauling	0	113	8	20	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	113	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	113	8	15	0	0.02	0.08	1.02	0.00	0.08	0.00	0.09	0.02	0.00	0.02	15.49
					Total:	0.02	0.08	1.02	0.00	0.08	0.00	0.09	0.02	0.00	0.02	15.49
Paving	2025															
Total Haul Trips	1140															
Hauling	30	38	8	20	15	0.02	4.62	3.69	0.02	0.25	0.03	0.28	0.06	0.03	0.09	45.17
Vendor	0	38	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	38	8	15	0	0.02	0.08	1.02	0.00	0.08	0.00	0.09	0.02	0.00	0.02	5.21
					Total:	0.04	4.70	4.72	0.03	0.33	0.03	0.36	0.08	0.03	0.11	50.37

Wiley Canyon
Total On-Road Emissions

Wiley Canyon
Total On-Road Emissions

260 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (Tons/year) ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	(MT/yr) Total CO2e
Demolition	2023															
Total Haul Trips	16															
Hauling	4	14	8	20	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30
Vendor	0	14	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	14	8	15	0	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34
Site Preparation	2023															
Total Haul Trips	6															
Hauling	2	14	8	20	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15
Vendor	0	14	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	14	8	15	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
Grading	2023															
Total Haul Trips	13078															
Hauling	68	193	8	20	15	0.00	1.07	0.82	0.01	0.05	0.01	0.06	0.01	0.01	0.02	538.73
Vendor	0	193	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	193	8	15	0	0.00	0.01	0.12	0.00	0.01	0.00	0.01	0.00	0.00	0.00	27.76
Drainage/Utilities/Sub-Grade	2023															
Total Haul Trips	1128															
Hauling	8	141	8	20	15	0.00	0.09	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	46.30
Vendor	0	141	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	141	8	15	0	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.52
Drainage/Utilities/Sub-Grade	2024															
Total Haul Trips	16															
Hauling	8	2	8	20	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
Vendor	0	2	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	2	8	15	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
Foundations/Concrete Pour	2024															
Total Haul Trips	340															
Hauling	4	85	8	20	15	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.72
Vendor	0	85	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	85	8	15	0	0.00	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	19.88
Building Construction	2024															
Total Haul Trips	3520															
Hauling	20	176	8	20	15	0.00	0.28	0.22	0.00	0.01	0.00	0.02	0.00	0.00	0.01	142.06
Vendor	470	176	8	6.9	15	0.03	2.79	2.65	0.01	0.10	0.01	0.11	0.02	0.01	0.04	1192.58
Worker	100	176	8	15	0	0.01	0.02	0.32	0.00	0.02	0.00	0.03	0.00	0.00	0.00	82.32
Building Construction	2025															
Total Haul Trips	4360															
Hauling	20	218	8	20	15	0.00	0.34	0.27	0.00	0.02	0.00	0.02	0.00	0.00	0.01	172.74
Vendor	470	218	8	6.9	15	0.03	3.36	3.24	0.01	0.12	0.01	0.13	0.03	0.01	0.04	1451.30
Worker	100	218	8	15	0	0.01	0.03	0.37	0.00	0.03	0.00	0.03	0.01	0.00	0.01	99.59
Architectural Coating	2025															
Total Haul Trips	0															
Hauling	0	113	8	20	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	113	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	113	8	15	0	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.49

Wiley Canyon
Total On-Road Emissions

Wiley Canyon
Running Emissions

	Running Emissions Factor (grams/mile)						Running Emissions Factor (grams/mile)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.0158373	1.8463491	0.532168	0.0144018	0.0233555	0.0223402	1582.1659	0.0748584	0.2520485
2023Vendor Vendor	0.025174	1.4130096	0.5316371	0.013041	0.0170459	0.0163012	1404.0401	0.0416683	0.1941139
2023Worker Worker	0.0225303	0.094097	1.205326	0.0031369	0.0019011	0.00175	317.32672	0.0053007	0.0075279
2024Hauling Hauling	0.0150017	1.7579669	0.5097505	0.014167	0.0231978	0.0221896	1557.2129	0.071144	0.2481168
2024Vendor Vendor	0.0222103	1.3246635	0.4775101	0.0128495	0.0164029	0.0156863	1384.2332	0.0394942	0.1918121
2024Worker Worker	0.0199609	0.0841257	1.111218	0.0030613	0.0017871	0.0016448	309.685	0.0047538	0.0069466
2025Hauling Hauling	0.0143118	1.6829041	0.4934553	0.0139096	0.0228274	0.0218354	1529.9722	0.0679938	0.2438258
2025Vendor Vendor	0.0196276	1.2436307	0.4334653	0.0126263	0.0156675	0.0149829	1361.1455	0.0376832	0.189104
2025Worker Worker	0.0178719	0.0758025	1.032105	0.0029912	0.0016986	0.0015632	302.58456	0.004302	0.0064524
2026Hauling Hauling	0.0136822	1.614054	0.4768479	0.0136454	0.0226378	0.0216543	1501.9816	0.064764	0.2394115
2026Vendor Vendor	0.0175074	1.1692141	0.3976567	0.0123973	0.015099	0.0144393	1337.3755	0.0359063	0.1862605
2026Worker Worker	0.0160685	0.068749	0.963886	0.0029273	0.0016094	0.001481	296.12397	0.0039084	0.006034
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Wiley Canyon
Running Emissions

	Running Emissions Factor (grams/mile)						Running Emissions Factor (grams/mile)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.0158373	1.8463491	0.532168	0.0144018	0.0233555	0.0223402	1582.1659	0.0748584	0.2520485
2023Vendor Vendor	0.025174	1.4130096	0.5316371	0.013041	0.0170459	0.0163012	1404.0401	0.0416683	0.1941139
2023Worker Worker	0.0225303	0.094097	1.205326	0.0031369	0.0019011	0.00175	317.32672	0.0053007	0.0075279
2024Hauling Hauling	0.0150017	1.7579669	0.5097505	0.014167	0.0231978	0.0221896	1557.2129	0.071144	0.2481168
2024Vendor Vendor	0.0222103	1.3246635	0.4775101	0.0128495	0.0164029	0.0156863	1384.2332	0.0394942	0.1918121
2024Worker Worker	0.0199609	0.0841257	1.111218	0.0030613	0.0017871	0.0016448	309.685	0.0047538	0.0069466
2025Hauling Hauling	0.0143118	1.6829041	0.4934553	0.0139096	0.0228274	0.0218354	1529.9722	0.0679938	0.2438258
2025Vendor Vendor	0.0196276	1.2436307	0.4334653	0.0126263	0.0156675	0.0149829	1361.1455	0.0376832	0.189104
2025Worker Worker	0.0178719	0.0758025	1.032105	0.0029912	0.0016986	0.0015632	302.58456	0.004302	0.0064524
2026Hauling Hauling	0.0136822	1.614054	0.4768479	0.0136454	0.0226378	0.0216543	1501.9816	0.064764	0.2394115
2026Vendor Vendor	0.0175074	1.1692141	0.3976567	0.0123973	0.015099	0.0144393	1337.3755	0.0359063	0.1862605
2026Worker Worker	0.0160685	0.068749	0.963886	0.0029273	0.0016094	0.001481	296.12397	0.0039084	0.006034
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Demolition	2023													
Total Haul Trips	16													
Hauling	4	14	8	20	0.00	0.33	0.09	0.00	0.00	0.00	1.77	0.00	0.08	1.86
Vendor	0	14	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	14	8	15	0.01	0.06	0.80	0.00	0.00	0.00	1.33	0.00	0.01	1.34
Site Preparation	2023													
Total Haul Trips	6													
Hauling	2	14	8	20	0.00	0.16	0.05	0.00	0.00	0.00	0.89	0.00	0.04	0.93
Vendor	0	14	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	14	8	15	0.01	0.03	0.40	0.00	0.00	0.00	0.67	0.00	0.00	0.67
Grading	2023													
Total Haul Trips	13078													
Hauling	68	193	8	20	0.05	5.54	1.60	0.04	0.07	0.07	415.29	0.49	19.19	434.96
Vendor	0	193	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	193	8	15	0.02	0.09	1.20	0.00	0.00	0.00	27.56	0.01	0.19	27.76
Drainage/Utilities/Sub-Gra	2023													
Total Haul Trips	1128													
Hauling	8	141	8	20	0.01	0.65	0.19	0.01	0.01	0.01	35.69	0.04	1.65	37.38
Vendor	0	141	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	141	8	15	0.01	0.06	0.80	0.00	0.00	0.00	13.42	0.01	0.09	13.52
Drainage/Utilities/Sub-Gra	2024													
Total Haul Trips	16													
Hauling	8	2	8	20	0.01	0.62	0.18	0.00	0.01	0.01	0.50	0.00	0.02	0.52
Vendor	0	2	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	2	8	15	0.03	0.14	1.84	0.01	0.00	0.00	0.46	0.00	0.00	0.47
Foundations/Concrete Pou	2024													
Total Haul Trips	340													
Hauling	4	85	8	20	0.00	0.31	0.09	0.00	0.00	0.00	10.59	0.01	0.49	11.09
Vendor	0	85	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	85	8	15	0.03	0.14	1.84	0.01	0.00	0.00	19.74	0.01	0.13	19.88
Building Construction	2024													

Wiley Canyon
Running Emissions

	Running Emissions Factor (grams/mile)						Running Emissions Factor (grams/mile)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.0158373	1.8463491	0.532168	0.0144018	0.0233555	0.0223402	1582.1659	0.0748584	0.2520485
2023Vendor Vendor	0.025174	1.4130096	0.5316371	0.013041	0.0170459	0.0163012	1404.0401	0.0416683	0.1941139
2023Worker Worker	0.0225303	0.094097	1.205326	0.0031369	0.0019011	0.00175	317.32672	0.0053007	0.0075279
2024Hauling Hauling	0.0150017	1.7579669	0.5097505	0.014167	0.0231978	0.0221896	1557.2129	0.071144	0.2481168
2024Vendor Vendor	0.0222103	1.3246635	0.4775101	0.0128495	0.0164029	0.0156863	1384.2332	0.0394942	0.1918121
2024Worker Worker	0.0199609	0.0841257	1.111218	0.0030613	0.0017871	0.0016448	309.685	0.0047538	0.0069466
2025Hauling Hauling	0.0143118	1.6829041	0.4934553	0.0139096	0.0228274	0.0218354	1529.9722	0.0679938	0.2438258
2025Vendor Vendor	0.0196276	1.2436307	0.4334653	0.0126263	0.0156675	0.0149829	1361.1455	0.0376832	0.189104
2025Worker Worker	0.0178719	0.0758025	1.032105	0.0029912	0.0016986	0.0015632	302.58456	0.004302	0.0064524
2026Hauling Hauling	0.0136822	1.614054	0.4768479	0.0136454	0.0226378	0.0216543	1501.9816	0.064764	0.2394115
2026Vendor Vendor	0.0175074	1.1692141	0.3976567	0.0123973	0.015099	0.0144393	1337.3755	0.0359063	0.1862605
2026Worker Worker	0.0160685	0.068749	0.963886	0.0029273	0.0016094	0.001481	296.12397	0.0039084	0.006034
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Total Haul Trips	3520													
Hauling	20	176	8	20	0.01	1.55	0.45	0.01	0.02	0.02	109.63	0.13	5.07	114.82
Vendor	470	176	8	6.9	0.16	9.47	3.41	0.09	0.12	0.11	790.08	0.56	31.75	822.39
Worker	100	176	8	15	0.07	0.28	3.67	0.01	0.01	0.01	81.76	0.03	0.53	82.32
Building Construction	2025													
Total Haul Trips	4360													
Hauling	20	218	8	20	0.01	1.48	0.44	0.01	0.02	0.02	133.41	0.15	6.17	139.73
Vendor	470	218	8	6.9	0.14	8.89	3.10	0.09	0.11	0.11	962.29	0.67	38.77	1001.73
Worker	100	218	8	15	0.06	0.25	3.41	0.01	0.01	0.01	98.95	0.04	0.61	99.59
Architectural Coating	2025													
Total Haul Trips	0													
Hauling	0	113	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	113	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	113	8	15	0.02	0.08	1.02	0.00	0.00	0.00	15.39	0.01	0.10	15.49

Wiley Canyon
Idling Emissions

	Idling Emissions Factor (grams/minute)						Idling Emissions Factor (grams/minute)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.001532	2.475441	3.090077	0.004455	0.001462	0.001396	501.4593	0.092221	0.080439
2023Vendor Vendor	0.008739	1.452222	1.7264	0.002583	0.001243	0.001188	289.3932	0.051394	0.046051
2023Worker Worker	0	0	0	0	0	0	0	0	0
2024Hauling Hauling	0.00209	2.445313	3.07903	0.004353	0.001377	0.001315	490.827	0.090521	0.078771
2024Vendor Vendor	0.008703	1.43144	1.720003	0.002531	0.00112	0.001071	283.9719	0.050668	0.045218
2024Worker Worker	0	0	0	0	0	0	0	0	0
2025Hauling Hauling	0.003322	2.416879	3.066235	0.00425	0.00131	0.00125	480.1857	0.089149	0.077104
2025Vendor Vendor	0.009002	1.411457	1.712315	0.002476	0.001014	0.000969	278.3974	0.050081	0.044361
2025Worker Worker	0	0	0	0	0	0	0	0	0
2026Hauling Hauling	0.004824	2.390355	3.053594	0.004151	0.001246	0.001189	469.9432	0.088036	0.075501
2026Vendor Vendor	0.009469	1.392753	1.704658	0.002423	0.000921	0.000879	272.9529	0.049605	0.043524
2026Worker Worker	0	0	0	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Wiley Canyon
Idling Emissions

	Idling Emissions Factor (grams/minute)						Idling Emissions Factor (grams/minute)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.001532	2.475441	3.090077	0.004455	0.001462	0.001396	501.4593	0.092221	0.080439
2023Vendor Vendor	0.008739	1.452222	1.7264	0.002583	0.001243	0.001188	289.3932	0.051394	0.046051
2023Worker Worker	0	0	0	0	0	0	0	0	0
2024Hauling Hauling	0.00209	2.445313	3.07903	0.004353	0.001377	0.001315	490.827	0.090521	0.078771
2024Vendor Vendor	0.008703	1.43144	1.720003	0.002531	0.00112	0.001071	283.9719	0.050668	0.045218
2024Worker Worker	0	0	0	0	0	0	0	0	0
2025Hauling Hauling	0.003322	2.416879	3.066235	0.00425	0.00131	0.00125	480.1857	0.089149	0.077104
2025Vendor Vendor	0.009002	1.411457	1.712315	0.002476	0.001014	0.000969	278.3974	0.050081	0.044361
2025Worker Worker	0	0	0	0	0	0	0	0	0
2026Hauling Hauling	0.004824	2.390355	3.053594	0.004151	0.001246	0.001189	469.9432	0.088036	0.075501
2026Vendor Vendor	0.009469	1.392753	1.704658	0.002423	0.000921	0.000879	272.9529	0.049605	0.043524
2026Worker Worker	0	0	0	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Demolition	2023													
Total Haul Trips	16													
Hauling	4	14	8	15	0.00	0.33	0.41	0.00	0.00	0.00	0.42	0.00	0.02	0.44
Vendor	0	14	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	14	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	2023													
Total Haul Trips	6													
Hauling	2	14	8	15	0.00	0.16	0.20	0.00	0.00	0.00	0.21	0.00	0.01	0.22
Vendor	0	14	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	14	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	2023													
Total Haul Trips	13078													
Hauling	68	193	8	15	0.00	5.57	6.95	0.01	0.00	0.00	98.72	0.45	4.59	103.76
Vendor	0	193	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	193	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grad	2023													
Total Haul Trips	1128													
Hauling	8	141	8	15	0.00	0.65	0.82	0.00	0.00	0.00	8.48	0.04	0.39	8.92
Vendor	0	141	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	141	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grad	2024													
Total Haul Trips	16													
Hauling	8	2	8	15	0.00	0.65	0.81	0.00	0.00	0.00	0.12	0.00	0.01	0.12
Vendor	0	2	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	2	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Foundations/Concrete Pour	2024													
Total Haul Trips	340													
Hauling	4	85	8	15	0.00	0.32	0.41	0.00	0.00	0.00	2.50	0.01	0.12	2.63
Vendor	0	85	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wiley Canyon
Idling Emissions

	Idling Emissions Factor (grams/minute)						Idling Emissions Factor (grams/minute)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2023Hauling Hauling	0.001532	2.475441	3.090077	0.004455	0.001462	0.001396	501.4593	0.092221	0.080439
2023Vendor Vendor	0.008739	1.452222	1.7264	0.002583	0.001243	0.001188	289.3932	0.051394	0.046051
2023Worker Worker	0	0	0	0	0	0	0	0	0
2024Hauling Hauling	0.00209	2.445313	3.07903	0.004353	0.001377	0.001315	490.827	0.090521	0.078771
2024Vendor Vendor	0.008703	1.43144	1.720003	0.002531	0.00112	0.001071	283.9719	0.050668	0.045218
2024Worker Worker	0	0	0	0	0	0	0	0	0
2025Hauling Hauling	0.003322	2.416879	3.066235	0.00425	0.00131	0.00125	480.1857	0.089149	0.077104
2025Vendor Vendor	0.009002	1.411457	1.712315	0.002476	0.001014	0.000969	278.3974	0.050081	0.044361
2025Worker Worker	0	0	0	0	0	0	0	0	0
2026Hauling Hauling	0.004824	2.390355	3.053594	0.004151	0.001246	0.001189	469.9432	0.088036	0.075501
2026Vendor Vendor	0.009469	1.392753	1.704658	0.002423	0.000921	0.000879	272.9529	0.049605	0.043524
2026Worker Worker	0	0	0	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Worker	50	85	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	2024													
Total Haul Trips	3520													
Hauling	20	176	8	15	0.00	1.62	2.04	0.00	0.00	0.00	25.92	0.12	1.21	27.24
Vendor	470	176	8	15	0.14	22.25	26.73	0.04	0.02	0.02	352.35	1.57	16.27	370.19
Worker	100	176	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	2025													
Total Haul Trips	4360													
Hauling	20	218	8	15	0.00	1.60	2.03	0.00	0.00	0.00	31.40	0.15	1.46	33.01
Vendor	470	218	8	15	0.14	21.94	26.61	0.04	0.02	0.02	427.87	1.92	19.77	449.56
Worker	100	218	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	2025													
Total Haul Trips	0													
Hauling	0	113	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	113	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	113	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wiley Canyon

Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2023Hauling Hauling	6.72E-02	0.084714206	0.03543552	1.01E-02	0.02964997	0.00885888
2023Vendor Vendor	6.72E-02	0.064163683	0.02371776	1.01E-02	0.02245729	0.00592944
2023Worker Worker	6.72E-02	0.009477692	0.008	1.01E-02	0.00331719	0.002
2024Hauling Hauling	6.72E-02	0.08427948	0.03543928	1.01E-02	0.02949782	0.00885982
2024Vendor Vendor	6.72E-02	0.063890978	0.02371964	1.01E-02	0.02236184	0.00592991
2024Worker Worker	6.72E-02	0.009419633	0.008	1.01E-02	0.00329687	0.002
2025Hauling Hauling	6.72E-02	0.084162962	0.03544313	1.01E-02	0.02945704	0.00886078
2025Vendor Vendor	6.72E-02	0.063767774	0.02372157	1.01E-02	0.02231872	0.00593039
2025Worker Worker	6.72E-02	0.009385513	0.008	1.01E-02	0.00328493	0.002
2026Hauling Hauling	6.72E-02	0.084352575	0.03544711	1.01E-02	0.0295234	0.00886178
2026Vendor Vendor	6.72E-02	0.063787152	0.02372356	1.01E-02	0.0223255	0.00593089
2026Worker Worker	6.72E-02	0.009353635	0.008	1.01E-02	0.00327377	0.002

Wiley Canyon
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2023Hauling Hauling	6.72E-02	0.084714206	0.03543552	1.01E-02	0.02964997	0.00885888
2023Vendor Vendor	6.72E-02	0.064163683	0.02371776	1.01E-02	0.02245729	0.00592944
2023Worker Worker	6.72E-02	0.009477692	0.008	1.01E-02	0.00331719	0.002
2024Hauling Hauling	6.72E-02	0.08427948	0.03543928	1.01E-02	0.02949782	0.00885982
2024Vendor Vendor	6.72E-02	0.063890978	0.02371964	1.01E-02	0.02236184	0.00592991
2024Worker Worker	6.72E-02	0.009419633	0.008	1.01E-02	0.00329687	0.002
2025Hauling Hauling	6.72E-02	0.084162962	0.03544313	1.01E-02	0.02945704	0.00886078
2025Vendor Vendor	6.72E-02	0.063767774	0.02372157	1.01E-02	0.02231872	0.00593039
2025Worker Worker	6.72E-02	0.009385513	0.008	1.01E-02	0.00328493	0.002
2026Hauling Hauling	6.72E-02	0.084352575	0.03544711	1.01E-02	0.0295234	0.00886178
2026Vendor Vendor	6.72E-02	0.063787152	0.02372356	1.01E-02	0.0223255	0.00593089
2026Worker Worker	6.72E-02	0.009353635	0.008	1.01E-02	0.00327377	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Demolition	2023									
Total Haul Trips	16									
Hauling	4	14	8	20	0.01	0.01	0.01	0.00	0.01	0.00
Vendor	0	14	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	14	8	15	0.04	0.01	0.01	0.01	0.00	0.00
Site Preparation	2023									
Total Haul Trips	6									
Hauling	2	14	8	20	0.01	0.01	0.00	0.00	0.00	0.00
Vendor	0	14	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	14	8	15	0.02	0.00	0.00	0.00	0.00	0.00
Grading	2023									
Total Haul Trips	13078									
Hauling	68	193	8	20	0.20	0.25	0.11	0.03	0.09	0.03
Vendor	0	193	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	193	8	15	0.07	0.01	0.01	0.01	0.00	0.00
Drainage/Utilities/Sub-Gra	2023									
Total Haul Trips	1128									
Hauling	8	141	8	20	0.02	0.03	0.01	0.00	0.01	0.00
Vendor	0	141	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	141	8	15	0.04	0.01	0.01	0.01	0.00	0.00
Drainage/Utilities/Sub-Gra	2024									
Total Haul Trips	16									
Hauling	8	2	8	20	0.02	0.03	0.01	0.00	0.01	0.00
Vendor	0	2	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00

Wiley Canyon
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2023Hauling Hauling	6.72E-02	0.084714206	0.03543552	1.01E-02	0.02964997	0.00885888
2023Vendor Vendor	6.72E-02	0.064163683	0.02371776	1.01E-02	0.02245729	0.00592944
2023Worker Worker	6.72E-02	0.009477692	0.008	1.01E-02	0.00331719	0.002
2024Hauling Hauling	6.72E-02	0.08427948	0.03543928	1.01E-02	0.02949782	0.00885982
2024Vendor Vendor	6.72E-02	0.063890978	0.02371964	1.01E-02	0.02236184	0.00592991
2024Worker Worker	6.72E-02	0.009419633	0.008	1.01E-02	0.00329687	0.002
2025Hauling Hauling	6.72E-02	0.084162962	0.03544313	1.01E-02	0.02945704	0.00886078
2025Vendor Vendor	6.72E-02	0.063767774	0.02372157	1.01E-02	0.02231872	0.00593039
2025Worker Worker	6.72E-02	0.009385513	0.008	1.01E-02	0.00328493	0.002
2026Hauling Hauling	6.72E-02	0.084352575	0.03544711	1.01E-02	0.0295234	0.00886178
2026Vendor Vendor	6.72E-02	0.063787152	0.02372356	1.01E-02	0.0223255	0.00593089
2026Worker Worker	6.72E-02	0.009353635	0.008	1.01E-02	0.00327377	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Worker	50	2	8	15	0.11	0.02	0.01	0.02	0.01	0.00
Foundations/Concrete Pou	2024									
Total Haul Trips	340									
Hauling	4	85	8	20	0.01	0.01	0.01	0.00	0.01	0.00
Vendor	0	85	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	50	85	8	15	0.11	0.02	0.01	0.02	0.01	0.00
Building Construction	2024									
Total Haul Trips	3520									
Hauling	20	176	8	20	0.06	0.07	0.03	0.01	0.03	0.01
Vendor	470	176	8	6.9	0.48	0.46	0.17	0.07	0.16	0.04
Worker	100	176	8	15	0.22	0.03	0.03	0.03	0.01	0.01
Building Construction	2025									
Total Haul Trips	4360									
Hauling	20	218	8	20	0.06	0.07	0.03	0.01	0.03	0.01
Vendor	470	218	8	6.9	0.48	0.46	0.17	0.07	0.16	0.04
Worker	100	218	8	15	0.22	0.03	0.03	0.03	0.01	0.01
Architectural Coating	2025									
Total Haul Trips	0									
Hauling	0	113	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	113	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	113	8	15	0.07	0.01	0.01	0.01	0.00	0.00

Wiley Canyon

Total On-Road Fuel Consumption

		gal/mile	gal/min
2023Hauling	Hauling	0.16744049	2.63411E-07
2023Vendor	Vendor	0.1400083	7.56451E-07
2023Worker	Worker	0.03916418	9.57885E-07
2024Hauling	Hauling	0.16534457	1.98496E-07
2024Vendor	Vendor	0.13876713	6.53915E-07
2024Worker	Worker	0.03843741	8.66366E-07
2025Hauling	Hauling	0.16305171	1.95685E-07
2025Vendor	Vendor	0.13736272	6.50149E-07
2025Worker	Worker	0.0377809	8.51473E-07
2026Hauling	Hauling	0.16075668	2.00057E-07
2026Vendor	Vendor	0.1359573	6.52676E-07
2026Worker	Worker	0.03711869	8.35632E-07

Wiley Canyon

Total On-Road Fuel Consumption

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	75,044
Vendor	Diesel	176,317
Worker	Gasoline	30,435

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	251,361	127,603
Gasoline	30,435	15,450

Duration of Construction	
2.0	years

Wiley Canyon
Total On-Road Fuel Consumption

		gal/mile	gal/min
2023Hauling	Hauling	0.16744049	2.63411E-07
2023Vendor	Vendor	0.1400083	7.56451E-07
2023Worker	Worker	0.03916418	9.57885E-07
2024Hauling	Hauling	0.16534457	1.98496E-07
2024Vendor	Vendor	0.13876713	6.53915E-07
2024Worker	Worker	0.03843741	8.66366E-07
2025Hauling	Hauling	0.16305171	1.95685E-07
2025Vendor	Vendor	0.13736272	6.50149E-07
2025Worker	Worker	0.0377809	8.51473E-07
2026Hauling	Hauling	0.16075668	2.00057E-07
2026Vendor	Vendor	0.1359573	6.52676E-07
2026Worker	Worker	0.03711869	8.35632E-07

Wiley Canyon
Total On-Road Fuel Consumption

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	75,044
Vendor	Diesel	176,317
Worker	Gasoline	30,435

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	251,361	127,603
Gasoline	30,435	15,450

Duration of Construction	
2.0	years

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons) gal/mile	gal/min	gal/day	Total Gallons/yr
Demolition	2023								
Total Haul Trips	16								
Hauling	4	14	8	20	15	0.17	2.63E-07	13	188
Vendor	0	14	8	6.9	15	0.14	7.56E-07	0	0
Worker	20	14	8	15	0	0.04	9.58E-07	12	164
Site Preparation	2023								
Total Haul Trips	6								
Hauling	2	14	8	20	15	0.17	2.63E-07	7	94
Vendor	0	14	8	6.9	15	0.14	7.56E-07	0	0
Worker	10	14	8	15	0	0.04	9.58E-07	6	82
Grading	2023								
Total Haul Trips	13078								
Hauling	68	193	8	20	15	0.17	2.63E-07	228	43,950
Vendor	0	193	8	6.9	15	0.14	7.56E-07	0	0
Worker	30	193	8	15	0	0.04	9.58E-07	18	3,401
Drainage/Utilities/Sub-Grade	2023								
Total Haul Trips	1128								
Hauling	8	141	8	20	15	0.17	2.63E-07	27	3,777
Vendor	0	141	8	6.9	15	0.14	7.56E-07	0	0
Worker	20	141	8	15	0	0.04	9.58E-07	12	1,657
Drainage/Utilities/Sub-Grade	2024								
Total Haul Trips	16								
Hauling	8	2	8	20	15	0.17	1.98E-07	26	53
Vendor	0	2	8	6.9	15	0.14	6.54E-07	0	0
Worker	50	2	8	15	0	0.04	8.66E-07	29	58

Wiley Canyon
Total On-Road Fuel Consumption

		gal/mile	gal/min
2023Hauling	Hauling	0.16744049	2.63411E-07
2023Vendor	Vendor	0.1400083	7.56451E-07
2023Worker	Worker	0.03916418	9.57885E-07
2024Hauling	Hauling	0.16534457	1.98496E-07
2024Vendor	Vendor	0.13876713	6.53915E-07
2024Worker	Worker	0.03843741	8.66366E-07
2025Hauling	Hauling	0.16305171	1.95685E-07
2025Vendor	Vendor	0.13736272	6.50149E-07
2025Worker	Worker	0.0377809	8.51473E-07
2026Hauling	Hauling	0.16075668	2.00057E-07
2026Vendor	Vendor	0.1359573	6.52676E-07
2026Worker	Worker	0.03711869	8.35632E-07

Wiley Canyon
Total On-Road Fuel Consumption

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	75,044
Vendor	Diesel	176,317
Worker	Gasoline	30,435

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	251,361	127,603
Gasoline	30,435	15,450

Duration of Construction	
2.0	years

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons) gal/mile	gal/min	gal/day	Total Gallons/yr
Foundations/Concrete Pour	2024								
Total Haul Trips	340								
Hauling	4	85	8	20	15	0.17	1.98E-07	13	1,124
Vendor	0	85	8	6.9	15	0.14	6.54E-07	0	0
Worker	50	85	8	15	0	0.04	8.66E-07	29	2,450
Building Construction	2024								
Total Haul Trips	3520								
Hauling	20	176	8	20	15	0.17	1.98E-07	66	11,640
Vendor	470	176	8	6.9	15	0.14	6.54E-07	450	79,204
Worker	100	176	8	15	0	0.04	8.66E-07	58	10,147
Building Construction	2025								
Total Haul Trips	4360								
Hauling	20	218	8	20	15	0.16	1.96E-07	65	14,218
Vendor	470	218	8	6.9	15	0.14	6.50E-07	445	97,112
Worker	100	218	8	15	0	0.04	8.51E-07	57	12,354
Architectural Coating	2025								
Total Haul Trips	0								
Hauling	0	113	8	20	15	0.16	1.96E-07	0	0
Vendor	0	113	8	6.9	15	0.14	6.50E-07	0	0
Worker	30	113	8	15	0	0.04	8.51E-07	17	120

Wiley Canyon
Road Dust

Paved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,P} = (k\ (sL)^{0.91} \times (W)^{1.02})\ x\ (1\text{-}P/4N)$

Where:

$EF_{Dust,P}$ =	k)
k =	particle size multiplier
sL =	road surface silt loading (g/m^2)
W =	average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)
P =	number of "wet" days, when at least one site per county received at least 0.01 inch of precipitation during the annual
N =	the number of days in the annual averaging period (default = 365)

Emission Factor (grams per VMT)	PM10	PM2.5
k	1.0000	0.1500
sL	0.01998	0.01998
W	2.4	2.4
P	46	46
N	365	365
$EF_{Dust,P}$	0.0672	0.0101

Unpaved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,U} = (k\ (\ s / 12)^{1} \times (Sp / 30)^{0.5} / (M / 0.5)^{0.2}) - C)$

Where:

$EF_{Dust,U}$ =	Unpaved Road Dust Emission Factor (having the same units as k)
k =	particle size multiplier
s =	surface material silt content (%)
Sp =	mean vehicle speed (mph)
M =	surface material moisture content (%)
C =	Emission Factor for 1980s vehicle fleet exhaust, brake wear, and tire wear

Emission Factor (grams per VMT)	PM10	PM2.5
k	816.47	81.65
s	4.3%	4.3%
Sp	15	15
M	0.5%	0.5%
C	0.00047	0.00036
$EF_{Dust,U}$	5.20E+00	5.19E-01

Sources:
SCAQMD, CalEEMod, Version 2011.1.
CARB, *Entrained Dust from Paved Road Travel: Emission Estimation Methodology Background Document* , (1997).
USEPA, *AP-42* , Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, (2011).
PCR Services Corporation, 2013.

Silt Loading Factor

Source: CARB, 2021.

Table 3: California Default Statewide and Local Silt Loading Values (Los Angeles County)

Silt Loadings (g/m2)			
Freeway	**Major**	**Collector**	**Local**
0.015	0.013	0.013	0.135

Table 2: Roadway Travel Fractions (Los Angeles County)

2008 HPMS Travel Fractions			
0.44	0.44	0.07	0.05

Wiley Canyon

Tons to Metric Tons

0.907185

Greenhouse Gas Emissions Summary

Mitigated Operations Summary (Full Buildout Year 2025)	
Category	**$MTCO_2e/yr$**
Mobile	3,394
From CalEEMod:	
Area	10
Energy	1157
Waste	156
Water	236
Total Operational	4953
Construction	232
Project Subtotal	**5,185**
Project Net Total GHG Emissions	**5,185**

$MTCO_2e$=Metric Tons Carbon Dioxide equivalents

Unmitigated Operations Summary (Full Buildout Year 2025)	
Category	**$MTCO_2e/yr$**
Mobile	4,100
From CalEEMod:	
Area	10
Energy	1157
Waste	156
Water	236
Total Operational	5660
Construction	232
Project Subtotal	**5,892**
Project Net Total GHG Emissions	**5,892**

$MTCO_2e$=Metric Tons Carbon Dioxide equivalents

Wiley Canyon
Air Quality and GHG Assessment
Operational Mobile Emissions

Criteria Pollutant Emission Factors (lb/mile)

	Year	Weekday Daily VMT	ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2_5 Road Dust	PM2_5	PM2.5 Total
Project	2025	29,175	3.10E-04	4.28E-04	2.90E-03	8.07E-06	1.48E-04	5.67E-05	2.05E-04	2.22E-05	2.13E-05	4.35E-05
Mitigated	2025	24,148	3.10E-04	4.28E-04	2.90E-03	8.07E-06	1.48E-04	5.67E-05	2.05E-04	2.22E-05	2.13E-05	4.35E-05

GHG Emissions (metric tons/mile)

Year	Weekday Daily VMT	CO2	CH4	N2O	CO2e
2025	29,175	3.79E-04	1.92E-08	1.99E-08	3.85E-04
2025	24,148	3.79E-04	1.92E-08	1.99E-08	3.85E-04

Criteria Pollutant Emissions (pounds/day)

Year	Weekday Daily VMT	ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2_5 Road Dust	PM2_5	PM2.5 Total
2025	29,175	9.04	12.48	84.69	0.24	4.32	1.65	5.98	0.65	0.62	1.27
2025	24,148	7.48	10.33	70.09	0.19	3.58	1.37	4.95	0.54	0.51	1.05

GHG Emissions (metric tons/year)

Year	Weekday Daily VMT	CO2	CH4	N2O	CO2e
		1	*25*	*298*	
2025	29,175	4,032.29	0.20	0.21	4,100.46
2025	24,148	3,337.39	0.17	0.18	3,393.81

Source: Stantec Wiley Canyon Mixed-Use Traffic Analysis

Exhibit B
CalEEMod Outputs

ESA

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Wiley Canyon

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	8.91	1000sqft	0.20	8,914.00	0
Enclosed Parking Structure	602.00	Space	5.42	240,800.00	0
Enclosed Parking Structure	48.00	Space	0.43	19,200.00	0
Parking Lot	143.00	Space	1.29	57,200.00	0
Parking Lot	176.00	Space	1.58	70,400.00	0
City Park	15.00	Acre	15.00	653,400.00	0
Health Club	2.40	1000sqft	0.06	2,400.00	0
Recreational Swimming Pool	2.07	1000sqft	0.05	2,070.00	0
Apartments Mid Rise	379.00	Dwelling Unit	8.79	382,972.00	1084
Retirement Community	217.00	Dwelling Unit	6.36	277,108.00	621

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See SCE EF Forcast

Land Use - See Construction Assumptions

Construction Phase - See Construction Assumptions

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Equipment

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Constructions Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Trips and VMT - Trips and VMT calculated outside of CalEEMod

Demolition -

Grading -

Woodstoves - No Wood Stoves or fire places

Energy Use -

Construction Off-road Equipment Mitigation - Mitigation

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,657.00	7,749.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,971.00	23,246.00
tblArchitecturalCoating	ConstArea_Parking	23,256.00	22,584.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	445,554.00	427,345.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,336,662.00	1,282,036.00
tblAreaCoating	Area_Nonresidential_Exterior	5657	7749
tblAreaCoating	Area_Nonresidential_Interior	16971	23246
tblAreaCoating	Area_Parking	23256	22584
tblAreaCoating	Area_Residential_Exterior	445554	427345
tblAreaCoating	Area_Residential_Interior	1336662	1282036
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	114.00
tblConstructionPhase	NumDays	740.00	394.00
tblConstructionPhase	NumDays	50.00	14.00
tblConstructionPhase	NumDays	75.00	193.00
tblConstructionPhase	NumDays	75.00	85.00
tblConstructionPhase	NumDays	55.00	38.00
tblConstructionPhase	NumDays	30.00	14.00
tblFireplaces	FireplaceDayYear	25.00	0.00

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	322.15	0.00
tblFireplaces	NumberGas	184.45	0.00
tblFireplaces	NumberNoFireplace	37.90	0.00
tblFireplaces	NumberNoFireplace	21.70	0.00
tblFireplaces	NumberWood	18.95	0.00
tblFireplaces	NumberWood	10.85	0.00
tblGrading	AcresOfGrading	1,447.50	253.31
tblGrading	AcresOfGrading	42.50	37.19
tblLandUse	LandUseSquareFeet	8,910.00	8,914.00
tblLandUse	LandUseSquareFeet	379,000.00	382,972.00
tblLandUse	LandUseSquareFeet	217,000.00	277,108.00
tblLandUse	LotAcreage	9.97	8.79
tblLandUse	LotAcreage	43.40	6.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	174.34	172.50
tblSolidWaste	SolidWasteGenerationRate	8.29	10.13
tblSolidWaste	SolidWasteGenerationRate	13.68	14.48
tblSolidWaste	SolidWasteGenerationRate	99.82	99.36
tblTripsAndVMT	HaulingTripNumber	168.00	0.00
tblTripsAndVMT	VendorTripNumber	237.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	43.00	0.00
tblTripsAndVMT	WorkerTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblTripsAndVMT	WorkerTripNumber	871.00	0.00
tblTripsAndVMT	WorkerTripNumber	174.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblWater	IndoorWaterUseRate	24,693,375.71	24,432,759.61
tblWater	IndoorWaterUseRate	1,583,607.69	1,935,520.52
tblWater	IndoorWaterUseRate	141,943.55	150,223.59
tblWater	IndoorWaterUseRate	14,138,423.56	14,073,269.53
tblWater	OutdoorWaterUseRate	15,567,562.95	15,403,261.49
tblWater	OutdoorWaterUseRate	970,598.26	1,186,286.77
tblWater	OutdoorWaterUseRate	86,997.66	92,072.52
tblWater	OutdoorWaterUseRate	8,913,353.98	8,872,278.62
tblWoodstoves	NumberCatalytic	18.95	0.00
tblWoodstoves	NumberCatalytic	10.85	0.00
tblWoodstoves	NumberNoncatalytic	18.95	0.00
tblWoodstoves	NumberNoncatalytic	10.85	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.0547	10.4138	8.9010	0.0205	0.7411	0.4380	1.1791	0.3375	0.4072	0.7447	0.0000	1,788.9541	1,788.9541	0.5217	0.0000	1,801.9967
2024	0.4139	3.3240	3.9777	6.8500e-003	0.2757	0.1508	0.4265	0.1428	0.1450	0.2878	0.0000	581.9512	581.9512	0.1000	0.0000	584.4510
2025	2.5293	3.5250	4.6493	7.8600e-003	0.0000	0.1473	0.1473	0.0000	0.1413	0.1413	0.0000	666.8999	666.8999	0.1198	0.0000	669.8955
Maximum	**2.5293**	**10.4138**	**8.9010**	**0.0205**	**0.7411**	**0.4380**	**1.1791**	**0.3375**	**0.4072**	**0.7447**	**0.0000**	**1,788.9541**	**1,788.9541**	**0.5217**	**0.0000**	**1,801.9967**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.0547	10.4137	8.9010	0.0205	0.2890	0.4380	0.7270	0.1316	0.4072	0.5388	0.0000	1,788.9520	1,788.9520	0.5217	0.0000	1,801.9945
2024	0.4139	3.3240	3.9777	6.8500e-003	0.1075	0.1508	0.2584	0.0557	0.1450	0.2006	0.0000	581.9506	581.9506	0.1000	0.0000	584.4503
2025	2.5293	3.5250	4.6493	7.8600e-003	0.0000	0.1473	0.1473	0.0000	0.1413	0.1413	0.0000	666.8991	666.8991	0.1198	0.0000	669.8947
Maximum	**2.5293**	**10.4137**	**8.9010**	**0.0205**	**0.2890**	**0.4380**	**0.7270**	**0.1316**	**0.4072**	**0.5388**	**0.0000**	**1,788.9520**	**1,788.9520**	**0.5217**	**0.0000**	**1,801.9945**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**61.00**	**0.00**	**35.38**	**61.00**	**0.00**	**24.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	2.1705	2.1705
2	**4-2-2023**	**7-1-2023**	3.0650	3.0650
3	**7-2-2023**	**10-1-2023**	4.0961	4.0961
4	**10-2-2023**	**1-1-2024**	2.1817	2.1817
5	**1-2-2024**	**4-1-2024**	0.9489	0.9489
6	**4-2-2024**	**7-1-2024**	0.9220	0.9220
7	**7-2-2024**	**10-1-2024**	0.9255	0.9255
8	**10-2-2024**	**1-1-2025**	0.9249	0.9249
9	**1-2-2025**	**4-1-2025**	0.8505	0.8505
10	**4-2-2025**	**7-1-2025**	0.8599	0.8599
11	**7-2-2025**	**9-30-2025**	2.3185	2.3185
		Highest	4.0961	4.0961

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Energy	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	1,151.1157	1,151.1157	0.0675	0.0155	1,157.4109
Mobile	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Waste						0.0000	0.0000		0.0000	0.0000	62.8379	0.0000	62.8379	3.7136	0.0000	155.6782
Water						0.0000	0.0000		0.0000	0.0000	12.9167	179.7286	192.6454	1.3418	0.0332	236.0744
Total	**4.2976**	**2.0658**	**20.8334**	**0.0345**	**3.3540**	**0.0891**	**3.4431**	**0.8948**	**0.0874**	**0.9822**	**75.7546**	**4,271.6821**	**4,347.4367**	**5.3343**	**0.1761**	**4,533.2737**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Energy	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	1,151.1157	1,151.1157	0.0675	0.0155	1,157.4109
Mobile	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Waste						0.0000	0.0000		0.0000	0.0000	62.8379	0.0000	62.8379	3.7136	0.0000	155.6782
Water						0.0000	0.0000		0.0000	0.0000	12.9167	179.7286	192.6454	1.3418	0.0332	236.0744
Total	**4.2976**	**2.0658**	**20.8334**	**0.0345**	**3.3540**	**0.0891**	**3.4431**	**0.8948**	**0.0874**	**0.9822**	**75.7546**	**4,271.6821**	**4,347.4367**	**5.3343**	**0.1761**	**4,533.2737**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	1/19/2023	5	14	
2	Site Preparation	Site Preparation	1/13/2023	2/1/2023	5	14	
3	Grading	Grading	2/4/2023	11/1/2023	5	193	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Drainage/Utilities/Sub-grade	Trenching	6/16/2023	1/2/2024	5	143	
5	Foundations/Concrete Pour	Grading	1/2/2024	4/29/2024	5	85	
6	Building Construction	Building Construction	4/30/2024	11/1/2025	5	394	
7	Architectural Coating	Architectural Coating	7/26/2025	12/31/2025	5	114	
8	Paving	Paving	8/23/2025	10/15/2025	5	38	

Acres of Grading (Site Preparation Phase): 14

Acres of Grading (Grading Phase): 253.31

Acres of Paving: 8.72

Residential Indoor: 1,282,036; Residential Outdoor: 427,345; Non-Residential Indoor: 23,246; Non-Residential Outdoor: 7,749; Striped Parking Area: 22,584 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Forklifts	1	8.00	89	0.20
Demolition	Off-Highway Trucks	1	8.00	402	0.38
Demolition	Rubber Tired Loaders	2	8.00	203	0.36
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Welders	1	8.00	46	0.45
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Forklifts	1	8.00	89	0.20
Site Preparation	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Rollers	1	8.00	80	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	6	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Drainage/Utilities/Sub-grade	Air Compressors	2	8.00	78	0.48
Drainage/Utilities/Sub-grade	Bore/Drill Rigs	1	8.00	221	0.50
Drainage/Utilities/Sub-grade	Excavators	2	8.00	158	0.38
Drainage/Utilities/Sub-grade	Forklifts	1	8.00	89	0.20
Drainage/Utilities/Sub-grade	Off-Highway Trucks	1	8.00	402	0.38
Drainage/Utilities/Sub-grade	Plate Compactors	2	8.00	8	0.43
Drainage/Utilities/Sub-grade	Pumps	2	8.00	84	0.74
Drainage/Utilities/Sub-grade	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Sub-grade	Rubber Tired Loaders	2	8.00	203	0.36
Drainage/Utilities/Sub-grade	Skid Steer Loaders	1	8.00	65	0.37
Drainage/Utilities/Sub-grade	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drainage/Utilities/Sub-grade	Trenchers	1	8.00	78	0.50
Foundations/Concrete Pour	Air Compressors	2	8.00	78	0.48
Foundations/Concrete Pour	Concrete/Industrial Saws	1	8.00	81	0.73

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Foundations/Concrete Pour	Excavators	1	8.00	158	0.38
Foundations/Concrete Pour	Forklifts	1	8.00	89	0.20
Foundations/Concrete Pour	Plate Compactors	1	8.00	8	0.43
Foundations/Concrete Pour	Pumps	1	8.00	84	0.74
Foundations/Concrete Pour	Rubber Tired Dozers	1	8.00	247	0.40
Foundations/Concrete Pour	Sweepers/Scrubbers	1	8.00	64	0.46
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	4	8.00	46	0.45
Architectural Coating	Air Compressors	2	8.00	78	0.48
Architectural Coating	Cranes	1	8.00	231	0.29
Architectural Coating	Forklifts	3	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	1	8.00	100	0.40
Architectural Coating	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	17	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Sub-grade	18	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	12	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0182	0.0000	0.0182	2.7600e-003	0.0000	2.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.1885	0.2347	4.8000e-004		8.2400e-003	8.2400e-003		7.8300e-003	7.8300e-003	0.0000	41.5580	41.5580	0.0103	0.0000	41.8155
Total	**0.0233**	**0.1885**	**0.2347**	**4.8000e-004**	**0.0182**	**8.2400e-003**	**0.0265**	**2.7600e-003**	**7.8300e-003**	**0.0106**	**0.0000**	**41.5580**	**41.5580**	**0.0103**	**0.0000**	**41.8155**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.1000e-003	0.0000	7.1000e-003	1.0800e-003	0.0000	1.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.1885	0.2347	4.8000e-004		8.2400e-003	8.2400e-003		7.8300e-003	7.8300e-003	0.0000	41.5579	41.5579	0.0103	0.0000	41.8155
Total	**0.0233**	**0.1885**	**0.2347**	**4.8000e-004**	**7.1000e-003**	**8.2400e-003**	**0.0153**	**1.0800e-003**	**7.8300e-003**	**8.9100e-003**	**0.0000**	**41.5579**	**41.5579**	**0.0103**	**0.0000**	**41.8155**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4200e-003	0.0000	7.4200e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1664	0.1619	3.7000e-004		7.2300e-003	7.2300e-003		6.7200e-003	6.7200e-003	0.0000	32.3777	32.3777	9.4400e-003	0.0000	32.6137
Total	**0.0179**	**0.1664**	**0.1619**	**3.7000e-004**	**7.4200e-003**	**7.2300e-003**	**0.0147**	**8.0000e-004**	**6.7200e-003**	**7.5200e-003**	**0.0000**	**32.3777**	**32.3777**	**9.4400e-003**	**0.0000**	**32.6137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1664	0.1619	3.7000e-004		7.2300e-003	7.2300e-003		6.7200e-003	6.7200e-003	0.0000	32.3777	32.3777	9.4400e-003	0.0000	32.6137
Total	**0.0179**	**0.1664**	**0.1619**	**3.7000e-004**	**2.9000e-003**	**7.2300e-003**	**0.0101**	**3.1000e-004**	**6.7200e-003**	**7.0300e-003**	**0.0000**	**32.3777**	**32.3777**	**9.4400e-003**	**0.0000**	**32.6137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7155	0.0000	0.7155	0.3339	0.0000	0.3339	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7452	7.7306	5.7246	0.0137		0.3159	0.3159		0.2919	0.2919	0.0000	1,197.9392	1,197.9392	0.3705	0.0000	1,207.2011
Total	**0.7452**	**7.7306**	**5.7246**	**0.0137**	**0.7155**	**0.3159**	**1.0314**	**0.3339**	**0.2919**	**0.6258**	**0.0000**	**1,197.9392**	**1,197.9392**	**0.3705**	**0.0000**	**1,207.2011**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2790	0.0000	0.2790	0.1302	0.0000	0.1302	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7452	7.7306	5.7246	0.0137		0.3159	0.3159		0.2919	0.2919	0.0000	1,197.9378	1,197.9378	0.3705	0.0000	1,207.1997
Total	**0.7452**	**7.7306**	**5.7246**	**0.0137**	**0.2790**	**0.3159**	**0.5950**	**0.1302**	**0.2919**	**0.4221**	**0.0000**	**1,197.9378**	**1,197.9378**	**0.3705**	**0.0000**	**1,207.1997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2684	2.3283	2.7798	5.9400e-003		0.1066	0.1066		0.1008	0.1008	0.0000	517.0792	517.0792	0.1315	0.0000	520.3663
Total	**0.2684**	**2.3283**	**2.7798**	**5.9400e-003**		**0.1066**	**0.1066**		**0.1008**	**0.1008**	**0.0000**	**517.0792**	**517.0792**	**0.1315**	**0.0000**	**520.3663**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2684	2.3283	2.7798	5.9400e-003		0.1066	0.1066		0.1008	0.1008	0.0000	517.0786	517.0786	0.1315	0.0000	520.3657
Total	**0.2684**	**2.3283**	**2.7798**	**5.9400e-003**		**0.1066**	**0.1066**		**0.1008**	**0.1008**	**0.0000**	**517.0786**	**517.0786**	**0.1315**	**0.0000**	**520.3657**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6400e-003	0.0307	0.0394	8.0000e-005		1.3600e-003	1.3600e-003		1.2900e-003	1.2900e-003	0.0000	7.3372	7.3372	1.8600e-003	0.0000	7.3837
Total	**3.6400e-003**	**0.0307**	**0.0394**	**8.0000e-005**		**1.3600e-003**	**1.3600e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**7.3372**	**7.3372**	**1.8600e-003**	**0.0000**	**7.3837**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6400e-003	0.0307	0.0394	8.0000e-005		1.3600e-003	1.3600e-003		1.2900e-003	1.2900e-003	0.0000	7.3372	7.3372	1.8600e-003	0.0000	7.3837
Total	**3.6400e-003**	**0.0307**	**0.0394**	**8.0000e-005**		**1.3600e-003**	**1.3600e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**7.3372**	**7.3372**	**1.8600e-003**	**0.0000**	**7.3837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Foundations/Concrete Pour - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2757	0.0000	0.2757	0.1428	0.0000	0.1428	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1234	1.1015	1.1945	2.1700e-003		0.0518	0.0518		0.0490	0.0490	0.0000	188.3237	188.3237	0.0399	0.0000	189.3204
Total	**0.1234**	**1.1015**	**1.1945**	**2.1700e-003**	**0.2757**	**0.0518**	**0.3274**	**0.1428**	**0.0490**	**0.1918**	**0.0000**	**188.3237**	**188.3237**	**0.0399**	**0.0000**	**189.3204**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Foundations/Concrete Pour - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1075	0.0000	0.1075	0.0557	0.0000	0.0557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1234	1.1015	1.1945	2.1700e-003		0.0518	0.0518		0.0490	0.0490	0.0000	188.3234	188.3234	0.0399	0.0000	189.3202
Total	**0.1234**	**1.1015**	**1.1945**	**2.1700e-003**	**0.1075**	**0.0518**	**0.1593**	**0.0557**	**0.0490**	**0.1047**	**0.0000**	**188.3234**	**188.3234**	**0.0399**	**0.0000**	**189.3202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2870	2.1918	2.7438	4.6000e-003		0.0977	0.0977		0.0947	0.0947	0.0000	386.2904	386.2904	0.0583	0.0000	387.7469
Total	**0.2870**	**2.1918**	**2.7438**	**4.6000e-003**		**0.0977**	**0.0977**		**0.0947**	**0.0947**	**0.0000**	**386.2904**	**386.2904**	**0.0583**	**0.0000**	**387.7469**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2870	2.1918	2.7438	4.6000e-003		0.0977	0.0977		0.0947	0.0947	0.0000	386.2900	386.2900	0.0583	0.0000	387.7464
Total	**0.2870**	**2.1918**	**2.7438**	**4.6000e-003**		**0.0977**	**0.0977**		**0.0947**	**0.0947**	**0.0000**	**386.2900**	**386.2900**	**0.0583**	**0.0000**	**387.7464**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3330	2.5510	3.3846	5.7000e-003		0.1041	0.1041		0.1008	0.1008	0.0000	478.5325	478.5325	0.0710	0.0000	480.3071
Total	**0.3330**	**2.5510**	**3.3846**	**5.7000e-003**		**0.1041**	**0.1041**		**0.1008**	**0.1008**	**0.0000**	**478.5325**	**478.5325**	**0.0710**	**0.0000**	**480.3071**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3330	2.5510	3.3846	5.7000e-003		0.1041	0.1041		0.1008	0.1008	0.0000	478.5319	478.5319	0.0710	0.0000	480.3065
Total	**0.3330**	**2.5510**	**3.3846**	**5.7000e-003**		**0.1041**	**0.1041**		**0.1008**	**0.1008**	**0.0000**	**478.5319**	**478.5319**	**0.0710**	**0.0000**	**480.3065**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.6383	0.8180	1.4000e-003		0.0279	0.0279		0.0263	0.0263	0.0000	122.4617	122.4617	0.0293	0.0000	123.1933
Total	**2.1575**	**0.6383**	**0.8180**	**1.4000e-003**		**0.0279**	**0.0279**		**0.0263**	**0.0263**	**0.0000**	**122.4617**	**122.4617**	**0.0293**	**0.0000**	**123.1933**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.6383	0.8180	1.4000e-003		0.0279	0.0279		0.0263	0.0263	0.0000	122.4616	122.4616	0.0293	0.0000	123.1932
Total	**2.1575**	**0.6383**	**0.8180**	**1.4000e-003**		**0.0279**	**0.0279**		**0.0263**	**0.0263**	**0.0000**	**122.4616**	**122.4616**	**0.0293**	**0.0000**	**123.1932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0350	0.3357	0.4468	7.5000e-004		0.0153	0.0153		0.0142	0.0142	0.0000	65.9057	65.9057	0.0196	0.0000	66.3951
Paving	3.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0388**	**0.3357**	**0.4468**	**7.5000e-004**		**0.0153**	**0.0153**		**0.0142**	**0.0142**	**0.0000**	**65.9057**	**65.9057**	**0.0196**	**0.0000**	**66.3951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0350	0.3357	0.4468	7.5000e-004		0.0153	0.0153		0.0142	0.0142	0.0000	65.9056	65.9056	0.0196	0.0000	66.3951
Paving	3.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0388**	**0.3357**	**0.4468**	**7.5000e-004**		**0.0153**	**0.0153**		**0.0142**	**0.0142**	**0.0000**	**65.9056**	**65.9056**	**0.0196**	**0.0000**	**66.3951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Unmitigated	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,061.76	1,860.89	1550.11	6,697,520	6,697,520
City Park	11.70	29.40	32.85	49,638	49,638
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	86.78	19.69	6.24	211,625	211,625
Health Club	79.03	50.09	64.15	155,641	155,641
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	59.66	18.84	28.15	120,132	120,132
Retirement Community	520.80	440.51	423.15	1,692,789	1,692,789
Total	2,819.73	2,419.42	2,104.65	8,927,345	8,927,345

4.3 Trip Type Information

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
City Park	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Enclosed Parking Structure	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
General Office Building	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Health Club	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Recreational Swimming Pool	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Retirement Community	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	695.8457	695.8457	0.0587	7.1200e-003	699.4355
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	695.8457	695.8457	0.0587	7.1200e-003	699.4355
NaturalGas Mitigated	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	455.2699	455.2699	8.7300e-003	8.3500e-003	457.9754
NaturalGas Unmitigated	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	455.2699	455.2699	8.7300e-003	8.3500e-003	457.9754

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.95224e+006	0.0267	0.2282	0.0971	1.4600e-003		0.0185	0.0185		0.0185	0.0185	0.0000	264.2703	264.2703	5.0700e-003	4.8400e-003	265.8407
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	91903.3	5.0000e-004	4.5100e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9043	4.9043	9.0000e-005	9.0000e-005	4.9335
Health Club	43104	2.3000e-004	2.1100e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3002	2.3002	4.0000e-005	4.0000e-005	2.3139
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.44419e+006	0.0186	0.1587	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.7952	183.7952	3.5200e-003	3.3700e-003	184.8874
Total		**0.0460**	**0.3935**	**0.1702**	**2.5100e-003**		**0.0318**	**0.0318**		**0.0318**	**0.0318**	**0.0000**	**455.2699**	**455.2699**	**8.7200e-003**	**8.3400e-003**	**457.9754**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.95224e+006	0.0267	0.2282	0.0971	1.4600e-003		0.0185	0.0185		0.0185	0.0185	0.0000	264.2703	264.2703	5.0700e-003	4.8400e-003	265.8407
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	91903.3	5.0000e-004	4.5100e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9043	4.9043	9.0000e-005	9.0000e-005	4.9335
Health Club	43104	2.3000e-004	2.1100e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3002	2.3002	4.0000e-005	4.0000e-005	2.3139
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.44419e+006	0.0186	0.1587	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.7952	183.7952	3.5200e-003	3.3700e-003	184.8874
Total		**0.0460**	**0.3935**	**0.1702**	**2.5100e-003**		**0.0318**	**0.0318**		**0.0318**	**0.0318**	**0.0000**	**455.2699**	**455.2699**	**8.7200e-003**	**8.3400e-003**	**457.9754**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.4589e+006	258.7301	0.0218	2.6500e-003	260.0648
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.2642e+006	224.2002	0.0189	2.2900e-003	225.3569
Enclosed Parking Structure	100800	17.8764	1.5100e-003	1.8000e-004	17.9687
General Office Building	111425	19.7607	1.6700e-003	2.0000e-004	19.8627
Health Club	26064	4.6223	3.9000e-004	5.0000e-005	4.6462
Parking Lot	20020	3.5505	3.0000e-004	4.0000e-005	3.5688
Parking Lot	24640	4.3698	3.7000e-004	4.0000e-005	4.3923
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	917619	162.7357	0.0137	1.6600e-003	163.5752
Total		**695.8457**	**0.0587**	**7.1100e-003**	**699.4355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.4589e+006	258.7301	0.0218	2.6500e-003	260.0648
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.2642e+006	224.2002	0.0189	2.2900e-003	225.3569
Enclosed Parking Structure	100800	17.8764	1.5100e-003	1.8000e-004	17.9687
General Office Building	111425	19.7607	1.6700e-003	2.0000e-004	19.8627
Health Club	26064	4.6223	3.9000e-004	5.0000e-005	4.6462
Parking Lot	20020	3.5505	3.0000e-004	4.0000e-005	3.5688
Parking Lot	24640	4.3698	3.7000e-004	4.0000e-005	4.3923
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	917619	162.7357	0.0137	1.6600e-003	163.5752
Total		**695.8457**	**0.0587**	**7.1100e-003**	**699.4355**

6.0 Area Detail

6.1 Mitigation Measures Area

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Unmitigated	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1859	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Total	**2.8537**	**0.0709**	**6.1565**	**3.3000e-004**		**0.0341**	**0.0341**		**0.0341**	**0.0341**	**0.0000**	**10.0647**	**10.0647**	**9.7000e-003**	**0.0000**	**10.3072**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1859	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Total	**2.8537**	**0.0709**	**6.1565**	**3.3000e-004**		**0.0341**	**0.0341**		**0.0341**	**0.0341**	**0.0000**	**10.0647**	**10.0647**	**9.7000e-003**	**0.0000**	**10.3072**

7.0 Water Detail

7.1 Mitigation Measures Water

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	192.6454	1.3418	0.0332	236.0744
Unmitigated	192.6454	1.3418	0.0332	236.0744

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	24.4328 / 15.4033	94.5211	0.8035	0.0197	120.4743
City Park	0 / 17.8722	35.2138	2.9700e-003	3.6000e-004	35.3955
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.93552 / 1.18629	7.4209	0.0636	1.5600e-003	9.4766
Health Club	0.150224 / 0.0920725	0.5760	4.9400e-003	1.2000e-004	0.7355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.122426 / 0.0750355	0.4694	4.0300e-003	1.0000e-004	0.5994
Retirement Community	14.0733 / 8.87228	54.4442	0.4628	0.0113	69.3932
Total		**192.6454**	**1.3419**	**0.0332**	**236.0744**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	24.4328 / 15.4033	94.5211	0.8035	0.0197	120.4743
City Park	0 / 17.8722	35.2138	2.9700e-003	3.6000e-004	35.3955
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.93552 / 1.18629	7.4209	0.0636	1.5600e-003	9.4766
Health Club	0.150224 / 0.0920725	0.5760	4.9400e-003	1.2000e-004	0.7355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.122426 / 0.0750355	0.4694	4.0300e-003	1.0000e-004	0.5994
Retirement Community	14.0733 / 8.87228	54.4442	0.4628	0.0113	69.3932
Total		**192.6454**	**1.3419**	**0.0332**	**236.0744**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	62.8379	3.7136	0.0000	155.6782
Unmitigated	62.8379	3.7136	0.0000	155.6782

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	172.5	35.0159	2.0694	0.0000	86.7505
City Park	1.29	0.2619	0.0155	0.0000	0.6487
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	10.13	2.0563	0.1215	0.0000	5.0944
Health Club	14.48	2.9393	0.1737	0.0000	7.2820
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	11.8	2.3953	0.1416	0.0000	5.9342
Retirement Community	99.36	20.1692	1.1920	0.0000	49.9683
Total		**62.8379**	**3.7136**	**0.0000**	**155.6782**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	172.5	35.0159	2.0694	0.0000	86.7505
City Park	1.29	0.2619	0.0155	0.0000	0.6487
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	10.13	2.0563	0.1215	0.0000	5.0944
Health Club	14.48	2.9393	0.1737	0.0000	7.2820
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	11.8	2.3953	0.1416	0.0000	5.9342
Retirement Community	99.36	20.1692	1.1920	0.0000	49.9683
Total		**62.8379**	**3.7136**	**0.0000**	**155.6782**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Wiley Canyon

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	8.91	1000sqft	0.20	8,914.00	0
Enclosed Parking Structure	602.00	Space	5.42	240,800.00	0
Parking Lot	143.00	Space	1.29	57,200.00	0
City Park	15.00	Acre	15.00	653,400.00	0
Health Club	2.40	1000sqft	0.06	2,400.00	0
Recreational Swimming Pool	2.07	1000sqft	0.05	2,070.00	0
Apartments Mid Rise	379.00	Dwelling Unit	8.79	382,972.00	1084
Retirement Community	217.00	Dwelling Unit	6.36	277,108.00	621
Enclosed Parking Structure	48.00	Space	0.43	19,200.00	0
Parking Lot	176.00	Space	1.58	70,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See SCE EF Forcast

Land Use - See Construction Assumptions

Construction Phase - See Construction Assumptions

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Equipment

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Constructions Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Off-road Equipment - See Construction Assumptions

Trips and VMT - Trips and VMT calculated outside of CalEEMod

Demolition -

Grading -

Woodstoves - No Wood Stoves or fire places

Energy Use -

Construction Off-road Equipment Mitigation - Mitigation

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	5,657.00	7,749.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	16,971.00	23,246.00
tblArchitecturalCoating	ConstArea_Parking	26,160.00	22,584.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	445,554.00	427,345.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,336,662.00	1,282,036.00
tblAreaCoating	Area_Nonresidential_Exterior	5657	7749
tblAreaCoating	Area_Nonresidential_Interior	16971	23246
tblAreaCoating	Area_Parking	26160	22584
tblAreaCoating	Area_Residential_Exterior	445554	427345
tblAreaCoating	Area_Residential_Interior	1336662	1282036
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	114.00
tblConstructionPhase	NumDays	740.00	394.00
tblConstructionPhase	NumDays	50.00	14.00
tblConstructionPhase	NumDays	75.00	193.00
tblConstructionPhase	NumDays	75.00	85.00
tblConstructionPhase	NumDays	55.00	38.00
tblConstructionPhase	NumDays	30.00	14.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	322.15	0.00
tblFireplaces	NumberGas	184.45	0.00
tblFireplaces	NumberNoFireplace	37.90	0.00

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFireplaces	NumberNoFireplace	21.70	0.00
tblFireplaces	NumberWood	18.95	0.00
tblFireplaces	NumberWood	10.85	0.00
tblGrading	AcresOfGrading	1,447.50	253.31
tblGrading	AcresOfGrading	42.50	37.19
tblLandUse	LandUseSquareFeet	8,910.00	8,914.00
tblLandUse	LandUseSquareFeet	379,000.00	382,972.00
tblLandUse	LandUseSquareFeet	217,000.00	277,108.00
tblLandUse	LotAcreage	9.97	8.79
tblLandUse	LotAcreage	43.40	6.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	174.34	172.50
tblSolidWaste	SolidWasteGenerationRate	8.29	10.13
tblSolidWaste	SolidWasteGenerationRate	13.68	14.48
tblSolidWaste	SolidWasteGenerationRate	99.82	99.36
tblTripsAndVMT	HaulingTripNumber	168.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	244.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	43.00	0.00
tblTripsAndVMT	WorkerTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblTripsAndVMT	WorkerTripNumber	891.00	0.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblWater	IndoorWaterUseRate	24,693,375.71	24,432,759.61
tblWater	IndoorWaterUseRate	1,583,607.69	1,935,520.52
tblWater	IndoorWaterUseRate	141,943.55	150,223.59
tblWater	IndoorWaterUseRate	14,138,423.56	14,073,269.53
tblWater	OutdoorWaterUseRate	15,567,562.95	15,403,261.49
tblWater	OutdoorWaterUseRate	970,598.26	1,186,286.77
tblWater	OutdoorWaterUseRate	86,997.66	92,072.52
tblWater	OutdoorWaterUseRate	8,913,353.98	8,872,278.62
tblWoodstoves	NumberCatalytic	18.95	0.00
tblWoodstoves	NumberCatalytic	10.85	0.00
tblWoodstoves	NumberNoncatalytic	18.95	0.00
tblWoodstoves	NumberNoncatalytic	10.85	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.0547	10.4138	8.9010	0.0205	0.7411	0.4380	1.1791	0.3375	0.4072	0.7447	0.0000	1,788.9541	1,788.9541	0.5217	0.0000	1,801.9967
2024	0.4139	3.3240	3.9777	6.8500e-003	0.2757	0.1508	0.4265	0.1428	0.1450	0.2878	0.0000	581.9512	581.9512	0.1000	0.0000	584.4510
2025	2.5293	3.5250	4.6493	7.8600e-003	0.0000	0.1473	0.1473	0.0000	0.1413	0.1413	0.0000	666.8999	666.8999	0.1198	0.0000	669.8955
Maximum	**2.5293**	**10.4138**	**8.9010**	**0.0205**	**0.7411**	**0.4380**	**1.1791**	**0.3375**	**0.4072**	**0.7447**	**0.0000**	**1,788.9541**	**1,788.9541**	**0.5217**	**0.0000**	**1,801.9967**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2649	1.2779	10.6776	0.0205	0.2890	0.0370	0.3260	0.1316	0.0370	0.1686	0.0000	1,788.9520	1,788.9520	0.5217	0.0000	1,801.9945
2024	0.1576	0.8754	4.2696	6.8500e-003	0.1075	0.0273	0.1348	0.0557	0.0273	0.0830	0.0000	581.9506	581.9506	0.1000	0.0000	584.4503
2025	2.2690	0.9826	5.0027	7.8600e-003	0.0000	0.0296	0.0296	0.0000	0.0296	0.0296	0.0000	666.8991	666.8991	0.1198	0.0000	669.8947
Maximum	**2.2690**	**1.2779**	**10.6776**	**0.0205**	**0.2890**	**0.0370**	**0.3260**	**0.1316**	**0.0370**	**0.1686**	**0.0000**	**1,788.9520**	**1,788.9520**	**0.5217**	**0.0000**	**1,801.9945**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**32.68**	**81.83**	**-13.82**	**0.00**	**61.00**	**87.24**	**72.02**	**61.00**	**86.46**	**76.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	2.1705	0.2979
2	**4-2-2023**	**7-1-2023**	3.0650	0.3624
3	**7-2-2023**	**10-1-2023**	4.0961	0.5522
4	**10-2-2023**	**1-1-2024**	2.1817	0.3355
5	**1-2-2024**	**4-1-2024**	0.9489	0.1540
6	**4-2-2024**	**7-1-2024**	0.9220	0.2583
7	**7-2-2024**	**10-1-2024**	0.9255	0.3091
8	**10-2-2024**	**1-1-2025**	0.9249	0.3090
9	**1-2-2025**	**4-1-2025**	0.8505	0.2953
10	**4-2-2025**	**7-1-2025**	0.8599	0.2986
11	**7-2-2025**	**9-30-2025**	2.3185	1.2754
		Highest	4.0961	1.2754

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Energy	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	1,151.1157	1,151.1157	0.0675	0.0155	1,157.4109
Mobile	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Waste						0.0000	0.0000		0.0000	0.0000	62.8379	0.0000	62.8379	3.7136	0.0000	155.6782
Water						0.0000	0.0000		0.0000	0.0000	12.9167	179.7286	192.6454	1.3418	0.0332	236.0744
Total	**4.2976**	**2.0658**	**20.8334**	**0.0345**	**3.3540**	**0.0891**	**3.4431**	**0.8948**	**0.0874**	**0.9822**	**75.7546**	**4,271.6821**	**4,347.4367**	**5.3343**	**0.1761**	**4,533.2737**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Energy	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	1,151.1157	1,151.1157	0.0675	0.0155	1,157.4109
Mobile	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Waste						0.0000	0.0000		0.0000	0.0000	62.8379	0.0000	62.8379	3.7136	0.0000	155.6782
Water						0.0000	0.0000		0.0000	0.0000	12.9167	179.7286	192.6454	1.3418	0.0332	236.0744
Total	**4.2976**	**2.0658**	**20.8334**	**0.0345**	**3.3540**	**0.0891**	**3.4431**	**0.8948**	**0.0874**	**0.9822**	**75.7546**	**4,271.6821**	**4,347.4367**	**5.3343**	**0.1761**	**4,533.2737**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	1/19/2023	5	14	
2	Site Preparation	Site Preparation	1/13/2023	2/1/2023	5	14	
3	Grading	Grading	2/4/2023	11/1/2023	5	193	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Drainage/Utilities/Sub-grade	Trenching	6/16/2023	1/2/2024	5	143	
5	Foundations/Concrete Pour	Grading	1/2/2024	4/29/2024	5	85	
6	Building Construction	Building Construction	4/30/2024	11/1/2025	5	394	
7	Architectural Coating	Architectural Coating	7/26/2025	12/31/2025	5	114	
8	Paving	Paving	8/23/2025	10/15/2025	5	38	

Acres of Grading (Site Preparation Phase): 14

Acres of Grading (Grading Phase): 253.31

Acres of Paving: 8.72

Residential Indoor: 1,282,036; Residential Outdoor: 427,345; Non-Residential Indoor: 23,246; Non-Residential Outdoor: 7,749; Striped Parking Area: 22,584 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Forklifts	1	8.00	89	0.20
Demolition	Off-Highway Trucks	1	8.00	402	0.38
Demolition	Rubber Tired Loaders	2	8.00	203	0.36
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Welders	1	8.00	46	0.45
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Forklifts	1	8.00	89	0.20
Site Preparation	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Rollers	1	8.00	80	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	6	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Drainage/Utilities/Sub-grade	Air Compressors	2	8.00	78	0.48
Drainage/Utilities/Sub-grade	Bore/Drill Rigs	1	8.00	221	0.50
Drainage/Utilities/Sub-grade	Excavators	2	8.00	158	0.38
Drainage/Utilities/Sub-grade	Forklifts	1	8.00	89	0.20
Drainage/Utilities/Sub-grade	Off-Highway Trucks	1	8.00	402	0.38
Drainage/Utilities/Sub-grade	Plate Compactors	2	8.00	8	0.43
Drainage/Utilities/Sub-grade	Pumps	2	8.00	84	0.74
Drainage/Utilities/Sub-grade	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Sub-grade	Rubber Tired Loaders	2	8.00	203	0.36
Drainage/Utilities/Sub-grade	Skid Steer Loaders	1	8.00	65	0.37
Drainage/Utilities/Sub-grade	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drainage/Utilities/Sub-grade	Trenchers	1	8.00	78	0.50
Foundations/Concrete Pour	Air Compressors	2	8.00	78	0.48
Foundations/Concrete Pour	Concrete/Industrial Saws	1	8.00	81	0.73

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Foundations/Concrete Pour	Excavators	1	8.00	158	0.38
Foundations/Concrete Pour	Forklifts	1	8.00	89	0.20
Foundations/Concrete Pour	Plate Compactors	1	8.00	8	0.43
Foundations/Concrete Pour	Pumps	1	8.00	84	0.74
Foundations/Concrete Pour	Rubber Tired Dozers	1	8.00	247	0.40
Foundations/Concrete Pour	Sweepers/Scrubbers	1	8.00	64	0.46
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	4	8.00	46	0.45
Architectural Coating	Air Compressors	2	8.00	78	0.48
Architectural Coating	Cranes	1	8.00	231	0.29
Architectural Coating	Forklifts	3	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	1	8.00	100	0.40
Architectural Coating	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	17	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Sub-grade	18	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	12	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0182	0.0000	0.0182	2.7600e-003	0.0000	2.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.1885	0.2347	4.8000e-004		8.2400e-003	8.2400e-003		7.8300e-003	7.8300e-003	0.0000	41.5580	41.5580	0.0103	0.0000	41.8155
Total	**0.0233**	**0.1885**	**0.2347**	**4.8000e-004**	**0.0182**	**8.2400e-003**	**0.0265**	**2.7600e-003**	**7.8300e-003**	**0.0106**	**0.0000**	**41.5580**	**41.5580**	**0.0103**	**0.0000**	**41.8155**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.1000e-003	0.0000	7.1000e-003	1.0800e-003	0.0000	1.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9800e-003	0.0510	0.2868	4.8000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	41.5579	41.5579	0.0103	0.0000	41.8155
Total	**7.9800e-003**	**0.0510**	**0.2868**	**4.8000e-004**	**7.1000e-003**	**1.2200e-003**	**8.3200e-003**	**1.0800e-003**	**1.2200e-003**	**2.3000e-003**	**0.0000**	**41.5579**	**41.5579**	**0.0103**	**0.0000**	**41.8155**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4200e-003	0.0000	7.4200e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1664	0.1619	3.7000e-004		7.2300e-003	7.2300e-003		6.7200e-003	6.7200e-003	0.0000	32.3777	32.3777	9.4400e-003	0.0000	32.6137
Total	**0.0179**	**0.1664**	**0.1619**	**3.7000e-004**	**7.4200e-003**	**7.2300e-003**	**0.0147**	**8.0000e-004**	**6.7200e-003**	**7.5200e-003**	**0.0000**	**32.3777**	**32.3777**	**9.4400e-003**	**0.0000**	**32.6137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8300e-003	0.0356	0.1990	3.7000e-004		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	32.3777	32.3777	9.4400e-003	0.0000	32.6137
Total	**4.8300e-003**	**0.0356**	**0.1990**	**3.7000e-004**	**2.9000e-003**	**5.9000e-004**	**3.4900e-003**	**3.1000e-004**	**5.9000e-004**	**9.0000e-004**	**0.0000**	**32.3777**	**32.3777**	**9.4400e-003**	**0.0000**	**32.6137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7155	0.0000	0.7155	0.3339	0.0000	0.3339	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7452	7.7306	5.7246	0.0137		0.3159	0.3159		0.2919	0.2919	0.0000	1,197.9392	1,197.9392	0.3705	0.0000	1,207.2011
Total	**0.7452**	**7.7306**	**5.7246**	**0.0137**	**0.7155**	**0.3159**	**1.0314**	**0.3339**	**0.2919**	**0.6258**	**0.0000**	**1,197.9392**	**1,197.9392**	**0.3705**	**0.0000**	**1,207.2011**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2790	0.0000	0.2790	0.1302	0.0000	0.1302	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1759	0.7838	6.6870	0.0137		0.0246	0.0246		0.0246	0.0246	0.0000	1,197.9378	1,197.9378	0.3705	0.0000	1,207.1997
Total	**0.1759**	**0.7838**	**6.6870**	**0.0137**	**0.2790**	**0.0246**	**0.3036**	**0.1302**	**0.0246**	**0.1549**	**0.0000**	**1,197.9378**	**1,197.9378**	**0.3705**	**0.0000**	**1,207.1997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2684	2.3283	2.7798	5.9400e-003		0.1066	0.1066		0.1008	0.1008	0.0000	517.0792	517.0792	0.1315	0.0000	520.3663
Total	**0.2684**	**2.3283**	**2.7798**	**5.9400e-003**		**0.1066**	**0.1066**		**0.1008**	**0.1008**	**0.0000**	**517.0792**	**517.0792**	**0.1315**	**0.0000**	**520.3663**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0762	0.4075	3.5047	5.9400e-003		0.0105	0.0105		0.0105	0.0105	0.0000	517.0786	517.0786	0.1315	0.0000	520.3657
Total	**0.0762**	**0.4075**	**3.5047**	**5.9400e-003**		**0.0105**	**0.0105**		**0.0105**	**0.0105**	**0.0000**	**517.0786**	**517.0786**	**0.1315**	**0.0000**	**520.3657**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6400e-003	0.0307	0.0394	8.0000e-005		1.3600e-003	1.3600e-003		1.2900e-003	1.2900e-003	0.0000	7.3372	7.3372	1.8600e-003	0.0000	7.3837
Total	**3.6400e-003**	**0.0307**	**0.0394**	**8.0000e-005**		**1.3600e-003**	**1.3600e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**7.3372**	**7.3372**	**1.8600e-003**	**0.0000**	**7.3837**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Drainage/Utilities/Sub-grade - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0800e-003	5.7800e-003	0.0497	8.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	7.3372	7.3372	1.8600e-003	0.0000	7.3837
Total	**1.0800e-003**	**5.7800e-003**	**0.0497**	**8.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**7.3372**	**7.3372**	**1.8600e-003**	**0.0000**	**7.3837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Foundations/Concrete Pour - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2757	0.0000	0.2757	0.1428	0.0000	0.1428	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1234	1.1015	1.1945	2.1700e-003		0.0518	0.0518		0.0490	0.0490	0.0000	188.3237	188.3237	0.0399	0.0000	189.3204
Total	**0.1234**	**1.1015**	**1.1945**	**2.1700e-003**	**0.2757**	**0.0518**	**0.3274**	**0.1428**	**0.0490**	**0.1918**	**0.0000**	**188.3237**	**188.3237**	**0.0399**	**0.0000**	**189.3204**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Foundations/Concrete Pour - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1075	0.0000	0.1075	0.0557	0.0000	0.0557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0274	0.1709	1.3230	2.1700e-003		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	188.3234	188.3234	0.0399	0.0000	189.3202
Total	**0.0274**	**0.1709**	**1.3230**	**2.1700e-003**	**0.1075**	**3.6600e-003**	**0.1112**	**0.0557**	**3.6600e-003**	**0.0594**	**0.0000**	**188.3234**	**188.3234**	**0.0399**	**0.0000**	**189.3202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2870	2.1918	2.7438	4.6000e-003		0.0977	0.0977		0.0947	0.0947	0.0000	386.2904	386.2904	0.0583	0.0000	387.7469
Total	**0.2870**	**2.1918**	**2.7438**	**4.6000e-003**		**0.0977**	**0.0977**		**0.0947**	**0.0947**	**0.0000**	**386.2904**	**386.2904**	**0.0583**	**0.0000**	**387.7469**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1291	0.6987	2.8968	4.6000e-003		0.0235	0.0235		0.0235	0.0235	0.0000	386.2900	386.2900	0.0583	0.0000	387.7464
Total	**0.1291**	**0.6987**	**2.8968**	**4.6000e-003**		**0.0235**	**0.0235**		**0.0235**	**0.0235**	**0.0000**	**386.2900**	**386.2900**	**0.0583**	**0.0000**	**387.7464**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3330	2.5510	3.3846	5.7000e-003		0.1041	0.1041		0.1008	0.1008	0.0000	478.5325	478.5325	0.0710	0.0000	480.3071
Total	**0.3330**	**2.5510**	**3.3846**	**5.7000e-003**		**0.1041**	**0.1041**		**0.1008**	**0.1008**	**0.0000**	**478.5325**	**478.5325**	**0.0710**	**0.0000**	**480.3071**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1529	0.8486	3.5829	5.7000e-003		0.0263	0.0263		0.0263	0.0263	0.0000	478.5319	478.5319	0.0710	0.0000	480.3065
Total	**0.1529**	**0.8486**	**3.5829**	**5.7000e-003**		**0.0263**	**0.0263**		**0.0263**	**0.0263**	**0.0000**	**478.5319**	**478.5319**	**0.0710**	**0.0000**	**480.3065**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.6383	0.8180	1.4000e-003		0.0279	0.0279		0.0263	0.0263	0.0000	122.4617	122.4617	0.0293	0.0000	123.1933
Total	**2.1575**	**0.6383**	**0.8180**	**1.4000e-003**		**0.0279**	**0.0279**		**0.0263**	**0.0263**	**0.0000**	**122.4617**	**122.4617**	**0.0293**	**0.0000**	**123.1933**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.0703	0.8996	1.4000e-003		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	122.4616	122.4616	0.0293	0.0000	123.1932
Total	**2.1027**	**0.0703**	**0.8996**	**1.4000e-003**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**122.4616**	**122.4616**	**0.0293**	**0.0000**	**123.1932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0350	0.3357	0.4468	7.5000e-004		0.0153	0.0153		0.0142	0.0142	0.0000	65.9057	65.9057	0.0196	0.0000	66.3951
Paving	3.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0388**	**0.3357**	**0.4468**	**7.5000e-004**		**0.0153**	**0.0153**		**0.0142**	**0.0142**	**0.0000**	**65.9057**	**65.9057**	**0.0196**	**0.0000**	**66.3951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6500e-003	0.0637	0.5203	7.5000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	65.9056	65.9056	0.0196	0.0000	66.3951
Paving	3.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0134**	**0.0637**	**0.5203**	**7.5000e-004**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**65.9056**	**65.9056**	**0.0196**	**0.0000**	**66.3951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032
Unmitigated	1.3979	1.6014	14.5068	0.0317	3.3540	0.0232	3.3772	0.8948	0.0215	0.9164	0.0000	2,930.7731	2,930.7731	0.2017	0.1275	2,973.8032

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,061.76	1,860.89	1550.11	6,697,520	6,697,520
City Park	11.70	29.40	32.85	49,638	49,638
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	86.78	19.69	6.24	211,625	211,625
Health Club	79.03	50.09	64.15	155,641	155,641
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	59.66	18.84	28.15	120,132	120,132
Retirement Community	520.80	440.51	423.15	1,692,789	1,692,789
Total	2,819.73	2,419.42	2,104.65	8,927,345	8,927,345

4.3 Trip Type Information

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
City Park	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Enclosed Parking Structure	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
General Office Building	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Health Club	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Recreational Swimming Pool	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Retirement Community	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	695.8457	695.8457	0.0587	7.1200e-003	699.4355
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	695.8457	695.8457	0.0587	7.1200e-003	699.4355
NaturalGas Mitigated	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	455.2699	455.2699	8.7300e-003	8.3500e-003	457.9754
NaturalGas Unmitigated	0.0460	0.3935	0.1702	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	455.2699	455.2699	8.7300e-003	8.3500e-003	457.9754

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.95224e+006	0.0267	0.2282	0.0971	1.4600e-003		0.0185	0.0185		0.0185	0.0185	0.0000	264.2703	264.2703	5.0700e-003	4.8400e-003	265.8407
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	91903.3	5.0000e-004	4.5100e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9043	4.9043	9.0000e-005	9.0000e-005	4.9335
Health Club	43104	2.3000e-004	2.1100e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3002	2.3002	4.0000e-005	4.0000e-005	2.3139
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.44419e+006	0.0186	0.1587	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.7952	183.7952	3.5200e-003	3.3700e-003	184.8874
Total		**0.0460**	**0.3935**	**0.1702**	**2.5100e-003**		**0.0318**	**0.0318**		**0.0318**	**0.0318**	**0.0000**	**455.2699**	**455.2699**	**8.7200e-003**	**8.3400e-003**	**457.9754**

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.95224e+006	0.0267	0.2282	0.0971	1.4600e-003		0.0185	0.0185		0.0185	0.0185	0.0000	264.2703	264.2703	5.0700e-003	4.8400e-003	265.8407
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	91903.3	5.0000e-004	4.5100e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9043	4.9043	9.0000e-005	9.0000e-005	4.9335
Health Club	43104	2.3000e-004	2.1100e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3002	2.3002	4.0000e-005	4.0000e-005	2.3139
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.44419e+006	0.0186	0.1587	0.0675	1.0100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	183.7952	183.7952	3.5200e-003	3.3700e-003	184.8874
Total		**0.0460**	**0.3935**	**0.1702**	**2.5100e-003**		**0.0318**	**0.0318**		**0.0318**	**0.0318**	**0.0000**	**455.2699**	**455.2699**	**8.7200e-003**	**8.3400e-003**	**457.9754**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.4589e+006	258.7301	0.0218	2.6500e-003	260.0648
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.2642e+006	224.2002	0.0189	2.2900e-003	225.3569
Enclosed Parking Structure	100800	17.8764	1.5100e-003	1.8000e-004	17.9687
General Office Building	111425	19.7607	1.6700e-003	2.0000e-004	19.8627
Health Club	26064	4.6223	3.9000e-004	5.0000e-005	4.6462
Parking Lot	20020	3.5505	3.0000e-004	4.0000e-005	3.5688
Parking Lot	24640	4.3698	3.7000e-004	4.0000e-005	4.3923
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	917619	162.7357	0.0137	1.6600e-003	163.5752
Total		**695.8457**	**0.0587**	**7.1100e-003**	**699.4355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.4589e+006	258.7301	0.0218	2.6500e-003	260.0648
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.2642e+006	224.2002	0.0189	2.2900e-003	225.3569
Enclosed Parking Structure	100800	17.8764	1.5100e-003	1.8000e-004	17.9687
General Office Building	111425	19.7607	1.6700e-003	2.0000e-004	19.8627
Health Club	26064	4.6223	3.9000e-004	5.0000e-005	4.6462
Parking Lot	20020	3.5505	3.0000e-004	4.0000e-005	3.5688
Parking Lot	24640	4.3698	3.7000e-004	4.0000e-005	4.3923
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	917619	162.7357	0.0137	1.6600e-003	163.5752
Total		**695.8457**	**0.0587**	**7.1100e-003**	**699.4355**

6.0 Area Detail

6.1 Mitigation Measures Area

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Unmitigated	2.8537	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1859	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Total	**2.8537**	**0.0709**	**6.1565**	**3.3000e-004**		**0.0341**	**0.0341**		**0.0341**	**0.0341**	**0.0000**	**10.0647**	**10.0647**	**9.7000e-003**	**0.0000**	**10.3072**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1859	0.0709	6.1565	3.3000e-004		0.0341	0.0341		0.0341	0.0341	0.0000	10.0647	10.0647	9.7000e-003	0.0000	10.3072
Total	**2.8537**	**0.0709**	**6.1565**	**3.3000e-004**		**0.0341**	**0.0341**		**0.0341**	**0.0341**	**0.0000**	**10.0647**	**10.0647**	**9.7000e-003**	**0.0000**	**10.3072**

7.0 Water Detail

7.1 Mitigation Measures Water

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	192.6454	1.3418	0.0332	236.0744
Unmitigated	192.6454	1.3418	0.0332	236.0744

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	24.4328 / 15.4033	94.5211	0.8035	0.0197	120.4743
City Park	0 / 17.8722	35.2138	2.9700e-003	3.6000e-004	35.3955
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.93552 / 1.18629	7.4209	0.0636	1.5600e-003	9.4766
Health Club	0.150224 / 0.0920725	0.5760	4.9400e-003	1.2000e-004	0.7355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.122426 / 0.0750355	0.4694	4.0300e-003	1.0000e-004	0.5994
Retirement Community	14.0733 / 8.87228	54.4442	0.4628	0.0113	69.3932
Total		**192.6454**	**1.3419**	**0.0332**	**236.0744**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	24.4328 / 15.4033	94.5211	0.8035	0.0197	120.4743
City Park	0 / 17.8722	35.2138	2.9700e-003	3.6000e-004	35.3955
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.93552 / 1.18629	7.4209	0.0636	1.5600e-003	9.4766
Health Club	0.150224 / 0.0920725	0.5760	4.9400e-003	1.2000e-004	0.7355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.122426 / 0.0750355	0.4694	4.0300e-003	1.0000e-004	0.5994
Retirement Community	14.0733 / 8.87228	54.4442	0.4628	0.0113	69.3932
Total		**192.6454**	**1.3419**	**0.0332**	**236.0744**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Wiley Canyon - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	62.8379	3.7136	0.0000	155.6782
Unmitigated	62.8379	3.7136	0.0000	155.6782

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	172.5	35.0159	2.0694	0.0000	86.7505
City Park	1.29	0.2619	0.0155	0.0000	0.6487
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	10.13	2.0563	0.1215	0.0000	5.0944
Health Club	14.48	2.9393	0.1737	0.0000	7.2820
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	11.8	2.3953	0.1416	0.0000	5.9342
Retirement Community	99.36	20.1692	1.1920	0.0000	49.9683
Total		**62.8379**	**3.7136**	**0.0000**	**155.6782**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	172.5	35.0159	2.0694	0.0000	86.7505
City Park	1.29	0.2619	0.0155	0.0000	0.6487
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	10.13	2.0563	0.1215	0.0000	5.0944
Health Club	14.48	2.9393	0.1737	0.0000	7.2820
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	11.8	2.3953	0.1416	0.0000	5.9342
Retirement Community	99.36	20.1692	1.1920	0.0000	49.9683
Total		**62.8379**	**3.7136**	**0.0000**	**155.6782**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation