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November 30, 2021

Project 00986.00018.001

Kerry Kusiak, Director of Community Development City of La Mesa 8130 Allison Avenue La Mesa, CA 91942

Subject: EDCO Expansion Project Air Quality, Greenhouse Gas Emissions, and Energy Assessment

Dear Mr. Kusiak:

HELIX Environmental Planning, Inc. (HELIX) has assessed the air quality, greenhouse gas (GHG) emissions, and energy impacts associated with the construction and operation of the proposed EDCO Expansion Project (project). Analysis within this report was prepared to support impact analysis pursuant to the California Environmental Quality Act (CEQA; Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The analysis also reviews the discussions of potential impacts and irreversible significant effects analyzed in the 1997 La Mesa Materials Recovery and Transfer Station/Public Works Yard Project Final Environmental Impact Report (EIR; City of La Mesa [City] 1997) to determine their adequacy for the currently proposed project (see CEQA Guidelines Section 15178(b),(c)). In addition, the analysis determines whether there would be any potential new or additional project-specific significant environmental environmental effects that were not analyzed in the EIR.

PROJECT LOCATION

The project site is the existing EDCO Material Recovery Facility & Transfer Station (EDCO Station), located at 8184 Commercial Street in La Mesa. The focused location of project site improvements is on Industrial Lane, north of Commercial Street, and south of the primary processing structure at the facility in the City of La Mesa (City; see Figure 1, *Regional Location*, and Figure 2, *Aerial Photograph*).

PROJECT DESCRIPTION

On March 25, 1997, the City of La Mesa City Council approved Conditional Use Permit (CUP) #CP-06-96 for the operation of EDCO Station. Subsequently, the facility was constructed and successfully began operations in January of 1999 with permitted waste processing tonnage limit of 1,000 tons per day (tpd). The EDCO Station is owned and operated by EDCO Disposal Corporation and is located on land owned by the City. Existing and future activities on the EDCO Station include: the manual sorting and transfer of

residential, commercial, and industrial refuse; transfer of self-haul public refuse; processing of materials collected by curbside recycling programs; a public drop-off area for recyclable materials; and a Permanent Household Hazardous Waste Collection Facility (PHHWCF). Once offloaded inside the EDCO Station, recyclable material is sorted, and waste is loaded into transfer trucks and transported to a permitted landfill.

To facilitate the increasing solid waste generated within the region, as well as seasonal surges in the waste generated, pursuant to §17210.3 of the California Code of Regulations (CCR) Title 14, the Local Enforcement Agency (LEA) has issued emergency waivers of terms and conditions of the EDCO Station Solid Waste Facility Permit #37-AA-0922 during the declared State emergency, a result of the Coronavirus (COVID-19). These waivers allow the facility to operate at up to 2,000 tpd.

The project would increase the maximum permitted level of waste processing to 2,000 tpd (matching the emergency waivers) and enhance the on-site circulation through the addition of an exit scale and scale house. The existing design elements of the EDCO Station allow for up to 4,224 tpd of load out capacity. Therefore, no physical changes to the main building are necessary to accommodate the proposed permitted increase to a maximum of 2,000 tpd. To improve on-site circulation, an exit scale and scale house are proposed to be added for vehicles of self-haulers (i.e., non-EDCO vehicles) who need to weigh out to conclude their transaction, precluding the need for these vehicles to return to the main scale house. See Figure 3, *Site Plan*, for the proposed layout and location of the exit scale and scale house.

The proposed expansion would not affect hours of operation. The facility would remain open seven days per week, with deliveries accepted during hours ranging from 5:00 a.m. to 6:00 p.m., and processing/ maintenance occurring as needed, up to 24 hours per day. No changes are proposed to the types of materials accepted at the facility. Mixed municipal wastes (including residential and commercial/ industrial wastes that do not require special handling) will continue to be accepted. These include:

- Residential and industrial/commercial generated, source-separated recyclable materials
- Non-hazardous industrial/construction/demolition wastes
- Organics, wood and yard wastes

ENVIRONMENTAL SETTING

The project site is located within the San Diego Air Basin (SDAB). The climate in southern California, including the SDAB, is controlled largely by the large-scale meteorological condition that dominates the west coast of the United States: a seasonally semipermanent high-pressure cell centered over the northeastern Pacific Ocean, called the Pacific high, which keeps most storms from affecting the California coast. Areas within 30 miles of the coast in the San Diego region, including the project site, experience moderate temperatures and comfortable humidity.

Temperature inversion layers (inversions; layers of warmer air over colder air) affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). The highest air pollutant concentrations in the SDAB generally occur during inversions. During the summer, air quality problems



in the SDAB are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide (NO₂) react under the strong, abundant sunlight in the San Diego region, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills.

Existing Conditions

The site is currently improved with hardscape, processing structures, perimeter walls and fencing, and screening landscaping. The facility is owned and operated by EDCO Disposal Corporation and is located on land owned by the City of La Mesa. Existing on-site structures include a 50,000 square foot (SF) Main Building, a 3,200 SF Buyback Center and Office area, and a 1,672 SF covered PHHWCF. Access to the site is via Interstate 8 (I-8), and then via Center Street and Commercial Street.

Surrounding land uses to the north include light rail/trolley tracks and right-of-way and commercial uses (south of Fletcher Parkway, beyond the rail tracks). Industrial/commercial uses are located to the east and south, including the EDCO office. A City of La Mesa Public Works facility is located to the west (see Figure 2).

REGULATORY SETTING

Air Quality

Air Quality in the SDAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the San Diego Air Pollution Control District (SDAPCD) at the regional level.

Criteria Pollutants

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe, to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. The USEPA, the federal agency that administrates the Federal Clean Air Act (CAA) of 1970, as amended in 1990, has established national ambient air quality standards (NAAQS) for several air pollution constituents known as criteria pollutants, including: ozone (O_3) ; carbon monoxide (CO); coarse particulate matter (PM₁₀; particles 10 microns or less) and fine particulate matter (PM_{2.5}; particles 2.5 microns or less); sulfur dioxide (SO₂); and lead (Pb). As permitted by the Clean Air Act, California has adopted the more stringent California ambient air quality standards (CAAQS) and expanded the number of regulated air constituents. Ground-level ozone is not emitted directly into the environment but is generated from complex chemical and photochemical reactions between precursor pollutants, primarily reactive organic gases (ROGs; also known as volatile organic compounds [VOC]), ¹ and oxides of nitrogen (NO_x). PM₁₀ and PM_{2.5} are generated from a variety of sources, including road

¹ CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.



dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations and windblown dust. In addition, PM_{10} and $PM_{2.5}$ can also be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere.

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for the ambient air quality standards. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. An "unclassified" designation indicates that insufficient data was available to determine the status. The current attainment status for the SDAB is shown in Table 1, *San Diego Air Basin Attainment Status*.

Pollutant	Federal	State of California
Foliatant	Attainment Status	Attainment Status
	No federal standard	Nonattainment
Ozone (1 hour)	Nonattainment	onattainment
Ozone (8 hour)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM ₁₀)	Unclassifiable ¹	Nonattainment
Fine Particulate Matter (PM _{2.5})	Attainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified

Table 1SAN DIEGO AIR BASIN ATTAINMENT STATUS

Source: USEPA 2021; SDAPCD 2021

¹ At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

On August 3, 2018, the SDAB was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone (USEPA 2021). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM₁₀ and PM_{2.5}. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM₁₀, and PM_{2.5} (SDAPCD 2021).

Toxic Air Contaminants

Toxic air contaminants (TAC) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs can cause long-term chronic health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below



which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

The Health and Safety Code (§39655[a]) defines TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." All substances that are listed as hazardous air pollutants pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) are designated as TACs. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2021). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2021).

Air Quality Plans

The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The regional air quality plan for San Diego County is SDAPCD's 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (Attainment Plan; SDAPCD 2020). The Attainment Plan, which would be a revision to the state implementation plan (SIP), outlines SDAPCD's plans and control measures designed to attain the NAAQS for ozone. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and SIP.

The Attainment Plan relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. Projects which are consistent with the growth assumptions used in the Attainment Plan and do not conflict with the control measures in the Attainment Plan, and which do not result in criteria pollutant and precursor emissions in excess of the thresholds adopted by the County (as described in Section 3.1, below), would not hinder the goal of the Attainment Plan to bring the SDAB into compliance with the NAAQS and CAAQS for the protection of public health.



The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin.

San Diego Air Pollution Control District Rules

Rule 50 (Visible Emissions): Rule 50 sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale (SDAPCD 1997).

Rule 51 (Nuisance): Rule 51 states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property (SDAPCD 1976).

Rule 55 (Fugitive Dust Control): Rule 55 requires action be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of track-out/carry-out shall be minimized through implementation of control measures and removed at the conclusion of each workday using street sweepers (SDAPCD 2009).

Greenhouse Gases

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as greenhouse gasses (GHGs) because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with burning of fossil fuels during motorized transport; electricity generation; natural gas consumption; industrial activity; manufacturing; and other activities such as deforestation, agricultural activity, and solid waste decomposition.

The GHGs defined under California's Assembly Bill (AB) 32, described below, include carbon dioxide (CO_2) , methane (CH_4) , nitrous oxide (N_2O) , hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of CO_2e . For consistency with United Nations Standards, modeling and reporting of GHGs in California and the U.S. use the GWPs defined in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (IPCC 2007): $CO_2 - 1$; $CH_4 - 25$; $N_2O - 298$.



Executive Order S-3-05: On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Executive Orders are not laws and can only provide the governor's direction to state agencies to act within their authority to reinforce existing laws.

Assembly Bill 32 – Global Warming Solution Act of 2006: The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

Executive Order B-30-15: On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing GHGs emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Senate Bill 32: Signed into law by Governor Brown on September 8, 2016, Senate Bill (SB) 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

California Air Resources Board: On December 11, 2008, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled (VMT) and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis (CARB 2008).

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions (CARB 2014). In December 2017, CARB adopted the 2017 Climate Change Scoping Plan



Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target, to reflect the 2030 target set by EO B-30-15 and codified by SB 32 (CARB 2017).

City of La Mesa Climate Action Plan: The City's Climate Action Plan (CAP) was adopted in March 2018. The CAP describes the 2010 GHG emissions baseline and forecasted emissions for 2020 and 2035, and identifies achievable, measurable strategies and actions for the City to implement to reduce emissions to 15 percent below 2010 levels by 2020 and 53 percent below 2010 levels by 2035 (City of La Mesa 2018). These CAP reduction goals were designed to enable the City to meet the 2020 GHG reduction mandates of AB 32, the 2030 GHG reduction mandates SB 32, and to be on-track to meet the 2050 of EO-S-3-05 goal of GHG emissions 80 percent below 1990 levels by 2050. The CAP contains reduction measures within the City's direct influence to achieve the City's 2020 and 2035 GHG reduction targets in five strategy areas: energy; transportation and land use; water; solid waste; and green infrastructure (City of La Mesa 2018).

Energy

Federal Energy Regulations

Energy Independence and Security Act of 2007

House of Representatives Bill 6 (HR 6), the federal Energy Independence and Security Act of 2007, established new standards for a few energy-consuming equipment types not already subject to a standard, and updated some existing standards. The most substantial new standard that HR 6 established was for general service lighting that is being deployed in two phases. First, phased in between 2012 through 2014, common light bulbs were required to use about 20 to 30 percent less energy than previous incandescent bulbs. Second, by 2020, light bulbs were required to consume 60 percent less energy than previous incandescent bulbs; this requirement will effectively phase out the incandescent light bulb.

California Energy Regulations and Plans

<u>Renewable Energy Programs and Mandates (SB 1078, SB 107, SB 2 X1, SB 350, and SB 100)</u>

A series of substantive legislative initiatives have been advanced at the State level in the last two decades. These initiatives focused on increasing the generation of electricity via renewable energy sources and promoting a shift away from fossil- or carbon-based fuels as a key strategy to reduce GHG emissions, air pollution, and water use associated with the energy sector.

In 2002, California established the Renewables Portfolio Standard (RPS) with SB 1078, requiring electric utilities in the State to increase procurement of eligible renewable energy resources to achieve a target of 20 percent of their annual retail sales by the year 2010. In 2011, Governor Jerry Brown approved the California Renewable Energy Resources Act, SB 2 X1. SB 2 X1 legislatively broadened the scope of the State RPS to include retail electricity sellers; investor- and publicly owned utilities; municipal utilities; and community choice aggregators under the mandate to obtain 33 percent of their retail electrical energy sales from renewable sources by 2020.



Approved by Governor Brown on October 7, 2015, SB 350 increased California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce GHG emissions, and increase the use of clean energy.

Approved by Governor Brown on September 10, 2018, SB 100 extended the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sale of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and/or zero-carbon resources by the end of 2045.

California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators.

Regional Energy Regulations and Plans

San Diego Association of Governments Regional Energy Strategy

The SANDAG's 2009 Regional Energy Strategy (RES) serves as the energy policy blueprint for the San Diego region through 2050. The RES identifies priority early implementation actions, essential to meeting the region's energy goals (SANDAG 2009):

- Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems;
- Create financing programs to pay for projects and improvements that save energy;
- Utilize the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities;
- Support land use and transportation planning strategies that reduce energy use and GHG emissions;
- Support planning of electric charging and alternative fueling infrastructure; and
- Support use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The RES identified the main drivers of the strategy, including the state's preferred loading order for meeting new energy needs and global climate change and its policy implications. The California Public



Utilities Commission (CPUC) and CEC adopted a preferred loading order to meet the goals for satisfying the state's growing demand for electricity, which would place top priority on increasing energy efficiency and demand response (i.e., temporary reduction or shift in energy use during peak hours), generating new energy from renewable and distributed generation resources, and improvements to clean fossil-fueled generation and infrastructure.

METHODOLOGY AND ASSUMPTIONS

Criteria pollutant and precursor, and GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the Californian Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air quality management and pollution control districts, primarily the South Coast Air Quality Management District (SCAQMD). The calculation methodology, source of emission factors used, and default data is described in the CalEEMod User's Guide, and Appendices A, D, and E (CAPCOA 2021). The complete model output files are included as Attachment A to this report.

Construction modeling assumes an approximate two month anticipated schedule reported by the project applicant. Construction activities would include demolition of approximately 1,900 SF of asphalt, grading/excavation for the scale and scale hour pad, installation of the scale and prefabricated scale house, and pavement repair around the scale and scale house. Construction equipment assumptions were based on CalEEMod defaults and equipment used for past similar projects. The assumed equipment types and quantity used in the analysis is shown in Table 2, *Off-Road Equipment*.

Activity	Equipment	Quantity
Demolition	Concrete/Industrial Saws	1
	Rubber-Tired Dozers	1
	Tractors/Loader/Backhoes	2
Grading	Excavators	1
	Rubber-Tired Dozers	1
	Tractors/Loader/Backhoes	1
Building Construction	Cranes	1
	Forklifts	1
	Tractors/Loader/Backhoes	1
Paving	Cement and Mortar Mixers	1
	Rollers	1
	Tractors/Loader/Backhoes	1

Table 2 OFF-ROAD EQUIPMENT

An estimated 1,900 square feet of pavement would be removed, or approximately 70 tons of old asphalt, was included in the modeling as material export during demolition. The scale house would be prefabricated and would not require assembly or painting. Installation of the scale and scale house was assumed to require an average crew of five and an import of approximately 10 loads of concrete. Pavement repairs were assumed to require an import of two loads of aggregate/asphalt. Construction emissions modeling assumes the implementation of standard dust control best management practices to meet the requirements of the SDAPCD Rule 55, including watering all exposed surfaces twice daily.



The potential increase in operational mobile emissions resulting from implementing the project were modeled based on the project trip generation analysis provided in the Transportation Impact Analysis (TIA) which concluded that expanding the EDCO Station permitted waste processing from 1,000 tpd to 2,000 tpd would result in new trips: 36 average daily trips (ADT) from employees; 616 ADT from self-haul vehicles; 222 ADT from solid waste collection vehicles; and 92 ADT from solid waste transfer vehicles (Linscott, Law & Greenspan, Engineers [LLG] 2021). Employee vehicles were assumed to be a mix of light duty automobiles and light trucks, self-haul vehicles were assumed to be a mix of light and medium trucks (maximum two axels), and collection and transfer vehicles were assumed to be heavy trucks. The VMT analysis in the TIA estimated that the average employee trip distance would be 12.4 miles. Because self-hauling and collection vehicles would travel to/from similar areas as project employees (the City of La Mesa and surrounding area), the trip distances for those vehicles would be similar to the employee trip distance. Transfer vehicles would primarily travel to the closest active land fill, the Republic Services Sycamore Landfill, approximately 8 miles north of the project site. However, a few transfer vehicles may travel to more distant facilities. Therefore, all project trips were conservatively assumed to average the same distance as the employee trips (12.4 miles).

STANDARDS OF SIGNIFICANCE

Air Quality

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's CEQA Guidelines Appendix G and applicable air district screening-level thresholds described below. A significant air quality and/or odor impact could occur if the project would:

- 1. Conflict with or obstruct the implementation of the San Diego Attainment Plan or applicable portions of the SIP;
- 2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- 3. Expose sensitive receptors to substantial pollutant concentrations; or
- 4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

To determine whether the project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a cumulatively considerable net increase of PM_{10} , $PM_{2.5}$, or the ozone precursors NO_X and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs; SDAPCD 2019).

For CEQA purposes, these screening criteria were used as numeric methods to determine if the project would result in a significant impact to air quality or an adverse effect on human health. The screening thresholds are shown in Table 3, *Screening-level Thresholds for Air Quality Impact Analysis*.



Pollutant		Threshold	
Construction Emissions	·		
		lbs per Day	
Respirable Particulate Matter (PM ₁₀)		100	
Fine Particulate Matter (PM _{2.5})		67	
Oxides of Nitrogen (NO _x)		250	
Oxides of Sulfur (SO _x)		250	
Carbon Monoxide (CO)		550	
Volatile Organic Compounds (VOCs)		137	
Operational Emissions			
	lbs per Hour	lbs per Day	Tons per Year
Respirable Particulate Matter (PM ₁₀)		100	15
Fine Particulate Matter (PM _{2.5})		67	10
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (SO _x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds		3.2	0.6
Volatile Organic Compounds (VOC)		137	15

Table 3 SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Source: SDAPCD 2019

lbs = pounds

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property (SDAPCD 1976). It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

Greenhouse Gas Emissions

Thresholds used to evaluate potential GHG impacts are based on applicable criteria in the State's CEQA Guidelines Appendix G. A significant GHG impact could occur if the implementation of the project would:

- 1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- 2. Conflict with the City's CAP or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The determination of significance is governed by CEQA Guidelines 15064.4, entitled "Determining the Significance of Impacts from Greenhouse Gas Emissions." CEQA Guidelines 15064.4(a) states, "[t]he determination of the significance of GHG emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a



particular project, whether to ... [use a quantitative model or qualitative model]" (emphasis added). In turn, CEQA Guidelines 15064.4(b) clarifies that a lead agency should consider "Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project." Therefore, consistent with CEQA Guidelines 15064.4, the GHG analysis for the project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular project.

On December 5, 2008, the SCAQMD Governing Board adopted their *Interim CEQA Greenhouse Gas Significance Threshold*. The policy objective of the SCAQMD's recommended threshold is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that SCAQMD staff estimates that these GHG emissions would account for slightly less than one percent of the future 2050 statewide GHG emissions target (SCAQMD 2008).

Because neither the City nor the SDAPCD have adopted quantitative thresholds related to GHG emissions from industrial projects, the quantitative analysis provided herein relies upon the SCAQMD adopted screening threshold for heavy industrial projects of 10,000 MT CO₂e (SCAQMD 2008). The SCAQMD's jurisdiction has similar climate and land use patterns as San Diego County (i.e., dense population centers and industrial areas to the west and along the coast, and rural, low population density areas to the east) and the relative mix of GHG sources in the two regions are similar.

Energy

According to Appendix G of the CEQA Guidelines, a project would have a significant environmental impact if it would:

- 1. Result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- 2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

AIR QUALITY IMPACT ANALYSIS

Analysis in the EIR

Criteria pollutant and precursor emissions missions resulting from construction of the EDCO Station and the renovation to the City Public Works Yard was analyzed in the EIR which concluded that emissions of NO_x from off-road construction equipment would exceed the SDAPCD threshold and would result in a potentially significant impact. Mitigation measures in the EIR would reduce impacts related to NO_x emissions from construction to less than significant (City of La Mesa 1997, pp. 4.4-11 through 4.4-18). The construction emissions analysis and mitigation measure contained in the EIR are specific to



construction of the EDCO Station and renovation of the City Public Works Yard and would not be applicable to the project.

Criteria pollutant and precursor emissions missions resulting from operation of the EDCO Station and the renovation to the City Public Works Yard was analyzed in the EIR which concluded that mobile and stationary source operational emissions for the EDCO Station would not exceed the SDAPCD thresholds and the impact would be less than significant, and no mitigation would be required (City of La Mesa 1997, pp. 4.4-14 through 4.4-18).

Impacts resulting from emissions of odors and dust during operation of the EDCO facility was analyzed in the EIR which concluded that due to the unloading and processing waste indoors, adherence to State waste handling regulations, the distance to the closest residential areas, and with implementation of proper operation and maintenance of the facility, impacts would be less than significant, and no mitigation would be required (City of La Mesa 1997, pp. 4.5-1 through 4.4-5).

(1) Conflict with or obstruct implementation of the San Diego Attainment Plan or applicable portions of the SIP?

Less than Significant Impact. A project would be inconsistent with the Attainment Plan if it is inconsistent with the population and employment growth assumptions within the General Plan or if the project's emissions would exceed the applicable thresholds, as analyzed in checklist question (2).

As discussed in Air Quality checklist question (2), below, construction or operation of the project would not result in pollutant emissions in excess of applicable thresholds. Because emissions would be below the applicable thresholds, and because the project would expand the permitted capacity for a solid waste transfer facility and would not result in population increases in the region, the proposed project would not conflict with or obstruct implementation of the Attainment Plan for the SDAB and impacts would be less than significant.

(2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The project's construction emissions were estimated using equipment assumptions, as described above. The emissions generated from construction activities would include:

- Dust (including PM₁₀ and PM_{2.5}) primarily from fugitive sources such as soil disturbance and vehicle travel over unpaved surfaces;
- Combustion emissions of air pollutants (including VOC, NO_x, PM₁₀, PM_{2.5}, CO, and SO_x), primarily from: operation of heavy off-road equipment; on-road worker commute vehicle traveling to and from the project site; and trucks hauling equipment, material, and debris to and from the project site; and
- Emissions of VOCs from the application of asphalt.

The results of the calculations for project construction activities are shown in Table 4, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for



comparison with the SDAPCD thresholds. The model output is included as Attachment A to this letter. As shown in Table 4, The project's construction emissions would not exceed SDAPCD thresholds and would not result in a cumulatively considerable net increase of any criteria pollutant.

Construction Activity	VOC*	NOx*	CO*	SOx*	PM10*	PM2.5*
Demolition	0.8	7.0	7.9	<0.1	0.8	0.4
Grading	1.0	9.9	8.1	<0.1	2.8	1.6
Building Construction	0.5	4.8	4.4	<0.1	0.3	0.2
Paving	0.4	3.6	4.1	<0.1	0.3	0.2
Maximum Daily Emissions	1.0	9.9	8.1	<0.1	2.8	1.6
SDAPCD Thresholds	137	250	550	250	100	67
Exceed Thresholds?	No	No	No	No	No	No

Table 4 MAXIMUM DAILY CONSTRUCTION EMISSIONS

Source: CalEEMod (output data is provided in Attachment A)

*Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides;

 PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SDAPCD = San Diego County Air Pollution Control District

Because the EDCO Station was designed for a maximum capacity of 4,224 tpd of solid waste, increasing the permitted throughput to 2,000 tpd would not require a physical expansion of the facility or result in any additional on-site criteria pollutant and precursor emission compared to conditions prior to issuance of emergency waivers. The increase in operation mobile emissions related to additional VMT from employee, customer, and waste collection/transfer vehicle are compared to the SDAPCD thresholds in Table 5, *Operational Mobile Emissions*.

	VOC*	NOx*	CO*	SO _x *	PM10*	PM2.5*
Maximum pounds per day	3.6	60.1	52.0	0.4	18.7	5.4
SDAPCD Daily Thresholds	137	250	550	250	100	67
Exceed Daily Thresholds?	No	No	No	No	No	No
Maximum tons per year	0.5	7.8	6.7	<0.1	2.4	0.7
SDAPCD Annual Thresholds	15	40	100	40	15	10
Exceed Annual Thresholds?	No	No	No	No	No	No

Table 5 OPERATIONAL MOBILE EMISSIONS

Source: CalEEMod (output data is provided in Attachment A) *Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides;

 PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SDAPCD = San Diego County Air Pollution Control District

As shown in Table 5, mobile emissions resulting from increasing the EDCO Station permitted waste processing volume from 1,000 tpd to 2,000 tpd would not exceed the SDAPCD annual or daily screening-level threshold. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant and the impact would be less than significant.



(3) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The closest sensitive receptors to the project site are multi-family residential buildings approximately 700 feet northwest of the project site. There are no schools, hospitals, or daycare facilities within 1,000 feet of the project site.

Construction of the project would result in DPM from the operation of diesel-powered off-road equipment. The amount to which the receptors could be exposed, which is a function of concentration and duration of exposure, is the primary factor used to determine health risk. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Project construction is anticipated to last approximately two months. Of this period, only one to two weeks would involve intense use of off-road equipment (during demolition of pavement and grading). Due to the short construction schedule, and the distance to the nearest sensitive receptors, construction of the project would not expose sensitive receptors to substantial pollutant concentrations.

The handling and transport of hazardous waste collected by the PHHWCF is regulated by CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*, as well as other State and federal regulations. Adherence to hazardous waste handling, transport, and disposal regulations would ensure sensitive receptors are not exposed to substantial concentrations TACs resulting from continued operation of the PHHWCF on the project site.

Project-generated traffic has the potential of contributing to localized concentrations of CO, or "CO hot spots." Because CO is a byproduct of incomplete combustion, exhaust emissions are worse when fossil-fueled vehicles are operated inefficiently, such as in stop-and-go traffic or through heavily congested intersections, where the level of service (LOS) is severely degraded. In accordance with the Transportation Project-Level Carbon Monoxide Protocol, CO hot spots are typically evaluated when: (a) the LOS of an intersection decreases to a LOS E or worse because of the project; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors such as residences, schools, hospitals, etc., are located in the vicinity of the affected intersection or roadway segment (California Department of Transportation [Caltrans] 1998). According to the TIA, all of the analyzed intersections are forecast to operate at LOS D or better in the project opening year condition, without implementation of the project. Implementation of the project would not result in the LOS of any of the analyzed intersections degrading (LLG 2021). Therefore, consistent with the CO Protocol, operation of the project would not result in exposure of sensitive receptors to substantial localized CO concentrations.



Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

(4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Facilities which handle solid waste, such as the EDCO Station, are a potential source of odors resulting from the decomposition of organic matter within the solid waste. Waste arriving at the EDCO Station is required by law to be covered or transported in enclosed vehicles. Waste is unloaded inside the enclosed processing structure. Nonrecyclable solid waste is compacted and transported off-site to the final disposal facility (e.g., landfill) within 48 hours, in accordance with State regulations for solid waste handling (CCR Title 14, Division 7, Chapter 3, *Minimum Standards for Solid Waste Handling and Disposal*) minimizing odors from the decomposition of organic matter during transport and on the project site. Implementation of the project would not result in new sources of odors or substantial changes to the intensity of existing odors in the project vicinity. In addition, as discussed above, the project site is located in an industrial/commercial area and the closest residential land uses are located approximately 700 feet from the project site. Therefore, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant.

GHG EMISSIONS IMPACT ANALYSIS

Analysis in the EIR

An analysis of impacts related to GHG emissions or climate change were not a part of the CEQA Guidelines Appendix G checklist at the time the EIR was certified and were not included in the EIR.

(1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Project construction period and operation mobile GHG emissions were calculated using CalEEMod, as described above. The model output is included as Attachment A to this letter.

During construction of the exist scale and scale house, the use off-road vehicles and equipment, and construction related on-road vehicles traveling to and from the project site, would result in emissions of GHGs from engine exhaust totaling 18.6 MT CO₂e. In accordance with SCAQMD recommendations, the construction period GHG emissions are amortized over the anticipated 30-year lifespan of the exit scale and scale house and added to the operational GHG emissions.

Increasing the permitted throughput of the EDCO Station from 1,000 tpd to 2,000 tpd would not require a physical expansion of the facility or result in any additional sources of GHG emissions, except for mobile emissions resulting from the additional on-road vehicle trips, described above. Solid waste would be generated in La Mesa and the surrounding area regardless of implementation of the project. Without the project, solid waste in excess of the EDCO Station permitted throughput would be collected and transported to other waste handling and/or disposal facilities, resulting in similar or higher GHG emissions compared to implementation of the project, depending on where the waste would be hauled.



However, to be conservative in accounting for GHG emissions in La Mesa, this analysis assumes that all on-road trips (and the associated GHG emissions) resulting from implementation of the project would be new to the region. The calculated project operational mobile GHG emissions would be 4,618.2 MT CO₂e per year. With the addition of 0.6 MT CO₂e per year amortized construction emissions, the total project GHG emissions would be 4,618.8 MT CO₂e per year. This would not exceed the SCAQMD industrial source threshold of 10,000 MT CO₂e. Therefore, the project would not generate GHG emissions that may have a significant impact on the environment, and the impact would be less than significant.

(2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Less than Significant Impact. By expanding the permitted capacity of the EDCO Station to meet existing solid waste and waste recycling demand, the project would support the City's CAP Solid Waste Strategy goals SW-3 (75 percent waste diversion) by providing local collection and separation of household and commercial recyclable materials. The project would not conflict with any of the CAP's GHG reduction measures.

As discussed in GHG Impact 1, above, without the project, solid waste in excess of the EDCO Station permitted throughput would be collected and transported to other waste handling and/or disposal facilities, resulting in similar or higher GHG emissions compared to implementation of the project. Therefore, although the project would result in 4,618 MT CO₂e per year from on-road vehicles, these emissions would not represent new or additional transportation sector emissions in the State's GHG emissions inventory. In addition, expanding the permitted capacity of the EDCO Station to meet existing demand would support the State's solid waste diversion goals and mandates. Therefore, the project would not conflict with transportation and solid waste GHG emissions control measures contained in State plan such as CARB's Climate Change Scoping Plan.

Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and the impact would be less than significant.

ENERGY IMPACT ANALYSIS

Analysis in the EIR

The consumption of energy was analyzed in the EIR which concluded that implementation of the EDCO Station would result in the consumption of non-renewable energy sources during both construction and operation, which would be a significant and irreversible environmental change (City of La Mesa 1997, p. 7-2).

(1) Result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. Energy consumed for project construction would primarily consist of fuels in the form of diesel and gasoline. Fuel consumption would result from: the use of on-road trucks for the transportation of construction materials and water; construction worker vehicles traveling to and from the project site; and from the use of off-road construction equipment. While construction activities



would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. The petroleum consumed during project construction would be typical of similar industrial projects and would not require the use of new petroleum resources beyond those typically consumed in California annually for construction activities.

Because the EDCO Station was designed for a maximum capacity of 4,224 tpd of solid waste, increasing the permitted throughput to 2,000 tpd would not require a physical expansion of the facility or result in significant additional on-site energy consumption compared to conditions prior to issuance of emergency waivers. Implementation of the project would result additional vehicles traveling to and from the project site, as described in the methodology discussion, above. However, solid waste would be generated in La Mesa and the surrounding area regardless of implementation of the project. Without the project, solid waste in excess of the EDCO Station permitted throughput would be collected and transported to other waste handling and/or disposal facilities, resulting in similar use of transportation fuels compared to implementation of the project, depending on where the waste would be hauled. Therefore, the project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, and the impact would be less than significant.

(2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. Because the project's long-term effects are limited to the expansion of the permitted throughput for the EDCO Station to meet existing solid waste and recycling collection demands, the project is not anticipated to result in a long-term increase in energy use in the state or region. The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and there would be no impact.

CONCLUSION

Implementation of the project would not result in any new or additional project-specific significant environmental effects (related to air quality, GHG emissions, or energy) that were not analyzed in the EIR. There are no applicable mitigation measures from the EIR which would be required to reduce the severity of air quality, GHG emissions, or energy impacts resulting from implementation of the currently proposed project.



As described above, emissions of criteria pollutants would be below SDAPCD thresholds, and the project would be consistent with the Attainment Plan. Sensitive receptors would not be exposed to substantial concentrations of TACs or odors. Impacts to air quality would be less than significant. The project would not result in annual GHG emissions in excess of the SCAQMD's industrial facility threshold and the project would not conflict with GHG reduction plans. Impacts related to GHG emissions would be less than significant. The project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, and the impact would be less than significant. There would be no impact related to conflicts with state or local plans for renewable energy or energy efficiency.

Sincerely,

Martin D. Rolp

Martin Rolph Air Quality Specialist

Attachments:

Figure 1:Regional LocationFigure 2:Aerial PhotographFigure 3:Site PlanAttachment A:CalEEMod Output

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Joanne Dramko Environmental Planning Discipline Leader, QA/QC



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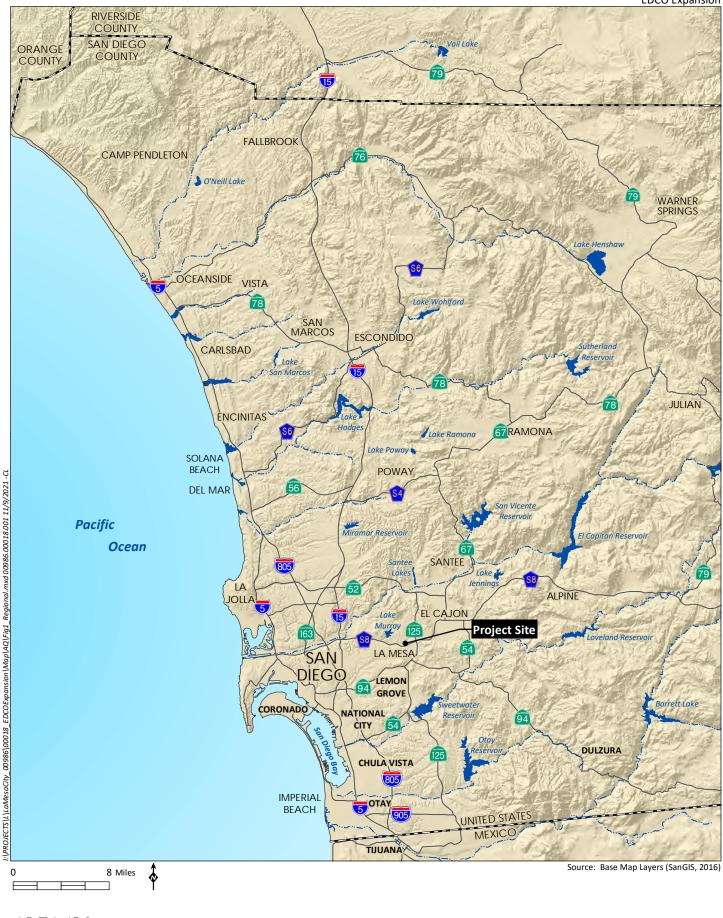
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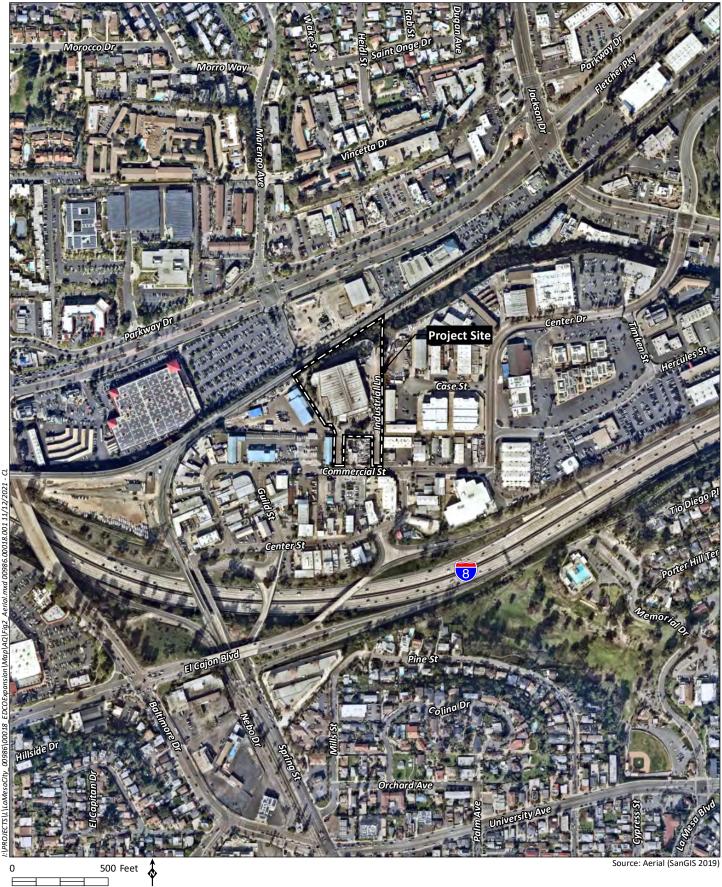
EDCO Expansion



HELIX Environmental Planning

Regional Location

Figure 1



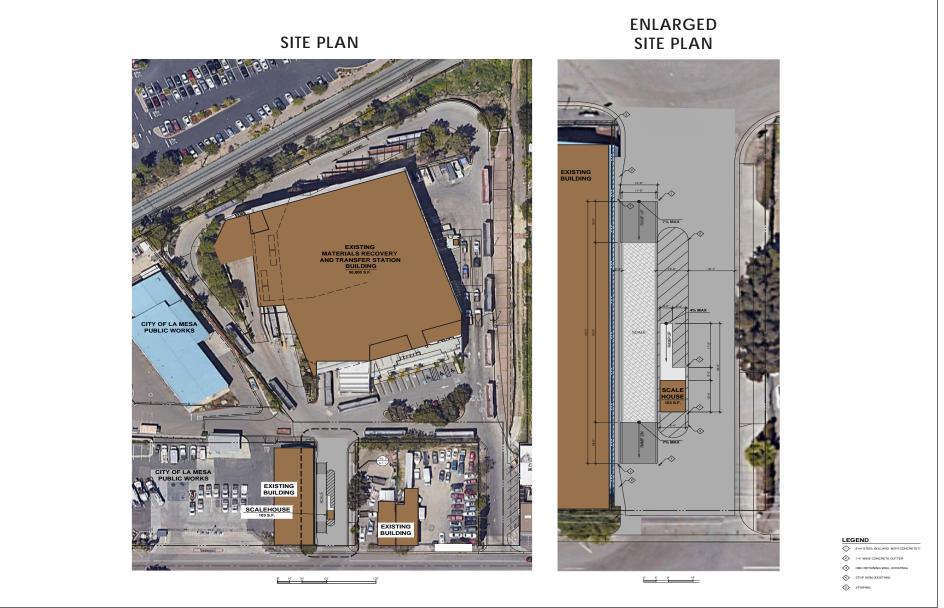
HELIX Environmental Planning

Source: Aerial (SanGIS 2019)



Aerial Photograph

Figure 2



Source: JRMA Architect Engineers (2021)

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HELIX Environmental Planning

Attachment A

CalEEMod Output

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

EDCO Expansion

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.90	1000sqft	0.04	1,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (Ib/MWhr)	539.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity (Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tihs model is for construction emissions and operational mobile emissions only.

Land Use - Land use area for installation of scale and scale house only.

- Construction Phase Construction phases estimated from project site plan and anticpated 2 month over all schedule.
- Off-road Equipment Equipment to install truck scale and prefbricated scale house.
- Off-road Equipment Grading/excavation for truck scale and sclae house pad.
- Off-road Equipment Pavement repair around truck scale
- Trips and VMT Scale installation crew of 5.
- 2 vendor trips per day and 20 haul trips for concrete import during scale installation. 4 haul trips for ashpalt/aggregate during paving.
- Demolition 70 tons of old asphalt removed.
- Grading -
- Vehicle Trips 962 ADT and 12.4 mile trip distance from project Traffic Impact Analysis.
- Consumer Products Operational mobile emissions only.

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

Area Coating - Operational mobile emissions only.

Construction Off-road Equipment Mitigation - Dust mitigation to meet SDAPCD Rule 55 requirements.

Fleet Mix - Fleet mixed caclulated assuming cars and light trucks for employees; single axle light and medium trucks for self hauling, and heavy trucks for collection/transfer.

Off-road Equipment -

Table Name	Column Name	Default Value	New Value		
tblAreaCoating	Area_Parking	114	0		
tblAreaCoating	ReapplicationRatePercent	10	0		
tblConstructionPhase	NumDays	100.00	34.00		
tblConstructionPhase	NumDays	10.00	2.00		
tblConstructionPhase	NumDays	2.00	5.00		
tblConstructionPhase	NumDays	5.00	2.00		
tblConsumerProducts	ROG_EF	2.14E-05	0		
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0		
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0		
tblFleetMix	HHD	6.1840e-003	0.33		
tblFleetMix	LDA	0.55	0.02		
tblFleetMix	LDT1	0.06	0.11		
tblFleetMix	LDT2	0.18	0.30		
tblFleetMix	LHD1	0.02	0.04		
tblFleetMix	LHD2	6.2140e-003	0.01		
tblFleetMix	MCY	0.03	0.00		
tblFleetMix	MDV	0.12	0.19		
tblFleetMix	МН	5.1640e-003	0.00		
tblFleetMix	MHD	8.4930e-003	0.00		
tblFleetMix	OBUS	7.1500e-004	0.00		
tblFleetMix	SBUS	9.8200e-004	0.00		
tblFleetMix	UBUS	5.5600e-004	0.00		
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00		

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

		0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
·	•		
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	10.00
tblVehicleTrips	CC_TL	7.30	12.40
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	962.00

2.0 Emissions Summary

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	0.0117	0.1167	0.1062	2.1000e- 004	0.0152	5.6600e- 003	0.0209	7.0100e- 003	5.2200e- 003	0.0122	0.0000	18.3746	18.3746	4.9100e- 003	3.0000e- 004	18.5860
Maximum	0.0117	0.1167	0.1062	2.1000e- 004	0.0152	5.6600e- 003	0.0209	7.0100e- 003	5.2200e- 003	0.0122	0.0000	18.3746	18.3746	4.9100e- 003	3.0000e- 004	18.5860

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	0.0117	0.1167	0.1062	2.1000e- 004	8.0300e- 003	5.6600e- 003	0.0137	3.4700e- 003	5.2200e- 003	8.7000e- 003	0.0000	18.3746	18.3746	4.9100e- 003	3.0000e- 004	18.5860
Maximum	0.0117	0.1167	0.1062	2.1000e- 004	8.0300e- 003	5.6600e- 003	0.0137	3.4700e- 003	5.2200e- 003	8.7000e- 003	0.0000	18.3746	18.3746	4.9100e- 003	3.0000e- 004	18.5860

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.21	0.00	34.40	50.50	0.00	28.86	0.00	0.00	0.00	0.00	0.00	0.00

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2022	6-30-2022	0.1325	0.1325
		Highest	0.1325	0.1325

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					ton				MT	/yr						
Area	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4733	7.7606	6.7262	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 4	4,459.147 4	0.1843	0.5180	4,618.107 9
Waste				,		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water				,		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4733	7.7606	6.7263	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 5	4,459.147 5	0.1843	0.5180	4,618.108 0

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					ton				МТ	'/yr						
Area	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4733	7.7606	6.7262	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 4	4,459.147 4	0.1843	0.5180	4,618.107 9
Waste	n					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4733	7.7606	6.7263	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 5	4,459.147 5	0.1843	0.5180	4,618.108 0

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2022	4/4/2022	5	2	
2	Grading	Grading	4/5/2022	4/11/2022	5	5	
3	Building Construction	Building Construction	4/12/2022	5/29/2022	5	34	

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

4	Paving	Paving	5/29/2022	5/31/2022	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.88

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	7.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	10.00	2.00	20.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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

Paving	3	8.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					ton	s/yr							МТ	/yr		
Fugitive Dust					7.6000e- 004	0.0000	7.6000e- 004	1.1000e- 004	0.0000	1.1000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e- 004	6.4100e- 003	7.4700e- 003	1.0000e- 005		3.4000e- 004	3.4000e- 004		3.2000e- 004	3.2000e- 004	0.0000	1.0414	1.0414	1.9000e- 004	0.0000	1.0462
Total	7.1000e- 004	6.4100e- 003	7.4700e- 003	1.0000e- 005	7.6000e- 004	3.4000e- 004	1.1000e- 003	1.1000e- 004	3.2000e- 004	4.3000e- 004	0.0000	1.0414	1.0414	1.9000e- 004	0.0000	1.0462

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	со	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					ton	s/yr				MT	∵/yr					
Hauling	2.0000e- 005	5.9000e- 004	1.4000e- 004	0.0000	6.0000e- 005	1.0000e- 005	7.0000e- 005	2.0000e- 005	1.0000e- 005	2.0000e- 005	0.0000	0.2194	0.2194	1.0000e- 005	3.0000e- 005	0.2300
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	3.0000e- 005	2.0000e- 005	2.5000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0660	0.0660	0.0000	0.0000	0.0666
Total	5.0000e- 005	6.1000e- 004	3.9000e- 004	0.0000	1.4000e- 004	1.0000e- 005	1.5000e- 004	4.0000e- 005	1.0000e- 005	4.0000e- 005	0.0000	0.2853	0.2853	1.0000e- 005	3.0000e- 005	0.2966

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					ton	s/yr							МТ	/yr		
Fugitive Dust					3.4000e- 004	0.0000	3.4000e- 004	5.0000e- 005	0.0000	5.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e- 004	6.4100e- 003	7.4700e- 003	1.0000e- 005		3.4000e- 004	3.4000e- 004		3.2000e- 004	3.2000e- 004	0.0000	1.0414	1.0414	1.9000e- 004	0.0000	1.0462
Total	7.1000e- 004	6.4100e- 003	7.4700e- 003	1.0000e- 005	3.4000e- 004	3.4000e- 004	6.8000e- 004	5.0000e- 005	3.2000e- 004	3.7000e- 004	0.0000	1.0414	1.0414	1.9000e- 004	0.0000	1.0462

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	со	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	2.0000e- 005	5.9000e- 004	1.4000e- 004	0.0000	6.0000e- 005	1.0000e- 005	7.0000e- 005	2.0000e- 005	1.0000e- 005	2.0000e- 005	0.0000	0.2194	0.2194	1.0000e- 005	3.0000e- 005	0.2300
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	3.0000e- 005	2.0000e- 005	2.5000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0660	0.0660	0.0000	0.0000	0.0666
Total	5.0000e- 005	6.1000e- 004	3.9000e- 004	0.0000	1.4000e- 004	1.0000e- 005	1.5000e- 004	4.0000e- 005	1.0000e- 005	4.0000e- 005	0.0000	0.2853	0.2853	1.0000e- 005	3.0000e- 005	0.2966

3.3 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					0.0123	0.0000	0.0123	6.3100e- 003	0.0000	6.3100e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.4400e- 003	0.0246	0.0198	4.0000e- 005		1.1900e- 003	1.1900e- 003		1.1000e- 003	1.1000e- 003	0.0000	3.1386	3.1386	1.0200e- 003	0.0000	3.1640	
Total	2.4400e- 003	0.0246	0.0198	4.0000e- 005	0.0123	1.1900e- 003	0.0135	6.3100e- 003	1.1000e- 003	7.4100e- 003	0.0000	3.1386	3.1386	1.0200e- 003	0.0000	3.1640	

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	СО	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					ton	s/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	6.0000e- 005	4.0000e- 005	4.9000e- 004	0.0000	1.6000e- 004	0.0000	1.6000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331
Total	6.0000e- 005	4.0000e- 005	4.9000e- 004	0.0000	1.6000e- 004	0.0000	1.6000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331

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					ton	s/yr							МТ	/yr		
Fugitive Dust					5.5300e- 003	0.0000	5.5300e- 003	2.8400e- 003	0.0000	2.8400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e- 003	0.0246	0.0198	4.0000e- 005		1.1900e- 003	1.1900e- 003		1.1000e- 003	1.1000e- 003	0.0000	3.1386	3.1386	1.0200e- 003	0.0000	3.1640
Total	2.4400e- 003	0.0246	0.0198	4.0000e- 005	5.5300e- 003	1.1900e- 003	6.7200e- 003	2.8400e- 003	1.1000e- 003	3.9400e- 003	0.0000	3.1386	3.1386	1.0200e- 003	0.0000	3.1640

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	со	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					ton	s/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	6.0000e- 005	4.0000e- 005	4.9000e- 004	0.0000	1.6000e- 004	0.0000	1.6000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331
Total	6.0000e- 005	4.0000e- 005	4.9000e- 004	0.0000	1.6000e- 004	0.0000	1.6000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331

3.4 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					ton	s/yr							МТ	/yr		
Off-Road	7.4200e- 003	0.0775	0.0688	1.2000e- 004		3.9000e- 003	3.9000e- 003		3.5900e- 003	3.5900e- 003	0.0000	10.6671	10.6671	3.4500e- 003	0.0000	10.7534
Total	7.4200e- 003	0.0775	0.0688	1.2000e- 004		3.9000e- 003	3.9000e- 003		3.5900e- 003	3.5900e- 003	0.0000	10.6671	10.6671	3.4500e- 003	0.0000	10.7534

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

3.4 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					ton	s/yr							МТ	∵/yr		
Hauling	4.0000e- 005	1.6800e- 003	4.0000e- 004	1.0000e- 005	1.7000e- 004	2.0000e- 005	1.9000e- 004	5.0000e- 005	1.0000e- 005	6.0000e- 005	0.0000	0.6268	0.6268	3.0000e- 005	1.0000e- 004	0.6572
Vendor	8.0000e- 005	1.8700e- 003	6.1000e- 004	1.0000e- 005	2.3000e- 004	2.0000e- 005	2.5000e- 004	7.0000e- 005	2.0000e- 005	8.0000e- 005	0.0000	0.7090	0.7090	2.0000e- 005	1.0000e- 004	0.7403
Worker	4.9000e- 004	3.6000e- 004	4.1800e- 003	1.0000e- 005	1.3600e- 003	1.0000e- 005	1.3700e- 003	3.6000e- 004	1.0000e- 005	3.7000e- 004	0.0000	1.1212	1.1212	4.0000e- 005	3.0000e- 005	1.1317
Total	6.1000e- 004	3.9100e- 003	5.1900e- 003	3.0000e- 005	1.7600e- 003	5.0000e- 005	1.8100e- 003	4.8000e- 004	4.0000e- 005	5.1000e- 004	0.0000	2.4570	2.4570	9.0000e- 005	2.3000e- 004	2.5292

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					ton	s/yr							МТ	/yr		
- Chi ricoda	7.4200e- 003	0.0775	0.0688	1.2000e- 004		3.9000e- 003	3.9000e- 003		3.5900e- 003	3.5900e- 003	0.0000	10.6671	10.6671	3.4500e- 003	0.0000	10.7534
Total	7.4200e- 003	0.0775	0.0688	1.2000e- 004		3.9000e- 003	3.9000e- 003		3.5900e- 003	3.5900e- 003	0.0000	10.6671	10.6671	3.4500e- 003	0.0000	10.7534

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

3.4 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					ton	s/yr							МТ	'/yr		
Hauling	4.0000e- 005	1.6800e- 003	4.0000e- 004	1.0000e- 005	1.7000e- 004	2.0000e- 005	1.9000e- 004	5.0000e- 005	1.0000e- 005	6.0000e- 005	0.0000	0.6268	0.6268	3.0000e- 005	1.0000e- 004	0.6572
Vendor	8.0000e- 005	1.8700e- 003	6.1000e- 004	1.0000e- 005	2.3000e- 004	2.0000e- 005	2.5000e- 004	7.0000e- 005	2.0000e- 005	8.0000e- 005	0.0000	0.7090	0.7090	2.0000e- 005	1.0000e- 004	0.7403
Worker	4.9000e- 004	3.6000e- 004	4.1800e- 003	1.0000e- 005	1.3600e- 003	1.0000e- 005	1.3700e- 003	3.6000e- 004	1.0000e- 005	3.7000e- 004	0.0000	1.1212	1.1212	4.0000e- 005	3.0000e- 005	1.1317
Total	6.1000e- 004	3.9100e- 003	5.1900e- 003	3.0000e- 005	1.7600e- 003	5.0000e- 005	1.8100e- 003	4.8000e- 004	4.0000e- 005	5.1000e- 004	0.0000	2.4570	2.4570	9.0000e- 005	2.3000e- 004	2.5292

3.5 Paving - 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					ton	s/yr							МТ	7/yr		
Off-Road	3.3000e- 004	3.2500e- 003	3.8200e- 003	1.0000e- 005		1.8000e- 004	1.8000e- 004		1.6000e- 004	1.6000e- 004	0.0000	0.4752	0.4752	1.5000e- 004	0.0000	0.4789
Paving	5.0000e- 005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8000e- 004	3.2500e- 003	3.8200e- 003	1.0000e- 005		1.8000e- 004	1.8000e- 004		1.6000e- 004	1.6000e- 004	0.0000	0.4752	0.4752	1.5000e- 004	0.0000	0.4789

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

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	со	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					ton	s/yr							MT	/yr		
Hauling	1.0000e- 005	3.4000e- 004	8.0000e- 005	0.0000	3.0000e- 005	0.0000	4.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.1254	0.1254	1.0000e- 005	2.0000e- 005	0.1315
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	2.0000e- 005	2.0000e- 005	2.0000e- 004	0.0000	6.0000e- 005	0.0000	6.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0528	0.0528	0.0000	0.0000	0.0533
Total	3.0000e- 005	3.6000e- 004	2.8000e- 004	0.0000	9.0000e- 005	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1781	0.1781	1.0000e- 005	2.0000e- 005	0.1847

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					ton	s/yr							МТ	/yr		
	3.3000e- 004	3.2500e- 003	3.8200e- 003	1.0000e- 005		1.8000e- 004	1.8000e- 004		1.6000e- 004	1.6000e- 004	0.0000	0.4752	0.4752	1.5000e- 004	0.0000	0.4789
Paving	5.0000e- 005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8000e- 004	3.2500e- 003	3.8200e- 003	1.0000e- 005		1.8000e- 004	1.8000e- 004		1.6000e- 004	1.6000e- 004	0.0000	0.4752	0.4752	1.5000e- 004	0.0000	0.4789

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

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	СО	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					ton	s/yr							МТ	/yr		
Hauling	1.0000e- 005	3.4000e- 004	8.0000e- 005	0.0000	3.0000e- 005	0.0000	4.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.1254	0.1254	1.0000e- 005	2.0000e- 005	0.1315
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	2.0000e- 005	2.0000e- 005	2.0000e- 004	0.0000	6.0000e- 005	0.0000	6.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0528	0.0528	0.0000	0.0000	0.0533
Total	3.0000e- 005	3.6000e- 004	2.8000e- 004	0.0000	9.0000e- 005	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1781	0.1781	1.0000e- 005	2.0000e- 005	0.1847

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	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					ton	s/yr							МТ	/yr		
Mitigated	0.4733	7.7606	6.7262	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 4	4,459.147 4	0.1843	0.5180	4,618.107 9
Unmitigated	0.4733	7.7606	6.7262	0.0457	2.3088	0.0651	2.3740	0.6228	0.0620	0.6848	0.0000	4,459.147 4	4,459.147 4	0.1843	0.5180	4,618.107 9

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1,827.80	0.00	0.00	5,892,827	5,892,827
Total	1,827.80	0.00	0.00	5,892,827	5,892,827

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.023214	0.105143	0.300483	0.194999	0.039491	0.010267	0.000000	0.326403	0.000000	0.000000	0.000000	0.000000	0.000000

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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													MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated				1		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	~~~~~~ ' ' '	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGa s 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					ton	s/yr							MT	/yr		
Other Asphalt Surfaces	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	СО	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													MT	/yr		
Mitigated	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005
Unmitigated	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000	 	0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005

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													MT	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000	1	0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005
Total	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005

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	СО	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	ory tons/yr											MT	/yr			
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005
Total	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e- 005	3.0000e- 005	0.0000	0.0000	4.0000e- 005

7.0 Water Detail

7.1 Mitigation Measures Water

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							
	0.0000	0.0000	0.0000	0.0000				
	0.0000	0.0000	0.0000	0.0000				

7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e				
	MT/yr							
iviligatou	0.0000	0.0000	0.0000	0.0000				
Unmitigated	0.0000	0.0000	0.0000	0.0000				

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						
Equipment Type	Number					
11.0 Vegetation						

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

EDCO Expansion

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.90	1000sqft	0.04	1,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (Ib/MWhr)	539.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity (Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tihs model is for construction emissions and operational mobile emissions only.

Land Use - Land use area for installation of scale and scale house only.

Construction Phase - Construction phases estimated from project site plan and anticpated 2 month over all schedule.

Off-road Equipment - Equipment to install truck scale and prefbricated scale house.

Off-road Equipment - Grading/excavation for truck scale and sclae house pad.

Off-road Equipment - Pavement repair around truck scale

Trips and VMT - Scale installation crew of 5.

2 vendor trips per day and 20 haul trips for concrete import during scale installation. 4 haul trips for ashpalt/aggregate during paving.

Demolition - 70 tons of old asphalt removed.

Grading -

Vehicle Trips - 962 ADT and 12.4 mile trip distance from project Traffic Impact Analysis.

Consumer Products - Operational mobile emissions only.

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

Area Coating - Operational mobile emissions only.

Construction Off-road Equipment Mitigation - Dust mitigation to meet SDAPCD Rule 55 requirements.

Fleet Mix - Fleet mixed caclulated assuming cars and light trucks for employees; single axle light and medium trucks for self hauling, and heavy trucks for collection/transfer.

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	114	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	100.00	34.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	NumDays	5.00	2.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblFleetMix	HHD	6.1840e-003	0.33
tblFleetMix	LDA	0.55	0.02
tblFleetMix	LDT1	0.06	0.11
tblFleetMix	LDT2	0.18	0.30
tblFleetMix	LHD1	0.02	0.04
tblFleetMix	LHD2	6.2140e-003	0.01
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.12	0.19
tblFleetMix	МН	5.1640e-003	0.00
tblFleetMix	MHD	8.4930e-003	0.00
tblFleetMix	OBUS	7.1500e-004	0.00
tblFleetMix	SBUS	9.8200e-004	0.00
tblFleetMix	UBUS	5.5600e-004	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	10.00
tblVehicleTrips	CC_TL	7.30	12.40
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	962.00

2.0 Emissions Summary

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

2.1 Overall Construction (Maximum Daily Emission)

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					lb/e	day							lb/c	lay		
2022	0.9996	9.8555	8.4497	0.0160	4.9810	0.4782	5.4592	2.5432	0.4399	2.9831	0.0000	1,570.057 1	1,570.057 1	0.4494	0.0406	1,591.630 9
Maximum	0.9996	9.8555	8.4497	0.0160	4.9810	0.4782	5.4592	2.5432	0.4399	2.9831	0.0000	1,570.057 1	1,570.057 1	0.4494	0.0406	1,591.630 9

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					lb/e	day							lb/c	lay		
2022	0.9996	9.8555	8.4497	0.0160	2.2776	0.4782	2.7558	1.1540	0.4399	1.5939	0.0000	1,570.057 1	1,570.057 1	0.4494	0.0406	1,591.630 9
Maximum	0.9996	9.8555	8.4497	0.0160	2.2776	0.4782	2.7558	1.1540	0.4399	1.5939	0.0000	1,570.057 1	1,570.057 1	0.4494	0.0406	1,591.630 9

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.27	0.00	49.52	54.62	0.00	46.57	0.00	0.00	0.00	0.00	0.00	0.00

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	СО	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					lb/d	day							lb/c	lay		
Area	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.6307	60.1299	51.9550	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 12	37,796.55 12	1.5675	4.4046	39,148.30 60
Total	3.6307	60.1299	51.9552	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 16	37,796.55 16	1.5675	4.4046	39,148.30 64

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					lb/d	day							lb/c	lay		
Area	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.6307	60.1299	51.9550	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 12	37,796.55 12	1.5675	4.4046	39,148.30 60
Total	3.6307	60.1299	51.9552	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 16	37,796.55 16	1.5675	4.4046	39,148.30 64

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2022	4/4/2022	5	2	
2	Grading	Grading	4/5/2022	4/11/2022	5	5	
3	Building Construction	Building Construction	4/12/2022	5/29/2022	5	34	
4	Paving	Paving	5/29/2022	5/31/2022	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.88

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29

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

Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	7.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	10.00	2.00	20.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	со	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					lb/o	day							lb/c	lay		
Fugitive Dust					0.7583	0.0000	0.7583	0.1148	0.0000	0.1148			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.902 5	1,147.902 5	0.2119		1,153.200 1
Total	0.7094	6.4138	7.4693	0.0120	0.7583	0.3375	1.0958	0.1148	0.3225	0.4374		1,147.902 5	1,147.902 5	0.2119		1,153.200 1

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					lb/	day							lb/d	day		
Hauling	0.0153	0.5898	0.1403	2.2000e- 003	0.0612	5.4800e- 003	0.0667	0.0168	5.2500e- 003	0.0220		241.8892	241.8892	0.0116	0.0384	253.6305
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
Worker	0.0316	0.0214	0.2458	7.1000e- 004	0.0822	4.7000e- 004	0.0826	0.0218	4.3000e- 004	0.0222		72.0572	72.0572	2.3300e- 003	2.1300e- 003	72.7491
Total	0.0469	0.6112	0.3861	2.9100e- 003	0.1434	5.9500e- 003	0.1493	0.0386	5.6800e- 003	0.0443		313.9464	313.9464	0.0139	0.0406	326.3796

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

3.2 Demolition - 2022

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					lb/d	day							lb/c	lay		
Fugitive Dust					0.3412	0.0000	0.3412	0.0517	0.0000	0.0517			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.902 5	1,147.902 5	0.2119		1,153.200 1
Total	0.7094	6.4138	7.4693	0.0120	0.3412	0.3375	0.6788	0.0517	0.3225	0.3742	0.0000	1,147.902 5	1,147.902 5	0.2119		1,153.200 1

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					lb/	day							lb/d	day		
Hauling	0.0153	0.5898	0.1403	2.2000e- 003	0.0612	5.4800e- 003	0.0667	0.0168	5.2500e- 003	0.0220		241.8892	241.8892	0.0116	0.0384	253.6305
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
Worker	0.0316	0.0214	0.2458	7.1000e- 004	0.0822	4.7000e- 004	0.0826	0.0218	4.3000e- 004	0.0222		72.0572	72.0572	2.3300e- 003	2.1300e- 003	72.7491
Total	0.0469	0.6112	0.3861	2.9100e- 003	0.1434	5.9500e- 003	0.1493	0.0386	5.6800e- 003	0.0443		313.9464	313.9464	0.0139	0.0406	326.3796

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	СО	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					lb/d	day							lb/c	day		
Fugitive Dust					4.9153	0.0000	4.9153	2.5257	0.0000	2.5257		1 1 1	0.0000			0.0000
Off-Road	0.9744	9.8384	7.8998	0.0143		0.4778	0.4778		0.4396	0.4396		1,383.875 9	1,383.875 9	0.4476		1,395.065 2
Total	0.9744	9.8384	7.8998	0.0143	4.9153	0.4778	5.3931	2.5257	0.4396	2.9653		1,383.875 9	1,383.875 9	0.4476		1,395.065 2

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					lb/o	day							lb/c	lay		
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
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
Worker	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993
Total	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993

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

3.3 Grading - 2022

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					lb/o	day							lb/c	lay		
Fugitive Dust					2.2119	0.0000	2.2119	1.1366	0.0000	1.1366			0.0000			0.0000
Off-Road	0.9744	9.8384	7.8998	0.0143		0.4778	0.4778		0.4396	0.4396	0.0000	1,383.875 9	1,383.875 9	0.4476		1,395.065 2
Total	0.9744	9.8384	7.8998	0.0143	2.2119	0.4778	2.6897	1.1366	0.4396	1.5762	0.0000	1,383.875 9	1,383.875 9	0.4476		1,395.065 2

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					lb/e	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	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
Worker	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993
Total	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993

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

3.4 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					lb/o	day							lb/c	lay		
Off-Road	0.4364	4.5590	4.0494	7.1400e- 003		0.2294	0.2294		0.2110	0.2110		691.6773	691.6773	0.2237		697.2698
Total	0.4364	4.5590	4.0494	7.1400e- 003		0.2294	0.2294		0.2110	0.2110		691.6773	691.6773	0.2237		697.2698

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					lb/	day							lb/d	day		
Hauling	2.5700e- 003	0.0991	0.0236	3.7000e- 004	0.0103	9.2000e- 004	0.0112	2.8200e- 003	8.8000e- 004	3.7000e- 003		40.6537	40.6537	1.9500e- 003	6.4600e- 003	42.6270
Vendor	4.4200e- 003	0.1104	0.0367	4.3000e- 004	0.0136	1.1600e- 003	0.0147	3.9000e- 003	1.1100e- 003	5.0100e- 003		45.9887	45.9887	1.3900e- 003	6.6800e- 003	48.0145
Worker	0.0316	0.0214	0.2458	7.1000e- 004	0.0822	4.7000e- 004	0.0826	0.0218	4.3000e- 004	0.0222		72.0572	72.0572	2.3300e- 003	2.1300e- 003	72.7491
Total	0.0386	0.2309	0.3061	1.5100e- 003	0.1060	2.5500e- 003	0.1085	0.0285	2.4200e- 003	0.0309		158.6995	158.6995	5.6700e- 003	0.0153	163.3906

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

3.4 Building Construction - 2022

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					lb/e	day							lb/c	lay		
Off-Road	0.4364	4.5590	4.0494	7.1400e- 003		0.2294	0.2294		0.2110	0.2110	0.0000	691.6772	691.6772	0.2237		697.2698
Total	0.4364	4.5590	4.0494	7.1400e- 003		0.2294	0.2294		0.2110	0.2110	0.0000	691.6772	691.6772	0.2237		697.2698

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					lb/	day							lb/c	lay		
Hauling	2.5700e- 003	0.0991	0.0236	3.7000e- 004	0.0103	9.2000e- 004	0.0112	2.8200e- 003	8.8000e- 004	3.7000e- 003		40.6537	40.6537	1.9500e- 003	6.4600e- 003	42.6270
Vendor	4.4200e- 003	0.1104	0.0367	4.3000e- 004	0.0136	1.1600e- 003	0.0147	3.9000e- 003	1.1100e- 003	5.0100e- 003		45.9887	45.9887	1.3900e- 003	6.6800e- 003	48.0145
Worker	0.0316	0.0214	0.2458	7.1000e- 004	0.0822	4.7000e- 004	0.0826	0.0218	4.3000e- 004	0.0222		72.0572	72.0572	2.3300e- 003	2.1300e- 003	72.7491
Total	0.0386	0.2309	0.3061	1.5100e- 003	0.1060	2.5500e- 003	0.1085	0.0285	2.4200e- 003	0.0309		158.6995	158.6995	5.6700e- 003	0.0153	163.3906

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

3.5 Paving - 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					lb/d	day							lb/c	lay		
Off-Road	0.3337	3.2525	3.8173	5.5500e- 003		0.1766	0.1766		0.1634	0.1634		523.8122	523.8122	0.1611		527.8394
Paving	0.0524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3861	3.2525	3.8173	5.5500e- 003		0.1766	0.1766		0.1634	0.1634		523.8122	523.8122	0.1611		527.8394

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					lb/	day							lb/d	lay		
Hauling	8.7300e- 003	0.3370	0.0802	1.2600e- 003	0.0350	3.1300e- 003	0.0381	9.5900e- 003	3.0000e- 003	0.0126		138.2224	138.2224	6.6300e- 003	0.0220	144.9317
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
Worker	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993
Total	0.0340	0.3541	0.2768	1.8300e- 003	0.1007	3.5000e- 003	0.1042	0.0270	3.3400e- 003	0.0304		195.8682	195.8682	8.4900e- 003	0.0237	203.1310

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

3.5 Paving - 2022

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					lb/o	day							lb/c	lay		
Off-Road	0.3337	3.2525	3.8173	5.5500e- 003		0.1766	0.1766		0.1634	0.1634	0.0000	523.8122	523.8122	0.1611		527.8394
Paving	0.0524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3861	3.2525	3.8173	5.5500e- 003		0.1766	0.1766		0.1634	0.1634	0.0000	523.8122	523.8122	0.1611		527.8394

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					lb/	day							lb/c	lay		
Hauling	8.7300e- 003	0.3370	0.0802	1.2600e- 003	0.0350	3.1300e- 003	0.0381	9.5900e- 003	3.0000e- 003	0.0126		138.2224	138.2224	6.6300e- 003	0.0220	144.9317
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
Worker	0.0253	0.0171	0.1967	5.7000e- 004	0.0657	3.7000e- 004	0.0661	0.0174	3.4000e- 004	0.0178		57.6457	57.6457	1.8600e- 003	1.7000e- 003	58.1993
Total	0.0340	0.3541	0.2768	1.8300e- 003	0.1007	3.5000e- 003	0.1042	0.0270	3.3400e- 003	0.0304		195.8682	195.8682	8.4900e- 003	0.0237	203.1310

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	со	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					lb/o	day							lb/c	lay		
Mitigated	3.6307	60.1299	51.9550	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 12	37,796.55 12	1.5675	4.4046	39,148.30 60
Unmitigated	3.6307	60.1299	51.9550	0.3513	18.1706	0.5023	18.6730	4.8915	0.4785	5.3700		37,796.55 12	37,796.55 12	1.5675	4.4046	39,148.30 60

4.2 Trip Summary Information

	Aver	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1,827.80	0.00	0.00	5,892,827	5,892,827
Total	1,827.80	0.00	0.00	5,892,827	5,892,827

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	0.00	12.40	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.023214	0.105143	0.300483	0.194999	0.039491	0.010267	0.000000	0.326403	0.000000	0.000000	0.000000	0.000000	0.000000

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					lb/d	day							lb/d	day		
Other Asphalt Surfaces	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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

	NaturalGa s 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					lb/d	day							lb/c	day		
Other Asphalt Surfaces	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	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					lb/o	day							lb/c	lay		
Ŭ Ŭ	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004
Ŭ Ŭ	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000	 	0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004

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

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	СО	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					lb/e	day							lb/c	day		
Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004
Total	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004

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					lb/e	day							lb/c	day		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004
Total	2.0000e- 005	0.0000	1.9000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		4.2000e- 004	4.2000e- 004	0.0000		4.4000e- 004

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type Number Hours/Day Hours/Year Horse Power I	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

Equipment Type

Number

11.0 Vegetation