



**APPENDIX G**

**GREENHOUSE GAS EMISSIONS TECHNICAL  
MEMORANDUM**

## MEMORANDUM

**To:** City of Fontana  
**CC:** CRP/WP Alta Fontana Venture, L.L.C.

**From:** Zhe Chen, Michael Baker International  
Winnie Woo, Michael Baker International

**Date:** April 21, 2022

**Subject:** Alta Fontana Mixed Use Project – Greenhouse Gas Emissions Technical Memorandum

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### PURPOSE

The purpose of this technical memorandum is to evaluate potential greenhouse gas (GHG) impacts that would result from the construction and operation of the proposed Alta Fontana Mixed Use Project (project), located in the City of Fontana (City), California.

### PROJECT LOCATION

The project site is located at 14817 Foothill Boulevard and is bound by Foothill Boulevard to the north, Live Oak Avenue to the east, single-family residences to the south, and a shopping plaza and multi-family residences to the west. Regional access to the site is available via Interstate 15 (I-15) at the Foothill Boulevard exit, approximately three miles west of the project site. Local access to the site is provided via Foothill Boulevard and Live Oak Avenue.

The project site comprises two parcels (Assessor's Parcel Numbers [APN] 0230-071-03 and 0230-071-04).

### EXISTING SITE CONDITIONS

The project site is approximately 8.8 acres (9.5 gross acres with road improvements and sidewalks) and currently consist of undeveloped vacant land. Grasses and weeds cover much of the project site. No existing structures are present on-site; however, an area in the northeastern portion of the project site contains a slab foundation of a former structure. The project site topography is generally flat with a slight regional slope to the southwest. The project site is located in the northern portion of the Upper Santa Ana Valley, which is a broad downwarped (i.e., downward and depressed) area encompassing approximately 50 miles, at an elevation of approximately 1,240 to 1,245 feet, an approximate elevation difference of 5 feet. Overhead electrical lines are present at the north-central portion of the site.

The project site is designated Multi-Family High Residential (R-MFH) by the City of Fontana *General Plan Land Use Map*.<sup>1</sup> The project site is zoned Multi-Family High Density Residential (R5) by the City of Fontana *Zoning District Map*.<sup>2</sup>

## PROJECT DESCRIPTION

The proposed project includes construction of a mixed-use residential apartment complex with 340 multi-family units, 1,500 square feet of commercial space, and four live-work units. The mixed-use residential apartment complex would consist of two four-story buildings. The 340 multi-family apartment units would be either 1, 2, or 3 bedrooms, ranging in size from 726 square feet to 1,388 square feet. The four live-work units would each be approximately 1,492 square feet. Additionally, the project would include the construction of 529 surface parking spaces, including 9 commercial parking spaces, located in the western, central, and southern portions of the project site.

The project would also include approximately 5,600-square-foot indoor amenity space, comprised of a 1,800-square-foot lobby/leasing office, a 1,375-square-foot fitness center, a 1,700-square-foot clubroom, and a 720-square-foot business center in the northern building. The northern building would have two landscaped courtyards, with one containing a pool and spa, and the southern building would have three landscaped courtyards. The courtyards would contain a barbecue facility equipped with a grill and picnic benches and children's tot lot with play equipment.

Construction of the proposed project is anticipated to begin in December 2022 and would take approximately 26 months to complete, concluding in January 2025. Construction activities would occur from 7:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturday, except for purposes of emergencies. The construction period would include demolition, excavation, grading, trenching, installation of utilities, building construction, architectural coating, paving activities, and installation of landscaping and hardscape elements.

## GLOBAL CLIMATE CHANGE

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."<sup>3</sup> The greenhouse effect traps heat in the troposphere through a threefold process as follows: short wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

California is a substantial contributor of global GHGs, emitting approximately 418 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e) per year.<sup>4</sup> A carbon dioxide equivalent is defined as the number of metric tons of CO<sub>2</sub> emissions with the same global warming potential as one metric ton of another GHG.

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<sup>1</sup> City of Fontana, *General Plan Land Use Map*, March 3, 2021.

<sup>2</sup> City of Fontana, *Zoning District Map*, March 3, 2021.

<sup>3</sup> The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

<sup>4</sup> California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators*, [https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca\\_ghg\\_inventory\\_trends\\_2000-2019.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca_ghg_inventory_trends_2000-2019.pdf), July 28, 2021, accessed January 17, 2022.

Methane (CH<sub>4</sub>) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO<sub>2</sub>, CH<sub>4</sub>, and nitrous oxide (N<sub>2</sub>O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO<sub>2</sub> concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO<sub>2</sub> concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of January 2022, the highest monthly average concentration of CO<sub>2</sub> in the atmosphere was recorded at 418 ppm.<sup>5</sup>

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO<sub>2</sub>e)<sup>6</sup> concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

## REGULATORY SETTING

### Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts, summarized below, have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

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<sup>5</sup> Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, <https://scripps.ucsd.edu/programs/keelingcurve/>, accessed January 17, 2022.

<sup>6</sup> Carbon Dioxide Equivalent (CO<sub>2</sub>e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF<sub>6</sub>]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Presidential Executive Order 13783. Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth (March 28, 2017), orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

## **State**

The State of California has adopted various administrative initiatives and legislation related to climate change, much of which set aggressive goals for GHG emissions reductions statewide. Although lead agencies must evaluate GHG emissions of projects and their effects on climate change as required by the California Environmental Quality Act (CEQA), the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance, and do not specify GHG reduction mitigation measures. Instead, the CEQA Guidelines allow lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below. No state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze GHGs.

California Global Warming Solutions Act (Assembly Bill 32). The primary act that has driven GHG regulation and analysis in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), which instructs the California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. The bill 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.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 MMTCO<sub>2</sub>e, or approximately 30 percent, from the State's projected 2020 emissions level of 596

MMTCO<sub>2e</sub> under a business-as-usual (BAU)<sup>7</sup> scenario. This is a reduction of 42 MMTCO<sub>2e</sub>, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions by sector for 2002 to 2004 to forecast emissions to 2020. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update did not establish or propose any specific post-2020 goals, but identified such goals adopted by other governments or recommended by various scientific and policy organizations.

In December 2017, CARB approved the *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. This update focuses on implementation of a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. To achieve this, the updated Scoping Plan draws on a decade of successful programs that addresses the major sources of climate changing gases in every sector of the economy:

- *More Clean Cars and Trucks*: The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.
- *Increased Renewable Energy*: California's electric utilities are ahead of schedule in meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under Senate Bill (SB)350.
- *Slashing Super-Pollutants*: The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- *Cleaner Industry and Electricity*: California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.

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<sup>7</sup> "Business-as-Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See <http://www.arb.ca.gov/cc/inventory/data/bau.htm>. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

- Cleaner Fuels: The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- Smart Community Planning: Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- Improved Agriculture and Forests: The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

California Green Building Standards. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2020.

Achieving the 2030 target under the updated Scoping Plan would also spur the transformation of the California economy and fix its course securely on achieving an 80 percent reduction in GHG emissions by 2050, consistent with the global consensus of the scale of reductions needed to stabilize atmospheric GHG concentrations at 450 ppm CO<sub>2</sub>, and reduce the likelihood of catastrophic climate change. Currently, global levels are at just above 418 ppm.<sup>8</sup> Table 1, California State Climate Change Legislation, provides a brief overview of other California legislation relating to climate change that may affect emissions associated with the proposed project.

**Table 1**  
**California State Climate Change Legislation**

Legislation	Description
Assembly Bill 1493 (AB 1493), Advanced Clean Cars Program and Executive Order N-79-20	Assembly Bill 1493 (“the Pavley Standard”) (Health and Safety Code Sections 42823 and 43018.5) aims to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009 to 2016. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO <sub>2</sub> e emissions and 75 percent fewer smog-forming emissions. Signed into law in September 2020, Executive Order N-79-20 establishes a goal to make all new passenger cars and trucks (including drayage trucks) sold in California to be zero-emission by 2035, and medium and heavy-duty trucks by 2045, where feasible. Further, all off-road vehicles and equipment shall also be zero-emission by 2035 where feasible.
Executive Order S-01-07 and Low Carbon Fuel Standard	Executive Order S-01-07 (2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California. The regulation established the Low Carbon Fuel Standard, which took effect on January 1, 2011, and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The Low Carbon Fuel Standard will reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020.
Renewables Portfolio Standard (Senate Bill X1-2)	California’s Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. The 33 percent standard is consistent with the RPS goal established in the Scoping Plan. The passage of SB 350 in 2015 updates the RPS to

<sup>8</sup> Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, <https://scripps.ucsd.edu/programs/keelingcurve/>, accessed January 17, 2022.

[SB X1-2], Senate Bill 350 [SB 350], and Senate Bill 100 [SB 100])	require the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The bill will make other revisions to the RPS program and to certain other requirements on public utilities and publicly-owned electric utilities. The passage of SB 100 in 2018 further requires achieving 60 percent renewable energy resources target by 2030, and 100 percent renewable energy resources target by 2045.
Senate Bill 375 (SB 375)*	SB 375 took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations to incorporate a sustainable communities' strategy in their regional transportation plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities. SB 375 requires CARB to periodically update the targets, no later than every 8 years. CARB has set regional targets, indexed to years 2020 and 2035, to help achieve significant additional GHG emission reductions from changed land use patterns and improved transportation in support of the State's climate goals, as well as in support of statewide public health and air quality objectives.
California Building Energy Efficiency Standards (California Energy Code)	In general, the California Building Energy Efficiency Standards require the design of building shells and building components to conserve energy. The California Energy Commission updates the Building Energy Efficiency Standards every three years by working with stakeholders in a public and transparent process. The 2019 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) took effect on January 1, 2019. The 2019 Building Energy Efficiency Standards are 7 percent more efficient than previous standards for residential construction and once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.
Senate Bill 32 (Amendments to California Global Warming Solutions Act of 2006: Emission Limit) (SB 32)	Signed into law in September 2016, SB 32 codifies the 2030 target (reduce Statewide GHG emissions by 40 percent below 1990 levels) in Executive Order B-30-15. The bill authorizes the state board to adopt an interim GHG emissions level target to be achieved by 2030. SB 32 states that the intent is for the legislature and appropriate agencies to adopt complementary policies which ensure that the long-term emissions reductions advance specified criteria. In December 2017, CARB approved the <i>California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target</i> that provides guidance for compliance with SB 32.
*Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01, as well as at Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.	

## Regional

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

In 2008, the South Coast Air Quality Management District (SCAQMD) released draft guidance regarding interim CEQA GHG significance thresholds.<sup>9</sup> Within its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>e) per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO<sub>2</sub>e per year would be assumed to have a less than significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO<sub>2</sub>e per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for application by local lead agencies in their review of land use development projects (e.g., residential/commercial projects).

### ***Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy***

<sup>9</sup> South Coast Air Quality Management District, *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.



On September 3, 2020, the Regional Council of Southern California Association of Governments (SCAG) formally adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments – Connect SoCal (2020–2045 RTP/SCS)*. The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

### ***San Bernardino Regional Greenhouse Gas Reduction Plan***

In response to AB 32, a project partnership, led by San Bernardino County Transportation Authority (SBCTA), has compiled an inventory of GHG emissions and developed reduction measures in the Regional Greenhouse Gas Reduction Plan (RGHGRP) that could be adopted by the partnership jurisdictions, including the County.<sup>10</sup> The County is in the process of adopting the RGHGRP plan, so the RGHGRP is not utilized for project consistency analysis.

## **Local**

### ***City of Fontana General Plan Update 2015-2035***

A General Plan is a guiding document that provides residents, elected officials, business owners, and other stakeholders with direction on how to meet the needs of a growing city and provides a greater quality of life for its current and future residents. The City adopted the *General Plan Update 2015-2035* (General Plan Update) on November 13, 2018. Chapter 10, *Infrastructure and Green Systems*, and Chapter 12, *Sustainability and Resilience*, of the General Plan Update identify goals and policies to pursue sustainability and resilience by making resource-efficient choices to conserve water, energy, and materials, improve air quality, and adjust to changing conditions. The following goals and policies focusing on GHG emissions and reductions are applicable to the proposed project:

#### **Chapter 10, Infrastructure and Green Systems**

**Goal 10.7:** Fontana is an energy-efficient community.

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<sup>10</sup> San Bernardino County Transportation Authority, *San Bernardino County Regional Greenhouse Gas Reduction Plan*. [https://www.gosbcta.com/wp-content/uploads/2019/09/San\\_Bernardino\\_Regional\\_GHG\\_Reduction\\_Plan\\_Main\\_Text\\_Mar\\_2021.pdf](https://www.gosbcta.com/wp-content/uploads/2019/09/San_Bernardino_Regional_GHG_Reduction_Plan_Main_Text_Mar_2021.pdf), accessed February 2, 2022.

Policy 10.7.1 : Promote renewable energy and distributed energy systems in new development and retrofits of existing development to work towards the highest levels of low-carbon energy-efficiency.

#### Chapter 12, Sustainability and Resilience

**Goal 12.3:** Renewable sources of energy, including solar and wind, and other energy-conservation strategies are available to city households and businesses.

Policy 12.3.1 : Promote renewable energy programs for government, Fontana businesses, and Fontana residences.

**Goal 12.5:** Green building techniques are used in new development and retrofits.

Policy 12.5.1 : Promote green building through guidelines, awards and nonfinancial incentives.

**Goal 12.6:** Fontana is a leader [in] energy-efficient development and retrofits.

Policy 12.6.1 : Promote energy-efficient development in Fontana.

Policy 12.6.2 : Meet or exceed state goals for energy-efficient new construction.

#### **CALIFORNIA ENVIRONMENTAL QUALITY ACT THRESHOLDS**

In accordance with the CEQA Guidelines, project impacts are evaluated to determine whether significant adverse environmental impacts would occur. This analysis will focus on the project's potential impacts and provide mitigation measures, if required, to reduce or avoid any potentially significant impacts that are identified. According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to greenhouse gas emissions, if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact GHG-1); and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact GHG-2).

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions from non-industrial development projects. Similarly, neither the SCAQMD, CARB, nor any other state or regional agency has adopted a numerical significance threshold for assessing GHG emissions that is applicable to the proposed project. The analysis below calculates the amount of GHG emissions that would be attributable to the proposed project using recommended air quality models, as required by State CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the proposed project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions.

Regarding the impact assessment methodology and thresholds of significance, the CEQA Guidelines provide that a lead agency, “shall make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of [GHG] emissions resulting from a project,” and that a lead agency should consider, “whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project” (§ 15064.4(a)-(b)). When adopting these thresholds, the amended Guidelines allow lead agencies to, “consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (§ 15064.7(c)), and/or to develop their own significance threshold. The City as lead agency has determined that a threshold of significance of 3,000 MTCO<sub>2e</sub> for GHG emissions is appropriate for the proposed project. The City based its threshold on the GHG threshold for Mixed Use and non-industrial projects recommended by SCAQMD, an expert agency with primary authority over air pollutants including GHG in the project area.

In 2008, SCAQMD developed and recommended two types of GHG thresholds: (1) separate numerical thresholds for residential projects (3,500 MTCO<sub>2e</sub>), commercial projects (1,400 MTCO<sub>2e</sub>), and Mixed Use projects (3,000 MTCO<sub>2e</sub>); or (2) a singular numerical threshold for all non-industrial projects (3,000 MTCO<sub>2e</sub>). SCAQMD's GHG Working Group consensus “clearly states that it is at the lead agency's discretion to apply the appropriate threshold to the project for CEQA review. In other words, SCAQMD's recommendation is that the lead agency will need to decide which threshold is most appropriate.” Because the proposed project is a mixed-use project, the City has determined to utilize SCAQMD's recommended threshold for mixed-use projects (3,000 MTCO<sub>2e</sub>). These SCAQMD thresholds were developed using substantial evidence by the SCAQMD GHG Working Group—a group of various resource agencies, cities, counties, utilities, and environmental groups—with the objective of capturing 90 percent of GHG emissions from larger projects above the screening threshold and allowing smaller projects to be implemented without further investigation of possible mitigative elements. Additionally, the long-term goal of Executive Order S-3-05 to reduce statewide GHG emissions to 80 percent below 1990 levels by 2050 formulated the basis of the SCAQMD recommendation, which is also consistent with analysis published by the California Air Pollution Control Officer's Association in its 2008 White Paper on CEQA and Climate Change. As such, the SCAQMD's proposed threshold of 3,000 MTCO<sub>2e</sub> per year was used to determine the proposed project's impacts related to GHG emissions.

The GHG plan consistency analysis for the project is based on the project's consistency with the 2017 Scoping Plan, 2020-2045 RTP/SCS, and the City's General Plan Update.

## **IMPACT ANALYSIS**

### **GHG-1 WOULD THE PROJECT GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT?**

#### **Project-Related Sources of Greenhouse Gases**

The proposed project would result in direct and indirect emissions of CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub>, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from energy consumption, water demand, and solid waste generation. The most recent version of the California Emissions Estimator Model (CalEEMod), version 2020.4.0, was used to calculate direct and indirect

project-related GHG emissions. Table 2, Estimated Greenhouse Gas Emissions, presents the estimated CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions associated with the proposed project. CalEEMod outputs are contained within Appendix A, Greenhouse Gas Emissions Data.

**Table 2  
Estimated Greenhouse Gas Emissions**

Source	CO <sub>2</sub>	CH <sub>4</sub>		N <sub>2</sub> O		Total Metric Tons of CO <sub>2</sub> e <sup>2,3</sup>
	Metric tons/year <sup>1</sup>	Metric tons/year <sup>1</sup>	Metric tons of CO <sub>2</sub> e <sup>1,3</sup>	Metric tons/year <sup>1</sup>	Metric tons of CO <sub>2</sub> e <sup>1,3</sup>	
<b>Direct Emissions</b>						
Construction (amortized over 30 years) <sup>4</sup>	67.30	<0.01	0.17	<0.01	0.91	68.38
Area Source	80.15	<0.01	0.18	<0.01	0.41	80.74
Mobile Source	1,813.67	0.10	2.51	0.09	26.58	1,842.76
<i>Total Direct Emissions</i>	<i>1,961.12</i>	<i>0.11</i>	<i>2.85</i>	<i>0.09</i>	<i>27.90</i>	<i>1,991.87</i>
<b>Indirect Emissions</b>						
Energy Consumption	522.17	0.03	0.67	<0.01	2.23	525.07
Solid Waste	16.24	0.96	24.0	0.00	0.00	40.24
Water Demand	79.15	0.59	14.84	0.01	4.35	98.34
<i>Total Indirect Emissions</i>	<i>617.56</i>	<i>1.58</i>	<i>39.51</i>	<i>0.02</i>	<i>6.58</i>	<i>663.65</i>
<b>Total Project-Related Emissions<sup>3</sup></b>	<b>2,655.52 MTCO<sub>2</sub>e/year</b>					
<b>Threshold</b>	<b>3,000 MTCO<sub>2</sub>e/year</b>					
<b>Exceeds Threshold?</b>	<b>No</b>					
Notes:						
Carbon dioxide equivalent = CO <sub>2</sub> e; metric tons of carbon dioxide equivalent per year = MTCO <sub>2</sub> e per year						
1. Project emissions were calculated using CalEEMod version 2020.4.0, as recommended by the SCAQMD.						
2. Totals may be slightly off due to rounding.						
3. Carbon dioxide equivalent values calculated using the U.S. Environmental Protection Agency Website, <i>Greenhouse Gas Equivalencies Calculator</i> , <a href="http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator">http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</a> , accessed January 24, 2022.						
4. Total project construction GHG emissions equate to 2,051.33 MTCO <sub>2</sub> e. Value shown is amortized over the lifetime of the project (assumed to be 30 years).						
Refer to <u>Appendix A, Greenhouse Gas Emissions Data</u> , for detailed model input/output data.						

**Direct Project-Related Source of Greenhouse Gases**

Construction Emissions. Construction GHG emissions are amortized (i.e., total construction emissions divided by the lifetime of the project, assumed to be 30 years),<sup>11</sup> then added to the operational emissions. As seen in Table 2, construction of the proposed project would result in a total of 68.38 MTCO<sub>2</sub>e (amortized over 30 years).

Area Source. Area source emissions would be generated due to an increased demand for consumer products, architectural coating, hearth, and landscaping associated with the development of the proposed project. The project would result in a total of 80.74 MTCO<sub>2</sub>e area source emissions; refer to Table 2.

Mobile Source Emissions. According to the *Alta Fontana Apartments Traffic Study Scoping Assessment* (Traffic Scoping Assessment) developed by Fehr & Peers (dated January 13, 2022)<sup>12</sup>, the proposed project would generate 1,644 daily trips. As such, the project would result in approximately 1,842.76 MTCO<sub>2</sub>e per year of mobile source generated GHG emissions; refer to Table 2.

<sup>11</sup> In accordance with the SCAQMD guidance, projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project. The amortized construction emissions are added to the annual average operational emissions.

<sup>12</sup> Fehr & Peers, *Alta Fontana Apartments Traffic Study Scoping Assessment*, January 13, 2022.

### ***Indirect Project-Related Source of Greenhouse Gases***

Energy Consumption. Energy consumption emissions were calculated using the CalEEMod model and project-specific land use data. Electricity would be provided to the project site via Southern California Edison (SCE). The project would indirectly result in 525.07 MTCO<sub>2</sub>e/year of GHG emissions due to energy consumption; refer to Table 2. Additionally, the project would include several sustainable design features to achieve further reduction in energy consumption during project operation. As a conservative analysis, these design features have not been incorporated in the CalEEMod model. The project would comply with 2019 Title 24 standards and reserve area on the roof for future solar panels and install enhanced insulated walls, high efficiency (LED) lighting, and energy efficient appliances.

Water Demand. Emissions from indirect energy impacts due to water supply would result in 98.34 MTCO<sub>2</sub>e/year; refer to Table 2.

Solid Waste. Solid waste associated with operations of the proposed project would result in 40.24 MTCO<sub>2</sub>e/year; refer to Table 2.

### ***Total Project-Related Sources of Greenhouse Gases***

As shown in Table 2, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 2,655.52 MTCO<sub>2</sub>e/year. Therefore, project GHG emissions would not exceed the SCAQMD threshold of 3,000 MTCO<sub>2</sub>e per year, and impacts would be less than significant.

## **GHG-2      WOULD THE PROJECT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES?**

### **Consistency with Applicable GHG Plans, Policies, or Regulations**

The GHG plan consistency analysis for the project is based on the project's consistency with the 2017 Scoping Plan, 2020-2045 RTP/SCS, and City's General Plan Update. The 2017 Scoping Plan describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030. The 2020-2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region and incorporates local land use projections and circulation networks in city and county general plans. The General Plan Update Chapter 10 and Chapter 12 outline the goals and policies for resource efficiency and planning for climate change within the City. The following discussion analyzes the project's consistency with the CARB 2017 Scoping Plan, SCAG 2020-2045 RTP/SCS, and City's General Plan Update.

### ***Consistency with the 2017 Scoping Plan***

The 2017 Scoping Plan identifies GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. Table 3, Consistency with the 2017 Scoping Plan, provides an evaluation of applicable reduction actions/strategies by emissions

source category, and demonstrates that the project would be consistent with or exceed the reduction actions/strategies outlined in the 2017 Scoping Plan.

**Table 3  
Consistency with the 2017 Scoping Plan**

Actions and Strategies	Project Consistency Analysis
<b>SB 350</b>	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	<b>Consistent.</b> The proposed project would not be an electrical provider and would not delay the goals of SB 350. Furthermore, the project would utilize electricity from Southern California Edison, which is required to comply with SB 350. As such, the project would be in compliance with SB 350.
<b>Low Carbon Fuel Standard (LCFS)</b>	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	<b>Consistent.</b> Motor vehicles (including trucks) driven within the project area and hauling trucks driven during project construction would be use LCFS compliant fuels. The project would be in compliance with LCFS.
<b>Mobile Source Strategy (Cleaner Technology and Fuels Scenario)</b>	
Maintain existing GHG standards of light and heavy-duty vehicles while adding an addition 4.2 million zero-emission vehicles (ZEVs) on the road. Increase the number of ZEV buses, delivery trucks, or other trucks.	<b>Consistent.</b> The proposed project would include commercial use which may include occasional light- and heavy-duty truck uses. Trucks uses associated with the proposed project would be required to comply with all CARB regulations, including the LCFS, and newer model vehicles would be required to comply with newer engine standards. The proposed project would not conflict with the CARB's goal of adding 4.2 million zero-emission (ZEVs) on the road. Furthermore, the project would have approximately 53 spaces for future installation of electric vehicle charging stations and include bike parking and storage in accordance with the 2019 Title 24 standards and CALGreen Code. As such, the project would not conflict with the goals of the Mobile Source Strategy.
<b>Sustainable Freight Action Plan</b>	
Improve the freight system efficiency and maximize the use of near zero emission vehicles and equipment powered by renewable energy. Deploy over 100,000 zero-emission trucks and equipment by 2030.	<b>Consistent.</b> As discussed above, truck uses associated with the project site would be required to comply with all CARB regulations, including the LCFS, and newer model vehicles would be required to comply with newer engine standards. Additionally, the project would comply with all future applicable regulatory standard adopted by CARB and would not conflict with CARB's goal to deploy over 100,000 zero-emission trucks and equipment by 2030.
<b>Short-Lived Climate Pollutant (SLCP) Reduction Strategy</b>	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	<b>Consistent.</b> The project would not emit a large amount of CH <sub>4</sub> (methane) emissions; refer to <a href="#">Table 2</a> . Furthermore, the project would comply with all CARB and SCAQMD hydrofluorocarbon regulations. As such, the proposed project would not conflict with the SLCP reduction strategy.
<b>SB 375 Sustainable Communities Strategies</b>	
Increase the stringency of the 2035 GHG emission per capita reduction target for metropolitan planning organizations (MPO).	<b>Consistent.</b> As shown in <a href="#">Table 4</a> , the proposed project would be consistent with the 2020-2045 RTP/SCS and would not conflict with the goals of SB 375.
<b>Post-2020 Cap and Trade Programs</b>	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while	<b>Not Applicable.</b> As seen in <a href="#">Table 2</a> , below the project would generate approximately 2,655.52 MTCO <sub>2e</sub> per year, which is below

employing market mechanisms to cost-effectively achieve the emission-reduction goals.	the 25,000 MTCO <sub>2</sub> e/yr Cap-and-Trade screening level. Therefore, the project would not conflict with this goal.
Source: California Air Resources Board, 2017 Scoping Plan, November 2017.	

**Consistency with the SCAG 2020-2045 RTP/SCS**

The SCAG’s 2020-2045 RTP/SCS includes performance goals that were adopted to help focus future investments on the best-performing projects, as well as different strategies to preserve, maintain, and optimize the performance of the existing transportation system. The 2020-2045 RTP/SCS is forecasted to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets, adopted in March 2018. Five key SCS strategies are included in the 2020-2045 RTP/SCS to help the region meet its regional VMT and GHG reduction goals, as required by the State. Table 4, Consistency with the 2020-2045 RTP/SCS shows the project’s consistency with these five strategies found within the 2020-2045 RTP/SCS. As shown, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

**Table 4  
Consistency with the 2020-2045 RTP/SCS**

Reduction Strategy	Project Consistency Analysis
<p><b>Focus Growth Near Destinations and Mobility Options</b></p> <ul style="list-style-type: none"> <li>• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations</li> <li>• Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets</li> <li>• Plan for growth near transit investments and support implementation of first/last mile strategies</li> <li>• Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses</li> <li>• Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods</li> <li>• Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)</li> <li>• Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)</li> </ul>	<p><b>Consistent.</b> The project is an infill, mixed-use project located within an urbanized area and in close proximity to existing residential and commercial development. The proposed project would be within walking and biking distance of various commercial uses. There is an existing bus stop to the northeast of the project site across Live Oak Avenue. The project site fronts existing sidewalks along Foothill Boulevard to the north, and the project proposes a new sidewalk along Live Oak Avenue that would add to the pedestrian accessibility of the area. The project would provide bicycle parking spaces and in accordance with 2019 Title 24 standards and CALGreen Code, would have approximately 53 spaces for future installation of electric vehicle charging stations. Furthermore, the project would also include approximately 5,600-square-foot indoor amenity space, comprised of a 1,800-square-foot lobby/leasing office, a 1,375-square-foot fitness center, a 1,700-square-foot clubroom, and a 720-square-foot business center. As a mixed-use project with 340 multi-family units, 1,500 square feet of commercial space, and four live-work units, the project would promote connectivity near destinations and mobility options and is consistent with this reduction strategy.</p>
<p><b>Promote Diverse Housing Choices</b></p>	

<ul style="list-style-type: none"> <li>• Preserve and rehabilitate affordable housing and prevent displacement</li> <li>• Identify funding opportunities for new workforce and affordable housing development</li> <li>• Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply</li> <li>• Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions</li> </ul>	<p><b>Consistent.</b> As previously discussed, the project is an infill, mixed-use project with 340 multi-family units, 1,500 square feet of commercial space, and four live-work units within an urbanized area. As such, the project would support the reduction of greenhouse gas emissions associated with regional VMT and is therefore consistent with this reduction strategy.</p>
<p><b>Leverage Technology Innovations</b></p>	
<ul style="list-style-type: none"> <li>• Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space</li> <li>• Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a “mobility wallet,” an app-based system for storing transit and other multi-modal payments</li> <li>• Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation</li> </ul>	<p><b>Consistent.</b> The project would have approximately 53 spaces for future installation of electric vehicle charging stations. The project would also include bike parking and storage in accordance with the 2019 Title 24 standards and CALGreen Code. Therefore, the proposed project would leverage technology innovations and help the City, County, and State meet its GHG reduction goals. The project would be consistent with this reduction strategy.</p>
<p><b>Support Implementation of Sustainability Policies</b></p>	
<ul style="list-style-type: none"> <li>• Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions</li> <li>• Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations</li> <li>• Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space</li> <li>• Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies</li> <li>• Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region</li> <li>• Continue to support long range planning efforts by local jurisdictions</li> <li>• Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy</li> </ul>	<p><b>Consistent.</b> The proposed project would be a mixed-use project. As previously discussed, the proposed project would promote alternative modes of transportation as it would provide bicycle parking and be located within one mile of a transit stop. These features would potentially reduce fuel consumption and lower GHG emissions. Further, the proposed project would comply with sustainable practices such as installation of bike parking and storage, enhanced insulated walls, high efficiency (LED) lighting, energy efficient appliances, low-flow water fixtures, water-efficient irrigation, and drought tolerant landscape. The project would be designed to accommodate rooftop solar panels that would promote the use of renewable energy. Additionally, the project would emit GHGs less than 3,000 MTCO<sub>2e</sub>. Thus, the proposed project would be consistent with this reduction strategy as it would support long range planning efforts by SCAQMD.</p>
<p><b>Promote a Green Region</b></p>	
<ul style="list-style-type: none"> <li>• Support development of local climate adaptation and hazard mitigation plans, as well as project implementation</li> </ul>	<p><b>Consistent.</b> The proposed project consists of an infill development in an urbanized area and would therefore not</p>



<p>that improves community resiliency to climate change and natural hazards</p> <ul style="list-style-type: none"> <li>• Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration</li> <li>• Integrate local food production into the regional landscape</li> <li>• Promote more resource efficient development focused on conservation, recycling and reclamation</li> <li>• Preserve, enhance and restore regional wildlife connectivity</li> <li>• Reduce consumption of resource areas, including agricultural land</li> <li>• Identify ways to improve access to public park space</li> </ul>	<p>interfere with regional wildlife connectivity or consume agricultural land. The project would also incorporate various open space areas for the residents of the apartment complex, including a total of five landscaped courtyards. The project would be required to comply with 2019 Title 24 standards and CALGreen Code, including incorporating source reduction techniques and recycling measures and maintaining a recycling program to divert waste, which would help reduce energy consumption and reduce GHG emissions. Thus, the project would support efficient development that reduces energy consumption and GHG emissions. The project would be consistent with this reduction strategy.</p>
<p>Source: Southern California Association of Governments, 2020-2040 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal, September 3, 2020.</p>	

**Consistency with the City of Fontana General Plan Update 2015-2035**

As previously discussed, Chapter 10 and Chapter 12 of the General Plan Update outline the goals and policies for resource efficiency and planning for climate change within the City. The Project’s consistency with these goals and policies is discussed in Table 5, Consistency with the City of Fontana General Plan Update.

As depicted in Table 5, the proposed project would be consistent with the General Plan Update. The project would comply with 2019 Title 24 energy efficiency standards; it is noted that the project would reserve area on the roof for future solar panels and include the installation of enhanced insulated walls, high efficiency (LED) lighting, energy efficient appliances, low-flow water fixtures, water-efficient irrigation, and drought tolerant landscape. Further, the project would include bicycle racks and include approximately 53 spaces for future installation of electric vehicle charging stations.

**Table 5  
Consistency with the City of Fontana General Plan Update**

Goals	Project Consistency
<b>Chapter 10, Infrastructure and Green Systems</b>	
<b>Goal 7:</b> Fontana is an energy-efficient community.	<b>Consistent.</b> The project would incorporate sustainable building design features, such as reserving area on the roof for future solar panels. The project would also include the installation of enhanced insulated walls, high efficiency (LED) lighting, and energy efficient appliances. As such, the project would be consistent with this goal.
<b>Chapter 12, Sustainability and Resilience</b>	
<b>Goal 3:</b> Renewable sources of energy, including solar and wind, and other energy-conservation strategies are available to city households and businesses.	<b>Consistent.</b> As discussed above, the project would incorporate sustainable building design features, such as reserving area on the roof for future solar panels. Furthermore, the electricity provider, SCE, is subject to California’s Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent of total procurement by 2030. As such, the project would be consistent with this goal.

<p><b>Goal 5:</b> Green building techniques are used in new development and retrofits.</p>	<p><b>Consistent.</b> The project would comply with 2019 Title 24 standards, which were effective beginning January 1, 2020. Specifically, the project would reserve area on the roof for future solar panels and install enhanced insulated walls, high efficiency (LED) lighting, energy efficient appliances, low-flow water fixtures, water-efficient irrigation, and drought tolerant landscape. The project would also include approximately 53 spaces for future installation of electric vehicle charging stations. As such, the project would be consistent with this goal.</p>
<p><b>Goal 6:</b> Fontana is a leader [in] energy-efficient development and retrofits.</p>	<p><b>Consistent.</b> The project would incorporate sustainable building design features, such as reserving area on the roof for future solar panels. The project would also include the installation of enhanced insulated walls, high efficiency (LED) lighting, and energy efficient appliances. As such, the project would be consistent with this goal.</p>
<p>Source: City of Fontana, <i>General Plan Update 2015-2035</i>, November 13, 2018.</p>	

## Conclusion

In summary, the plan consistency analysis provided above demonstrates that the proposed project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in the City’s General Plan Update, SCAG 2020-2045 RTP/SCS, and CARB 2017 Scoping Plan. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, as the project does not conflict with the City’s General Plan Update, 2020-2045 RTP/SCS, or the 2017 Scoping Plan, the project specific impacts with regard to climate change would be less than significant.

**Mitigation Measures:** No mitigation is required.

**Level of Significance:** Less Than Significant Impact.

## REFERENCES

### Documents

1. California Building Standards Commission, *2019 California Building Standards Code*, July 1, 2019.
2. California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators*, [https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca\\_ghg\\_inventory\\_trends\\_2000-2019.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca_ghg_inventory_trends_2000-2019.pdf), July 28, 2021, accessed January 17, 2022.
3. California Air Resources Board, *2017 Scoping Plan*, November 2017.
4. City of Fontana, *General Plan General Plan Update 2015-2035*, November 13, 2018.
5. Fehr & Peers, *Alta Fontana Apartments Traffic Study Scoping Assessment*, January 13, 2022.
6. Scripps Institution of Oceanography, Carbon Dioxide Concentration at Mauna Loa Observatory, <https://scripps.ucsd.edu/programs/keelingcurve/>, accessed January 17, 2022.
7. Southern California Association of Governments, *2020-2040 Regional Transportation Plan/Sustainable Communities Strategy - Connect SoCal*, September 3, 2020.
8. South Coast Air Quality Management District, *Draft Guidance Document-Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.
9. U.S. Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>, accessed January 24, 2022.

### Websites / Programs

1. Google Earth, 2022.
2. South Coast Air Quality Management District, *California Emissions Estimator Model (CalEEMod)*, version 2020.4.0.

**Appendix A**  
Greenhouse Gas Emissions Data

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Alta Fontana Mixed Use  
San Bernardino-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	530.00	Space	3.00	212,000.00	0
City Park	2.52	Acre	1.77	109,771.20	0
Apartments Mid Rise	344.00	Dwelling Unit	4.00	344,000.00	984
Strip Mall	1.50	1000sqft	0.03	1,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Total Lot Acreage is 8.8 Acre.

Construction Phase - Per Construction Questionnaire

Trips and VMT - Per Construction Questionnaire

Grading -

Architectural Coating - Per SCAQMD Rule 1113

Vehicle Trips - Per Traffic Study

Road Dust -

Area Coating - Per SCAQMD Rule 1113

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use Change -

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Area Mitigation - SCAQMD Rule 445 prohibits the installation of any open or enclosed permanent wood-burning furnaces in new constructions. Thus, only natural gas hearth would occur.

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Per AB 341

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	230.00	528.00
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	20.00	22.00
tblGrading	MaterialExported	0.00	2,600.00
tblGrading	MaterialImported	0.00	22,870.00
tblLandUse	LotAcreage	4.77	3.00
tblLandUse	LotAcreage	2.52	1.77
tblLandUse	LotAcreage	9.05	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	ST_TR	4.91	4.54
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	42.04	54.67
tblVehicleTrips	SU_TR	4.09	4.54
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	20.43	54.67
tblVehicleTrips	WD_TR	5.44	4.54
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	44.32	54.67

**2.0 Emissions Summary**

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Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
2022	0.0611	0.5479	0.5482	1.5500e-003	0.1486	0.0208	0.1694	0.0556	0.0194	0.0750	0.0000	143.1897	143.1897	0.0183	8.9300e-003	146.3078
2023	0.4018	2.5666	4.0044	0.0105	0.6773	0.1014	0.7786	0.1881	0.0953	0.2834	0.0000	962.2484	962.2484	0.0935	0.0442	977.7540
2024	1.7194	2.3102	3.8371	9.9700e-003	0.6067	0.0874	0.6941	0.1628	0.0822	0.2449	0.0000	913.5093	913.5093	0.0897	0.0387	927.2715
<b>Maximum</b>	<b>1.7194</b>	<b>2.5666</b>	<b>4.0044</b>	<b>0.0105</b>	<b>0.6773</b>	<b>0.1014</b>	<b>0.7786</b>	<b>0.1881</b>	<b>0.0953</b>	<b>0.2834</b>	<b>0.0000</b>	<b>962.2484</b>	<b>962.2484</b>	<b>0.0935</b>	<b>0.0442</b>	<b>977.7540</b>

**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					
2022	0.0611	0.5479	0.5482	1.5500e-003	0.0950	0.0208	0.1158	0.0313	0.0194	0.0507	0.0000	143.1896	143.1896	0.0183	8.9300e-003	146.3077
2023	0.4018	2.5666	4.0044	0.0105	0.6445	0.1014	0.7459	0.1753	0.0953	0.2706	0.0000	962.2480	962.2480	0.0935	0.0442	977.7537
2024	1.7194	2.3102	3.8371	9.9700e-003	0.6067	0.0874	0.6941	0.1628	0.0822	0.2449	0.0000	913.5089	913.5089	0.0897	0.0387	927.2711
<b>Maximum</b>	<b>1.7194</b>	<b>2.5666</b>	<b>4.0044</b>	<b>0.0105</b>	<b>0.6445</b>	<b>0.1014</b>	<b>0.7459</b>	<b>0.1753</b>	<b>0.0953</b>	<b>0.2706</b>	<b>0.0000</b>	<b>962.2480</b>	<b>962.2480</b>	<b>0.0935</b>	<b>0.0442</b>	<b>977.7537</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	6.03	0.00	5.26	9.11	0.00	6.14	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	12-1-2022	2-28-2023	1.2242	1.2242
2	3-1-2023	5-31-2023	0.7122	0.7122
3	6-1-2023	8-31-2023	0.7104	0.7104
4	9-1-2023	11-30-2023	0.7062	0.7062
5	12-1-2023	2-29-2024	0.6818	0.6818
6	3-1-2024	5-31-2024	0.6720	0.6720
7	6-1-2024	8-31-2024	2.0233	2.0233
8	9-1-2024	9-30-2024	0.3359	0.3359
		Highest	2.0233	2.0233

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.0273	0.1301	5.7378	5.7700e-003		0.3482	0.3482		0.3482	0.3482	36.5394	76.0242	112.5636	0.1146	2.4800e-003	116.1664
Energy	0.0267	0.2281	0.0972	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	522.1681	522.1681	0.0268	7.4800e-003	525.0689
Mobile	0.8080	1.2713	8.4173	0.0191	2.0710	0.0153	2.0863	0.5532	0.0143	0.5675	0.0000	1,813.6671	1,813.6671	0.1003	0.0892	1,842.7580
Waste						0.0000	0.0000		0.0000	0.0000	32.4867	0.0000	32.4867	1.9199	0.0000	80.4844
Water						0.0000	0.0000		0.0000	0.0000	7.1459	85.9034	93.0493	0.7412	0.0182	117.0055
<b>Total</b>	<b>3.8620</b>	<b>1.6295</b>	<b>14.2522</b>	<b>0.0264</b>	<b>2.0710</b>	<b>0.3819</b>	<b>2.4529</b>	<b>0.5532</b>	<b>0.3809</b>	<b>0.9341</b>	<b>76.1719</b>	<b>2,497.7628</b>	<b>2,573.9347</b>	<b>2.9028</b>	<b>0.1174</b>	<b>2,681.4831</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.9081	0.1051	3.5783	6.0000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	80.1546	80.1546	7.0100e-003	1.3600e-003	80.7360
Energy	0.0267	0.2281	0.0972	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	522.1681	522.1681	0.0268	7.4800e-003	525.0689
Mobile	0.8080	1.2713	8.4173	0.0191	2.0710	0.0153	2.0863	0.5532	0.0143	0.5675	0.0000	1,813.6671	1,813.6671	0.1003	0.0892	1,842.7580
Waste						0.0000	0.0000		0.0000	0.0000	16.2433	0.0000	16.2433	0.9600	0.0000	40.2422
Water						0.0000	0.0000		0.0000	0.0000	5.7167	73.4335	79.1502	0.5934	0.0146	98.3395
<b>Total</b>	<b>2.7428</b>	<b>1.6045</b>	<b>12.0928</b>	<b>0.0212</b>	<b>2.0710</b>	<b>0.0586</b>	<b>2.1296</b>	<b>0.5532</b>	<b>0.0576</b>	<b>0.6108</b>	<b>21.9600</b>	<b>2,489.4232</b>	<b>2,511.3833</b>	<b>1.6875</b>	<b>0.1127</b>	<b>2,587.1445</b>

	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
<b>Percent Reduction</b>	<b>28.98</b>	<b>1.54</b>	<b>15.15</b>	<b>19.61</b>	<b>0.00</b>	<b>84.65</b>	<b>13.18</b>	<b>0.00</b>	<b>84.87</b>	<b>34.61</b>	<b>71.17</b>	<b>0.33</b>	<b>2.43</b>	<b>41.87</b>	<b>4.01</b>	<b>3.52</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	12/1/2022	1/16/2023	5	33	
2	Building Construction	Building Construction	12/1/2022	12/9/2024	5	528	
3	Architectural Coating	Architectural Coating	7/1/2024	8/29/2024	5	44	

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4	Paving	Paving	9/1/2024	10/1/2024	5	22
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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 33**

**Acres of Paving: 3**

**Residential Indoor: 696,600; Residential Outdoor: 232,200; Non-Residential Indoor: 166,830; Non-Residential Outdoor: 55,610; Striped Parking Area: 12,720 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**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
Grading	6	15.00	0.00	3,184.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	383.00	90.00	0.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT

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Architectural Coating	1	77.00	0.00	0.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Grading - 2022**

**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					0.0852	0.0000	0.0852	0.0385	0.0000	0.0385	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2294	0.1680	3.3000e-004		0.0104	0.0104		9.5200e-003	9.5200e-003	0.0000	28.6602	28.6602	9.2700e-003	0.0000	28.8920
<b>Total</b>	<b>0.0214</b>	<b>0.2294</b>	<b>0.1680</b>	<b>3.3000e-004</b>	<b>0.0852</b>	<b>0.0104</b>	<b>0.0955</b>	<b>0.0385</b>	<b>9.5200e-003</b>	<b>0.0480</b>	<b>0.0000</b>	<b>28.6602</b>	<b>28.6602</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>28.8920</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Grading - 2022**

**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	2.6600e-003	0.0882	0.0287	3.3000e-004	9.1500e-003	7.7000e-004	9.9200e-003	2.5100e-003	7.4000e-004	3.2500e-003	0.0000	32.5571	32.5571	1.3600e-003	5.1600e-003	34.1281
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	6.2000e-004	4.9000e-004	5.8500e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4512	1.4512	4.0000e-005	4.0000e-005	1.4647
<b>Total</b>	<b>3.2800e-003</b>	<b>0.0887</b>	<b>0.0346</b>	<b>3.5000e-004</b>	<b>0.0110</b>	<b>7.8000e-004</b>	<b>0.0117</b>	<b>2.9900e-003</b>	<b>7.5000e-004</b>	<b>3.7400e-003</b>	<b>0.0000</b>	<b>34.0083</b>	<b>34.0083</b>	<b>1.4000e-003</b>	<b>5.2000e-003</b>	<b>35.5928</b>

**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					0.0316	0.0000	0.0316	0.0143	0.0000	0.0143	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2294	0.1680	3.3000e-004		0.0104	0.0104		9.5200e-003	9.5200e-003	0.0000	28.6602	28.6602	9.2700e-003	0.0000	28.8919
<b>Total</b>	<b>0.0214</b>	<b>0.2294</b>	<b>0.1680</b>	<b>3.3000e-004</b>	<b>0.0316</b>	<b>0.0104</b>	<b>0.0419</b>	<b>0.0143</b>	<b>9.5200e-003</b>	<b>0.0238</b>	<b>0.0000</b>	<b>28.6602</b>	<b>28.6602</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>28.8919</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Grading - 2022**

**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	2.6600e-003	0.0882	0.0287	3.3000e-004	9.1500e-003	7.7000e-004	9.9200e-003	2.5100e-003	7.4000e-004	3.2500e-003	0.0000	32.5571	32.5571	1.3600e-003	5.1600e-003	34.1281
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	6.2000e-004	4.9000e-004	5.8500e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4512	1.4512	4.0000e-005	4.0000e-005	1.4647
<b>Total</b>	<b>3.2800e-003</b>	<b>0.0887</b>	<b>0.0346</b>	<b>3.5000e-004</b>	<b>0.0110</b>	<b>7.8000e-004</b>	<b>0.0117</b>	<b>2.9900e-003</b>	<b>7.5000e-004</b>	<b>3.7400e-003</b>	<b>0.0000</b>	<b>34.0083</b>	<b>34.0083</b>	<b>1.4000e-003</b>	<b>5.2000e-003</b>	<b>35.5928</b>

**3.2 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					0.0521	0.0000	0.0521	0.0203	0.0000	0.0203	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4100e-003	0.0987	0.0811	1.6000e-004		4.2600e-003	4.2600e-003		3.9200e-003	3.9200e-003	0.0000	14.3333	14.3333	4.6400e-003	0.0000	14.4492
<b>Total</b>	<b>9.4100e-003</b>	<b>0.0987</b>	<b>0.0811</b>	<b>1.6000e-004</b>	<b>0.0521</b>	<b>4.2600e-003</b>	<b>0.0563</b>	<b>0.0203</b>	<b>3.9200e-003</b>	<b>0.0242</b>	<b>0.0000</b>	<b>14.3333</b>	<b>14.3333</b>	<b>4.6400e-003</b>	<b>0.0000</b>	<b>14.4492</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Grading - 2023**

**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	9.6000e-004	0.0365	0.0141	1.6000e-004	4.5800e-003	3.1000e-004	4.8900e-003	1.2600e-003	3.0000e-004	1.5500e-003	0.0000	15.5703	15.5703	6.5000e-004	2.4700e-003	16.3217
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	2.9000e-004	2.1000e-004	2.6800e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7065	0.7065	2.0000e-005	2.0000e-005	0.7127
<b>Total</b>	<b>1.2500e-003</b>	<b>0.0367</b>	<b>0.0167</b>	<b>1.7000e-004</b>	<b>5.4800e-003</b>	<b>3.1000e-004</b>	<b>5.8000e-003</b>	<b>1.5000e-003</b>	<b>3.0000e-004</b>	<b>1.7900e-003</b>	<b>0.0000</b>	<b>16.2768</b>	<b>16.2768</b>	<b>6.7000e-004</b>	<b>2.4900e-003</b>	<b>17.0344</b>

**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					0.0193	0.0000	0.0193	7.5300e-003	0.0000	7.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4100e-003	0.0987	0.0811	1.6000e-004		4.2600e-003	4.2600e-003		3.9200e-003	3.9200e-003	0.0000	14.3333	14.3333	4.6400e-003	0.0000	14.4492
<b>Total</b>	<b>9.4100e-003</b>	<b>0.0987</b>	<b>0.0811</b>	<b>1.6000e-004</b>	<b>0.0193</b>	<b>4.2600e-003</b>	<b>0.0236</b>	<b>7.5300e-003</b>	<b>3.9200e-003</b>	<b>0.0115</b>	<b>0.0000</b>	<b>14.3333</b>	<b>14.3333</b>	<b>4.6400e-003</b>	<b>0.0000</b>	<b>14.4492</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Grading - 2023**

**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	9.6000e-004	0.0365	0.0141	1.6000e-004	4.5800e-003	3.1000e-004	4.8900e-003	1.2600e-003	3.0000e-004	1.5500e-003	0.0000	15.5703	15.5703	6.5000e-004	2.4700e-003	16.3217
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	2.9000e-004	2.1000e-004	2.6800e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7065	0.7065	2.0000e-005	2.0000e-005	0.7127
<b>Total</b>	<b>1.2500e-003</b>	<b>0.0367</b>	<b>0.0167</b>	<b>1.7000e-004</b>	<b>5.4800e-003</b>	<b>3.1000e-004</b>	<b>5.8000e-003</b>	<b>1.5000e-003</b>	<b>3.0000e-004</b>	<b>1.7900e-003</b>	<b>0.0000</b>	<b>16.2768</b>	<b>16.2768</b>	<b>6.7000e-004</b>	<b>2.4900e-003</b>	<b>17.0344</b>

**3.3 Building Construction - 2022**

**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	0.0188	0.1718	0.1800	3.0000e-004		8.9000e-003	8.9000e-003		8.3700e-003	8.3700e-003	0.0000	25.4898	25.4898	6.1100e-003	0.0000	25.6424
<b>Total</b>	<b>0.0188</b>	<b>0.1718</b>	<b>0.1800</b>	<b>3.0000e-004</b>		<b>8.9000e-003</b>	<b>8.9000e-003</b>		<b>8.3700e-003</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>25.4898</b>	<b>25.4898</b>	<b>6.1100e-003</b>	<b>0.0000</b>	<b>25.6424</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2022**

**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	1.6900e-003	0.0456	0.0162	1.8000e-004	6.2400e-003	5.2000e-004	6.7600e-003	1.8000e-003	4.9000e-004	2.3000e-003	0.0000	17.9768	17.9768	4.8000e-004	2.6600e-003	18.7823
Worker	0.0159	0.0125	0.1495	4.0000e-004	0.0462	2.5000e-004	0.0464	0.0123	2.3000e-004	0.0125	0.0000	37.0546	37.0546	1.0600e-003	1.0600e-003	37.3983
<b>Total</b>	<b>0.0176</b>	<b>0.0581</b>	<b>0.1657</b>	<b>5.8000e-004</b>	<b>0.0524</b>	<b>7.7000e-004</b>	<b>0.0532</b>	<b>0.0141</b>	<b>7.2000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>55.0314</b>	<b>55.0314</b>	<b>1.5400e-003</b>	<b>3.7200e-003</b>	<b>56.1806</b>

**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	0.0188	0.1718	0.1800	3.0000e-004		8.9000e-003	8.9000e-003		8.3700e-003	8.3700e-003	0.0000	25.4898	25.4898	6.1100e-003	0.0000	25.6424
<b>Total</b>	<b>0.0188</b>	<b>0.1718</b>	<b>0.1800</b>	<b>3.0000e-004</b>		<b>8.9000e-003</b>	<b>8.9000e-003</b>		<b>8.3700e-003</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>25.4898</b>	<b>25.4898</b>	<b>6.1100e-003</b>	<b>0.0000</b>	<b>25.6424</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2022**

**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	1.6900e-003	0.0456	0.0162	1.8000e-004	6.2400e-003	5.2000e-004	6.7600e-003	1.8000e-003	4.9000e-004	2.3000e-003	0.0000	17.9768	17.9768	4.8000e-004	2.6600e-003	18.7823
Worker	0.0159	0.0125	0.1495	4.0000e-004	0.0462	2.5000e-004	0.0464	0.0123	2.3000e-004	0.0125	0.0000	37.0546	37.0546	1.0600e-003	1.0600e-003	37.3983
<b>Total</b>	<b>0.0176</b>	<b>0.0581</b>	<b>0.1657</b>	<b>5.8000e-004</b>	<b>0.0524</b>	<b>7.7000e-004</b>	<b>0.0532</b>	<b>0.0141</b>	<b>7.2000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>55.0314</b>	<b>55.0314</b>	<b>1.5400e-003</b>	<b>3.7200e-003</b>	<b>56.1806</b>

**3.3 Building Construction - 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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
<b>Total</b>	<b>0.2045</b>	<b>1.8700</b>	<b>2.1117</b>	<b>3.5000e-003</b>		<b>0.0910</b>	<b>0.0910</b>		<b>0.0856</b>	<b>0.0856</b>	<b>0.0000</b>	<b>301.3462</b>	<b>301.3462</b>	<b>0.0717</b>	<b>0.0000</b>	<b>303.1383</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2023**

**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	0.0132	0.4317	0.1748	2.1000e-003	0.0738	3.0900e-003	0.0769	0.0213	2.9600e-003	0.0243	0.0000	203.9111	203.9111	5.3100e-003	0.0301	213.0239
Worker	0.1735	0.1295	1.6201	4.5900e-003	0.5459	2.7500e-003	0.5487	0.1450	2.5300e-003	0.1475	0.0000	426.3810	426.3810	0.0112	0.0116	430.1082
<b>Total</b>	<b>0.1867</b>	<b>0.5612</b>	<b>1.7948</b>	<b>6.6900e-003</b>	<b>0.6197</b>	<b>5.8400e-003</b>	<b>0.6256</b>	<b>0.1663</b>	<b>5.4900e-003</b>	<b>0.1718</b>	<b>0.0000</b>	<b>630.2921</b>	<b>630.2921</b>	<b>0.0165</b>	<b>0.0417</b>	<b>643.1321</b>

**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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
<b>Total</b>	<b>0.2045</b>	<b>1.8700</b>	<b>2.1117</b>	<b>3.5000e-003</b>		<b>0.0910</b>	<b>0.0910</b>		<b>0.0856</b>	<b>0.0856</b>	<b>0.0000</b>	<b>301.3458</b>	<b>301.3458</b>	<b>0.0717</b>	<b>0.0000</b>	<b>303.1380</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2023**

**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	0.0132	0.4317	0.1748	2.1000e-003	0.0738	3.0900e-003	0.0769	0.0213	2.9600e-003	0.0243	0.0000	203.9111	203.9111	5.3100e-003	0.0301	213.0239
Worker	0.1735	0.1295	1.6201	4.5900e-003	0.5459	2.7500e-003	0.5487	0.1450	2.5300e-003	0.1475	0.0000	426.3810	426.3810	0.0112	0.0116	430.1082
<b>Total</b>	<b>0.1867</b>	<b>0.5612</b>	<b>1.7948</b>	<b>6.6900e-003</b>	<b>0.6197</b>	<b>5.8400e-003</b>	<b>0.6256</b>	<b>0.1663</b>	<b>5.4900e-003</b>	<b>0.1718</b>	<b>0.0000</b>	<b>630.2921</b>	<b>630.2921</b>	<b>0.0165</b>	<b>0.0417</b>	<b>643.1321</b>

**3.3 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	0.1810	1.6536	1.9885	3.3200e-003		0.0754	0.0754		0.0710	0.0710	0.0000	285.1744	285.1744	0.0674	0.0000	286.8603
<b>Total</b>	<b>0.1810</b>	<b>1.6536</b>	<b>1.9885</b>	<b>3.3200e-003</b>		<b>0.0754</b>	<b>0.0754</b>		<b>0.0710</b>	<b>0.0710</b>	<b>0.0000</b>	<b>285.1744</b>	<b>285.1744</b>	<b>0.0674</b>	<b>0.0000</b>	<b>286.8603</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2024**

**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	0.0122	0.4121	0.1626	1.9600e-003	0.0698	2.8800e-003	0.0727	0.0202	2.7500e-003	0.0229	0.0000	190.2751	190.2751	4.8700e-003	0.0281	198.7747
Worker	0.1527	0.1087	1.4288	4.2200e-003	0.5165	2.5000e-003	0.5190	0.1372	2.3000e-003	0.1395	0.0000	394.8327	394.8327	9.6000e-003	0.0101	398.0947
<b>Total</b>	<b>0.1649</b>	<b>0.5208</b>	<b>1.5915</b>	<b>6.1800e-003</b>	<b>0.5864</b>	<b>5.3800e-003</b>	<b>0.5917</b>	<b>0.1573</b>	<b>5.0500e-003</b>	<b>0.1624</b>	<b>0.0000</b>	<b>585.1078</b>	<b>585.1078</b>	<b>0.0145</b>	<b>0.0383</b>	<b>596.8694</b>

**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	0.1810	1.6536	1.9885	3.3100e-003		0.0754	0.0754		0.0710	0.0710	0.0000	285.1741	285.1741	0.0674	0.0000	286.8600
<b>Total</b>	<b>0.1810</b>	<b>1.6536</b>	<b>1.9885</b>	<b>3.3100e-003</b>		<b>0.0754</b>	<b>0.0754</b>		<b>0.0710</b>	<b>0.0710</b>	<b>0.0000</b>	<b>285.1741</b>	<b>285.1741</b>	<b>0.0674</b>	<b>0.0000</b>	<b>286.8600</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Building Construction - 2024**

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	0.0122	0.4121	0.1626	1.9600e-003	0.0698	2.8800e-003	0.0727	0.0202	2.7500e-003	0.0229	0.0000	190.2751	190.2751	4.8700e-003	0.0281	198.7747
Worker	0.1527	0.1087	1.4288	4.2200e-003	0.5165	2.5000e-003	0.5190	0.1372	2.3000e-003	0.1395	0.0000	394.8327	394.8327	9.6000e-003	0.0101	398.0947
<b>Total</b>	<b>0.1649</b>	<b>0.5208</b>	<b>1.5915</b>	<b>6.1800e-003</b>	<b>0.5864</b>	<b>5.3800e-003</b>	<b>0.5917</b>	<b>0.1573</b>	<b>5.0500e-003</b>	<b>0.1624</b>	<b>0.0000</b>	<b>585.1078</b>	<b>585.1078</b>	<b>0.0145</b>	<b>0.0383</b>	<b>596.8694</b>

**3.4 Architectural Coating - 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					
Archit. Coating	1.3487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0268	0.0398	7.0000e-005		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	5.6172	5.6172	3.2000e-004	0.0000	5.6251
<b>Total</b>	<b>1.3527</b>	<b>0.0268</b>	<b>0.0398</b>	<b>7.0000e-005</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>5.6172</b>	<b>5.6172</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>5.6251</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Architectural Coating - 2024**

**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	5.4900e-003	3.9100e-003	0.0514	1.5000e-004	0.0186	9.0000e-005	0.0187	4.9300e-003	8.0000e-005	5.0200e-003	0.0000	14.1979	14.1979	3.5000e-004	3.6000e-004	14.3152
<b>Total</b>	<b>5.4900e-003</b>	<b>3.9100e-003</b>	<b>0.0514</b>	<b>1.5000e-004</b>	<b>0.0186</b>	<b>9.0000e-005</b>	<b>0.0187</b>	<b>4.9300e-003</b>	<b>8.0000e-005</b>	<b>5.0200e-003</b>	<b>0.0000</b>	<b>14.1979</b>	<b>14.1979</b>	<b>3.5000e-004</b>	<b>3.6000e-004</b>	<b>14.3152</b>

**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	1.3487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0268	0.0398	7.0000e-005		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	5.6172	5.6172	3.2000e-004	0.0000	5.6251
<b>Total</b>	<b>1.3527</b>	<b>0.0268</b>	<b>0.0398</b>	<b>7.0000e-005</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>5.6172</b>	<b>5.6172</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>5.6251</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Architectural Coating - 2024**

**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	5.4900e-003	3.9100e-003	0.0514	1.5000e-004	0.0186	9.0000e-005	0.0187	4.9300e-003	8.0000e-005	5.0200e-003	0.0000	14.1979	14.1979	3.5000e-004	3.6000e-004	14.3152
<b>Total</b>	<b>5.4900e-003</b>	<b>3.9100e-003</b>	<b>0.0514</b>	<b>1.5000e-004</b>	<b>0.0186</b>	<b>9.0000e-005</b>	<b>0.0187</b>	<b>4.9300e-003</b>	<b>8.0000e-005</b>	<b>5.0200e-003</b>	<b>0.0000</b>	<b>14.1979</b>	<b>14.1979</b>	<b>3.5000e-004</b>	<b>3.6000e-004</b>	<b>14.3152</b>

**3.5 Paving - 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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0148</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2024**

**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	5.3000e-004	3.8000e-004	5.0000e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3829	1.3829	3.0000e-005	4.0000e-005	1.3943
<b>Total</b>	<b>5.3000e-004</b>	<b>3.8000e-004</b>	<b>5.0000e-003</b>	<b>1.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.3829</b>	<b>1.3829</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3943</b>

**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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0148</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2024**

**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	5.3000e-004	3.8000e-004	5.0000e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3829	1.3829	3.0000e-005	4.0000e-005	1.3943
<b>Total</b>	<b>5.3000e-004</b>	<b>3.8000e-004</b>	<b>5.0000e-003</b>	<b>1.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.3829</b>	<b>1.3829</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3943</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.8080	1.2713	8.4173	0.0191	2.0710	0.0153	2.0863	0.5532	0.0143	0.5675	0.0000	1,813.667 1	1,813.667 1	0.1003	0.0892	1,842.758 0
Unmitigated	0.8080	1.2713	8.4173	0.0191	2.0710	0.0153	2.0863	0.5532	0.0143	0.5675	0.0000	1,813.667 1	1,813.667 1	0.1003	0.0892	1,842.758 0

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,561.76	1,561.76	1561.76	5,336,771	5,336,771
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	82.01	82.01	82.01	156,022	156,022
<b>Total</b>	<b>1,643.77</b>	<b>1,643.77</b>	<b>1,643.77</b>	<b>5,492,794</b>	<b>5,492,794</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

**4.4 Fleet Mix**

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
City Park	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Strip Mall	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	257.9763	257.9763	0.0218	2.6400e-003	259.3072
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	257.9763	257.9763	0.0218	2.6400e-003	259.3072
NaturalGas Mitigated	0.0267	0.2281	0.0972	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1918	264.1918	5.0600e-003	4.8400e-003	265.7617
NaturalGas Unmitigated	0.0267	0.2281	0.0972	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1918	264.1918	5.0600e-003	4.8400e-003	265.7617

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	4.94747e+006	0.0267	0.2280	0.0970	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.0157	264.0157	5.0600e-003	4.8400e-003	265.5846
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
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
Strip Mall	3300	2.0000e-005	1.6000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1772
<b>Total</b>		<b>0.0267</b>	<b>0.2281</b>	<b>0.0972</b>	<b>1.4600e-003</b>		<b>0.0184</b>	<b>0.0184</b>		<b>0.0184</b>	<b>0.0184</b>	<b>0.0000</b>	<b>264.1918</b>	<b>264.1918</b>	<b>5.0600e-003</b>	<b>4.8400e-003</b>	<b>265.7617</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	4.94747e+006	0.0267	0.2280	0.0970	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.0157	264.0157	5.0600e-003	4.8400e-003	265.5846
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
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
Strip Mall	3300	2.0000e-005	1.6000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1772
<b>Total</b>		<b>0.0267</b>	<b>0.2281</b>	<b>0.0972</b>	<b>1.4600e-003</b>		<b>0.0184</b>	<b>0.0184</b>		<b>0.0184</b>	<b>0.0184</b>	<b>0.0000</b>	<b>264.1918</b>	<b>264.1918</b>	<b>5.0600e-003</b>	<b>4.8400e-003</b>	<b>265.7617</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.36224e+006	241.5878	0.0204	2.4700e-003	242.8341
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74200	13.1590	1.1100e-003	1.3000e-004	13.2269
Strip Mall	18210	3.2295	2.7000e-004	3.0000e-005	3.2461
<b>Total</b>		<b>257.9763</b>	<b>0.0218</b>	<b>2.6300e-003</b>	<b>259.3072</b>



Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.36224e+006	241.5878	0.0204	2.4700e-003	242.8341
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74200	13.1590	1.1100e-003	1.3000e-004	13.2269
Strip Mall	18210	3.2295	2.7000e-004	3.0000e-005	3.2461
<b>Total</b>		<b>257.9763</b>	<b>0.0218</b>	<b>2.6300e-003</b>	<b>259.3072</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.9081	0.1051	3.5783	6.0000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	80.1546	80.1546	7.0100e-003	1.3600e-003	80.7360
Unmitigated	3.0273	0.1301	5.7378	5.7700e-003		0.3482	0.3482		0.3482	0.3482	36.5394	76.0242	112.5636	0.1146	2.4800e-003	116.1664

**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	0.1349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1268	0.0892	2.1868	5.5800e-003		0.3285	0.3285		0.3285	0.3285	36.5394	70.2161	106.7555	0.1090	2.4800e-003	110.2187
Landscaping	0.1070	0.0409	3.5510	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8081	5.8081	5.5800e-003	0.0000	5.9477
<b>Total</b>	<b>3.0273</b>	<b>0.1301</b>	<b>5.7378</b>	<b>5.7700e-003</b>		<b>0.3482</b>	<b>0.3482</b>		<b>0.3482</b>	<b>0.3482</b>	<b>36.5394</b>	<b>76.0242</b>	<b>112.5636</b>	<b>0.1146</b>	<b>2.4800e-003</b>	<b>116.1664</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.5100e-003	0.0642	0.0273	4.1000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	74.3465	74.3465	1.4200e-003	1.3600e-003	74.7883
Landscaping	0.1070	0.0409	3.5510	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8081	5.8081	5.5800e-003	0.0000	5.9477
<b>Total</b>	<b>1.9081</b>	<b>0.1051</b>	<b>3.5783</b>	<b>6.0000e-004</b>		<b>0.0249</b>	<b>0.0249</b>		<b>0.0249</b>	<b>0.0249</b>	<b>0.0000</b>	<b>80.1546</b>	<b>80.1546</b>	<b>7.0000e-003</b>	<b>1.3600e-003</b>	<b>80.7360</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System
- Use Water Efficient Landscaping

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.1502	0.5934	0.0146	98.3395
Unmitigated	93.0493	0.7412	0.0182	117.0055

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	22.413 / 14.1299	86.7074	0.7371	0.0181	110.5151
City Park	0 / 3.00253	5.9159	5.0000e-004	6.0000e-005	5.9464
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.111109 / 0.0680989	0.4260	3.6500e-003	9.0000e-005	0.5440
<b>Total</b>		<b>93.0493</b>	<b>0.7412</b>	<b>0.0182</b>	<b>117.0055</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	17.9304 / 13.268	73.2357	0.5900	0.0145	92.3018
City Park	0 / 2.81938	5.5551	4.7000e-004	6.0000e-005	5.5837
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.088887 / 0.0639449	0.3595	2.9200e-003	7.0000e-005	0.4540
<b>Total</b>		<b>79.1502</b>	<b>0.5934</b>	<b>0.0146</b>	<b>98.3395</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.2433	0.9600	0.0000	40.2422
Unmitigated	32.4867	1.9199	0.0000	80.4844

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	158.24	32.1213	1.8983	0.0000	79.5791
City Park	0.22	0.0447	2.6400e-003	0.0000	0.1106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.58	0.3207	0.0190	0.0000	0.7946
<b>Total</b>		<b>32.4867</b>	<b>1.9199</b>	<b>0.0000</b>	<b>80.4844</b>

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	79.12	16.0606	0.9492	0.0000	39.7896
City Park	0.11	0.0223	1.3200e-003	0.0000	0.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.79	0.1604	9.4800e-003	0.0000	0.3973
<b>Total</b>		<b>16.2433</b>	<b>0.9600</b>	<b>0.0000</b>	<b>40.2422</b>

**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Alta Fontana Mixed Use - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Number
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**11.0 Vegetation**

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