



Mega Mart Project, PDS2017-STP-17-028

Air Quality Study

*Prepared for
The County of San Diego*

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August 14, 2019, Revised Submittal
April 17, 2019, Revised Submittal
November 9, 2018, Revised Submittal
November 15, 2017, Original Submittal

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Glossary

85 Percent Ethanol Gas	E85
Air Quality Management Plan	AQMP
Assembly Bill	AB
Assessor's Parcel Number	APN
California Air Resources Board	CARB
California Ambient Air Quality Standards	CAAQS
California Clean Air Act	CCAA
California Emissions Estimator Model	CalEEMod
California Environmental Quality Act	CEQA
California Environmental Protection Agency	CalEPA
Carbon dioxide	CO ₂
Carbon monoxide	CO
Clean Air Act Amendments (Federal)	CAAA
Cubic Yards	CY
Health Risk Assessment	HRA
Land Use Environmental Group	LUEG
Lead	Pb
Level of Service	LOS
Methane	CH ₄
National Ambient Air Quality Standards	NAAQS
Nitric oxide	NO
Nitrogen oxides	NO _x
Nitrous oxide	N ₂ O
Office of Environmental Health Hazard Assessment	OEHHA
Ozone	O ₃
Particulate Matter 10 / 2.5	PM ₁₀ / PM _{2.5}
Parts per billion	ppb
Parts per million	ppm
Pounds	Lbs
Reactive Organic Gas	ROG

Regional Air Quality Strategy	RAQS
San Diego Air Basin	SDAB
San Diego Air Pollution Control District	SDAPCD
San Diego Association of Governments	SANDAG
Senate Bill	SB
South Coast Air Quality Management District	SCAQMD
Sulfur dioxide	SO ₂
State Implementation Plan	SIP
Toxic Air Contaminants	TACs
United States Environmental Protection Agency	U.S. EPA
Vehicle Miles Traveled	VMT
Volatile Organic Compounds	VOCs

Executive Summary

This air quality impact study has been completed to determine air quality impacts (if any) associated with the proposed development of the Mega Mart project. The project site is located at 26746 Mountain Meadow Road, off exit 37 for Deer Springs Road (Interstate 15 [I-15]), in San Diego County, California just north of Escondido. The project site has a General Plan land use designation of “General Commercial” and zoning designation of C36, and proposed uses would consist of commercial uses that consist of a gas station and convenience store. Therefore, no General Plan land use or zoning designation amendment is required to implement the proposed project. Project construction is anticipated to begin in January 2020, and construction phases include demolition of existing structures, site preparation and grading, building construction, paving, and architectural coating. The project is anticipated to open in 2021.

Fugitive dust emissions would be expected during project construction due to grading activities, use of heavy equipment, and from construction workers commuting to and from the site. However, construction emissions would not exceed San Diego County screening level thresholds. Therefore, no additional mitigation is required during project construction.

The project would generate air pollutant emissions during operation of the proposed gas station and convenience store. A majority of the operational emissions generated by the project would be due to stationary source emissions from the fuel storage and dispensing and mobile emissions from vehicle trips to and from the project site. However, operational emissions would not exceed San Diego County screening level thresholds. Therefore, no additional mitigation is required during project operations.

A screening-level carbon monoxide (CO) hotspot analysis was completed based on project-specific traffic impacts. Traffic generated during project operation would not cause intersections in the vicinity of the project site to operate at or below a level of service (LOS) E, and intersection peak-hour trips would be less than 3,000 trips. Therefore, a CO hotspot analysis is not required and project-generated trips would not result in, or substantially contribute to, CO concentrations that exceed the eight-hour ambient air quality standards along area roadways and intersections.

A screening-level health risk assessment was completed based on guidance provided in the California Air Resources Board (CARB) *Air Quality and Land Use Handbook* (2005) for gas stations. The sensitive receptors nearest to the project site are 780 feet to the north, which is beyond both CARB’s recommended 300-foot distance for large facilities, and 50-foot distance for typical facilities, such as the project. Therefore, construction and operation of the proposed gas station would not expose residents in the vicinity to substantial pollutant concentrations.

Based on the vehicle fleet mix estimate provided in the California Emissions Estimator Model (CalEEMod) completed for the proposed project, mobile emissions during project operations would primarily be composed of passenger and light-duty vehicles (58.8%) and light trucks (18.4%) accessing the gas station and convenience store. The project would not attract a large number of trips from large or heavy-duty vehicles that could generate mobile diesel emissions due to the passenger vehicle-serving nature of the proposed use. Therefore, construction and operation of the proposed gas station and convenience store would not generate toxic air contaminants (TACs) that would adversely impact sensitive receptors in the vicinity of the project site.

The proposed project would not generate offensive odors that would impact sensitive receptors.

Finally, the project would comply with the Regional Air Quality Strategy (RAQS) and the State Implementation plan (SIP). Therefore, no additional measures beyond those required by San Diego Air Pollution Control District (SDAPCD) rules and permits are needed to reduce project air quality impacts.

1 Introduction

1.1 Purpose of the Report

This report details the analysis of potential air quality impacts of a proposed convenience store and multi-product dispensers, which would operate as gas pumps (project), located at 26746 Mountain Meadow Road, off exit 37 for Deer Springs Road (Interstate 15 [I-15]), in San Diego County, California just north of Escondido. The project site is comprised of three parcels on Assessor's Parcel Numbers (APNs) 186-093-19, 186-093-23, and 186-093-37 (project site), bordered to the west by an I-15 off-ramp and the I-15 further to the west, to the east and south by North Centre City Parkway, and to the north by Deer Springs Road. This report has been prepared by Rincon Consultants, Inc. under contract to KA Enterprises for use by San Diego County in support of environmental documentation being prepared for the project pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the project's air pollutant emissions, as well as the associated impacts. This analysis considers both temporary impacts that would result from project construction and potential long-term impacts associated with operation of the project.

1.2 Project Location and Description

The project site encompasses 1.61 gross acres and is bordered by an I-15 off-ramp to the west and the I-15 further west, North Centre City Parkway to the east and south, and Deer Springs Road (which turns into Mountain Meadow Road to the east) to the north. The site is a tapered quadrangle that is approximately: 224 feet wide on the north end; 196 feet wide on the south end; 332 feet long on the west side along the Caltrans right-of-way and Deer Springs Road off-ramp; and 352 feet long on the east side fronting North Centre City Parkway. The regional location of the site and existing site conditions are shown in Figure 1 and Figure 2, respectively.

The project entails the demolition of the existing building and shed (3,430 square feet total), and the construction of a 3,500 square-foot convenience store, a 5,983 square-foot canopy with eight multi-product dispensers which would contain a total of 16 gas pumps, 19 parking spaces, and two bicycle parking stalls. The project would encompass 1.3 acres (net) of the project site. A total of 0.70 acres (30,646 square feet) of impervious surfaces would be removed as part of the project, and a total of approximately 0.73 acres (31,719 square feet) of impervious surfaces would be provided for a net increase of approximately 0.02 acres (1,073 square feet) of impervious surfaces on the project site.

Four of the multi-product dispensers (eight pumps total) would provide three grades of gasoline (regular, mid-range, and premium), two dispensers (four pumps total) would be "3+1" where all three grades of gasoline plus 85 percent ethanol gas (E85) are provided, and two dispensers (four pumps total) would also be "3+1" where all three grades of gasoline plus diesel are provided. Annual gasoline throughput is estimated to be 3,350,000 gallons and 250,000 gallons for diesel, for a total annual product throughput of 3,600,000 gallons. Site plans indicate the installation of two underground storage tanks, which will be equipped with a Healy clean air separator to hold excess gasoline vapors that may develop in the storage tanks. The underground storage tanks equipped with the Healy clean air separator systems are a project design feature.

Additional project design features include low-flow plumbing fixtures, and a high-reflectivity cool roof (Dura-last). The site plan indicates landscaping along the perimeter of the convenience store and gas station parking and canopy area. The southern portion of the project site would remain as a leach field system for the existing septic plumbing system. Primary vehicular access to the project site would be provided by one driveway along North Centre City Parkway, on the east boundary of the site. Figure 3 shows the proposed project site plan.

Proposed development would require the demolition and the clearing of the existing site prior to re-grading and future site preparation. A total of 680 cubic yards (cy) of debris and soil will be removed from the existing site prior to the start of grading operations. Of these removed materials approximately 148 cy will be debris filled soil with roots and organics, while approximately 532 cy of export will be demolition wastes such as concrete and asphalt. Approximately 2,020 cy of cut soil will be excavated and recompact across the site including the remedial grading. The project will import 4,691 cy of clean fill dirt to build up the site to the proposed improvement subgrades. Construction is expected to occur over seven months, based on applicant provided construction schedule, with project opening scheduled for 2021.

Figure 1 Regional Location

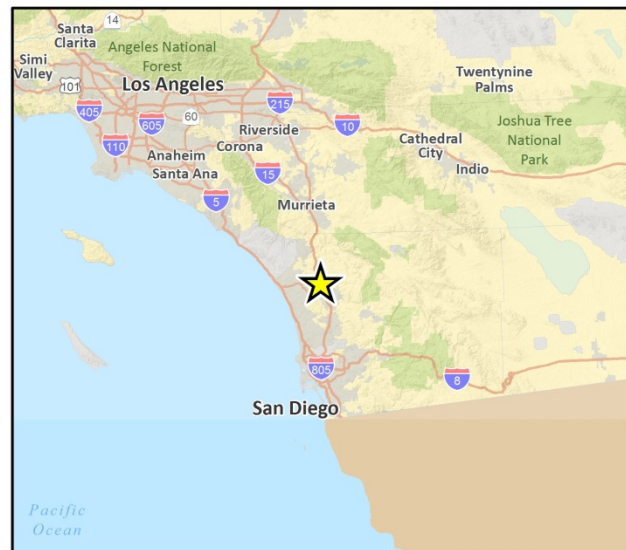
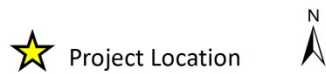
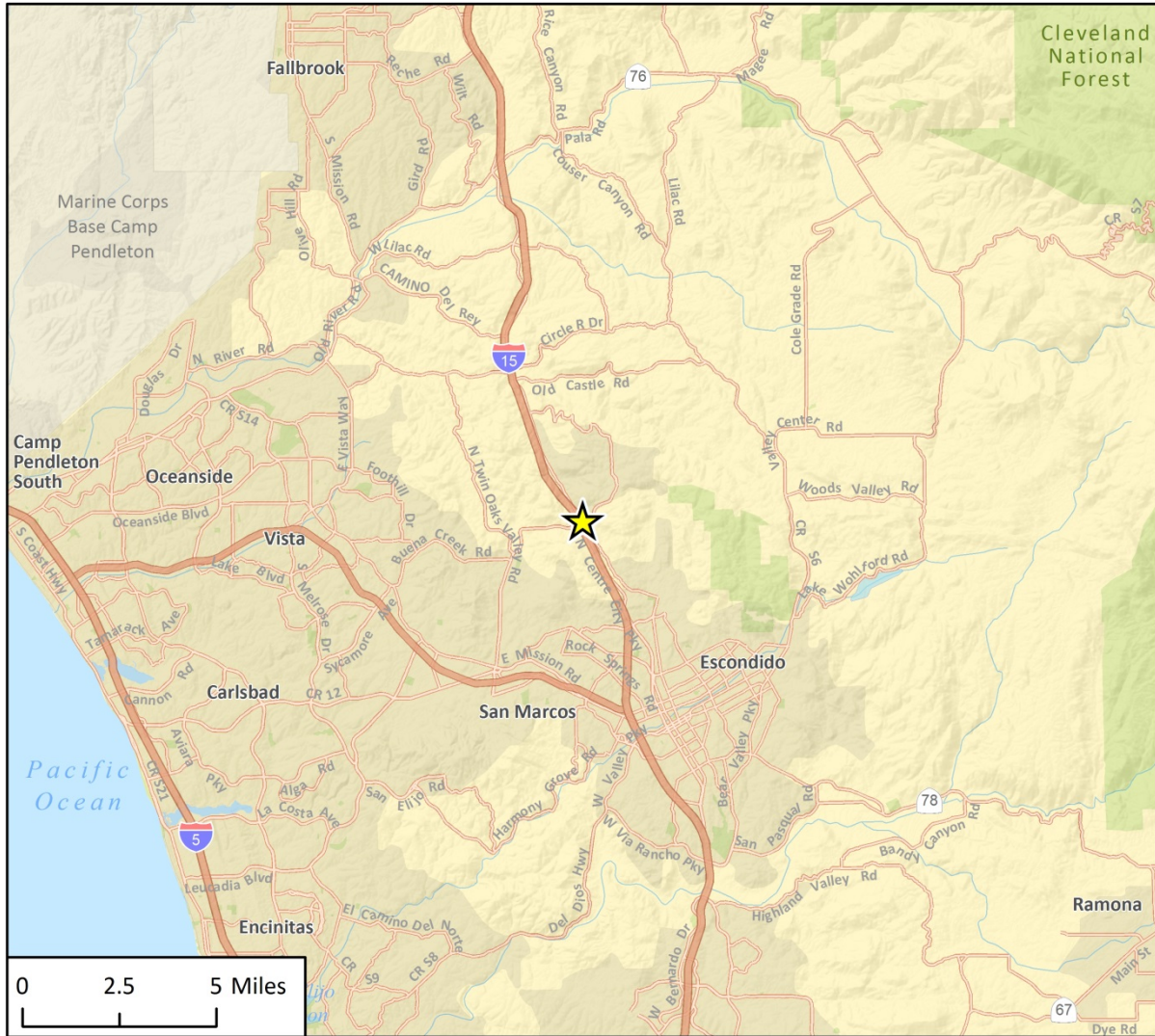


Fig 1 Regional Location

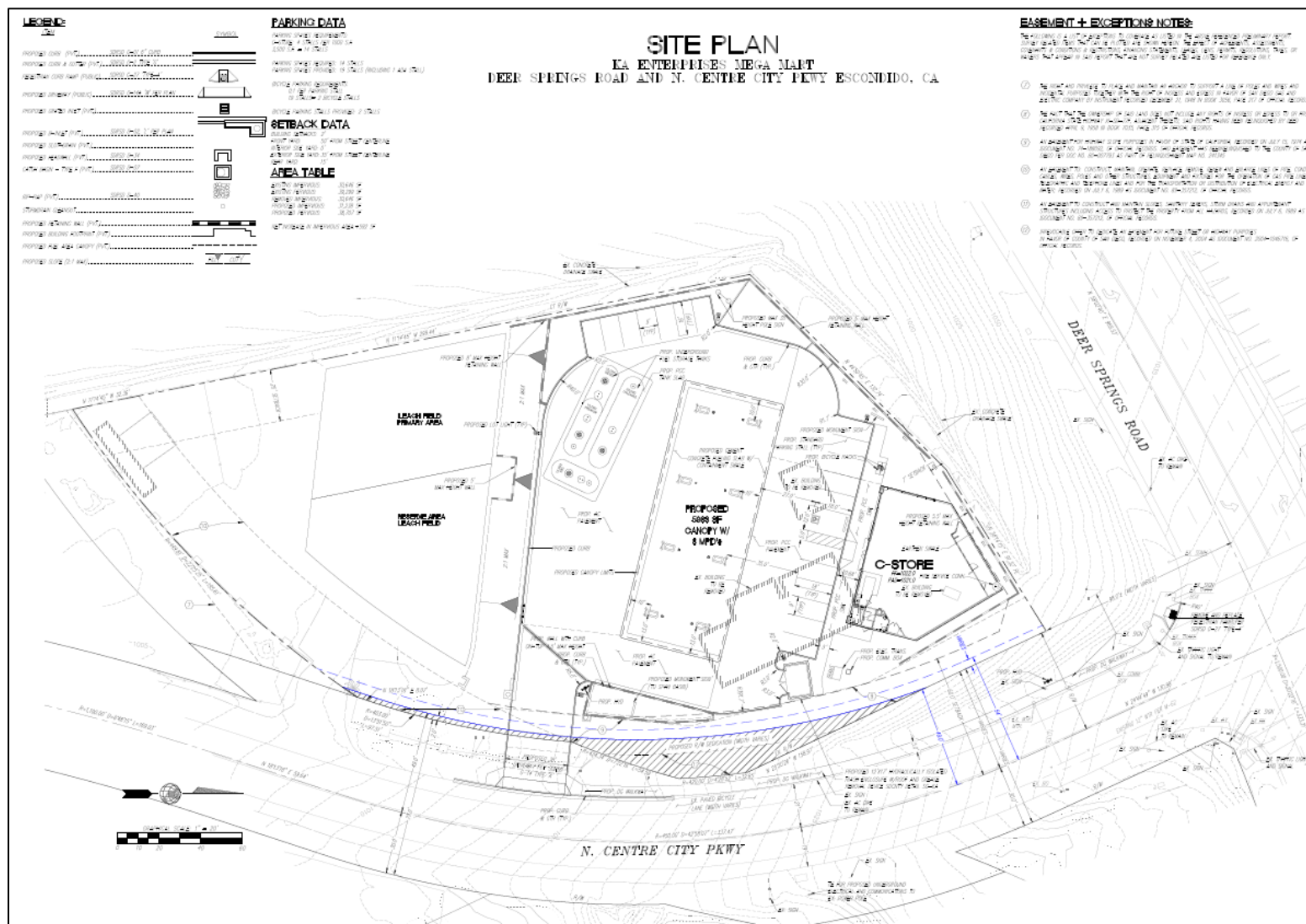
Figure 2 Project Location



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Fig 2 Project Location

Figure 3 Project Site Plan



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2 Existing Environmental Setting

2.1 Existing Setting

The project site is located in an area with sparse development that consists of residential development approximately 900 feet to the south of the project site, and hillsides with residential development approximately 780 feet to the north. Additional residential development is located approximately 1,100 feet to west of the project site, on the west side of I-15.

The site is currently occupied by a commercial retail operation, Patio Furniture Plus, which contains a building and storage shed totaling approximately 3,430 square feet, and several temporary shade cover structures.

The project site is relatively flat. The southeast corner of the project site has the lowest elevation at 1,005 feet above sea level, and the northeast corner of the site has the highest elevation at 1,025 feet above sea level.

2.2 Local Climate and Meteorology

The project area is located in the San Diego Air Basin (SDAB), which is bordered by the Pacific Ocean to the west, the South Coast Air Basin (SCAB) to the north, the Salton Sea Air Basin to the east, and the U.S./Mexico border to the south. Regional wind patterns are dominated by onshore sea breezes during the day, and winds generally slow or reverse direction toward the sea at night. Temperature and precipitation can vary widely within the SDAB, where average annual precipitation ranges from approximately 10 inches in the coastal and inland areas to over 30 inches in the mountains. In general, milder annual temperatures are experienced in the maritime and coastal areas, whereas the interior and desert areas experience warmer summers and cooler winters. The majority of the unincorporated County is located within the interior and desert zones, approximately 25 miles inland from the coast to the County's eastern border. The project site is located approximately 14 miles inland from the coast in interior rolling hills.

High air pollution levels in coastal communities of San Diego can often occur when polluted air from the SCAB, particularly from Los Angeles, travels southwest over the ocean at night and is brought on shore into San Diego by the sea breeze during the day (SDAPCD 2015). Ozone (O_3) and its precursor emissions (reactive organic gases [ROG] and nitrogen oxides [NO_x]) are also transported to San Diego during relatively mild Santa Ana weather conditions, which tend to occur between October through March when high pressure builds over the Great Basin of the central Nevada region and hot and dry winds blow westward from the interior regions of the Sierra Nevada, San Gabriel, and San Bernardino mountains to the coastline (Fovell 2002). However, during strong Santa Ana weather conditions, pollutants are pushed away from San Diego far out to sea.

Air pollutant emission sources in the SDAB are typically grouped into two categories: stationary and mobile sources. Mobile source emissions can be attributed to vehicles and transportation-related activities. Stationary sources can be divided into two major subcategories: point and area sources. Point source emissions originate from manufacturing and industrial processes, while area emissions

are generated from residential heaters, small engines, and other consumer products. Both major emissions categories are widely distributed within SDAB and may have a cumulative effect.

2.3 Regulatory Setting

The federal and state governments have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (U.S. EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in the California Environmental Protection Agency (CalEPA). County-level Air Pollution Control Districts (APCD) provide local management of air quality. CARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. CARB has established 14 air basins statewide, including the SDAB.

The U.S. EPA has set primary national ambient air quality standards (NAAQS) for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter with a diameter of up to ten microns (PM₁₀) and up to 2.5 microns (PM_{2.5}), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and state standards for regulated pollutants.

Table 1 Federal and State Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: CARB, May 2016, Ambient Air Quality Standards.

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

The San Diego Air Pollution Control District (SDAPCD) is the designated air quality control agency for the SDAB. The SDAB currently meets the NAAQS for all criteria air pollutants except ozone and is classified an attainment/maintenance area for CO, and unclassifiable for PM₁₀. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone, PM₁₀, and PM_{2.5} (SDAPCD 2018). Characteristics of O₃, CO, NO₂, and suspended particulates are described in the subsequent sections.

Ozone

Ozone is a highly oxidative unstable gas, produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides NO_x and reactive organic gases ROG¹. NO_x is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents (San Diego County 2007). Because O_3 requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to O_3 include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors (U.S. EPA 2017).

Carbon Monoxide

CO is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic (San Diego County 2007). Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities (U.S. EPA 2016a).

Nitrogen Dioxide

NO_2 is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces (San Diego County 2007). The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2 , creating the mixture of NO and NO_2 commonly called NO_x . Nitrogen dioxide is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Exposure to high concentrations of NO_2 can aggravate respiratory diseases such as asthma and increase susceptibility to respiratory infections. Those with asthma, as well as children and the elderly, face greater risks of NO_2 health effects (U.S. EPA 2016b). NO_2 absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of ozone/smog and acid rain.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. These particles vary in shape, size, and chemical composition. The particulates that are of particular concern are PM_{10} (which measures no more than 10 microns in diameter) and $\text{PM}_{2.5}$, (a fine particulate measuring no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with the small particulates (PM_{10} and $\text{PM}_{2.5}$) and $\text{PM}_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere (San Diego County 2007). Natural sources include

¹ Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, from an air quality perspective two groups are important: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC). SDAPCD uses the term VOC to denote organic precursors. As such, the term VOC will be used throughout the study, a term used interchangeably with ROGs by SDAPCD.

windblown dust, wildfire smoke, and sea spray salt. The finer PM_{2.5} particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. PM_{2.5} is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage (U.S. EPA 2016c). These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Toxic Air Contaminants (TACs)

A toxic air contaminant (TAC) is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. TACs are primarily regulated through the Tanner Air Toxics Act (Assembly Bill ;[AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). AB 1807 sets forth a formal procedure for CARB to utilize when designating substances as TACs. This procedure includes pre-designation research, public participation, and scientific peer review. Pursuant to AB 2588, existing facilities that emit air pollutants above specified levels are required to (1) prepare a TAC emissions inventory plan and report; (2) prepare a risk assessment if TAC emissions are significant; (3) notify the public of significant risk levels; and (4) if health impacts are above specified levels, prepare and implement risk reduction measures.

2.3.1 Air Quality Management Plan

The federal Clean Air Act Amendments (CAAA) mandates that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. The SIP includes pollution control measures to demonstrate how the standards will be met through those measures. The SIP is established by incorporating measures established during the preparation of Air Quality Management Plans (AQMPs) and adopted rules and regulations by each local APCD and AQMD, which are submitted for approval to CARB and the U.S. EPA. The goal of an AQMP is to reduce pollutant concentrations below the National Ambient Air Quality Standards (NAAQS) through the implementation of air pollutant emissions controls.

The San Diego Regional Air Quality Strategy (RAQS) was developed pursuant to California Clean Air Act (CCAA) requirements. The RAQS was initially adopted in 1991 and was updated in 1995, 1998, 2001, 2004, 2009, and most recently in December 2016 (SDAPCD 2016). The RAQS identifies feasible emission control measures to provide progress in San Diego County toward attaining the State ozone standard. The pollutants addressed in the RAQS are volatile organic compounds (VOCs) and NO_x, precursors to the photochemical formation of ozone (the primary component of smog). The RAQS was initially adopted by the SDAPCD Board on June 30, 1992, and amended on March 2, 1993, in response to CARB comments. At present, no attainment plan for PM₁₀ or PM_{2.5} is required by the state regulations. However, SDAPCD has adopted measures to reduce particulate matter in San Diego County. These measures range from regulation against open burning to incentive programs that introduce cleaner technology (SDAPCD 2005).

The RAQS relies on information from CARB and San Diego Association of Governments (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 the County as part of the development of the individual General Plans. As such, projects that propose development consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP and might have a potentially significant impact on air quality.

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. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

2.3.2 San Diego County General Plan

The San Diego County General Plan (2011b) contains a set of goals, policies, and recommendations that represent a shared vision for the future of unincorporated County lands. It establishes a framework for ensuring that changes to the built environment, whether public or private, aid in maintaining or improving specific communities while enhancing community qualities as a place for living, recreating, and working. The General Plan Conservation Element contains policies related to the County's sustainable land development goals. Policies specifically related to air quality are as follows:

- **COS-14.8: Minimize Air Pollution.** Minimize land use conflicts that expose people to significant amounts of air pollutants.
- **COS-14.9: Significant Producers of Air Pollutants.** Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.
- **COS-14.10: Low-Emission Construction Vehicles and Equipment.** Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.
- **COS-15.6: Design and Construction Methods.** Require development design and construction methods to minimize impacts to air quality.
- **COS-16.3: Low-Emissions Vehicles and Equipment.** Require County operations and encourage private development to provide incentives (such as priority parking) for the use of low- and zero-emission vehicles and equipment to improve air quality and reduce GHG emissions.

2.3.3 North County Metropolitan Subregional Plan

The North County Metropolitan Subregional Plan (North County Metro Plan; 2011a) supplements all existing Elements of the San Diego County General Plan, with specific emphasis on the planning needs of the North County area. The North County Metro Plan area is comprised of non-contiguous "island" areas in the cities of Escondido, Oceanside, San Diego, and San Marcos, and includes the eastern portion of Valley Center and the communities of Hidden Meadows and Twin Oaks. The North County Metro Plan contains goals and policies that promote development and agricultural

activities, and protect environmental resources in appropriate areas. There are no specific goals or policies in the North County Metro Plan that pertain specifically to air quality.

2.3.4 Background Air Quality

The CARB operates a network of air quality monitoring stations throughout the SDAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station located closest to the project site is the Escondido-East Valley Parkway Station, located approximately 5.8 miles southeast of the project site, which closed in 2016. The monitoring station located closest to the project site still in operation is the Camp Pendleton Station, located approximately 15.3 miles west of the project site. Table 2 indicates the number of days that each standard has been exceeded at the Escondido-East Valley Parkway Station in 2015 (the last year of measurements collected prior to the station closing) and at the Camp Pendleton Station. Data for PM₁₀ is not available from the Camp Pendleton Station; therefore, PM₁₀ data from the San Diego-Kearny Villa Road Station (located approximately 24.4 miles southwest of the project site) is provided in Table 2.

Table 2 Ambient Air Quality at the Monitoring Station

Pollutant	Escondido-East Valley Pkwy Station	Camp Pendleton Station		
	2015	2015	2016	2017
8 Hour Ozone (ppm), 8-Hr Average	0.071	0.076	0.073	0.081
Number of days of State exceedances (>0.070)	ND ¹	3	5	5
Number of days of Federal exceedances (>0.070)	2	2	4	4
Ozone (ppm), Worst Hour	0.079	0.093	0.083	0.094
Number of days of State exceedances (>0.09 ppm)	0	0	0	0
Number of days of Federal exceedances (>0.112 ppm)	0	0	0	0
Nitrogen Dioxide (ppm) - Worst Hour (Federal Measurements) ¹	48.0	60.0	72.0	63.0
Number of days of State exceedances (>18 ppm)	60	60	60	60
Number of days of Federal exceedances (0.10 ppm)	ND	48	47	47
Particulate Matter 10 microns, $\mu\text{g}/\text{m}^3$, Worst 24 Hours	30.0	39.0	36.0	46.0
Number of days above Federal standard (>150 $\mu\text{g}/\text{m}^3$)	ND	0	0	0
Particulate Matter <2.5 microns, $\mu\text{g}/\text{m}^3$, Worst 24 Hours (California)	62.4	41.2	28.8	26.0
Number of days above Federal standard (>35 $\mu\text{g}/\text{m}^3$)	ND	ND	ND	ND

2015 data provided from Escondido-East Valley Parkway Station, 2015-2017 data provided from Camp Pendleton Station with exception to data for PM₁₀. Data for PM₁₀ for years 2015-2017 under the Camp Pendleton Station column is from the San Diego-Kearny Villa Road Station.

Source: CARB, 2015, 2016, and 2017.

¹ ND = Insufficient data available to determine the value.

2.3.5 Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore schools, hospitals, and residences.

Sensitive receptors that may be affected by air quality impacts associated with project construction include single-family residences located approximately 900 feet to the south of the project site, and hillsides with residential development approximately 780 feet to the north. Additional residential development is located approximately 1,100 feet to west of the project site, on the west side of I-

15. Twin Oaks Elementary School (1 Cassou Road, San Marcos) and Twin Oaks High School (158 Cassou Road, San Marcos) are both located approximately 2.2 miles southwest of the project site.

3 Significance Criteria and Analysis Methodology

3.1 Significance Thresholds

State Thresholds

Pursuant to Appendix G of the CEQA Guidelines, impacts related to air quality would be significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

For purposes of CEQA, the preparation of health risk assessments (HRAs) to evaluate the human health-based consequences of TAC emissions for land use development projects may be warranted under two sets of circumstances:

- A proposed project itself generates TACs as a result of construction and/or operational activities that may adversely impact sensitive receptors (e.g., residents), and/or
- A proposed project is located in an area that may adversely expose sensitive receptors associated with its proposed land uses to significant concentrations of TACs from existing stationary and/or mobile sources of TACs (e.g., a fossil-fueled power plant, a high-volume freeway or roadway, a gas station, etc.).

Regional Thresholds

The County of San Diego Guidelines for Determining Significance for Air Quality contains the following trigger criteria to determine whether or not additional information is needed to address Appendix G Section III *Air Quality* of the CEQA Guidelines:

1. Will the project conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP?
2. Will the project result in emissions that would exceed NAAQS or CAAQS or contribute substantially to an existing or projected air quality violation?
3. Will the project result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable NAAQS or CAAQS?
4. Will the project expose sensitive receptors to substantial pollutant concentrations?

5. Does the project, which is not an agricultural, commercial, or industrial activity subject to SDAPCD standards, propose a use which would expose considerable number of persons to objectionable odors?

Furthermore, the SDAPCD has adopted numerical screening level thresholds to analyze the significance of a project's construction and operational emissions. These screening level thresholds are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact to the SDAB's air quality. These screening level thresholds are also used by San Diego County for comparative purposes when evaluating projects under CEQA (San Diego County 2007). Thus, a project that does not exceed these SDAPCD screening level thresholds would have a less than significant impact in regard to air quality standards and cumulatively considerable air quality impacts. The screening level thresholds for temporary construction and long-term operational emissions in the SDAB apply to the project and are shown in Table 3.

Table 3 SDAPCD Screening Level Significance Thresholds

Pollutant	Total Emissions	
	Lbs per Day	Tons per Year
VOCs	75 ¹	13.7 ²
NO _x	250	40
CO	550	100
SO _x	250	40
PM ₁₀	100	15
PM _{2.5}	55 ³	10 ³

¹ Threshold for VOCs based on the threshold of significance for VOCs from the SCAQMD for the Coachella Valley.

² 13.7 tons per year threshold based on 75 lbs/day multiplied by 365 days/year and divided by 2,000 lbs/ton.

³ EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the SCAQMD.

Source: San Diego County 2007

San Diego County CO Emissions Significance Thresholds

CO emissions are the result of the combustion process, and therefore primarily associated with mobile source emissions (vehicles). CO concentrations tend to be higher in urban areas where there are many mobile-source emissions. CO "hotspots" or pockets where the CO concentration exceeds the NAAQS and/or CAAQS, have been found to occur only at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips (San Diego County 2007). Pursuant to the County's CEQA Significance Determination Thresholds, a site-specific CO hotspot analysis should be performed to determine if health standards are potentially violated and to identify any affected sensitive receptor if a proposed development would:

- Place receptors within 500 feet of a signalized intersection operating at or below LOS E (peak-hour trips exceeding 3,000 trips)
- Cause road intersections to operate at or below a LOS E (with intersection peak-hour trips exceeding 3,000)
- Result in emissions of CO that when totaled with the ambient concentrations, will exceed 1-hour concentration of 20 ppm or an 8-hour average of 9 ppm

3.2 Methodology

Air quality modeling was performed in general accordance with the statutory requirements outlined in the SDAPCD 2016 RAQS to identify both construction and operational emissions associated with the proposed project. All emissions were calculated using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 which incorporates current air emission data, planning methods, and protocols.

Construction activities include demolition, site preparation, grading, excavation, building construction, paving, and architectural coating, which would generate diesel and dust emissions. The use of construction equipment would generate criteria air pollutant emissions. For modeling purposes, it was assumed that all construction equipment used would be diesel-powered. Construction emissions associated with development of the proposed project were quantified by estimating the types and quantity of equipment that would be used on-site during each of the construction phases. Construction emissions are analyzed using the regional thresholds established by the SDAPCD and published under Rule 20.2 (SDAPCD Rules and Regulations).

Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by motor vehicle trips associated with operation of the project. Emissions attributed to energy use include electricity and natural gas consumption for the refrigeration system, and heating and cooling systems. Area source emissions are generated by landscape maintenance equipment, use of consumer products, and painting. Stationary source emissions from fuel storage and dispensing were also calculated based on guidance for underground storage tanks provided by South Coast Air Quality Management District (SCAQMD 2017). The emissions factor for VOCs contained in that guidance were established by the CARB and include emissions from loading, storing, dispensing, and spills or leaks from all components of transfer and dispensing facilities. To determine whether a regional air quality impact would occur, the increase in total emissions is compared to the SDAPCD recommended regional thresholds for operational emissions.

Consistency with Applicable Regulatory Requirements

The project would be required to comply with SDAPCD Rules 52, 54, and 55 which identify measures to reduce fugitive dust and is required to be implemented at all construction sites located within the SDAB. The following conditions, which are required to reduce fugitive dust in compliance with SDAPCD Rules 52, 54, and 55 were included in CalEEMod for site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control

materials shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **Street Sweeping.** Construction contractors should sweep all visible roadway dust as result of active operations at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations.

The architectural coating phase involves the greatest release of VOCs. The emissions modeling for the project includes the use of low-VOC paint (100 grams per liter [g/L] for non-flat coatings and 50 g/L for flat coatings) as required by SDAPCD Rule 67.0.1.

4 Project Impact Analysis

4.1 Conformance to the Regional Air Quality Strategy

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and other source emissions from mobile and area to forecast future emissions and determine from strategies necessary for the reduction of stationary source emissions through regulatory controls. Projects that propose development that is consistent with the growth anticipated by the County's General Plan is consistent with the RAQS.

According to demographic and socioeconomic estimates provided by the SANDAG Data Surfer database, unincorporated San Diego County is forecast to increase the number of civilian jobs by 41 percent between 2012 (116,268 jobs) to 2050 (163,933 jobs; SANDAG 2013). The project is anticipated to provide a total of nine new employment opportunities, and these positions are expected to be filled by those in the Escondido and neighboring communities. Project employment opportunities would account for approximately 0.02 percent² of the job growth forecast by SANDAG for the unincorporated County.

Furthermore, the project site has a land use designation of "General Commercial" and zoning designation of C36 (San Diego County 2018). The proposed project entails the commercial operation of a gas station and convenience store on the project site, which is consistent with the designated land use and zoning. No amendments to the County's General Plan, the North County Metro Community Plan, or County zoning would be required to accommodate the proposed project. The proposed project would conform to the applicable plans and therefore, the project's impact on the RAQS and SIP would be less than significant.

4.2 Conformance to Federal and State Ambient Air Quality Standards

Construction Impacts

Table 4 and Table 5 summarize maximum daily and annual emissions of pollutants throughout construction of the project. Emissions of VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} would not exceed the County's screening level thresholds during project construction, assuming adherence to the conditions listed above required by SDAPCD Rules 52, 54, 55, and 67.

² Project employment as percentage of SANDAG employment forecast for unincorporated County: (9 project jobs / [163,933 2050 jobs – 116,268 jobs]) * 100 = 0.019 percent

Table 4 Maximum Daily Estimated Construction Emissions

Emissions Source	Maximum Emissions ¹					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Daily Construction Emissions (lbs/day)						
Demolition (1/1/2020-1/20/2020)						
Mitigated Construction On-Site	0.9	7.9	7.6	<0.1	1.0	0.5
Mitigated Construction Off-Site	<0.1	1.5	0.6	<0.1	0.2	<0.1
Site Preparation (1/21/2020-2/20/2020)						
Mitigated Construction On-Site	0.7	8.4	4.1	<0.1	1.0	0.4
Mitigated Construction Off-Site	0.5	15.2	3.8	<0.1	0.4	0.1
Grading (2/21/2020-3/11/2020)						
Mitigated Construction On-Site	0.9	7.9	7.6	<0.1	1.3	0.7
Mitigated Construction Off-Site	2.0	67.6	16.5	0.2	1.8	0.7
Building Construction (3/12/2020-6/3/2020)						
Mitigated Construction On-Site	0.9	8.9	7.4	<0.1	0.5	0.5
Mitigated Construction Off-Site	0.1	0.6	0.5	<0.1	0.1	<0.1
Paving (6/4/2020-7/2/2020)						
Mitigated Construction On-Site	1.1	7.2	7.1	<0.1	0.4	0.4
Mitigated Construction Off-Site	0.1	0.1	0.5	<0.1	0.2	<0.1
Architectural Coating (6/15/2020-7/2/2020)						
Mitigated Construction On-Site	30.5	1.7	1.8	<0.1	0.1	0.1
Mitigated Construction Off-Site	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Maximum Daily Emissions ²	30.5	75.5	24.1	0.2	3.1	1.4
San Diego County Screening Level Thresholds	75	250	550	250	100	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: All calculations were made using CalEEMod v.2016.3.2. See Appendix A for calculations. Demolition, Site Preparation, Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, soil export hauling trips, construction vehicle emissions and fugitive dust. Emission data is pulled from “mitigated” results that include compliance with regulations and project design features that will be included in the project. SDAPCD uses the term VOC to denote organic precursors, interchangeably with ROG. As such, the term VOCs is used in this table.

¹ Grading phases incorporate anticipated emissions reductions from the conditions listed above, which are required by SDAPCD Rules 52, 54, and 55 to reduce fugitive dust. The architectural coating phases incorporate anticipated emissions reductions from the conditions listed above, which are required by SDAPCD Rule 67.

² Maximum Daily Emissions = (construction on-site) + (construction off-site) emissions for highest estimated emission per construction phase

Table 5 Maximum Annual Estimated Construction Emissions

Emissions Source	Maximum Emissions ¹					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Annual Construction Emissions (tons/yr)						
Demolition						
Mitigated Construction On-Site	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Site Preparation						
Mitigated Construction On-Site	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Grading						
Mitigated Construction On-Site	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	0.5	0.1	<0.1	<0.1	<0.1
Building Construction						
Mitigated Construction On-Site	<0.1	0.3	0.2	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Paving						
Mitigated Construction On-Site	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Architectural Coating						
Mitigated Construction On-Site	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Mitigated Construction Off-Site	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Annual Emissions	0.2	0.6	0.2	<0.1	<0.1	<0.1
San Diego County Screening Level Thresholds	13.7	40	100	40	15	10
Threshold Exceeded?	No	No	No	No	No	No

Notes: All calculations were made using CalEEMod v.2016.3.2. See Appendix A for calculations. Demolition, Site Preparation, Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, soil export hauling trips, construction vehicle emissions and fugitive dust. Emission data is pulled from “mitigated” results that include compliance with regulations and project design features that will be included in the project. SDAPCD uses the term VOC to denote organic precursors, interchangeably with ROG. As such, the term VOCs is used in this table.

¹ Grading phases incorporate anticipated emissions reductions from the conditions listed above, which are required by SDAPCD Rules 52, 54, and 55 to reduce fugitive dust. The architectural coating phases incorporate anticipated emissions reductions from the conditions listed above, which are required by SDAPCD Rule 67.

Operational Air Pollutant Emissions

Table 6 summarizes estimated emissions associated with operation of the project. The majority of the operational emissions generated would be due to stationary source emissions from the fuel storage and dispensing and mobile emissions from vehicle trips to and from the project site. Project-specific trip generation rates were included in the CalEEMod analysis based on the traffic study completed for the project, which concluded the project would generate a net total of 1,735 daily trips after subtracting existing land use trips (1,735 net daily trips = 2,560 project generated daily trips – 825 existing use trips) (Darnell & Associates, Inc. 2019). CalEEMod default total average daily

trip rates for the project were significantly higher than compared to the project-specific trip rates at 5,656 trips during weekdays, 7,766 on Saturdays, and 6,834 on Sundays and did not account for the subtraction of existing land use trips (Appendix A). According to the CalEEMod User Guide (2017), trip rates for the selected land uses are based on the Institute of Transportation Engineers Trip Generation Manual, 9th Edition (2012). The project-specific traffic study used regional trip rates for the proposed land uses from SANDAG's *(Not So) Brief Guide of Traffic Generators for the San Diego Region* (2002), which contains trip rates specific to the County. The use of CalEEMod default trip rates would result in an overestimate of project mobile emissions by approximately three to four times the trip rates calculated in the project-specific traffic study. Therefore, the trip rates provided in the project-specific traffic study were used in the CalEEMod analysis to provide an accurate emissions output for the project.

The project includes the installation of a vapor control device, a Healy clean air separator to hold excess gasoline vapors from the storage tanks. The underground storage tanks equipped with the Healy clean air separator systems are a project design feature. As shown in Table 6, emissions generated during the operation of project would not exceed San Diego County screening level thresholds for VOCs, NO_x, CO, SO_x, PM₁₀, or PM_{2.5}. Therefore, the project's regional air quality impacts would be less than significant and no mitigation measures would be necessary.

Table 6 Project Operational Emissions

Emissions Source	Estimated Emissions (lbs/day)					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Stationary Emissions ¹	9.5	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	2.1	7.1	15.1	<0.1	2.4	0.7
Project Total	11.8	7.1	15.1	<0.1	2.4	0.7
San Diego County Screening Level Thresholds	75	250	550	250	100	55
Threshold Exceeded?	No	No	No	No	No	No

See Appendix A for CalEEMod output. Note: Numbers may not add up due to rounding.

¹ Calculated for underground storage tanks for gasoline and diesel products, based on SCAQMD's Annual Emissions Reporting Program. Results based on SCAQMD's guidance calculate VOCs, a term used interchangeably with ROG by SDAPCD. Emissions of other air pollutants from stationary project emissions are considered negligible.

4.3 Cumulatively Considerable Net Increase of Criteria Pollutants

There are no cumulative projects in the vicinity of the project site that the County has identified to take into consideration in analyzing the proposed project.

The proposed project is consistent with existing land use and zoning designations, as stated in Section 2.4.1. Though the proposed use would increase intensity of the project site compared to the existing commercial use, cumulative impacts are considered less than significant since the project is consistent with the growth anticipated by the County's General Plan, consistent with the RAQS, and project construction and operational emissions would not exceed the County's screening level thresholds as shown in Table 4, Table 5, and Table 6.

4.4 Impacts to Sensitive Receptors

Carbon Monoxide Hotspot Analysis

As previously discussed, carbon monoxide is a colorless, odorless, poisonous gas that may be found in high concentrations near areas of high traffic volumes. CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. The SDAB is in attainment of State and federal CO standards. The Escondido-East Valley Parkway monitoring station (600 E. Valley Parkway, Escondido) is located closest to the project site that provides CO data. The Escondido-East Valley Parkway station last recorded the maximum 8-hour average CO level in 2012 at 3.61 ppm, which is well below the 9 ppm state and federal eight-hour standard (CARB 2012). No other monitoring stations located in the SDAB have data for CO since 2012.

A CO hotspot analysis is required by the County if a proposed development would cause road intersections to operate at or below a LOS E with intersection peak-hour trips exceeding 3,000 trips.

The traffic study prepared for the project studied four intersections in the vicinity of the project site, as well as the proposed driveway access for the project (Darnell & Associates, Inc. 2019). The project would add 1,735 daily trips (which includes all project generated trips, including trucks), which include 126 AM peak hour and 138 PM peak hour trips on the roadways surrounding the project site. Table 7 provides a summary of existing and existing plus project intersection LOS based on the traffic study.

Table 7 Existing Plus Project Intersection Level of Service Summary

Roadway Segment	Existing LOS		Existing + Project LOS		Significant Impact (Y/N)
	AM Peak	PM Peak	AM Peak	PM Peak	
Deer Springs Rd (E-W) at Mesa Rock Rd (N-S)	C	C	C	C	N
Deer Springs Rd (E-W) at I-15 SB Ramps (N-S)	C	C	C	C	N
Deer Springs Rd (E-W) at I-15 NB Ramps (N-S)	C	D	C	D	N
Deer Springs Rd (E-W) at Champagne Blvd/N. Centre City Pkwy & Mountain Meadow Rd (N-S)	C	C	C	C	N
Centre City Pkwy (N-S) at Project Driveway Access	DNE ¹	DNE	A	A	N

Source: Darnell & Associates, Inc. 2019

¹ DNE = Does Not Exist

The additional traffic generated during project operation would not cause intersections in the vicinity of the project site to operate at or below LOS E. The traffic study concluded that the proposed project would not result in any significant intersection impacts, and no mitigation is required (Darnell & Associates, Inc. 2019). Therefore, a CO hotspot analysis is not required and project-generated trips would not result in, or substantially contribute to, CO concentrations that exceed the eight-hour ambient air quality standards along area roadways and intersections.

Toxic Air Contaminants (TACs)

High-volume TAC generators that are listed as potential health risk sources include the operation of commercial diesel engines and truck stops, landfills and incinerators, and chemical manufacturers (CARB 2005). The proposed project entails the construction and operation of a gas station with convenience store, which is identified in the CARB *Air Quality and Land Use Handbook* (2005) as a facility type that emits TACs, mainly benzene.

Construction activities may also result in the generation of TACs. However, the construction period estimated for the project would be temporary and limited to approximately seven months.

Emissions resulting from the gasoline dispensing has the potential to result in TACs (e.g., benzene, hexane, MTBE, toluene, xylene) and have the potential to contribute to health risk in the project vicinity. It should be noted that standard regulatory controls would apply to the project in addition to any permits required that demonstrate appropriate operational controls. The California Air Pollution Control Officers Association (CAPCOA) *Gasoline Service Station Industrywide Risk Assessment Guidelines* (1997) provides a screening method to determine potential cancer risk as a function of million gallons of throughput and downwind distance from the gas station. Based on these guidelines, one-million gallons of throughput at a distance of 100 meters (328 feet) from the gas station would result in a cancer risk of 0.58 per million. The sensitive receptors nearest to the project site are 780 feet to the north, which is more than double the distance of 328 feet.

Notwithstanding, use of the estimated risk at 328 feet would be conservative and overstate potential impacts. It should be noted that subsequent to the CAPCOA guidelines being released, Office of Environmental Health Hazard Assessment (OEHHA) published new (2015) risk assessment guidelines to account for potential early-life exposures. The 2015 OEHHA methodology results in risk estimates approximately 1.5 to 3 times higher than what would have previously been estimated³. As such, to account for the 2015 OEHHA methodology, the risk per million gallons of throughput can conservatively be multiplied by 3, resulting in an estimated 1.74 risk per million for every 1 million gallons of throughput.

The proposed project is estimated to have a total product throughput of 3,350,000 gallons per year. This would result in a maximum estimated cancer risk of 5.89 per million, which is less than the threshold of 10 per million.

Lastly, mobile emissions during project operations would primarily be composed of passenger and light-duty vehicles (58.8%) and light trucks (18.4%) accessing the gas station and convenience store, as shown in Table 7 below. The project would not attract a large number of trips from large or heavy-duty vehicles that could generate mobile diesel emissions due to the passenger vehicle-serving nature of the proposed use. Therefore, construction and operation of the proposed gas station and convenience store would not generate TACs that would adversely impact sensitive receptors in the vicinity of the project site.

³ <https://www.arb.ca.gov/toxics/rma/rma.htm>

Table 8 CalEEMod Vehicle Fleet Mix

Vehicle Type	Percent Type
Light Auto	59.4%
Light Truck < 3,750 lbs	4.2%
Light Truck 3751-5750 lbs	18.3%
Med Truck 5751-8500 lbs	10.8%
Lite-Heavy Truck 8501-10,000 lbs	1.6%
Lite-Heavy Truck 10,001-14,000 lbs	0.6%
Med-Heavy Truck 14,001-33,000 lbs	1.6%
Heavy-Heavy Truck 33,001-60,000 lbs	2.4%
Other Bus	0.2%
Urban Bus	0.2%
Motorcycle	0.6%
School Bus	0.1%
Motor Home	0.1%
Total	100%

Source: CalEEMod v. 2016.3.2 (Appendix A)

Furthermore, a gas station permit application with the SDAPCD would be required for the proposed project. Such projects fall under a general HRA that is in place with the SDAPCD and a project-specific HRA is not required (K. Creaven, personal conversation, November 5, 2018) since use categories such as gas stations are considered small foot-print facilities with small zones of impact (Office of Environmental Health Hazard Assessment 2015).

4.5 Odor Impacts

SDAPCD Rule 51, commonly referred to as the public nuisance rule, prohibits emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The potential for an operation to result in odor complaints from a “considerable” number of persons in the area would be considered to be a significant, adverse odor impact.

The project would involve the temporary use of diesel-powered construction equipment, which would generate exhaust that may be noticeable for short durations at adjacent properties. However, construction activities would be temporary, possible sensitive receptors are distant from the site, and emissions would not exceed San Diego County screening level thresholds.

Land uses and industrial operations typically associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, refineries, landfills, dairies, and fiberglass molding. The proposed operations of a convenience store and gas station are not typically associated with objectionable odors, though odors from gasoline product could be noticeable in the immediate vicinity of the site. The project site vicinity is adjacent to the I-15 off-ramp and approximately 375 feet from I-15. The nearest potentially sensitive receptors are more than 700 feet from the site, and it is unlikely that the odors from this particular project would be distinguishable from existing sources given the vehicle emissions associated with adjacent roadways in the vicinity of the project site. Therefore, the project would not generate objectionable odors.

5 Conclusions

Based on the analysis completed, implementation of the proposed project would not result in any air quality exceedances of applicable short-term construction and long-term operational thresholds. The project would not generate impacts related to CO hotspots or odors, and the project would be consistent with RAQS. Construction and operation of the proposed gas station and convenience store would not generate TACs that would adversely impact sensitive receptors in the vicinity of the project site. Therefore, no additional measures beyond those required by SDAPCD rules are needed to reduce project air quality impacts.

6 References

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7 List of Preparers

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed project site. This report was prepared utilizing the latest emissions rates and reduction methodologies.

This report was originally prepared by Duane Vander Pluym with assistance from Lynette Leighton of Rincon Consultants, Inc., submitted November 2017.

The first revised report was prepared and reviewed by Haseem Qureshi of Urban Crossroads, Inc. with assistance from Lynette Leighton of Rincon Consultants, Inc. for resubmittal November 2018.

The second revised report was prepared by Lynette Leighton of Rincon Consultants, Inc. for resubmittal April 2019.

This third revised report was prepared by Lynette Leighton of Rincon Consultants, Inc. for resubmittal August 2019.

Appendix A

CalEEMod Air Quality Reports and Calculations

A1: CalEEMod Air Quality Reports – Proposed Project

A2: CalEEMod Air Quality Report – Proposed Project with CalEEMod Default Trips

A3: SCAQMD Gas and Diesel Throughput Calculations

Appendix A1

CalEEMod Air Quality Reports – Proposed Project (Annual, Summer, Winter)

Project - Annual Emissions

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

Deer Springs Mega Mart Project

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.88	1000sqft	0.41	17,879.00	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Convenience Market With Gas Pumps	3.50	1000sqft	0.08	3,500.00	0
Gasoline/Service Station	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

Project Characteristics - Model updated based on site plan dated 3/22/2019.

Land Use - Land Use - Total new imperv 17,879SF as "Other Asphalt Surfaces" (total proposed imperv 31,238SF minus parking lot, gas pumps, and building footprint); "Proposed Perv" (38,707SF) not included in analysis. LU total = 0.71 acre, which reflects imperv surface development and project area actively use during project operations.

Construction Phase - Per client info 3/22/2019

Grading - Per client info 4/17/2019; confirmed 8/8/2019

Demolition - Per client info

Trips and VMT - Haul trips adjusted per client info re: grading/import and export

Vehicle Trips - Per project traffic study, adjusted per pump

Energy Use -

Water Mitigation - County of SD - 40% outdoor water reduction to meet MAWA per CAP Checklist

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblGrading	AcresOfGrading	0.00	1.30
tblGrading	AcresOfGrading	0.50	1.30
tblGrading	MaterialExported	0.00	532.00
tblGrading	MaterialImported	0.00	4,691.00
tblLandUse	LandUseSquareFeet	17,880.00	17,879.00
tblTripsAndVMT	HaulingTripNumber	67.00	54.00
tblTripsAndVMT	HaulingTripNumber	586.00	480.00
tblVehicleTrips	ST_TR	1,448.33	40.00
tblVehicleTrips	ST_TR	168.56	104.50
tblVehicleTrips	SU_TR	1,182.08	40.00
tblVehicleTrips	SU_TR	168.56	104.50
tblVehicleTrips	WD_TR	845.60	40.00
tblVehicleTrips	WD_TR	168.56	104.50

2.0 Emissions Summary

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

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					
2020	0.2927	1.2448	0.6411	2.6800e-003	0.0583	0.0332	0.0915	0.0134	0.0310	0.0443	0.0000	256.1461	256.1461	0.0354	0.0000	257.0304
Maximum	0.2927	1.2448	0.6411	2.6800e-003	0.0583	0.0332	0.0915	0.0134	0.0310	0.0443	0.0000	256.1461	256.1461	0.0354	0.0000	257.0304

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					
2020	0.2927	1.2448	0.6411	2.6800e-003	0.0378	0.0332	0.0711	9.6000e-003	0.0310	0.0406	0.0000	256.1460	256.1460	0.0354	0.0000	257.0304
Maximum	0.2927	1.2448	0.6411	2.6800e-003	0.0378	0.0332	0.0711	9.6000e-003	0.0310	0.0406	0.0000	256.1460	256.1460	0.0354	0.0000	257.0304

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	35.08	0.00	22.35	28.09	0.00	8.48	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	1.1826	1.1826
2	4-1-2020	6-30-2020	0.3190	0.3190
3	7-1-2020	9-30-2020	0.0410	0.0410
		Highest	1.1826	1.1826

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0318	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Energy	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	23.1802	23.1802	8.9000e-004	2.1000e-004	23.2655
Mobile	0.3634	1.2796	2.5689	5.5800e-003	0.3914	5.5100e-003	0.3969	0.1048	5.1400e-003	0.1099	0.0000	516.1689	516.1689	0.0399	0.0000	517.1656
Waste						0.0000	0.0000		0.0000	0.0000	3.8853	0.0000	3.8853	0.2296	0.0000	9.6255
Water						0.0000	0.0000		0.0000	0.0000	0.1497	3.0574	3.2071	0.0155	3.9000e-004	3.7102
Total	0.3953	1.2813	2.5709	5.5900e-003	0.3914	5.6400e-003	0.3970	0.1048	5.2700e-003	0.1101	4.0349	542.4074	546.4424	0.2859	6.0000e-004	553.7678

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0301	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Energy	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	23.1802	23.1802	8.9000e-004	2.1000e-004	23.2655
Mobile	0.3662	1.2973	2.6307	5.8400e-003	0.4146	5.7200e-003	0.4204	0.1110	5.3300e-003	0.1164	0.0000	539.7585	539.7585	0.0409	0.0000	540.7818
Waste						0.0000	0.0000		0.0000	0.0000	3.8853	0.0000	3.8853	0.2296	0.0000	9.6255
Water						0.0000	0.0000		0.0000	0.0000	0.1497	2.6374	2.7871	0.0155	3.8000e-004	3.2888
Total	0.3965	1.2989	2.6327	5.8500e-003	0.4146	5.8500e-003	0.4205	0.1110	5.4600e-003	0.1165	4.0349	565.5771	569.6121	0.2869	5.9000e-004	576.9627

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	-0.29	-1.38	-2.40	-4.65	-5.95	-3.72	-5.92	-5.95	-3.61	-5.84	0.00	-4.27	-4.24	-0.36	1.67	-4.19

3.0 Construction Detail**Construction Phase**

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/20/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	2/14/2020	5	1	
3	Grading	Grading	1/16/2020	2/4/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	4/10/2020	5	100	
5	Paving	Paving	6/6/2020	7/6/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	7/2/2020	5	5	

Acres of Grading (Site Preparation Phase): 1.3

Acres of Grading (Grading Phase): 1.3

Acres of Paving: 0.58

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,638; Non-Residential Outdoor: 2,879; Striped Parking Area: 1,529 (Architectural Coating – sqft)

OffRoad Equipment

Deer Springs Mega Mart Project - San Diego Air Basin, Annual

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	54.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	480.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020**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					8.0700e-003	0.0000	8.0700e-003	1.2200e-003	0.0000	1.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0700e-003	0.0551	0.0534	8.0000e-005		3.2700e-003	3.2700e-003		3.1200e-003	3.1200e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197
Total	6.0700e-003	0.0551	0.0534	8.0000e-005	8.0700e-003	3.2700e-003	0.0113	1.2200e-003	3.1200e-003	4.3400e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197

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3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0106	2.4200e-003	3.0000e-005	5.0000e-004	3.0000e-005	5.3000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	2.8613	2.8613	2.6000e-004	0.0000	2.8678
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	2.6000e-004	1.9000e-004	1.8700e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5074	0.5074	2.0000e-005	0.0000	0.5078
Total	5.6000e-004	0.0107	4.2900e-003	4.0000e-005	1.0600e-003	3.0000e-005	1.1000e-003	2.9000e-004	3.0000e-005	3.2000e-004	0.0000	3.3687	3.3687	2.8000e-004	0.0000	3.3756

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.6300e-003	0.0000	3.6300e-003	5.5000e-004	0.0000	5.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0700e-003	0.0551	0.0534	8.0000e-005		3.2700e-003	3.2700e-003		3.1200e-003	3.1200e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197
Total	6.0700e-003	0.0551	0.0534	8.0000e-005	3.6300e-003	3.2700e-003	6.9000e-003	5.5000e-004	3.1200e-003	3.6700e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197

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3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0106	2.4200e-003	3.0000e-005	5.0000e-004	3.0000e-005	5.3000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	2.8613	2.8613	2.6000e-004	0.0000	2.8678
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	2.6000e-004	1.9000e-004	1.8700e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5074	0.5074	2.0000e-005	0.0000	0.5078
Total	5.6000e-004	0.0107	4.2900e-003	4.0000e-005	1.0600e-003	3.0000e-005	1.1000e-003	2.9000e-004	3.0000e-005	3.2000e-004	0.0000	3.3687	3.3687	2.8000e-004	0.0000	3.3756

3.3 Site Preparation - 2020**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					0.0167	0.0000	0.0167	1.8400e-003	0.0000	1.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8800e-003	0.0970	0.0471	1.1000e-004		3.8600e-003	3.8600e-003		3.5500e-003	3.5500e-003	0.0000	9.8431	9.8431	3.1800e-003	0.0000	9.9226
Total	7.8800e-003	0.0970	0.0471	1.1000e-004	0.0167	3.8600e-003	0.0206	1.8400e-003	3.5500e-003	5.3900e-003	0.0000	9.8431	9.8431	3.1800e-003	0.0000	9.9226

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3.3 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9700e-003	0.1767	0.0405	4.8000e-004	2.9900e-003	5.6000e-004	3.5500e-003	1.0400e-003	5.3000e-004	1.5800e-003	0.0000	47.8946	47.8946	4.3100e-003	0.0000	48.0024
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	2.1000e-004	1.6000e-004	1.5400e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4168	0.4168	1.0000e-005	0.0000	0.4171
Total	5.1800e-003	0.1768	0.0420	4.8000e-004	3.4500e-003	5.6000e-004	4.0100e-003	1.1600e-003	5.3000e-004	1.7100e-003	0.0000	48.3114	48.3114	4.3200e-003	0.0000	48.4195

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5200e-003	0.0000	7.5200e-003	8.3000e-004	0.0000	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8800e-003	0.0970	0.0471	1.1000e-004		3.8600e-003	3.8600e-003		3.5500e-003	3.5500e-003	0.0000	9.8430	9.8430	3.1800e-003	0.0000	9.9226
Total	7.8800e-003	0.0970	0.0471	1.1000e-004	7.5200e-003	3.8600e-003	0.0114	8.3000e-004	3.5500e-003	4.3800e-003	0.0000	9.8430	9.8430	3.1800e-003	0.0000	9.9226

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3.3 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9700e-003	0.1767	0.0405	4.8000e-004	2.9900e-003	5.6000e-004	3.5500e-003	1.0400e-003	5.3000e-004	1.5800e-003	0.0000	47.8946	47.8946	4.3100e-003	0.0000	48.0024
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	2.1000e-004	1.6000e-004	1.5400e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4168	0.4168	1.0000e-005	0.0000	0.4171
Total	5.1800e-003	0.1768	0.0420	4.8000e-004	3.4500e-003	5.6000e-004	4.0100e-003	1.1600e-003	5.3000e-004	1.7100e-003	0.0000	48.3114	48.3114	4.3200e-003	0.0000	48.4195

3.4 Grading - 2020**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					0.0124	0.0000	0.0124	3.7700e-003	0.0000	3.7700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0700e-003	0.0551	0.0534	8.0000e-005		3.2700e-003	3.2700e-003		3.1200e-003	3.1200e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197
Total	6.0700e-003	0.0551	0.0534	8.0000e-005	0.0124	3.2700e-003	0.0157	3.7700e-003	3.1200e-003	6.8900e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197

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3.4 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4779	0.1095	1.3100e-003	0.0102	1.5100e-003	0.0117	3.3500e-003	1.4400e-003	4.7900e-003	0.0000	129.5698	129.5698	0.0117	0.0000	129.8615
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	2.6000e-004	1.9000e-004	1.8700e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5074	0.5074	2.0000e-005	0.0000	0.5078
Total	0.0137	0.4781	0.1113	1.3200e-003	0.0108	1.5100e-003	0.0123	3.5000e-003	1.4400e-003	4.9400e-003	0.0000	130.0772	130.0772	0.0117	0.0000	130.3693

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5800e-003	0.0000	5.5800e-003	1.7000e-003	0.0000	1.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0700e-003	0.0551	0.0534	8.0000e-005		3.2700e-003	3.2700e-003		3.1200e-003	3.1200e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197
Total	6.0700e-003	0.0551	0.0534	8.0000e-005	5.5800e-003	3.2700e-003	8.8500e-003	1.7000e-003	3.1200e-003	4.8200e-003	0.0000	7.2853	7.2853	1.3800e-003	0.0000	7.3197

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3.4 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4779	0.1095	1.3100e-003	0.0102	1.5100e-003	0.0117	3.3500e-003	1.4400e-003	4.7900e-003	0.0000	129.5698	129.5698	0.0117	0.0000	129.8615
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	2.6000e-004	1.9000e-004	1.8700e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5074	0.5074	2.0000e-005	0.0000	0.5078
Total	0.0137	0.4781	0.1113	1.3200e-003	0.0108	1.5100e-003	0.0123	3.5000e-003	1.4400e-003	4.9400e-003	0.0000	130.0772	130.0772	0.0117	0.0000	130.3693

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0259	0.2656	0.2216	3.4000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	30.0182	30.0182	9.7100e-003	0.0000	30.2609
Total	0.0259	0.2656	0.2216	3.4000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	30.0182	30.0182	9.7100e-003	0.0000	30.2609

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3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7000e-004	0.0171	4.5400e-003	4.0000e-005	1.0000e-003	8.0000e-005	1.0800e-003	2.9000e-004	8.0000e-005	3.7000e-004	0.0000	3.9579	3.9579	3.0000e-004	0.0000	3.9655
Worker	1.4400e-003	1.0600e-003	0.0104	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.8270	2.8270	8.0000e-005	0.0000	2.8291
Total	2.0100e-003	0.0182	0.0150	7.0000e-005	4.1300e-003	1.0000e-004	4.2300e-003	1.1200e-003	1.0000e-004	1.2200e-003	0.0000	6.7849	6.7849	3.8000e-004	0.0000	6.7947

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0259	0.2656	0.2216	3.4000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	30.0181	30.0181	9.7100e-003	0.0000	30.2608
Total	0.0259	0.2656	0.2216	3.4000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	30.0181	30.0181	9.7100e-003	0.0000	30.2608

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3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7000e-004	0.0171	4.5400e-003	4.0000e-005	1.0000e-003	8.0000e-005	1.0800e-003	2.9000e-004	8.0000e-005	3.7000e-004	0.0000	3.9579	3.9579	3.0000e-004	0.0000	3.9655
Worker	1.4400e-003	1.0600e-003	0.0104	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.8270	2.8270	8.0000e-005	0.0000	2.8291
Total	2.0100e-003	0.0182	0.0150	7.0000e-005	4.1300e-003	1.0000e-004	4.2300e-003	1.1200e-003	1.0000e-004	1.2200e-003	0.0000	6.7849	6.7849	3.8000e-004	0.0000	6.7947

3.6 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1000e-003	0.0759	0.0747	1.2000e-004		4.1500e-003	4.1500e-003		3.8500e-003	3.8500e-003	0.0000	9.8626	9.8626	2.8700e-003	0.0000	9.9344
Paving	3.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0113	0.0759	0.0747	1.2000e-004		4.1500e-003	4.1500e-003		3.8500e-003	3.8500e-003	0.0000	9.8626	9.8626	2.8700e-003	0.0000	9.9344

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3.6 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	5.2000e-004	5.0600e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3700	1.3700	4.0000e-005	0.0000	1.3710
Total	7.0000e-004	5.2000e-004	5.0600e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3700	1.3700	4.0000e-005	0.0000	1.3710

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1000e-003	0.0759	0.0747	1.2000e-004		4.1500e-003	4.1500e-003		3.8500e-003	3.8500e-003	0.0000	9.8626	9.8626	2.8700e-003	0.0000	9.9344
Paving	3.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0113	0.0759	0.0747	1.2000e-004		4.1500e-003	4.1500e-003		3.8500e-003	3.8500e-003	0.0000	9.8626	9.8626	2.8700e-003	0.0000	9.9344

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3.6 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	5.2000e-004	5.0600e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3700	1.3700	4.0000e-005	0.0000	1.3710
Total	7.0000e-004	5.2000e-004	5.0600e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3700	1.3700	4.0000e-005	0.0000	1.3710

3.7 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
Total	0.2133	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907

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3.7 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.6000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1522	0.1522	0.0000	0.0000	0.1523
Total	8.0000e-005	6.0000e-005	5.6000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1522	0.1522	0.0000	0.0000	0.1523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
Total	0.2133	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907

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3.7 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.6000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1522	0.1522	0.0000	0.0000	0.1523
Total	8.0000e-005	6.0000e-005	5.6000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1522	0.1522	0.0000	0.0000	0.1523

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3662	1.2973	2.6307	5.8400e-003	0.4146	5.7200e-003	0.4204	0.1110	5.3300e-003	0.1164	0.0000	539.7585	539.7585	0.0409	0.0000	540.7818
Unmitigated	0.3634	1.2796	2.5689	5.5800e-003	0.3914	5.5100e-003	0.3969	0.1048	5.1400e-003	0.1099	0.0000	516.1689	516.1689	0.0399	0.0000	517.1656

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	140.00	140.00	140.00	75,097	79,565
Gasoline/Service Station	1,672.00	1,672.00	1,672.00	963,353	1,020,673
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,812.00	1,812.00	1,812.00	1,038,450	1,100,238

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Gasoline/Service Station	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.3702	21.3702	8.6000e-004	1.8000e-004	21.4448
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.3702	21.3702	8.6000e-004	1.8000e-004	21.4448
NaturalGas Mitigated	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	3.0000e-005	3.0000e-005	1.8207
NaturalGas Unmitigated	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	3.0000e-005	3.0000e-005	1.8207

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	7805	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4165	0.4165	1.0000e-005	1.0000e-005	0.4190
Gasoline/Service Station	26111.7	1.4000e-004	1.2800e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3934	1.3934	3.0000e-005	3.0000e-005	1.4017
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	4.0000e-005	4.0000e-005	1.8207

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	7805	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4165	0.4165	1.0000e-005	1.0000e-005	0.4190
Gasoline/Service Station	26111.7	1.4000e-004	1.2800e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3934	1.3934	3.0000e-005	3.0000e-005	1.4017
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	4.0000e-005	4.0000e-005	1.8207

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	43960	14.3665	5.8000e-004	1.2000e-004	14.4166
Gasoline/Service Station	18770.6	6.1344	2.5000e-004	5.0000e-005	6.1558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.8693	3.0000e-005	1.0000e-005	0.8723
Total		21.3702	8.6000e-004	1.8000e-004	21.4448

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	43960	14.3665	5.8000e-004	1.2000e-004	14.4166
Gasoline/Service Station	18770.6	6.1344	2.5000e-004	5.0000e-005	6.1558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.8693	3.0000e-005	1.0000e-005	0.8723
Total		21.3702	8.6000e-004	1.8000e-004	21.4448

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0301	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Unmitigated	0.0318	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Total	0.0318	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Total	0.0301	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.7871	0.0155	3.8000e-004	3.2888
Unmitigated	3.2071	0.0155	3.9000e-004	3.7102

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.259254 / 0.158898	1.7624	8.5200e-003	2.1000e-004	2.0389
Gasoline/Service Station	0.21251 / 0.130248	1.4446	6.9800e-003	1.7000e-004	1.6713
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.2070	0.0155	3.8000e-004	3.7102

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.259254 / 0.0953385	1.5316	8.5100e-003	2.1000e-004	1.8073
Gasoline/Service Station	0.21251 / 0.0781489	1.2555	6.9700e-003	1.7000e-004	1.4815
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.7871	0.0155	3.8000e-004	3.2888

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.8853	0.2296	0.0000	9.6255
Unmitigated	3.8853	0.2296	0.0000	9.6255

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	10.52	2.1355	0.1262	0.0000	5.2905
Gasoline/Service Station	8.62	1.7498	0.1034	0.0000	4.3350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.8852	0.2296	0.0000	9.6255

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	10.52	2.1355	0.1262	0.0000	5.2905
Gasoline/Service Station	8.62	1.7498	0.1034	0.0000	4.3350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.8852	0.2296	0.0000	9.6255

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

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Equipment Type	Number
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11.0 Vegetation

Project - Summer Emissions

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

Deer Springs Mega Mart Project

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.88	1000sqft	0.41	17,879.00	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Convenience Market With Gas Pumps	3.50	1000sqft	0.08	3,500.00	0
Gasoline/Service Station	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

Project Characteristics - Model updated based on site plan dated 3/22/2019.

Land Use - Land Use - Total new imperv 17,879SF as "Other Asphalt Surfaces" (total proposed imperv 31,238SF minus parking lot, gas pumps, and building footprint); "Proposed Perv" (38,707SF) not included in analysis. LU total = 0.71 acre, which reflects imperv surface development and project area actively use during project operations.

Construction Phase - Per client info 3/22/2019

Grading - Per client info 4/17/2019; confirmed 8/8/2019

Demolition - Per client info

Trips and VMT - Haul trips adjusted per client info re: grading/import and export

Vehicle Trips - Per project traffic study, adjusted per pump

Energy Use -

Water Mitigation - County of SD - 40% outdoor water reduction to meet MAWA per CAP Checklist

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblGrading	AcresOfGrading	0.00	1.30
tblGrading	AcresOfGrading	0.50	1.30
tblGrading	MaterialExported	0.00	532.00
tblGrading	MaterialImported	0.00	4,691.00
tblLandUse	LandUseSquareFeet	17,880.00	17,879.00
tblTripsAndVMT	HaulingTripNumber	67.00	54.00
tblTripsAndVMT	HaulingTripNumber	586.00	480.00
tblVehicleTrips	ST_TR	1,448.33	40.00
tblVehicleTrips	ST_TR	168.56	104.50
tblVehicleTrips	SU_TR	1,182.08	40.00
tblVehicleTrips	SU_TR	168.56	104.50
tblVehicleTrips	WD_TR	845.60	40.00
tblVehicleTrips	WD_TR	168.56	104.50

2.0 Emissions Summary

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

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/day										lb/day					
2020	31.6288	117.1807	46.9048	0.2840	6.5309	2.0635	8.5944	1.5586	1.9400	3.4985	0.0000	30,438.0565	30,438.0565	3.3737	0.0000	30,522.3993
Maximum	31.6288	117.1807	46.9048	0.2840	6.5309	2.0635	8.5944	1.5586	1.9400	3.4985	0.0000	30,438.0565	30,438.0565	3.3737	0.0000	30,522.3993

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/day										lb/day					
2020	31.6288	117.1807	46.9048	0.2840	4.1232	2.0635	6.1866	1.0785	1.9400	3.0185	0.0000	30,438.0565	30,438.0565	3.3737	0.0000	30,522.3993
Maximum	31.6288	117.1807	46.9048	0.2840	4.1232	2.0635	6.1866	1.0785	1.9400	3.0185	0.0000	30,438.0565	30,438.0565	3.3737	0.0000	30,522.3993

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	36.87	0.00	28.02	30.80	0.00	13.72	0.00	0.00	0.00	0.00	0.00	0.00

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

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	lb/day										lb/day					
Area	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Energy	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
Mobile	2.1443	6.9646	13.2783	0.0320	2.2020	0.0300	2.2320	0.5885	0.0280	0.6165		3,262.1766	3,262.1766	0.2344		3,268.0359
Total	2.3195	6.9738	13.2917	0.0320	2.2020	0.0307	2.2327	0.5885	0.0287	0.6172		3,273.1210	3,273.1210	0.2346	2.0000e-004	3,279.0461

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/day										lb/day					
Area	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Energy	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
Mobile	2.1602	7.0564	13.6467	0.0335	2.3330	0.0311	2.3641	0.6235	0.0290	0.6526		3,411.4843	3,411.4843	0.2410		3,417.5095
Total	2.3262	7.0656	13.6602	0.0335	2.3330	0.0319	2.3648	0.6235	0.0297	0.6533		3,422.4287	3,422.4287	0.2412	2.0000e-004	3,428.5196

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	-0.29	-1.32	-2.77	-4.62	-5.95	-3.71	-5.92	-5.95	-3.70	-5.85	0.00	-4.56	-4.56	-2.83	0.00	-4.56

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/20/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	2/14/2020	5	1	
3	Grading	Grading	1/16/2020	2/4/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	4/10/2020	5	100	
5	Paving	Paving	6/6/2020	7/6/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	7/2/2020	5	5	

Acres of Grading (Site Preparation Phase): 1.3

Acres of Grading (Grading Phase): 1.3

Acres of Paving: 0.58

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,638; Non-Residential Outdoor: 2,879; Striped Parking Area: 1,529 (Architectural Coating – sqft)

OffRoad Equipment

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	54.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	480.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020**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/day										lb/day					
Fugitive Dust					1.1526	0.0000	1.1526	0.1746	0.0000	0.1746			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	1.1526	0.4672	1.6198	0.1746	0.4457	0.6202		1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.2 Demolition - 2020**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/day					
Hauling	0.0419	1.4785	0.3357	4.1500e-003	0.0726	4.7200e-003	0.0773	0.0205	4.5100e-003	0.0250		453.8531	453.8531	0.0400		454.8526
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
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	0.0786	1.5032	0.6192	5.0000e-003	0.1547	5.3000e-003	0.1600	0.0423	5.0400e-003	0.0473		538.1278	538.1278	0.0425		539.1902

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/day										lb/day					
Fugitive Dust					0.5187	0.0000	0.5187	0.0786	0.0000	0.0786			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	0.5187	0.4672	0.9859	0.0786	0.4457	0.5242	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.2 Demolition - 2020**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/day					
Hauling	0.0419	1.4785	0.3357	4.1500e-003	0.0726	4.7200e-003	0.0773	0.0205	4.5100e-003	0.0250		453.8531	453.8531	0.0400		454.8526
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
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	0.0786	1.5032	0.6192	5.0000e-003	0.1547	5.3000e-003	0.1600	0.0423	5.0400e-003	0.0473		538.1278	538.1278	0.0425		539.1902

3.3 Site Preparation - 2020**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/day										lb/day					
Fugitive Dust					1.4534	0.0000	1.4534	0.1602	0.0000	0.1602			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085		943.4872	943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	1.4534	0.3353	1.7888	0.1602	0.3085	0.4687		943.4872	943.4872	0.3051		951.1158

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.3 Site Preparation - 2020**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/day					
Hauling	0.4268	15.0641	3.4203	0.0423	0.2607	0.0481	0.3087	0.0910	0.0460	0.1370		4,624.1640	4,624.1640	0.4073		4,634.3470
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
Worker	0.0184	0.0124	0.1417	4.2000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.1374	42.1374	1.2600e-003		42.1688
Total	0.4452	15.0765	3.5620	0.0427	0.3018	0.0484	0.3501	0.1019	0.0463	0.1481		4,666.3013	4,666.3013	0.4086		4,676.5159

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/day										lb/day					
Fugitive Dust					0.6540	0.0000	0.6540	0.0721	0.0000	0.0721			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085	0.0000	943.4872	943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	0.6540	0.3353	0.9894	0.0721	0.3085	0.3806	0.0000	943.4872	943.4872	0.3051		951.1158

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.3 Site Preparation - 2020**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/day					
Hauling	0.4268	15.0641	3.4203	0.0423	0.2607	0.0481	0.3087	0.0910	0.0460	0.1370		4,624.1640	4,624.1640	0.4073		4,634.3470
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
Worker	0.0184	0.0124	0.1417	4.2000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.1374	42.1374	1.2600e-003		42.1688
Total	0.4452	15.0765	3.5620	0.0427	0.3018	0.0484	0.3501	0.1019	0.0463	0.1481		4,666.3013	4,666.3013	0.4086		4,676.5159

3.4 Grading - 2020**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/day										lb/day					
Fugitive Dust					1.7717	0.0000	1.7717	0.5381	0.0000	0.5381			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	1.7717	0.4672	2.2389	0.5381	0.4457	0.9838		1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.4 Grading - 2020**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/day					
Hauling	1.8970	66.9517	15.2013	0.1879	1.4739	0.2136	1.6875	0.4817	0.2044	0.6861		20,551.8398	20,551.8398	1.8103		20,597.0980
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
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	1.9337	66.9764	15.4847	0.1888	1.5561	0.2142	1.7703	0.5035	0.2049	0.7084		20,636.1145	20,636.1145	1.8129		20,681.4356

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/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.2422	0.0000	0.2422			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	0.7973	0.4672	1.2645	0.2422	0.4457	0.6878	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.4 Grading - 2020**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/day					
Hauling	1.8970	66.9517	15.2013	0.1879	1.4739	0.2136	1.6875	0.4817	0.2044	0.6861		20,551.8398	20,551.8398	1.8103		20,597.0980
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
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	1.9337	66.9764	15.4847	0.1888	1.5561	0.2142	1.7703	0.5035	0.2049	0.7084		20,636.1145	20,636.1145	1.8129		20,681.4356

3.5 Building Construction - 2020**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/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.5 Building Construction - 2020**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/day					
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
Vendor	0.0187	0.5638	0.1436	1.3700e-003	0.0339	2.7600e-003	0.0366	9.7400e-003	2.6400e-003	0.0124		147.0200	147.0200	0.0109		147.2912
Worker	0.0477	0.0321	0.3685	1.1000e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		109.5571	109.5571	3.2700e-003		109.6389
Total	0.0664	0.5959	0.5121	2.4700e-003	0.1406	3.5100e-003	0.1442	0.0381	3.3300e-003	0.0414		256.5772	256.5772	0.0141		256.9301

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/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.5 Building Construction - 2020**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/day					
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
Vendor	0.0187	0.5638	0.1436	1.3700e-003	0.0339	2.7600e-003	0.0366	9.7400e-003	2.6400e-003	0.0124		147.0200	147.0200	0.0109		147.2912
Worker	0.0477	0.0321	0.3685	1.1000e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		109.5571	109.5571	3.2700e-003		109.6389
Total	0.0664	0.5959	0.5121	2.4700e-003	0.1406	3.5100e-003	0.1442	0.0381	3.3300e-003	0.0414		256.5772	256.5772	0.0141		256.9301

3.6 Paving - 2020**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/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.3039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0755	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.6 Paving - 2020**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/day					
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
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
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
Total	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077

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/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.3039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0755	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.6 Paving - 2020**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/day					
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
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
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
Total	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077

3.7 Architectural Coating - 2020**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/day										lb/day					
Archit. Coating	30.2341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	30.4763	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.7 Architectural Coating - 2020**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/day					
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
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
Worker	0.0110	7.4200e-003	0.0850	2.5000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		25.2824	25.2824	7.5000e-004		25.3013
Total	0.0110	7.4200e-003	0.0850	2.5000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		25.2824	25.2824	7.5000e-004		25.3013

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/day										lb/day					
Archit. Coating	30.2341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	30.4763	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

3.7 Architectural Coating - 2020**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/day					
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
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
Worker	0.0110	7.4200e-003	0.0850	2.5000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		25.2824	25.2824	7.5000e-004		25.3013
Total	0.0110	7.4200e-003	0.0850	2.5000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		25.2824	25.2824	7.5000e-004		25.3013

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

	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/day					
Mitigated	2.1602	7.0564	13.6467	0.0335	2.3330	0.0311	2.3641	0.6235	0.0290	0.6526		3,411.4843	3,411.4843	0.2410		3,417.5095
Unmitigated	2.1443	6.9646	13.2783	0.0320	2.2020	0.0300	2.2320	0.5885	0.0280	0.6165		3,262.1766	3,262.1766	0.2344		3,268.0359

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	140.00	140.00	140.00	75,097	79,565
Gasoline/Service Station	1,672.00	1,672.00	1,672.00	963,353	1,020,673
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,812.00	1,812.00	1,812.00	1,038,450	1,100,238

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Gasoline/Service Station	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

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/day										lb/day					
NaturalGas Mitigated	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
NaturalGas Unmitigated	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	21.3836	2.3000e-004	2.1000e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5157	2.5157	5.0000e-005	5.0000e-005	2.5307
Gasoline/Service Station	71.539	7.7000e-004	7.0100e-003	5.8900e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.4164	8.4164	1.6000e-004	1.5000e-004	8.4664
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0213836	2.3000e-004	2.1000e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5157	2.5157	5.0000e-005	5.0000e-005	2.5307
Gasoline/Service Station	0.071539	7.7000e-004	7.0100e-003	5.8900e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.4164	8.4164	1.6000e-004	1.5000e-004	8.4664
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

	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/day					
Mitigated	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Unmitigated	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

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	lb/day										lb/day					
Architectural Coating	0.0414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Total	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

Deer Springs Mega Mart Project - San Diego Air Basin, Summer

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/day										lb/day					
Architectural Coating	0.0414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Total	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

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
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Deer Springs Mega Mart Project - San Diego Air Basin, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Project - Winter Emissions

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

Deer Springs Mega Mart Project

San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.88	1000sqft	0.41	17,879.00	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Convenience Market With Gas Pumps	3.50	1000sqft	0.08	3,500.00	0
Gasoline/Service Station	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

Project Characteristics - Model updated based on site plan dated 3/22/2019.

Land Use - Land Use - Total new imperv 17,879SF as "Other Asphalt Surfaces" (total proposed imperv 31,238SF minus parking lot, gas pumps, and building footprint); "Proposed Perv" (38,707SF) not included in analysis. LU total = 0.71 acre, which reflects imperv surface development and project area actively use during project operations.

Construction Phase - Per client info 3/22/2019

Grading - Per client info 4/17/2019; confirmed 8/8/2019

Demolition - Per client info

Trips and VMT - Haul trips adjusted per client info re: grading/import and export

Vehicle Trips - Per project traffic study, adjusted per pump

Energy Use -

Water Mitigation - County of SD - 40% outdoor water reduction to meet MAWA per CAP Checklist

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblGrading	AcresOfGrading	0.00	1.30
tblGrading	AcresOfGrading	0.50	1.30
tblGrading	MaterialExported	0.00	532.00
tblGrading	MaterialImported	0.00	4,691.00
tblLandUse	LandUseSquareFeet	17,880.00	17,879.00
tblTripsAndVMT	HaulingTripNumber	67.00	54.00
tblTripsAndVMT	HaulingTripNumber	586.00	480.00
tblVehicleTrips	ST_TR	1,448.33	40.00
tblVehicleTrips	ST_TR	168.56	104.50
tblVehicleTrips	SU_TR	1,182.08	40.00
tblVehicleTrips	SU_TR	168.56	104.50
tblVehicleTrips	WD_TR	845.60	40.00
tblVehicleTrips	WD_TR	168.56	104.50

2.0 Emissions Summary

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

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/day										lb/day					
2020	31.6390	117.9947	48.1113	0.2797	6.5309	2.0691	8.6000	1.5586	1.9453	3.5039	0.0000	29,974.945 2	29,974.945 2	3.4512	0.0000	30,061.225 1
Maximum	31.6390	117.9947	48.1113	0.2797	6.5309	2.0691	8.6000	1.5586	1.9453	3.5039	0.0000	29,974.945 2	29,974.945 2	3.4512	0.0000	30,061.225 1

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/day										lb/day					
2020	31.6390	117.9947	48.1113	0.2797	4.1232	2.0691	6.1922	1.0785	1.9453	3.0238	0.0000	29,974.945 2	29,974.945 2	3.4512	0.0000	30,061.225 1
Maximum	31.6390	117.9947	48.1113	0.2797	4.1232	2.0691	6.1922	1.0785	1.9453	3.0238	0.0000	29,974.945 2	29,974.945 2	3.4512	0.0000	30,061.225 1

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	36.87	0.00	28.00	30.80	0.00	13.70	0.00	0.00	0.00	0.00	0.00	0.00

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

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	lb/day										lb/day					
Area	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Energy	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
Mobile	2.0725	6.9692	14.7186	0.0302	2.2020	0.0307	2.2327	0.5885	0.0287	0.6172		3,073.7354	3,073.7354	0.2497		3,079.9772
Total	2.2478	6.9784	14.7320	0.0302	2.2020	0.0315	2.2334	0.5885	0.0294	0.6179		3,084.6798	3,084.6798	0.2499	2.0000e-004	3,090.9874

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/day										lb/day					
Area	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Energy	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
Mobile	2.0881	7.0667	15.0550	0.0316	2.3330	0.0319	2.3649	0.6235	0.0297	0.6533		3,215.6463	3,215.6463	0.2561		3,222.0489
Total	2.2541	7.0759	15.0684	0.0316	2.3330	0.0326	2.3656	0.6235	0.0305	0.6540		3,226.5907	3,226.5907	0.2563	2.0000e-004	3,233.0591

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	-0.28	-1.40	-2.28	-4.63	-5.95	-3.62	-5.92	-5.95	-3.61	-5.84	0.00	-4.60	-4.60	-2.57	0.00	-4.60

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/20/2020	5	10	
2	Site Preparation	Site Preparation	1/15/2020	2/14/2020	5	1	
3	Grading	Grading	1/16/2020	2/4/2020	5	2	
4	Building Construction	Building Construction	1/18/2020	4/10/2020	5	100	
5	Paving	Paving	6/6/2020	7/6/2020	5	5	
6	Architectural Coating	Architectural Coating	6/13/2020	7/2/2020	5	5	

Acres of Grading (Site Preparation Phase): 1.3**Acres of Grading (Grading Phase): 1.3****Acres of Paving: 0.58**

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,638; Non-Residential Outdoor: 2,879; Striped Parking Area: 1,529
(Architectural Coating – sqft)

OffRoad Equipment

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	54.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	480.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	13.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020**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/day										lb/day					
Fugitive Dust					1.1526	0.0000	1.1526	0.1746	0.0000	0.1746			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	1.1526	0.4672	1.6198	0.1746	0.4457	0.6202		1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.2 Demolition - 2020**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/day					
Hauling	0.0431	1.4927	0.3579	4.0800e-003	0.0726	4.8200e-003	0.0774	0.0205	4.6100e-003	0.0251		446.0668	446.0668	0.0414		447.1005
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
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	0.0846	1.5205	0.6251	4.8700e-003	0.1547	5.4000e-003	0.1601	0.0423	5.1400e-003	0.0474		525.1800	525.1800	0.0437		526.2732

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/day										lb/day					
Fugitive Dust					0.5187	0.0000	0.5187	0.0786	0.0000	0.0786			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	0.5187	0.4672	0.9859	0.0786	0.4457	0.5242	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.2 Demolition - 2020**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/day					
Hauling	0.0431	1.4927	0.3579	4.0800e-003	0.0726	4.8200e-003	0.0774	0.0205	4.6100e-003	0.0251		446.0668	446.0668	0.0414		447.1005
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
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	0.0846	1.5205	0.6251	4.8700e-003	0.1547	5.4000e-003	0.1601	0.0423	5.1400e-003	0.0474		525.1800	525.1800	0.0437		526.2732

3.3 Site Preparation - 2020**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/day										lb/day					
Fugitive Dust					1.4534	0.0000	1.4534	0.1602	0.0000	0.1602			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085		943.4872	943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	1.4534	0.3353	1.7888	0.1602	0.3085	0.4687		943.4872	943.4872	0.3051		951.1158

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.3 Site Preparation - 2020**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/day					
Hauling	0.4387	15.2090	3.6463	0.0416	0.2607	0.0491	0.3097	0.0910	0.0469	0.1379		4,544.8313	4,544.8313	0.4213		4,555.3631
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
Worker	0.0208	0.0139	0.1336	4.0000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		39.5566	39.5566	1.1900e-003		39.5864
Total	0.4594	15.2229	3.7799	0.0420	0.3018	0.0494	0.3511	0.1019	0.0472	0.1491		4,584.3879	4,584.3879	0.4225		4,594.9495

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/day										lb/day					
Fugitive Dust					0.6540	0.0000	0.6540	0.0721	0.0000	0.0721			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085	0.0000	943.4872	943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	0.6540	0.3353	0.9894	0.0721	0.3085	0.3806	0.0000	943.4872	943.4872	0.3051		951.1158

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.3 Site Preparation - 2020**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/day					
Hauling	0.4387	15.2090	3.6463	0.0416	0.2607	0.0491	0.3097	0.0910	0.0469	0.1379		4,544.8313	4,544.8313	0.4213		4,555.3631
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
Worker	0.0208	0.0139	0.1336	4.0000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112		39.5566	39.5566	1.1900e-003		39.5864
Total	0.4594	15.2229	3.7799	0.0420	0.3018	0.0494	0.3511	0.1019	0.0472	0.1491		4,584.3879	4,584.3879	0.4225		4,594.9495

3.4 Grading - 2020**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/day										lb/day					
Fugitive Dust					1.7717	0.0000	1.7717	0.5381	0.0000	0.5381			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	1.7717	0.4672	2.2389	0.5381	0.4457	0.9838		1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.4 Grading - 2020**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/day					
Hauling	1.9496	67.5954	16.2055	0.1847	1.4739	0.2181	1.6920	0.4817	0.2086	0.6903		20,199.2502	20,199.2502	1.8723		20,246.0584
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
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	1.9911	67.6232	16.4728	0.1855	1.5561	0.2186	1.7747	0.5035	0.2092	0.7127		20,278.3634	20,278.3634	1.8747		20,325.2311

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/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.2422	0.0000	0.2422			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	0.8674	7.8729	7.6226	0.0120	0.7973	0.4672	1.2645	0.2422	0.4457	0.6878	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.4 Grading - 2020**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/day					
Hauling	1.9496	67.5954	16.2055	0.1847	1.4739	0.2181	1.6920	0.4817	0.2086	0.6903		20,199.2502	20,199.2502	1.8723		20,246.0584
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
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	1.9911	67.6232	16.4728	0.1855	1.5561	0.2186	1.7747	0.5035	0.2092	0.7127		20,278.3634	20,278.3634	1.8747		20,325.2311

3.5 Building Construction - 2020**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/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.5 Building Construction - 2020**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/day					
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
Vendor	0.0196	0.5633	0.1594	1.3300e-003	0.0339	2.8100e-003	0.0367	9.7400e-003	2.6900e-003	0.0124		143.2311	143.2311	0.0115		143.5192
Worker	0.0540	0.0361	0.3474	1.0300e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		102.8472	102.8472	3.1000e-003		102.9246
Total	0.0736	0.5994	0.5068	2.3600e-003	0.1406	3.5600e-003	0.1442	0.0381	3.3800e-003	0.0415		246.0783	246.0783	0.0146		246.4438

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/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.5 Building Construction - 2020**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/day					
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
Vendor	0.0196	0.5633	0.1594	1.3300e-003	0.0339	2.8100e-003	0.0367	9.7400e-003	2.6900e-003	0.0124		143.2311	143.2311	0.0115		143.5192
Worker	0.0540	0.0361	0.3474	1.0300e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		102.8472	102.8472	3.1000e-003		102.9246
Total	0.0736	0.5994	0.5068	2.3600e-003	0.1406	3.5600e-003	0.1442	0.0381	3.3800e-003	0.0415		246.0783	246.0783	0.0146		246.4438

3.6 Paving - 2020**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/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.3039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0755	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.6 Paving - 2020**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/day					
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
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
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
Total	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109

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/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.3039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0755	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.6 Paving - 2020**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/day					
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
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
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
Total	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109

3.7 Architectural Coating - 2020**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/day										lb/day					
Archit. Coating	30.2341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	30.4763	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.7 Architectural Coating - 2020**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/day					
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
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
Worker	0.0125	8.3300e-003	0.0802	2.4000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		23.7340	23.7340	7.1000e-004		23.7518
Total	0.0125	8.3300e-003	0.0802	2.4000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		23.7340	23.7340	7.1000e-004		23.7518

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/day										lb/day					
Archit. Coating	30.2341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	30.4763	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

3.7 Architectural Coating - 2020**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/day					
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
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
Worker	0.0125	8.3300e-003	0.0802	2.4000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		23.7340	23.7340	7.1000e-004		23.7518
Total	0.0125	8.3300e-003	0.0802	2.4000e-004	0.0246	1.7000e-004	0.0248	6.5400e-003	1.6000e-004	6.7000e-003		23.7340	23.7340	7.1000e-004		23.7518

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

	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/day					
Mitigated	2.0881	7.0667	15.0550	0.0316	2.3330	0.0319	2.3649	0.6235	0.0297	0.6533		3,215.6463	3,215.6463	0.2561		3,222.0489
Unmitigated	2.0725	6.9692	14.7186	0.0302	2.2020	0.0307	2.2327	0.5885	0.0287	0.6172		3,073.7354	3,073.7354	0.2497		3,079.9772

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	140.00	140.00	140.00	75,097	79,565
Gasoline/Service Station	1,672.00	1,672.00	1,672.00	963,353	1,020,673
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,812.00	1,812.00	1,812.00	1,038,450	1,100,238

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Gasoline/Service Station	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

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/day										lb/day					
NaturalGas Mitigated	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970
NaturalGas Unmitigated	1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	21.3836	2.3000e-004	2.1000e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5157	2.5157	5.0000e-005	5.0000e-005	2.5307
Gasoline/Service Station	71.539	7.7000e-004	7.0100e-003	5.8900e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.4164	8.4164	1.6000e-004	1.5000e-004	8.4664
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0213836	2.3000e-004	2.1000e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5157	2.5157	5.0000e-005	5.0000e-005	2.5307
Gasoline/Service Station	0.071539	7.7000e-004	7.0100e-003	5.8900e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.4164	8.4164	1.6000e-004	1.5000e-004	8.4664
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.0000e-003	9.1100e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.9321	10.9321	2.1000e-004	2.0000e-004	10.9970

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

	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/day					
Mitigated	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Unmitigated	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

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	lb/day										lb/day					
Architectural Coating	0.0414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Total	0.1742	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

Deer Springs Mega Mart Project - San Diego Air Basin, Winter

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/day										lb/day					
Architectural Coating	0.0414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132
Total	0.1650	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0132

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

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
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Deer Springs Mega Mart Project - San Diego Air Basin, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

MegaMart

Annual VMT*: 1,100,238

From CalEEMod 2016 Vehicle Fleet Mix Output:

Vehicle Type	Percent Type	CH4		N2O	
		CH4 Emission Factor (g/mile)**	Emission (g/mile)***	Emission Factor (g/mile)**	N2O Emission (g/mile)***
Light Auto	59.4%	0.04	0.02376	0.04	0.02376
Light Truck < 3750 lbs	4.2%	0.05	0.0021	0.06	0.00252
Light Truck 3751-5750 lbs	18.3%	0.05	0.00915	0.06	0.01098
Med Truck 5751-8500 lbs	10.8%	0.12	0.01296	0.2	0.0216
Lite-Heavy Truck 8501-10,000 lbs	1.6%	0.12	0.00192	0.2	0.0032
Lite-Heavy Truck 10,001-14,000 lbs	0.6%	0.09	0.000495	0.125	0.000688
Med-Heavy Truck 14,001-33,000 lbs	1.6%	0.06	0.00093	0.05	0.000775
Heavy-Heavy Truck 33,001-60,000 lbs	2.4%	0.06	0.00144	0.05	0.0012
Other Bus	0.2%	0.06	0.000114	0.05	0.000095
Urban Bus	0.2%	0.06	0.00012	0.05	0.0001
Motorcycle	0.6%	0.09	0.000549	0.01	0.000061
School Bus	0.1%	0.06	0.000042	0.05	0.000035
Motor Home	0.1%	0.09	0.000108	0.125	0.00015
Total	100.0%		0.053688		0.065164

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)***
CH4 25 GWP
N2O 298 GWP
1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

Total Emissions		Total CO2e units	
N2O Emissions:	0.0717 metric tons N2O	21.37	metric tons CO2e
Project Total:		21.37	metric tons CO2e

References

* From CalEEMod 2016 results for mobile sources
** Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
*** California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
**** Global warming potentials from IPCC Fourth Assessment Report

Greenhouse Gas Emission Worksheet
Construction Emissions

MegaMart

Annual Mobile Emissions:

References
CalEEMod Output

Project Total:	257 metric tons CO2e
Amortarized (30 years)	8.57

Operation

Construction (Annual)

Mobile

Total

Appendix A2

CalEEMod Air Quality Report – Proposed Project with CalEEMod Default Trips (Annual)

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen
San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	33.00	1000sqft	0.76	32,996.00	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Convenience Market With Gas Pumps	3.50	1000sqft	0.08	3,500.00	0
Gasoline/Service Station	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

Project Characteristics -

Land Use - Per client info: Total new impervious surface 32,996 SF as "Other Asphalt Surfaces"

Construction Phase - Per client info

Demolition - Per client info. Buildings and concrete

Grading - Per client info

Vehicle Trips - Trip gens are CalEEMod default

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	1.50	1.22
tblGrading	AcresOfGrading	1.00	1.22
tblGrading	MaterialExported	0.00	965.00
tblGrading	MaterialImported	0.00	9,106.00
tblLandUse	LandUseSquareFeet	33,000.00	32,996.00

2.0 Emissions Summary

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

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					
2019	0.2881	1.7910	1.0314	3.1000e-003	0.1220	0.0666	0.1885	0.0545	0.0631	0.1176	0.0000	286.6205	286.6205	0.0436	0.0000	287.7103
Maximum	0.2881	1.7910	1.0314	3.1000e-003	0.1220	0.0666	0.1885	0.0545	0.0631	0.1176	0.0000	286.6205	286.6205	0.0436	0.0000	287.7103

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					
2019	0.2881	1.7910	1.0314	3.1000e-003	0.0696	0.0666	0.1362	0.0288	0.0631	0.0919	0.0000	286.6204	286.6204	0.0436	0.0000	287.7102
Maximum	0.2881	1.7910	1.0314	3.1000e-003	0.0696	0.0666	0.1362	0.0288	0.0631	0.0919	0.0000	286.6204	286.6204	0.0436	0.0000	287.7102

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	42.92	0.00	27.77	47.16	0.00	21.85	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2019	8-31-2019	1.2412	1.2412
2	9-1-2019	9-30-2019	0.2079	0.2079
		Highest	1.2412	1.2412

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003
Energy	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	23.1802	23.1802	8.9000e-004	2.1000e-004	23.2655
Mobile	1.3195	4.5000	9.2690	0.0189	1.2789	0.0213	1.3002	0.3425	0.0199	0.3624	0.0000	1,742.8450	1,742.8450	0.1405	0.0000	1,746.3565
Waste						0.0000	0.0000		0.0000	0.0000	3.8853	0.0000	3.8853	0.2296	0.0000	9.6255
Water						0.0000	0.0000		0.0000	0.0000	0.1497	3.0574	3.2071	0.0155	3.9000e-004	3.7102
Total	1.3529	4.5017	9.2711	0.0189	1.2789	0.0214	1.3003	0.3425	0.0200	0.3625	4.0349	1,769.0839	1,773.1188	0.3865	6.0000e-004	1,782.9590

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003
Energy	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	23.1802	23.1802	8.9000e-004	2.1000e-004	23.2655
Mobile	1.3295	4.5654	9.4847	0.0197	1.3550	0.0221	1.3771	0.3629	0.0207	0.3836	0.0000	1,822.3338	1,822.3338	0.1441	0.0000	1,825.9370
Waste						0.0000	0.0000		0.0000	0.0000	3.8853	0.0000	3.8853	0.2296	0.0000	9.6255
Water						0.0000	0.0000		0.0000	0.0000	0.1312	2.8093	2.9404	0.0136	3.4000e-004	3.3818
Total	1.3630	4.5671	9.4867	0.0198	1.3550	0.0222	1.3772	0.3629	0.0208	0.3837	4.0164	1,848.3245	1,852.3409	0.3882	5.5000e-004	1,862.2111

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	-0.74	-1.45	-2.33	-4.55	-5.95	-3.93	-5.92	-5.95	-3.95	-5.84	0.46	-4.48	-4.47	-0.46	8.33	-4.44

3.0 Construction Detail**Construction Phase**

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2019	6/14/2019	5	20	
2	Site Preparation	Site Preparation	6/15/2019	7/13/2019	5	2	
3	Grading	Grading	7/14/2019	7/31/2019	5	4	
4	Building Construction	Building Construction	8/1/2019	11/15/2019	5	200	
5	Paving	Paving	11/16/2019	12/27/2019	5	10	
6	Architectural Coating	Architectural Coating	12/1/2019	12/20/2019	5	10	

Acres of Grading (Site Preparation Phase): 1.22

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,638; Non-Residential Outdoor: 2,879; Striped Parking Area: 2,436 (Architectural Coating – sqft)

OffRoad Equipment

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

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	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

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	5	13.00	0.00	41.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,138.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019**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					2.2700e-003	0.0000	2.2700e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0115	0.1134	0.0745	1.2000e-004		6.4300e-003	6.4300e-003		6.0100e-003	6.0100e-003	0.0000	10.7080	10.7080	2.7300e-003	0.0000	10.7762
Total	0.0115	0.1134	0.0745	1.2000e-004	2.2700e-003	6.4300e-003	8.7000e-003	3.4000e-004	6.0100e-003	6.3500e-003	0.0000	10.7080	10.7080	2.7300e-003	0.0000	10.7762

Deer Springs Mega Mart Project - With CalEEModDefault Trip Gen - San Diego Air Basin, Annual

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.1400e-003	6.9000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7991	0.7991	7.0000e-005	0.0000	0.8009
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	2.6000e-004	2.0000e-004	1.9000e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4865	0.4865	2.0000e-005	0.0000	0.4869
Total	3.5000e-004	3.3400e-003	2.5900e-003	2.0000e-005	8.3000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	1.2856	1.2856	9.0000e-005	0.0000	1.2878

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0200e-003	0.0000	1.0200e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0115	0.1134	0.0745	1.2000e-004		6.4300e-003	6.4300e-003		6.0100e-003	6.0100e-003	0.0000	10.7080	10.7080	2.7300e-003	0.0000	10.7762
Total	0.0115	0.1134	0.0745	1.2000e-004	1.0200e-003	6.4300e-003	7.4500e-003	1.5000e-004	6.0100e-003	6.1600e-003	0.0000	10.7080	10.7080	2.7300e-003	0.0000	10.7762

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3.2 Demolition - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.1400e-003	6.9000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7991	0.7991	7.0000e-005	0.0000	0.8009
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	2.6000e-004	2.0000e-004	1.9000e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4865	0.4865	2.0000e-005	0.0000	0.4869
Total	3.5000e-004	3.3400e-003	2.5900e-003	2.0000e-005	8.3000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	1.2856	1.2856	9.0000e-005	0.0000	1.2878

3.3 Site Preparation - 2019**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					0.0592	0.0000	0.0592	0.0297	0.0000	0.0297	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1948	0.0789	1.7000e-004		8.8200e-003	8.8200e-003		8.1200e-003	8.1200e-003	0.0000	15.4668	15.4668	4.8900e-003	0.0000	15.5891
Total	0.0171	0.1948	0.0789	1.7000e-004	0.0592	8.8200e-003	0.0680	0.0297	8.1200e-003	0.0378	0.0000	15.4668	15.4668	4.8900e-003	0.0000	15.5891

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3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.4000e-004	2.3400e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5988	0.5988	2.0000e-005	0.0000	0.5993
Total	3.2000e-004	2.4000e-004	2.3400e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5988	0.5988	2.0000e-005	0.0000	0.5993

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0266	0.0000	0.0266	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1948	0.0789	1.7000e-004		8.8200e-003	8.8200e-003		8.1200e-003	8.1200e-003	0.0000	15.4668	15.4668	4.8900e-003	0.0000	15.5891
Total	0.0171	0.1948	0.0789	1.7000e-004	0.0266	8.8200e-003	0.0354	0.0134	8.1200e-003	0.0215	0.0000	15.4668	15.4668	4.8900e-003	0.0000	15.5891

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3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.4000e-004	2.3400e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5988	0.5988	2.0000e-005	0.0000	0.5993
Total	3.2000e-004	2.4000e-004	2.3400e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5988	0.5988	2.0000e-005	0.0000	0.5993

3.4 Grading - 2019**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					0.0338	0.0000	0.0338	0.0167	0.0000	0.0167	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.1042	0.0429	9.0000e-005		4.7900e-003	4.7900e-003		4.4000e-003	4.4000e-003	0.0000	8.2341	8.2341	2.6100e-003	0.0000	8.2992
Total	9.2300e-003	0.1042	0.0429	9.0000e-005	0.0338	4.7900e-003	0.0386	0.0167	4.4000e-003	0.0211	0.0000	8.2341	8.2341	2.6100e-003	0.0000	8.2992

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3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0162	0.5667	0.1236	1.4600e-003	0.0152	2.1200e-003	0.0173	4.6500e-003	2.0300e-003	6.6800e-003	0.0000	144.1665	144.1665	0.0131	0.0000	144.4928
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	2.1000e-004	1.6000e-004	1.5200e-003	0.0000	4.2000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3892	0.3892	1.0000e-005	0.0000	0.3895
Total	0.0165	0.5669	0.1252	1.4600e-003	0.0156	2.1200e-003	0.0177	4.7600e-003	2.0300e-003	6.7900e-003	0.0000	144.5557	144.5557	0.0131	0.0000	144.8824

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0152	0.0000	0.0152	7.5200e-003	0.0000	7.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.1042	0.0429	9.0000e-005		4.7900e-003	4.7900e-003		4.4000e-003	4.4000e-003	0.0000	8.2341	8.2341	2.6100e-003	0.0000	8.2992
Total	9.2300e-003	0.1042	0.0429	9.0000e-005	0.0152	4.7900e-003	0.0200	7.5200e-003	4.4000e-003	0.0119	0.0000	8.2341	8.2341	2.6100e-003	0.0000	8.2992

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3.4 Grading - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0162	0.5667	0.1236	1.4600e-003	0.0152	2.1200e-003	0.0173	4.6500e-003	2.0300e-003	6.6800e-003	0.0000	144.1665	144.1665	0.0131	0.0000	144.4928
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	2.1000e-004	1.6000e-004	1.5200e-003	0.0000	4.2000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3892	0.3892	1.0000e-005	0.0000	0.3895
Total	0.0165	0.5669	0.1252	1.4600e-003	0.0156	2.1200e-003	0.0177	4.7600e-003	2.0300e-003	6.7900e-003	0.0000	144.5557	144.5557	0.0131	0.0000	144.8824

3.5 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0875	0.6152	0.5193	8.5000e-004		0.0353	0.0353		0.0341	0.0341	0.0000	70.4827	70.4827	0.0136	0.0000	70.8214
Total	0.0875	0.6152	0.5193	8.5000e-004		0.0353	0.0353		0.0341	0.0341	0.0000	70.4827	70.4827	0.0136	0.0000	70.8214

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3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	0.0387	0.0104	8.0000e-005	2.0400e-003	2.7000e-004	2.3100e-003	5.9000e-004	2.6000e-004	8.5000e-004	0.0000	8.1829	8.1829	6.6000e-004	0.0000	8.1993
Worker	2.8800e-003	2.2100e-003	0.0214	6.0000e-005	5.8700e-003	4.0000e-005	5.9100e-003	1.5600e-003	4.0000e-005	1.6000e-003	0.0000	5.4753	5.4753	1.8000e-004	0.0000	5.4797
Total	4.3200e-003	0.0409	0.0318	1.4000e-004	7.9100e-003	3.1000e-004	8.2200e-003	2.1500e-003	3.0000e-004	2.4500e-003	0.0000	13.6581	13.6581	8.4000e-004	0.0000	13.6790

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0875	0.6152	0.5193	8.5000e-004		0.0353	0.0353		0.0341	0.0341	0.0000	70.4826	70.4826	0.0136	0.0000	70.8213
Total	0.0875	0.6152	0.5193	8.5000e-004		0.0353	0.0353		0.0341	0.0341	0.0000	70.4826	70.4826	0.0136	0.0000	70.8213

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3.5 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	0.0387	0.0104	8.0000e-005	2.0400e-003	2.7000e-004	2.3100e-003	5.9000e-004	2.6000e-004	8.5000e-004	0.0000	8.1829	8.1829	6.6000e-004	0.0000	8.1993
Worker	2.8800e-003	2.2100e-003	0.0214	6.0000e-005	5.8700e-003	4.0000e-005	5.9100e-003	1.5600e-003	4.0000e-005	1.6000e-003	0.0000	5.4753	5.4753	1.8000e-004	0.0000	5.4797
Total	4.3200e-003	0.0409	0.0318	1.4000e-004	7.9100e-003	3.1000e-004	8.2200e-003	2.1500e-003	3.0000e-004	2.4500e-003	0.0000	13.6581	13.6581	8.4000e-004	0.0000	13.6790

3.6 Paving - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1376	0.1335	2.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	18.0316	18.0316	5.6000e-003	0.0000	18.1715
Paving	3.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0172	0.1376	0.1335	2.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	18.0316	18.0316	5.6000e-003	0.0000	18.1715

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3.6 Paving - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.9000e-004	5.7100e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4596	1.4596	5.0000e-005	0.0000	1.4607
Total	7.7000e-004	5.9000e-004	5.7100e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4596	1.4596	5.0000e-005	0.0000	1.4607

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1376	0.1335	2.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	18.0316	18.0316	5.6000e-003	0.0000	18.1715
Paving	3.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0172	0.1376	0.1335	2.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	18.0316	18.0316	5.6000e-003	0.0000	18.1715

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3.6 Paving - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.9000e-004	5.7100e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4596	1.4596	5.0000e-005	0.0000	1.4607
Total	7.7000e-004	5.9000e-004	5.7100e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4596	1.4596	5.0000e-005	0.0000	1.4607

3.7 Architectural Coating - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1213					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0138	0.0138	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190
Total	0.1233	0.0138	0.0138	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190

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3.7 Architectural Coating - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	8.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2246	0.2246	1.0000e-005	0.0000	0.2247
Total	1.2000e-004	9.0000e-005	8.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2246	0.2246	1.0000e-005	0.0000	0.2247

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1213					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0138	0.0138	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190
Total	0.1233	0.0138	0.0138	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190

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3.7 Architectural Coating - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	8.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2246	0.2246	1.0000e-005	0.0000	0.2247
Total	1.2000e-004	9.0000e-005	8.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2246	0.2246	1.0000e-005	0.0000	0.2247

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3295	4.5654	9.4847	0.0197	1.3550	0.0221	1.3771	0.3629	0.0207	0.3836	0.0000	1,822.3338	1,822.3338	0.1441	0.0000	1,825.9370
Unmitigated	1.3195	4.5000	9.2690	0.0189	1.2789	0.0213	1.3002	0.3425	0.0199	0.3624	0.0000	1,742.8450	1,742.8450	0.1405	0.0000	1,746.3565

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,959.60	5,069.16	4137.28	1,839,440	1,948,887
Gasoline/Service Station	2,696.96	2,696.96	2696.96	1,553,903	1,646,360
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	5,656.56	7,766.12	6,834.24	3,393,343	3,595,247

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Gasoline/Service Station	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Other Asphalt Surfaces	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Parking Lot	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.3702	21.3702	8.6000e-004	1.8000e-004	21.4448
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.3702	21.3702	8.6000e-004	1.8000e-004	21.4448
Natural Gas Mitigated	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	3.0000e-005	3.0000e-005	1.8207
Natural Gas Unmitigated	1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	3.0000e-005	3.0000e-005	1.8207

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	7805	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4165	0.4165	1.0000e-005	1.0000e-005	0.4190
Gasoline/Service Station	26111.7	1.4000e-004	1.2800e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3934	1.3934	3.0000e-005	3.0000e-005	1.4017
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	4.0000e-005	4.0000e-005	1.8207

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	7805	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4165	0.4165	1.0000e-005	1.0000e-005	0.4190
Gasoline/Service Station	26111.7	1.4000e-004	1.2800e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3934	1.3934	3.0000e-005	3.0000e-005	1.4017
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.8000e-004	1.6600e-003	1.4000e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8099	1.8099	4.0000e-005	4.0000e-005	1.8207

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	43960	14.3665	5.8000e- 004	1.2000e- 004	14.4166
Gasoline/Service Station	18770.6	6.1344	2.5000e- 004	5.0000e- 005	6.1558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.8693	3.0000e- 005	1.0000e- 005	0.8723
Total		21.3702	8.6000e- 004	1.8000e- 004	21.4448

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	43960	14.3665	5.8000e- 004	1.2000e- 004	14.4166
Gasoline/Service Station	18770.6	6.1344	2.5000e- 004	5.0000e- 005	6.1558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.8693	3.0000e- 005	1.0000e- 005	0.8723
Total		21.3702	8.6000e- 004	1.8000e- 004	21.4448

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003
Unmitigated	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003
Total	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003
Total	0.0333	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2800e-003	1.2800e-003	0.0000	0.0000	1.3600e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.9404	0.0136	3.4000e-004	3.3818
Unmitigated	3.2071	0.0155	3.9000e-004	3.7102

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.259254 / 0.158898	1.7624	8.5200e-003	2.1000e-004	2.0389
Gasoline/Service Station	0.21251 / 0.130248	1.4446	6.9800e-003	1.7000e-004	1.6713
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.2070	0.0155	3.8000e-004	3.7102

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.22721 / 0.158898	1.6159	7.4700e-003	1.9000e-004	1.8585
Gasoline/Service Station	0.186244 / 0.130248	1.3245	6.1200e-003	1.5000e-004	1.5234
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.9404	0.0136	3.4000e-004	3.3818

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.8853	0.2296	0.0000	9.6255
Unmitigated	3.8853	0.2296	0.0000	9.6255

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	10.52	2.1355	0.1262	0.0000	5.2905
Gasoline/Service Station	8.62	1.7498	0.1034	0.0000	4.3350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.8852	0.2296	0.0000	9.6255

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	10.52	2.1355	0.1262	0.0000	5.2905
Gasoline/Service Station	8.62	1.7498	0.1034	0.0000	4.3350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.8852	0.2296	0.0000	9.6255

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

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Equipment Type	Number
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11.0 Vegetation

Appendix A3

SCAQMD Gas and Diesel Throughput Calculations

SCAQMD Annual Emissions reporting Program (pg 11)

Underground Gasoline Tanks 6.14 lb/gal

VOC EF = 1.005 lb / 1000 gallons

Benzene 0.01005 lb / 1000 gallons

Naphthalene 0.001407 lb / 1000 gallons

Diesel 7.37 lb/gal

VOC EF = 0.028 lb / 1000 gallons

Project Annual Throughput:			Project Daily Throughput:		365
3350000 gallons	3350 1,000 gallons	3366.750 lbs/yr	9.223973 lbs/day		
	TAC	33.668 lbs/yr	0.09224 lbs/day		
	TAC	4.713 lbs/yr	0.012914 lbs/day		
250000 gallons	3350 1,000 gallons	93.800 lbs/yr	0.256986 lbs/day		
		3460.550	9.481		
	2000	1.730275 tons/yr			