

## MEMORANDUM

**DATE:** May 2, 2022

**To:** Robert Neman, Harvard 826 Property LLC, Manager

**FROM:** Ronald Brugger, Senior Air Quality Specialist, LSA

**SUBJECT:** Air Quality and Greenhouse Gas Impact Analysis Memorandum for the Proposed French Valley Commercial Project (LSA Project No. EGR2101)

### INTRODUCTION

This air quality and greenhouse gas (GHG) impact analysis for the proposed French Valley Commercial Project (project) in the community of French Valley in unincorporated Riverside County has been prepared using methods and assumptions recommended in the South Coast Air Quality Management District's (SCAQMD) *CEQA Air Quality Handbook* (SCAQMD 1993). This analysis includes a description of existing regulatory framework, an assessment of project operational air quality emissions, and an assessment of GHG emissions. Measures to reduce or eliminate significant impacts are identified, where appropriate.

### Project Location

The project site is located on the southwest corner of Penfield Lane and Benton Road within the Borel Airpark Specific Plan in the community of French Valley in unincorporated Riverside County, California, as shown in Figure 1 - Project Location and Vicinity (all figures are provided in Attachment B).

### Project Description

The undeveloped 2.24-acre site would be developed with a 5,215-square-foot (sf) express car wash and approximately 18 customer parking spaces with vacuums, one handicap parking space, and one employee parking space. The project would also include a 729 sf drive-through-only Weinerschnitzel and a 2,535 sf Arby's restaurant with a drive through. Figure 2 shows the project's site plan.

The tentative construction schedule would begin in May 2022 and end in January 2023, a duration of approximately 8 months.

### *Sensitive Receptors and Land Uses in the Project Vicinity*

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to air quality. The nearest sensitive receptor is a single-family residence located across Penfield Lane, approximately 130 feet east of the proposed project site. The areas adjacent to the project site include the following uses:

- **North:** Benton Road and the French Valley Village Center shopping mall
- **South:** Commercial uses and undeveloped land farther south
- **East:** Penfield Lane and a single-family residence beyond
- **West:** Undeveloped land and commercial uses beyond

### Climate/Meteorology

Air quality in the planning area is affected not only by various emissions sources (e.g., mobile and industry) but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the South Coast Air Basin (Basin) some of the worst air pollution problems in the nation.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). The climatological station closest to the site with the most current available climate data is the Elsinore Monitoring Station (Western Regional Climate Center 2022). The monthly average maximum temperature recorded at this station ranged from 65.4°F in January to 98.1°F in July and August, with an annual average maximum of 80.6°F. The monthly average minimum temperature recorded at this station ranged from 36.4°F in January to 59.8°F in August, with an annual average minimum of 47.2°F. January is typically the coldest month, and July and August are typically the warmest months in this area of the Basin.

The majority of annual rainfall in the Basin occurs between November and March. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The Elsinore Monitoring Station recorded precipitation average monthly rainfall from 2.54 inches in February to 0.02 inch in July, with an annual total of 12.01 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in midafternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide and nitrogen oxides (NO<sub>x</sub>) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO<sub>x</sub> to form photochemical smog.

## REGULATORY FRAMEWORK

Air quality and GHG standards and the regulatory framework are discussed below.

### Federal Regulations/Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the United States Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS). The NAAQS were established for six major pollutants, termed “criteria” pollutants: ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM) (both PM less than 10 microns in size [PM<sub>10</sub>] and PM less than 2.5 microns in size [PM<sub>2.5</sub>]), and lead. Criteria pollutants are defined as those pollutants for which the federal and state governments have established Ambient Air Quality Standards, or criteria, for outdoor concentrations to protect public health.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to global climate change.

In 2012, the EPA and the National Highway Traffic Safety Administration promulgated new rules to set GHG emission and fuel economy standards for new motor vehicles. The rules created requirements for model years 2017–2021 and 2022–2025, which would become more stringent each year, achieving greater GHG reductions over time. On March 31, 2020, the agencies issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that increases the stringency of Corporate Average Fuel Economy Standard and CO<sub>2</sub> emissions standards by 1.5 percent each year through model year 2026.

### State Agencies, Regulations, and Standards

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to the State’s air pollution problems. California adopted the California Clean Air Act (CCAA) in 1988. CARB administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the CAA as well as four others: visibility-reducing particulates, hydrogen sulfide (H<sub>2</sub>S), sulfates, and vinyl chloride.

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to set a statewide GHG emissions limit and set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

In 2016, the Legislature passed and Governor Jerry Brown signed Senate Bill (SB) 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million (ppm) of carbon dioxide equivalent (CO<sub>2</sub>e) and reduce the likelihood of catastrophic impacts from climate change. The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions.

In December 2017, CARB adopted "California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target" (CARB 2017) that describes the actions the State will take to achieve the SB 32 climate goal of reducing GHG emissions at least 40 percent below 1990 levels by 2030. The 2017 Scoping Plan includes input from a range of State agencies and is the result of a 2-year development process, including extensive public and stakeholder outreach, designed to ensure that California's climate and air quality efforts continue to improve public health and drive development of a more sustainable economy. It outlines an approach that cuts across economic sectors to combine GHG reductions with reductions of smog-causing pollutants, while also safeguarding public health and economic goals. The 2017 Scoping Plan reflects the direction from the Legislature on the Cap-and-Trade Program, as described in AB 398, the need to extend key existing emissions reductions programs, and acknowledges the parallel actions required under AB 617 to strengthen monitoring and reduce air pollution at the community level.

The actions identified in the 2017 Scoping Plan can reduce overall GHG emissions in California and deliver strong policy signals that will continue to drive investment and certainty in a low-carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the original Scoping Plan and the 2014 Scoping Plan, while also identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

Although the 2017 Scoping Plan does not impose any specific mandates or policies that specifically apply to individual development projects such as the proposed project, the Scoping Plan encourages local municipalities to update building codes and establish sustainable development practices for accommodating future growth. Key policies that involve the residential and commercial building sectors that are indirectly applicable to the proposed project include the implementation of SB 275 (promoting infill development and high density housing in high quality transit areas), implementing green building practices (i.e., the California Green Building Standards Code), energy efficiency and water conservation policies, and waste diversion efforts.

### *Senate Bill 97 and State CEQA Guidelines*

In August 2007, the Legislature adopted SB 97, requiring the Office of Planning and Research (OPR) to prepare and transmit new California Environmental Quality Act (CEQA) guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the California Natural Resources Agency. OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009, and the *State CEQA Guidelines* amendments were adopted on December 30, 2009, and became effective on March 18, 2010.

The *State CEQA Guidelines* amendments do not specify a threshold of significance for GHG emissions or prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis but rely on the lead agencies in making their own significance determinations based upon substantial evidence. The *State CEQA Guidelines* amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

The *State CEQA Guidelines* amendments require a lead agency to make a good-faith effort based on the extent possible on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The *State CEQA Guidelines* amendments give discretion to the lead agency whether to (1) use a model or methodology to quantify GHG emissions resulting from a project and which model or methodology to use and/or (2) rely on a qualitative analysis or performance-based standards. The California Natural Resources Agency is required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32.

### *California Green Building Standards Code*

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations, is commonly referred to as the CALGreen Code. The first edition of the CALGreen Code was released in 2008 and contained only voluntary standards. The 2019 CALGreen Code was updated in 2019, became effective on January 1, 2020, and applies to nonresidential and residential developments. The CALGreen Code contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, function at their maximum efficiency.

### **Regional Air Quality Planning Framework**

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization responsible for ensuring compliance with the requirements of the CAA for the Basin. SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and a forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On September 3, 2020, the Regional Council of SCAG adopted *Connect SoCal*, also known as the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life (2020–2045 RTP/SCS)*. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal embodies a collective vision for the region’s future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders within Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties.

#### *South Coast Air Quality Management District*

SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, SCAQMD, a regional agency, works directly with SCAG, county transportation commissions, and local governments, and cooperates actively with State and federal government agencies. SCAQMD develops air quality-related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

#### *Regional Air Quality Management Plan*

SCAQMD and SCAG are responsible for formulating and implementing the regional air quality management plan (AQMP) for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every 3 years, updating the previous plan and a 20-year horizon.

The latest plan is the 2016 AQMP (SCAQMD 2017), which incorporates the 2016 RTP/SCS and emission inventory methodologies for various source categories. The 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS, implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour O<sub>3</sub> NAAQS as well as the latest 24-hour and annual PM<sub>2.5</sub> standards. Key elements of the 2016 AQMP include:

- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies
- Enhanced socioeconomic assessment, including an expanded environmental-justice analysis
- Attainment of the 24-hour PM<sub>2.5</sub> standard in 2019 with no additional measures

- Attainment of the annual PM<sub>2.5</sub> standard by 2025 with implementation of a portion of the O<sub>3</sub> strategy
- Attainment of the 1-hour O<sub>3</sub> standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures)

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation. For example, SCAQMD Rule 403 requires implementation of the best-available fugitive dust control measure during active construction periods capable of generating fugitive dust emissions from on-site earthmoving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Basin, such as the proposed project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in Environmental Impact Reports and was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* (1993) with the *Air Quality Analysis Guidance Handbook* (SCAQMD n.d.).

To assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website and includes (1) on-road vehicle emission factors, (2) background CO concentrations, (3) localized significance thresholds (LSTs), (4) mitigation measures and control efficiencies, (5) mobile-source toxics analysis, (6) off-road mobile-source emission factors, (7) PM<sub>2.5</sub> significance thresholds and calculation methodology, and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as CalEEMod. These recommendations were followed in the preparation of this analysis.

The following SCAQMD rules and regulations would apply to the proposed project:

- SCAQMD Rule 403 (SCAQMD 2005) requires projects to incorporate fugitive dust control measures; and
- SCAQMD Rule 1113 (SCAQMD 2016) limits the volatile organic compound (VOC) content of architectural coatings.

### Greenhouse Gas Emissions

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

### *Federal Regulations*

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO<sub>2</sub> emissions under the CAA.

While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 to implement a regulatory approach to global climate change, including the 2009 EPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the EPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that seven GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, NF<sub>3</sub>, PFCs, and SF<sub>6</sub>) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

### *State Regulations*

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

**Assembly Bill 32 (2006), California Global Warming Solutions Act.** California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort set a GHG emission reduction target to reduce GHG emissions to 1990 levels by 2020. CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) CO<sub>2</sub>e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. CARB approved the Scoping Plan on December 11, 2008. It contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO<sub>2</sub>e, or approximately 30 percent, from the State's projected 2020 emission level of 596 MMT of CO<sub>2</sub>e under a business-as-usual scenario (this is a reduction of 42 MMT CO<sub>2</sub>e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reduction of 31.7 MMT CO<sub>2</sub>e)
- The Low-Carbon Fuel Standard (15.0 MMT CO<sub>2</sub>e)
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO<sub>2</sub>e)
- A renewable portfolio standard for electricity production (21.3 MMT CO<sub>2</sub>e)

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high-speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO<sub>2</sub>e by 2020.

On August 24, 2011, CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,<sup>1</sup> to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32.

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

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

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

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

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<sup>1</sup> California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

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

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

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

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

**Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197.** In the summer of 2016 the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emission trajectory that would stabilize atmospheric GHG concentrations at 450 ppm CO<sub>2</sub>e and reduce the likelihood of catastrophic impacts from climate change.

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

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

**Executive Order B-55-18.** Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals,

meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO<sub>2</sub>e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

**Title 24, Building Efficiencies Standards, and the California Green Building Standards Code.** In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen) (California Code of Regulations, Title 24, Part 11), which sets performance standards for residential and nonresidential development to reduce environmental impacts and to encourage sustainable construction practices. CALGreen addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. CALGreen was most recently updated in 2019 to include new mandatory measures for residential and nonresidential uses. The new measures took effect January 1, 2020.

### *Regional Regulations*

On December 17, 2019, Riverside County adopted its Climate Action Plan (CAP) Update (Riverside County 2019). The 2019 CAP Update refines the County's efforts to meet GHG reduction strategies, specifically for the years 2035 and 2050. The 2019 CAP Update builds upon the GHG reduction strategies in the 2015 Climate Action Plan. The 2019 CAP Update assesses the previous GHG reduction targets identified in the 2015 CAP and proposes new targets that are consistent with the State policies in order to meet the requirements of SB 32. The 2019 CAP Update describes Riverside County's GHG emissions for the year 2017, projects how these emissions will increase into 2020, 2030, and 2050, and includes strategies to reduce emissions to a level consistent with the State of California's emissions reduction targets. These strategies complement Riverside County's General Plan policies and are consistent with Riverside County's vision for a more sustainable community.

## **THRESHOLDS OF SIGNIFICANCE**

Certain air districts (e.g., SCAQMD) have created guidelines and requirements to conduct air quality analyses. SCAQMD's current guidelines, the *CEQA Air Quality Handbook* (SCAQMD 1993) with associated updates, were followed in this assessment of air quality and GHG emissions impacts for the proposed project.

Based on the *State CEQA Guidelines*, Appendix G (Public Resources Code Sections 15000–15387), a project would normally be considered to have a significant effect on air quality if the project would violate any CAAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

### **Pollutants with Regional Effects**

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

### Regional Emissions Thresholds

Table A lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

**Table A: Regional Thresholds for Construction and Operational Emissions**

Emissions Source	Pollutant Emissions Thresholds (lbs/day)					
	VOCs	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: South Coast Air Quality Management District Air Quality Significance Thresholds (SCAQMD 1993).

CO = carbon monoxide

lbs/day = pounds per day

NO<sub>x</sub> = nitrogen oxides

PM<sub>10</sub> = particulate matter less than 10 microns in size

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

VOC = volatile organic compounds

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

### Local Microscale Concentration Standards

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

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

### Localized Impacts Analysis

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors (SCAQMD 2008). LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, as shown in Table A. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is identified as the Temecula Valley area (SRA 26). Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As previously mentioned, the nearest sensitive receptor is a single-family residence approximately 130 feet (40 meters) east of the proposed project site, across Penfield Lane.

SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter source-receptor distances and for 1-, 2-, and 5-acre sites. As identified, the nearby sensitive receptors are located approximately 130 feet (40 m) from the project site boundary. The proposed project site is 2.24 acres; therefore, the table values were interpolated to provide thresholds for 2.24 acres at 130 feet. Table B shows the emission thresholds that would apply based on the project size and distance to nearby receptors during project construction and operation, respectively.

**Table B: SCAQMD Localized Significance Thresholds**

Emissions Source Category	Pollutant Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction (2.24 acres, 130 feet distance)	270	1,466	16	6
Operations (2.24 acres, 130 feet distance)	270	1,466	4	2

Source: Compiled by LSA (April 2022).

Notes: LSTs are based on SRA 26 – Temecula Valley, distance of 130 feet to nearest sensitive receptors.

CO = carbon monoxide

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

LST = localized significance threshold

PM<sub>10</sub> = particulate matter less than 10 microns in size

NO<sub>x</sub> = nitrogen oxides

SRA = Source Receptor Area

### Greenhouse Gas Emissions

*State CEQA Guidelines* Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further, states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.”

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

As described above, Riverside County adopted its CAP Update on December 17, 2019. Thus, by showing that the project would not exceed the screening GHG emissions level of the CAP the project would not have a significant effect on the environment.

### AIR QUALITY IMPACT ANALYSIS

This section describes the impacts of the project on regional and localized air quality emissions.

### Construction Impact Analysis

CalEEMod is designed to model construction emissions for land development projects and allows for the input of project-specific information, such as the number of equipment, hours of operations, duration of construction activities, and selection of emission control measures. Construction would require heavy equipment during mass grading, utility installations, building construction, and paving. Construction is planned to start in May 2022 and end by January 2023. Other than the construction dates, CalEEMod defaults were used in the construction analysis.

Table C shows the anticipated peak daily construction emissions. These results are from the CalEEMod output tables listed as “Mitigated Construction,” even though the only measures that have been applied to the analysis are the SCAQMD required construction emissions control measures, or standard conditions. CalEEMod outputs are included as Attachment C.

**Table C: Estimated Construction Emissions**

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Site Preparation	1	16	10	<1	<1	<1
Grading	2	21	10	<1	4	2
Building Construction	2	15	16	<1	<1	<1
Architectural Coating	5	1	2	<1	<1	<1
Paving	1	9	12	<1	<1	<1
<b>Peak Daily Emissions</b>	<b>5</b>	<b>21</b>	<b>16</b>	<b>&lt;1</b>	<b>4</b>	<b>2</b>
<b>SCAQMD Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant Emissions?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Compiled by LSA (April 2022).

CO = carbon monoxide

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

VOC = volatile organic compounds

Construction emissions can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors. The anticipated peak daily construction emissions shown in Table C indicate the construction emissions from the proposed project would not exceed the corresponding SCAQMD daily emission thresholds for criteria pollutants. Therefore, construction air quality impacts would be less than significant.

### Fugitive Dust

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

The construction calculations prepared for this project assumed that dust control measures (watering a minimum of two times daily) would be employed to reduce emissions of fugitive dust during site grading. Furthermore, all construction would need to comply with SCAQMD Rule 403 regarding the emission of fugitive dust. Table C lists total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) that have incorporated the following Rule 403 measures that would be implemented to significantly reduce PM<sub>10</sub> emissions from construction:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

These Rule 403 measures were incorporated into the CalEEMod analysis.

#### *Architectural Coatings*

Architectural coatings contain VOCs that are part of the O<sub>3</sub> precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 5 pounds per day (lbs/day) of VOCs. Therefore, VOC emissions from architectural-coating application would not exceed the SCAQMD VOC threshold of 75 lbs/day.

#### *Localized Impacts Analysis*

SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. The closest is the existing residence across Penfield Lane to the east, which is approximately 130 feet from the project site boundary.

Table D shows that the on-site emissions of the pollutants on the peak day of construction will result in concentrations of pollutants at this nearest residence that are all below the SCAQMD thresholds of significance.

#### *Odors from Construction Activities*

Heavy-duty equipment in the project area during construction would emit odors, primarily from the equipment exhaust. However, the construction-produced odors would cease to occur after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project, and no mitigation measures are required.

**Table D: Construction Localized Impacts Analysis**

Emissions Sources	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
On-Site Emissions (pounds per day)	17	14	4	2
<b>LSTs (pounds per day)</b>	<b>270</b>	<b>1,466</b>	<b>16</b>	<b>6</b>
<b>Significant Emissions?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Compiled by LSA (April 2022).

Note: LSTs based on SRA 26 – Temecula Valley, 2.24-acre site, 130 feet to nearest sensitive receptor.

CO = carbon monoxide

LST = localized significance threshold

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

SRA = Source Receptor Area

SCAQMD Rule 402, regarding nuisances, states:

*A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.*

The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

#### Naturally Occurring Asbestos

The proposed project site is in Riverside County, which is among the counties found to have serpentine and ultramafic rock in their soils (California Department of Conservation 2022). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and less than significant.

#### Construction Emissions Conclusions

Tables C and D show that daily regional construction emissions would not exceed the daily thresholds of any criteria pollutant emission thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts.

#### Operational Impact Analysis

Operational emissions from area sources associated with the project include the combustion of natural gas for food preparation, heating, and hot water and engine emissions from landscape maintenance equipment. Mobile source emissions are associated with project-related vehicle trip generation. Based on the Traffic Impact Analysis Report prepared for the project (LLG 2022), once operational the project would generate 1,989 average daily trips (ADT). The CalEEMod default vehicle fleet mix was used for the purpose of this analysis. Table E presents the estimated operational emissions for the proposed project.

**Table E: Operational Emissions**

Source	Pollutant Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	<1	<1	<1	0	0	0
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	6	7	62	<1	14	4
<b>Total Project Emissions</b>	<b>6</b>	<b>7</b>	<b>63</b>	<b>&lt;1</b>	<b>14</b>	<b>4</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Compiled by LSA (April 2022).

CO = carbon monoxide

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

VOC = volatile organic compounds

As shown in Table E, criteria pollutant emissions from operational activities associated with the proposed project would be below the SCAQMD thresholds. Therefore, project-related regional operational emissions would be less than significant.

*Localized Impacts Analysis*

Table F shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table F include all on-site project-related stationary sources and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related new vehicle traffic that will occur on site. All off-site emissions are subtracted from the total emissions.

**Table F: Long-Term Operational Localized Impacts Analysis**

Emissions Sources	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
On-Site Emissions	<1	19	<1	<1
<b>LSTs</b>	<b>270</b>	<b>1,466</b>	<b>4</b>	<b>2</b>
<b>Significant Emissions?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Compiled by LSA (April 2022).

Note: LSTs based on SRA 26 – Temecula Valley, 2.24 acres, 130-foot distance, on-site traffic would be 5 percent of total mobile source trips.

CO = carbon monoxide

LST = localized significance threshold

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

SRA = Source Receptor Area

A total of 5 percent is considered conservative because the average round-trip lengths assumed are 16.6 miles for home-work trips, 8.4 miles for home-shopping trips, and 6.9 miles for other types of trips. It is unlikely that the average on-site distance driven will be even  $\frac{1}{4}$  mile, which is approximately 2.3 percent of the total miles traveled. Considering the total trip length included in the CalEEMod, the 5 percent assumption is conservative.

Table F shows that the operational emission rates would not exceed the LSTs for receptors at 130 feet. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

#### *Odors from Operational Activities*

Land uses that are associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project would be a car wash and fast-food restaurants. The car wash would not produce objectionable odors, and while the restaurants would produce odors, the project would be required to comply with SCAQMD Rule 402 governing nuisances. Therefore, the impacts associated with odors would be less than significant and no mitigation measures are required.

#### *CO Hot-Spot Analysis*

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the closest CARB station, the Lake Elsinore Station, show a highest recorded 1-hour concentration of 1.6 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 0.8 ppm (the State standard is 9 ppm) during the past 3 years.<sup>1</sup> The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The project is expected to add approximately 108 vehicle trips per hour during the peak hour to local roads. This low level of traffic would not substantially alter the existing traffic flow. Therefore,

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<sup>1</sup> Ambient CO levels from CARB's iADAM: Air Quality Data Statistics, [www.arb.ca.gov/adam](http://www.arb.ca.gov/adam) (accessed April 2022).

the project can be implemented in an existing setting with no significant peak-hour intersection impacts. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

### AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local-agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local-agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project is a commercial development that would not house more than 1,000 persons, occupy more than 40 acres of land, or encompass more than 650,000 square feet of floor area. Thus, the proposed project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria.

Development of a commercial car wash and restaurant project on 2.24 net acres conforms to the intent of the County's General Plan land use designation and zone (Riverside County 2015). Thus, the proposed project, as analyzed, would result in air pollutant emissions that are consistent with the County's plans. The County's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2016 AQMP is affirmed when a project would not increase the frequency or severity of an air quality standards violation or cause a new violation, and is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated above. Therefore, the project would not result in an increase in the frequency or severity of an air quality standard violation or cause a new air quality standard violation.
2. The *CEQA Air Quality Handbook* (SCAQMD 1993) indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electricity-generating facilities, petroleum and gas refineries, designation of oil-drilling districts, water ports, solid-waste disposal sites, and offshore-drilling facilities; therefore, the proposed project is not defined as significant.

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

## GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

Construction and operation of the project would result in the emission of GHG emissions as described below.

### Construction Greenhouse Gas Emissions

Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from these construction activities would vary daily as construction activity levels change.

The construction emissions, calculated using CalEEMod using the same methodology as described above for the criteria pollutant emissions, are shown in Table G. Results indicate that project construction would generate approximately 237 MT of CO<sub>2</sub>e. Based on SCAQMD guidance, construction emissions were amortized over 30 years (a typical project lifetime) to be added to the total project operational emissions. Thus, annual construction emissions would be approximately 8 MT of CO<sub>2</sub>e per year. (See the CalEEMod output in Attachment C for details.)

**Table G: Construction GHG Emissions**

Construction Phase	Total Emissions per Phase (MT)			Total Emissions per Phase (MT CO <sub>2</sub> e)
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	
Site Preparation	3	<1	<1	3
Grading	10	<1	<1	10
Building Construction	212	<1	<1	214
Architectural Coating	1	<1	<1	2
Paving	8	<1	<1	8
<b>Total Emissions for the Entire Construction Process</b>				<b>237 MT CO<sub>2</sub>e</b>
<b>Total Construction Emissions Amortized over 30 Years</b>				<b>8 MT CO<sub>2</sub>e</b>

Source: Compiled by LSA (April 2022).

CH<sub>4</sub> = methane

CO<sub>2</sub> = carbon dioxide

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent

N<sub>2</sub>O = nitrous oxide

### Operational Greenhouse Gas Emissions

Long-term operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for heating, and other minor sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed uses. Table H shows the GHG emissions associated with the proposed project at opening.

**Table H: Estimated Operational Greenhouse Gas Emissions**

Source	Pollutant Emissions (metric tons per year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Construction emissions amortized over 30 years				8
<b>Operational Emissions</b>				
Area Sources	<1	0	0	<1
Energy Sources	97	<1	<1	97
Mobile Sources	2,292	<1	<1	2,326
Waste Sources	12	<1	0	29
Water Usage	16	<1	<1	21
<b>Total Project Emissions</b>	<b>2,424</b>	<b>1</b>	<b>&lt;1</b>	<b>2,481</b>
<b>County CAP GHG Threshold</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>3,000</b>
<b>Significant Emissions?</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>No</b>

Source: Compiled by LSA (April 2022).

CAP = Climate Action Plan  
 CH<sub>4</sub> = methane  
 GHG = greenhouse gas

N<sub>2</sub>O = nitrous oxide  
 CO<sub>2</sub>e = carbon dioxide equivalent  
 CO<sub>2</sub> = carbon dioxide

As shown in Table H, the project will result in emissions of 2,481 MT of CO<sub>2</sub>e per year. The emissions level of 2,481 MT CO<sub>2</sub>e per year is less than the County’s CAP screening threshold of 3,000 MT CO<sub>2</sub>e per year. As described in the County’s CAP, the County has determined that projects producing less than 3,000 MT CO<sub>2</sub>e per year would be considered less than significant and do not need to use the Screening Tables or alternative GHG mitigation analysis to demonstrate the project impacts on GHG emissions. Therefore, project-level and cumulative GHG emissions would be less than significant. (Attachment C includes the model outputs.)

**STANDARD CONDITIONS**

**Construction**

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with the best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source (SCAQMD 2005). In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM<sub>10</sub> component). Compliance with these rules would reduce impacts on nearby sensitive receptors (SCAQMD Rule 403). As shown in Table C, implementation of Rule 403 measures results in dust emissions below SCAQMD thresholds.

The applicable Rule 403 measures are as follows:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Pave construction access roads at least 100 feet (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

The applicable California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures are:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2019a).
- Use "green building materials" such as those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, as specified on the CalRecycle website (CalRecycle 2019b).

## Operations

The proposed project is required to comply with the CALGreen Code and Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation and green building standards.

## CUMULATIVE IMPACTS

The project would temporarily contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with SCAQMD's standard construction measures. The proposed project's short-term construction emissions would not exceed the significance thresholds. Therefore, it would not have a significant short-term cumulative air quality impact.

Similarly, the project's long-term operational emissions would not exceed SCAQMD's criteria pollutant thresholds. Again, all projects would be required to comply with SCAQMD's operational emissions thresholds, which are designed to accomplish regional emissions goals. Therefore, the proposed project would not have a significant long-term cumulative air quality impact.

Lastly, the project would produce GHG emissions at a level less than the County's CAP screening threshold. The proposed project's design would be consistent with the County's General Plan, thus ensuring project consistency with the County and State policies and goals. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. Given this consistency, it is concluded that the proposed project's impact to the climate from GHG emissions would not be cumulatively considerable.

## CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants or GHGs that would exceed SCAQMD or County thresholds of significance. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The project would also not result in objectionable odors affecting a substantial number of people. Therefore, implementation of the proposed project would not result in significant or adverse impacts related to air quality. Project-related impacts would be less than significant, and no mitigation is required.

## ATTACHMENTS

- Attachment A: References
- Attachment B: Figures
- Attachment C: CalEEMod Output

## ATTACHMENT A

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## **ATTACHMENT B**

### **FIGURES**

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## ATTACHMENT C

### CALEEMOD OUTPUT