

Appendix A

Air Quality Technical Memo

MEMORANDUM

To: City of Hemet
From: Samantha Wang, Dudek
Subject: Air Quality Analysis for the Hemet Retail Development Project
Date: December 23, 2020
cc: Ino Cruz, J&T Management, Inc.
Attachments: Figure 1 – Proposed Site Plan
A, CalEEMod Outputs

The purpose of this technical memorandum is to assess the air quality impacts associated with implementation of the proposed Hemet Retail Development Project (project). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and is based on the emissions-based significance thresholds established by the South Coast Air Quality Management District (SCAQMD).

1 Project Description

The project is located on the southeast corner of State Route (SR-) 74 and SR-79/Winchester Road (SR-79) in Riverside County (County). The project would consist of the development of a 2,425-square-foot fast food restaurant with drive-through; a 2,097-square-foot, 24-hour convenience market; and 30 parking spaces on 1.22 acres (Figure 1, Proposed Site Plan).

2 General Analysis and Methodology

The project site is located within the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The California Emissions Estimator Model (CalEEMod), Version 2016.3.2, was used to estimate emissions from construction of the proposed project (CAPCOA 2017). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and greenhouse gas emissions associated with construction activities and operation of a variety of land use projects such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable. Construction was assumed to commence in February 2021 and conclude in August 2021. Operation was assumed to begin in 2021 following completion of construction.

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include volatile organic compounds (VOCs; also referred to as reactive organic gases), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal

to 10 microns in size (coarse particulate matter, or PM₁₀), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or PM_{2.5}). VOCs and NO_x are important because they are precursors to ozone (O₃). Criteria air pollutant emissions associated with construction of the project were estimated for the following emission sources: operation of off-road construction equipment, paving, architectural coating, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The operational criteria air pollutant emissions were estimated from area sources, energy sources, and mobile sources.

3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality is based on the recommendations provided in CEQA Guidelines Appendix G. For the purposes of this air quality analysis, a significant impact would occur if the project would (14 CCR 15000 et seq.):

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

CEQA Guidelines Appendix G (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. This analysis focuses on addressing the potential for the project to violate any air quality standard or contribute substantially to an existing or projected air quality violation, which is determined by comparing estimated project-generated construction and operational emissions to numeric thresholds established by SCAQMD.

SCAQMD has adopted thresholds to address the significance of air quality impacts resulting from a project. A project would result in a substantial contribution to an existing air quality violation of the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) for O₃, which is a nonattainment pollutant, if the project's construction emissions would exceed SCAQMD's VOC or NO_x significance thresholds shown in Table 1. These emission-based thresholds for O₃ precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O₃ impacts to occur) because O₃ itself is not emitted directly, and the effects of an individual project's emissions of O₃ precursors (VOC and NO_x) on O₃ levels in ambient air cannot be determined through air quality models or other quantitative methods. The SCAB is also nonattainment for the state PM₁₀ and federal and state PM_{2.5} standards.

Table 1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	Construction(pounds per day)	Operation (pounds per day)
VOCs	75	55
NO _x	100	55
CO	550	550
SO _x	150	150
PM ¹⁰	150	150
PM _{2.5}	55	55
Lead ^a	3	3
TACs and Odor Thresholds		
TACs ^b	Maximum incremental cancer risk ≥10 in 1 million Cancer Burden >0.5 excess cancer cases (in areas ≥1 in 1 million) Chronic and acute hazard index ≥1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants ^c		
NO ₂ 1-hour average NO ₂ annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
PM ₁₀ 24-hour average	10.4 µg/m ³ (construction) ^d 2.5 µg/m ³ (operation)	
PM ₁₀ annual average	1.0 µg/m ³	
PM _{2.5} 24-hour average	10.4 µg/m ³ (construction) ^d 2.5 µg/m ³ (operation)	

Source: SCAQMD 2019.

Notes: VOC = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; TAC = toxic air contaminant; SCAQMD = South Coast Air Quality Management District; NO₂ = nitrogen dioxide; ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^a The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

^b TACs include carcinogens and non-carcinogens.

^c Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.

^d Ambient air quality thresholds are based on SCAQMD Rule 403.

In addition to the emission-based thresholds listed in Table 1, SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of construction and operational activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. The LST analysis focuses on construction equipment and does not include mobile sources. Therefore, the LST analysis only applies to the construction equipment on site, not the worker vehicles, vendor trucks, or hauling trucks. For

project operation, on-site area, energy, and mobile idling, and on-site travel emissions were included. For project sites of 5 acres or less, the SCAQMD LST Methodology (SCAQMD 2009) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO₂, CO, PM₁₀, and PM_{2.5}) without performing project-specific dispersion modeling. The project construction would disturb 1.22 acres, so it is appropriate to use the lookup tables for the LST evaluation.

The LST significance thresholds for NO₂ and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM₁₀ represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for PM_{2.5} is intended to ensure that construction and operational emissions do not contribute substantially to existing exceedances of the PM_{2.5} ambient air quality standards. The allowable emission rates depend on the following parameters:

- Source-receptor area (SRA) in which the project is located
- Size of the project site
- Distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals)

The project site is located in SRA 28 (Hemet/San Jacinto Valley). LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances. Because the project would disturb approximately 1.22 acres total, the 1-acre LSTs were chosen to be conservative as the thresholds are lower than the interpolated 1.22-acre or 2-acre LSTs.

The nearest sensitive-receptor land use (i.e., a residence) is located approximately 60 feet from the project site boundary. As such, the LST receptor distance was assumed to be 82 feet (25 meters), which is the closest distance provided in the lookup tables. The LST values from the SCAQMD lookup tables for SRA 28 (Hemet/San Jacinto Valley) for a 1-acre project site and a receptor distance of 25 meters are shown in Table 2.

Table 2. Localized Significance Thresholds for Source-Receptor Area 28 (Hemet/San Jacinto Valley)

Pollutant	Construction Threshold (pounds/day)	Operation Threshold (pounds/day)
NO ₂	162	162
CO	750	750
PM ₁₀	4	1
PM _{2.5}	3	1

Source: SCAQMD 2009.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter.

4 Impact Analysis

4.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project site is located within the SCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County, and is within the jurisdictional boundaries of SCAQMD.

SCAQMD administers SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining all CAAQS and NAAQS. The most recent adopted AQMP for the SCAB is the 2016 AQMP (SCAQMD 2017), which was adopted by SCAQMD's Governing Board in March 2017. The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the regional air quality plans, and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993). These criteria are:

- Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 4.2. Detailed results of this analysis are included in Attachment A. As presented in Section 4.2, construction and operation of the project would not generate criteria air pollutant emissions that exceed SCAQMD's thresholds.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2016). SCAQMD uses this document, which is based on general plans for cities and counties in the

SCAB, to develop the AQMP emissions inventory (SCAQMD 2017).¹ The SCAG 2016 RTP/SCS and the associated Regional Growth Forecast are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

Existing zoning designation for the project site is Scenic Highway Commercial (C-P-S). The project land uses and development concepts would be permitted or conditionally permitted under the existing zoning designation. The proposed project would be developed consistent with all development standards established for the C-P-S zoning designation and all applicable regulations in the County's Municipal Code. The project is consistent with the existing zoning designation and does not propose a change in the zoning designation. Accordingly, the project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

In summary, based on the considerations presented for the two criteria, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

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

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether proposed construction activities would result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SCAB is designated as nonattainment under the NAAQS or CAAQS. Criteria air pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}), and lead. Pollutants that are evaluated herein include VOCs and oxides of nitrogen (NO_x), which are important because they are precursors to O₃, as well as CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

¹ Information necessary to produce the emissions inventory for the SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), California Department of Transportation, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

Short-Term Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

CalEEMod Version 2016.3.2 was used to estimate emissions from construction of the project. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter less than or equal to 10 microns in diameter (PM₁₀), and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). PM₁₀ and PM_{2.5} emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. Grading would occur over the 1.22-acre project site and balanced cut and fill.

The assumed construction equipment mix and estimated hours of operation per day for estimating the construction emissions of the proposed project are based on project-specific information and CalEEMod default assumptions and are shown in Table 3. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week during project construction. Off-road equipment type and operating hours per day were provided by the applicant.

Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. PM₁₀ and PM_{2.5} emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil.

The project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The project would involve application of architectural coating (e.g., paint and other finishes) for the buildings. The contractor is required to procure architectural coatings from a supplier that complies with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).

Table 3. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment			Schedule	
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Types	Quantity	Usage Hours	Start Date	Finish Date
Grading	10	0	0	Tractors/loaders/backhoes	1	6	2/15/2021	4/2/2021
				Graders	1	8		
				Excavators	2	4		
Building Construction	10	2	0	Cranes	1	4	4/5/2021	7/2/2021
				Forklifts	1	6		
				Welders	2	4		
Paving	8	0	0	Pavers	1	6	7/5/2021	7/23/2021
				Cement and mortar mixer	1	6		
				Rollers	1	7		
				Tractors/loaders/backhoes	1	5		
Architectural Coating	2	0	0	Air compressors	1	6	6/5/2021	8/2/2021

Source: See Attachment A for details.

Table 4 presents the estimated maximum daily construction emissions generated during construction of the project. Details of the emission calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds per day					
2021	1.67	9.53	7.77	0.02	0.54	0.39
SCAQMD Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District. See Attachment A for complete results.

As shown in Table 4, the project construction would not exceed SCAQMD's daily thresholds. Therefore, short-term impacts associated with cumulatively considerable net increase of any criteria air pollutant for which the project region is in nonattainment would be less than significant.

Long-Term Operational Emissions

Emissions from the operational phase of the project were estimated using CalEEMod. Operational year 2021 was assumed following completion of construction.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SCAQMD's Rule 1113 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SCAQMD 2016). The default CalEEMod assumptions were used for architectural coatings. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the

floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2017). CalEEMod defaults were assumed for the application of architectural coatings during operation.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Based on CalEEMod defaults for Riverside County, the average annual number of summer days is estimated at 250 days (CAPCOA 2017).

Mobile Sources

Following the completion of construction activities, the project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the motor vehicles (automobiles, light-duty trucks, and heavy-duty trucks) traveling to and from the project site. The maximum daily trip rates were taken from the Traffic Impact Analysis for the project (Rick Engineering 2018).² The assumed Saturday and Sunday trip rates were adjusted in proportion to the CalEEMod default weekday, Saturday, and Sunday trip rates as well as the Traffic Impact Analysis weekday trip rate. The estimated trip lengths and trip modes were based on CalEEMod defaults. CalEEMod was used to estimate emissions from proposed vehicular sources (refer to Attachment A). CalEEMod default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated uses, as modeled within CalEEMod, which is based on the California Air Resources Board (CARB) EMFAC2014 model. Emission factors representing the vehicle mix and emissions for 2021 were used to estimate emissions associated with vehicular sources from the project. Table 5 presents the emissions during operation. Passenger vehicle fast food drive-through idling, delivery truck idling, and transport refrigeration unit (TRU) idling were calculated using a spreadsheet-based model and EMFAC2017 and OFFROAD2017 emission factors for 2021. CalEEMod modeled mobile emissions were added to the estimated drive-through and delivery idling and TRU emissions to predict the overall mobile emissions generated for the operation of the project.

Vehicle emissions occur during operation (running) and idling, when the vehicles are stationary and at low speed in the fast food restaurant drive-through cues. To estimate the emissions of drive-through operations, emissions factors for trucks and passenger vehicles were determined using EMFAC2017 emission rates for RUNEX (g/mile) at 5 mph, the lowest speed available in EMFAC2017. Heavy heavy-duty and medium heavy-duty class of vehicles were not included as they are not capable drive-through operations. For this analysis, Riverside County was selected for the region, and calendar year 2021 was selected in EMFAC to represent the project operational start year. The RUNEX emissions were applied with an estimated 5-minute drive-through duration and 5 mph speed rate to estimate emissions for VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5}. These emissions represent the drive-through mobile source emissions and were added to the CalEEMod mobile source emissions.

² The slight variation in building square footage analyzed in the Traffic Impact Analysis as compared to the project description is minor and would not impact results determined in the Traffic Impact Analysis. The project total trips in the air quality analysis is consistent with the building square footage in the project description.

Project delivery truck idling would be limited to 5 minutes in accordance with CARB's adopted Airborne Toxic Control Measure; however, for modeling purposes, it was conservatively assumed that the delivery trucks would idle for 15 minutes during loading and prior to exiting the project site. TRUs are designed to maintain the temperature inside delivery truck trailers. Electric plug-ins are available at the loading dock; therefore, each TRU was assumed to operate for 30 minutes per visit. Estimated delivery truck idling emissions are added to the CalEEMod and drive-through mobile source emissions. Details of the calculations are included in Appendix A.

Table 5. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions

Emissions Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per Day					
Area	0.11	<0.01	<0.01	0.00	<0.01	<0.01
Energy	0.02	0.18	0.15	<0.01	0.01	0.01
Mobile	5.86	36.36	41.45	0.16	8.64	2.39
Total	5.99	36.54	41.6	0.16	8.65	2.4
<i>SCAQMD Threshold</i>	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.

See Attachment A for complete results.

Mobile emissions include drive-through vehicle idling and delivery truck and TRU idling emissions.

As shown in Table 5, the project would not exceed SCAQMD's significance thresholds during operations.

Cumulative localized impacts would potentially occur if a project were to occur concurrently with another off-site project. Schedules for potential future projects near the project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.³ However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM₁₀ and PM_{2.5} emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all sites in the SCAQMD. In addition, cumulative VOC emissions would be subject to SCAQMD Rule 1113 (Architectural Coatings).

Therefore, long-term impacts associated with a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment would be less than significant.

³ The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

4.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest off-site sensitive receptors (residences) to the project site include residences located approximately 60 feet south of the project site boundary.

Localized Significance Thresholds

Construction activities associated with the project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis. The maximum allowable daily emissions that would satisfy the SCAQMD localized significance criteria for SRA 28 are presented in Table 6 and compared to the maximum daily on-site construction and operational emissions.

Table 6. Localized Significance Thresholds Analysis for Project

	NO ₂	CO	PM ₁₀	PM _{2.5}
Maximum On-Site Emissions	Pounds per Day			
Construction Emissions	9.49	7.29	0.39	0.35
SCAQMD LST	162	750	4	3
LST Exceeded?	No	No	No	No
Operational Emissions	2.00	2.22	0.44	0.13
SCAQMD LST	162	750	1	1
LST Exceeded?	No	No	No	No

Source: SCAQMD 2009.

Notes: LST = localized significance threshold; NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter.

See Attachment A for detailed results.

LSTs are shown for 1-acre project site corresponding to a distance to a sensitive receptor of 25 meters (82 feet) for SRA 28 (Hemet/San Jacinto Valley).

The construction emission estimates reflect control of fugitive dust required by Rule 403.

As shown in Table 6, the project LST would not exceed the established localized significance thresholds, and thus, would result in a less-than-significant impact to sensitive receptors.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO “hotspots.” CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels affecting sensitive receptors. Typically, high CO concentrations are associated with severely

congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Title 40 of the Code of Federal Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM₁₀, and PM_{2.5} Concentrations (Hot-Spot Analysis), states that:

CO, PM₁₀, and PM_{2.5} hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.

While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 6 months and would not require a project-level construction hotspot analysis.

Mobile source impacts occur on two scales of motion. Regionally, project-related travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SCAB. Locally, project-generated traffic would be added to the City's roadway system near the project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing.

At the time that the SCAQMD 1993 Handbook was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP (Appendix V: Modeling and Attainment Demonstrations, SCAQMD 2003b) for the four worst-case intersections in the SCAB: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 parts per million (ppm) at the intersection of Wilshire Boulevard and Veteran Avenue. When added to the maximum 1-hour CO concentration from 2017 through 2019 at the Lake Elsinore monitoring station, which was 1.6 ppm in 2019, the 1-hour CO would be 6.2 ppm, while the CAAQS is 20 ppm.

The 2003 AQMP also projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 ppm at the Sunset Boulevard and Highland Avenue intersection in 2002; the maximum 8-hour CO concentration was 3.4 ppm at the Wilshire Boulevard and Veteran Avenue in 2002. Adding the 3.8 ppm to the maximum 8-hour CO concentration

from 2017 through 2019 at the Lake Elsinore monitoring station, which was 0.8 ppm in 2017 and 2018, the 8-hour CO would be 4.6 ppm, while the CAAQS is 9.0 ppm.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. The project would not increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day (Rick Engineering 2018). Based on these considerations, the project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Short-Term Construction Impacts

Project construction would result in emissions of diesel particulate from heavy construction equipment and trucks accessing the site. Diesel particulate is characterized as a TAC by the State of California. The Office of Environmental Health Hazard Assessment has identified carcinogenic and chronic noncarcinogenic effects from long-term exposure, but has not identified health effects due to short-term exposure to diesel exhaust. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of the proposed construction activities would only constitute a small percentage of the total 30-year exposure period. Due to this relatively short period of exposure (6 months) and minimal particulate emissions on site, TACs generated by the project would not result in concentrations causing significant health risks. In addition, diesel equipment would also be subject to CARB’s Airborne Toxic Control Measures for in-use off-road diesel fleets, which would minimize diesel particulate matter emissions. Overall, based on the above considerations, the

project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed project, and impacts would be less than significant.

Long-Term Operational Impacts

Additionally, the health risk public-notification thresholds adopted by the SCAQMD Board is 10 excess cancer cases in a million for cancer risk and a hazard index of more than one (1.0) for non-cancer risk. The hazard index of more than 1.0 means that predicted levels of a toxic pollutant are greater than the reference exposure level, which is considered the level below which adverse health effects are not expected. Examples of projects that emit toxic pollutants include oil and gas processing, gasoline dispensing, dry cleaning, electronic and parts manufacturing, medical equipment sterilization, freeways, and rail yards (SCAQMD 2017). The project would emit diesel particulate matter from diesel delivery trucks, TRUs, and diesel vehicles accessing the project site; however, based on the CARB CEQA Land Use Handbook (CARB 2005), which recommends avoiding siting new sensitive land uses of a distribution center that accommodates more than 100 trucks per day or more than 40 TRUs per day, the project would not exceed the recommended limits. Furthermore, the project does not include any stationary sources; as such, a formal health risk assessment will not be required for the project. Accordingly, the project is not anticipated to result in emissions that would exceed the SCAQMD Board-adopted health risk notification thresholds. Thus, impacts would be less than significant.

Health Effects

Construction of the project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

The SCAB is designated as nonattainment for O₃ for the NAAQS and CAAQS. Thus, existing O₃ levels in the SCAB are at unhealthy levels during certain periods. The health effects associated with O₃ generally relate to reduced lung function. Because the project would not involve construction activities that would result in O₃ precursor emissions (VOC or NO_x) that would exceed the SCAQMD thresholds, the project is not anticipated to substantially contribute to regional O₃ concentrations and associated health impacts. Similar to construction, no SCAQMD threshold would be exceeded during operation.

In addition to O₃, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for nitrogen dioxide (NO₂). Exposure to NO₂ and NO_x can cause lung irritation, bronchitis, and pneumonia, and lower resistance to respiratory infections. Project construction and operation would not exceed the SCAQMD NO_x threshold, and existing ambient NO₂ concentrations are below the NAAQS and CAAQS. Thus, construction and operation of the project are not expected to exceed the NO₂ standards or contribute to associated health effects.

CO tends to be a localized impact associated with congested intersections. CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. CO hotspots were discussed previously as a less-than-significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM₁₀ under the CAAQS and nonattainment for PM_{2.5} under the NAAQS and CAAQS. Particulate matter contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of

problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (EPA 2016). As with O₃ and NO_x, the project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed SCAQMD's thresholds. Accordingly, the project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, the project would not result in any potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, impacts associated with localized air emissions would be less than significant.

4.4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Short-Term Construction Impacts

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, short-term construction impacts associated with odors would be less than significant.

Long-Term Operational Impacts

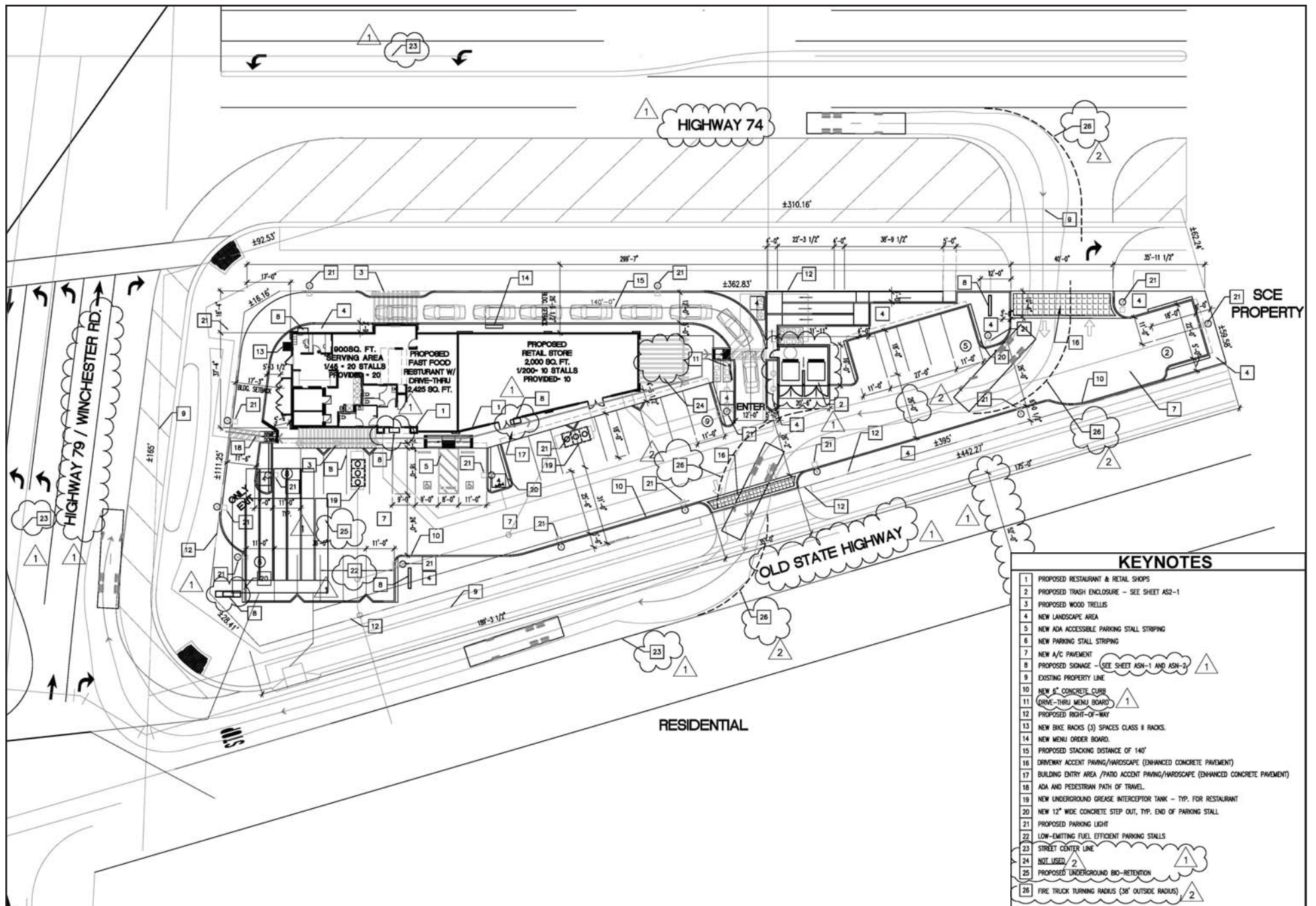
Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). The project is not considered a land use associated with odor complaints; furthermore, the project commercial cooking operations and equipment, including charbroilers, would be required to comply with SCAQMD permitting and rule requirements, including Rule 402, Nuisance, and Rule 1138, Control of Emissions from Restaurant Operations. Therefore, there would be no long-term operational impacts associated with odors and impacts are less than significant.

5 References

14 CCR 15000–15387 and Appendices A–N. Guidelines for Implementation of the California Environmental Quality Act, as amended.

CAPCOA (California Air Pollution Control Officers Association). 2017. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2*. Prepared by Trinity Consultants and the California Air Districts. November 2017. Accessed May 2018. <http://www.caleemod.com/>.

- EPA (U.S. Environmental Protection Agency). 2016. "Health and Environmental Effects of Particulate Matter (PM)." Accessed August 6, 2020. <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>.
- Rick Engineering. 2018. *Highway 74/79 (Hemet Retail Development) Traffic Impact Analysis*. July 23, 2018.
- SCAG (Southern California Association of Governments). 2016. *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*. Adopted April 7, 2016. Accessed May 2018. <http://scagrtpscscs.net/Pages/FINAL2016RTPSCS.aspx>.
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- SCAQMD. 2009. *Final Localized Significance Threshold Methodology*. July. Accessed May 2018. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2>.
- SCAQMD. 2016. Rule 1113 Architectural Coatings. February 5, 2016. Accessed May 2018. <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=17>.
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- SCAQMD. 2019. "SCAQMD Air Quality Significance Thresholds." Originally published in *CEQA Air Quality Handbook*, Table A9-11-A. Revised April 2019. Accessed March 2020. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.



Source: Absolute Design Methods 2018.

FIGURE 1
Proposed Site Plan



Attachment A

CalEEMod Outputs

Hemet Retail Unmit - Riverside-South Coast County, Annual

Hemet Retail Unmit
Riverside-South Coast County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	2.10	1000sqft	0.05	2,097.00	0
Fast Food Restaurant with Drive Thru	2.43	1000sqft	0.06	2,425.00	0
Parking Lot	31.00	Space	0.28	12,400.00	0
Other Asphalt Surfaces	22.16	1000sqft	0.51	22,160.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.14	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Adjusted RPS 2021

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Architectural Coating - SCAQMD R1113

Vehicle Trips - Scaled based on project-specific traffic report.

Area Coating - SCAQMD R1113

Energy Use - Adjust 2019 Title 24 standards 30% less electricity use.

Construction Off-road Equipment Mitigation - Dust control measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	41.00
tblConstructionPhase	NumDays	100.00	65.00
tblConstructionPhase	NumDays	2.00	35.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	7/21/2021	8/2/2021
tblConstructionPhase	PhaseEndDate	7/7/2021	7/2/2021

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tblConstructionPhase	PhaseEndDate	2/17/2021	4/2/2021
tblConstructionPhase	PhaseEndDate	7/14/2021	7/23/2021
tblConstructionPhase	PhaseStartDate	7/15/2021	6/5/2021
tblConstructionPhase	PhaseStartDate	2/18/2021	4/5/2021
tblConstructionPhase	PhaseStartDate	2/16/2021	2/15/2021
tblConstructionPhase	PhaseStartDate	7/8/2021	7/5/2021
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	6.62	4.63
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	12.38	8.67
tblGrading	AcresOfGrading	17.50	1.22
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.14
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

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tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	6.00	2.00
tblTripsAndVMT	WorkerTripNumber	16.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	863.10	823.18
tblVehicleTrips	ST_TR	722.03	744.36
tblVehicleTrips	SU_TR	758.45	723.37
tblVehicleTrips	SU_TR	542.72	559.51
tblVehicleTrips	WD_TR	737.99	703.85
tblVehicleTrips	WD_TR	496.12	511.46

2.0 Emissions Summary

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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					
2021	0.0622	0.4008	0.3387	6.8000e-004	0.0100	0.0183	0.0283	2.5700e-003	0.0172	0.0198	0.0000	58.8568	58.8568	0.0139	0.0000	59.2036
Maximum	0.0622	0.4008	0.3387	6.8000e-004	0.0100	0.0183	0.0283	2.5700e-003	0.0172	0.0198	0.0000	58.8568	58.8568	0.0139	0.0000	59.2036

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					
2021	0.0622	0.4008	0.3387	6.8000e-004	9.6600e-003	0.0183	0.0280	2.5300e-003	0.0172	0.0197	0.0000	58.8568	58.8568	0.0139	0.0000	59.2035
Maximum	0.0622	0.4008	0.3387	6.8000e-004	9.6600e-003	0.0183	0.0280	2.5300e-003	0.0172	0.0197	0.0000	58.8568	58.8568	0.0139	0.0000	59.2035

	ROG	NOx	CO	SO2	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	0.02	0.00	0.00	0.00	3.50	0.00	1.24	1.56	0.00	0.20	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	2-1-2021	4-30-2021	0.2278	0.2278
2	5-1-2021	7-31-2021	0.2192	0.2192
3	8-1-2021	9-30-2021	0.0018	0.0018
		Highest	0.2278	0.2278

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	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Energy	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	62.6772	62.6772	1.8200e-003	8.8000e-004	62.9855
Mobile	0.6716	5.2800	5.2197	0.0199	1.2215	0.0143	1.2358	0.3273	0.0134	0.3407	0.0000	1,853.2958	1,853.2958	0.1568	0.0000	1,857.2149
Waste						0.0000	0.0000		0.0000	0.0000	6.9403	0.0000	6.9403	0.4102	0.0000	17.1942
Water						0.0000	0.0000		0.0000	0.0000	0.2824	2.8325	3.1149	0.0291	7.1000e-004	4.0541
Total	0.6954	5.3128	5.2479	0.0201	1.2215	0.0168	1.2383	0.3273	0.0159	0.3432	7.2227	1,918.8069	1,926.0296	0.5979	1.5900e-003	1,941.4503

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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	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Energy	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	62.6772	62.6772	1.8200e-003	8.8000e-004	62.9855
Mobile	0.6716	5.2800	5.2197	0.0199	1.2215	0.0143	1.2358	0.3273	0.0134	0.3407	0.0000	1,853.2958	1,853.2958	0.1568	0.0000	1,857.2149
Waste						0.0000	0.0000		0.0000	0.0000	6.9403	0.0000	6.9403	0.4102	0.0000	17.1942
Water						0.0000	0.0000		0.0000	0.0000	0.2824	2.8325	3.1149	0.0291	7.1000e-004	4.0541
Total	0.6954	5.3128	5.2479	0.0201	1.2215	0.0168	1.2383	0.3273	0.0159	0.3432	7.2227	1,918.8069	1,926.0296	0.5979	1.5900e-003	1,941.4503

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/15/2021	4/2/2021	5	35	
2	Building Construction	Building Construction	4/5/2021	7/2/2021	5	65	
3	Paving	Paving	7/5/2021	7/23/2021	5	15	
4	Architectural Coating	Architectural Coating	6/5/2021	8/2/2021	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.79

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,783; Non-Residential Outdoor: 2,261; Striped Parking Area: 2,074 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Grading	Excavators	2	4.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Building Construction	Welders	2	4.00	46	0.45
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	10.00	2.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Grading - 2021**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					6.5000e-004	0.0000	6.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1661	0.1180	2.5000e-004		6.5800e-003	6.5800e-003		6.0500e-003	6.0500e-003	0.0000	21.7183	21.7183	7.0200e-003	0.0000	21.8939
Total	0.0144	0.1661	0.1180	2.5000e-004	6.5000e-004	6.5800e-003	7.2300e-003	7.0000e-005	6.0500e-003	6.1200e-003	0.0000	21.7183	21.7183	7.0200e-003	0.0000	21.8939

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	9.5000e-004	6.6000e-004	7.1700e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0833	2.0833	5.0000e-005	0.0000	2.0845
Total	9.5000e-004	6.6000e-004	7.1700e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0833	2.0833	5.0000e-005	0.0000	2.0845

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3.2 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-004	0.0000	2.9000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1661	0.1180	2.5000e-004		6.5800e-003	6.5800e-003		6.0500e-003	6.0500e-003	0.0000	21.7183	21.7183	7.0200e-003	0.0000	21.8939
Total	0.0144	0.1661	0.1180	2.5000e-004	2.9000e-004	6.5800e-003	6.8700e-003	3.0000e-005	6.0500e-003	6.0800e-003	0.0000	21.7183	21.7183	7.0200e-003	0.0000	21.8939

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	9.5000e-004	6.6000e-004	7.1700e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0833	2.0833	5.0000e-005	0.0000	2.0845
Total	9.5000e-004	6.6000e-004	7.1700e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0833	2.0833	5.0000e-005	0.0000	2.0845

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3.3 Building Construction - 2021**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	0.0197	0.1586	0.1166	2.1000e-004		7.6500e-003	7.6500e-003		7.2300e-003	7.2300e-003	0.0000	17.6273	17.6273	4.5200e-003	0.0000	17.7403
Total	0.0197	0.1586	0.1166	2.1000e-004		7.6500e-003	7.6500e-003		7.2300e-003	7.2300e-003	0.0000	17.6273	17.6273	4.5200e-003	0.0000	17.7403

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	1.6000e-004	6.3200e-003	1.2200e-003	2.0000e-005	4.7000e-004	1.0000e-005	4.8000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	1.7502	1.7502	1.2000e-004	0.0000	1.7533
Worker	1.7600e-003	1.2300e-003	0.0133	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.8690	3.8690	9.0000e-005	0.0000	3.8712
Total	1.9200e-003	7.5500e-003	0.0145	6.0000e-005	5.2800e-003	4.0000e-005	5.3200e-003	1.4200e-003	4.0000e-005	1.4500e-003	0.0000	5.6192	5.6192	2.1000e-004	0.0000	5.6245

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3.3 Building Construction - 2021**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	0.0197	0.1586	0.1166	2.1000e-004		7.6500e-003	7.6500e-003		7.2300e-003	7.2300e-003	0.0000	17.6273	17.6273	4.5200e-003	0.0000	17.7403
Total	0.0197	0.1586	0.1166	2.1000e-004		7.6500e-003	7.6500e-003		7.2300e-003	7.2300e-003	0.0000	17.6273	17.6273	4.5200e-003	0.0000	17.7403

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	1.6000e-004	6.3200e-003	1.2200e-003	2.0000e-005	4.7000e-004	1.0000e-005	4.8000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	1.7502	1.7502	1.2000e-004	0.0000	1.7533
Worker	1.7600e-003	1.2300e-003	0.0133	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.8690	3.8690	9.0000e-005	0.0000	3.8712
Total	1.9200e-003	7.5500e-003	0.0145	6.0000e-005	5.2800e-003	4.0000e-005	5.3200e-003	1.4200e-003	4.0000e-005	1.4500e-003	0.0000	5.6192	5.6192	2.1000e-004	0.0000	5.6245

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3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8400e-003	0.0382	0.0410	6.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	5.3722	5.3722	1.6800e-003	0.0000	5.4142
Paving	1.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.8700e-003	0.0382	0.0410	6.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	5.3722	5.3722	1.6800e-003	0.0000	5.4142

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	3.3000e-004	2.3000e-004	2.4600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7143	0.7143	2.0000e-005	0.0000	0.7147
Total	3.3000e-004	2.3000e-004	2.4600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7143	0.7143	2.0000e-005	0.0000	0.7147

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3.4 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8400e-003	0.0382	0.0410	6.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	5.3722	5.3722	1.6800e-003	0.0000	5.4142
Paving	1.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.8700e-003	0.0382	0.0410	6.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	5.3722	5.3722	1.6800e-003	0.0000	5.4142

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	3.3000e-004	2.3000e-004	2.4600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7143	0.7143	2.0000e-005	0.0000	0.7147
Total	3.3000e-004	2.3000e-004	2.4600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7143	0.7143	2.0000e-005	0.0000	0.7147

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3.5 Architectural Coating - 2021**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	0.0153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4900e-003	0.0313	0.0373	6.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	5.2342	5.2342	3.6000e-004	0.0000	5.2432
Total	0.0198	0.0313	0.0373	6.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	5.2342	5.2342	3.6000e-004	0.0000	5.2432

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	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884
Total	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884

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3.5 Architectural Coating - 2021**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	0.0153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4900e-003	0.0313	0.0373	6.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	5.2342	5.2342	3.6000e-004	0.0000	5.2431
Total	0.0198	0.0313	0.0373	6.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	5.2342	5.2342	3.6000e-004	0.0000	5.2431

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	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884
Total	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6716	5.2800	5.2197	0.0199	1.2215	0.0143	1.2358	0.3273	0.0134	0.3407	0.0000	1,853.2958	1,853.2958	0.1568	0.0000	1,857.2149
Unmitigated	0.6716	5.2800	5.2197	0.0199	1.2215	0.0143	1.2358	0.3273	0.0134	0.3407	0.0000	1,853.2958	1,853.2958	0.1568	0.0000	1,857.2149

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	1,475.97	1,726.21	1516.91	1,529,435	1,529,435
Fast Food Restaurant with Drive Thru	1,240.29	1,805.07	1356.81	1,669,742	1,669,742
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,716.26	3,531.28	2,873.72	3,199,178	3,199,178

4.3 Trip Type Information

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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 (24 Hour)	18.50	10.10	7.90	0.90	80.10	19.00	24	15	61
Fast Food Restaurant with Drive Thru	18.50	10.10	7.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.0437	27.0437	1.1400e-003	2.3000e-004	27.1402
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.0437	27.0437	1.1400e-003	2.3000e-004	27.1402
Natural Gas Mitigated	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6335	35.6335	6.8000e-004	6.5000e-004	35.8453
Natural Gas Unmitigated	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6335	35.6335	6.8000e-004	6.5000e-004	35.8453

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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 (24 Hour)	4655.34	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2484	0.2484	0.0000	0.0000	0.2499
Fast Food Restaurant with Drive Thru	663092	3.5800e-003	0.0325	0.0273	2.0000e-004		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	35.3851	35.3851	6.8000e-004	6.5000e-004	35.5954
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		3.6100e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6335	35.6335	6.8000e-004	6.5000e-004	35.8453

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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 (24 Hour)	4655.34	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2484	0.2484	0.0000	0.0000	0.2499
Fast Food Restaurant with Drive Thru	663092	3.5800e-003	0.0325	0.0273	2.0000e-004		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	35.3851	35.3851	6.8000e-004	6.5000e-004	35.5954
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		3.6100e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6335	35.6335	6.8000e-004	6.5000e-004	35.8453

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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 (24 Hour)	20089.3	4.3205	1.8000e-004	4.0000e-005	4.3359
Fast Food Restaurant with Drive Thru	101317	21.7898	9.2000e-004	1.8000e-004	21.8675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4340	0.9334	4.0000e-005	1.0000e-005	0.9367
Total		27.0437	1.1400e-003	2.3000e-004	27.1402

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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 (24 Hour)	20089.3	4.3205	1.8000e-004	4.0000e-005	4.3359
Fast Food Restaurant with Drive Thru	101317	21.7898	9.2000e-004	1.8000e-004	21.8675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4340	0.9334	4.0000e-005	1.0000e-005	0.9367
Total		27.0437	1.1400e-003	2.3000e-004	27.1402

6.0 Area Detail**6.1 Mitigation Measures Area**

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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	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Unmitigated	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-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	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Total	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-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	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Total	0.0202	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Hemet Retail Unmit - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.1149	0.0291	7.1000e-004	4.0541
Unmitigated	3.1149	0.0291	7.1000e-004	4.0541

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.155552 / 0.0953385	0.7128	5.1000e-003	1.3000e-004	0.8775
Fast Food Restaurant with Drive Thru	0.734552 / 0.0468863	2.4021	0.0240	5.8000e-004	3.1766
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		3.1149	0.0291	7.1000e-004	4.0541

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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 (24 Hour)	0.155552 / 0.0953385	0.7128	5.1000e-003	1.3000e-004	0.8775
Fast Food Restaurant with Drive Thru	0.734552 / 0.0468863	2.4021	0.0240	5.8000e-004	3.1766
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		3.1149	0.0291	7.1000e-004	4.0541

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Hemet Retail Unmit - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9403	0.4102	0.0000	17.1942
Unmitigated	6.9403	0.4102	0.0000	17.1942

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	6.31	1.2809	0.0757	0.0000	3.1733
Fast Food Restaurant with Drive Thru	27.88	5.6594	0.3345	0.0000	14.0209
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		6.9403	0.4102	0.0000	17.1942

Hemet Retail Unmit - Riverside-South Coast County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	6.31	1.2809	0.0757	0.0000	3.1733
Fast Food Restaurant with Drive Thru	27.88	5.6594	0.3345	0.0000	14.0209
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		6.9403	0.4102	0.0000	17.1942

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

Hemet Retail Unmit - Riverside-South Coast County, Annual

Equipment Type	Number
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11.0 Vegetation

Hemet Retail Unmit - Riverside-South Coast County, Summer

Hemet Retail Unmit

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	2.10	1000sqft	0.05	2,097.00	0
Fast Food Restaurant with Drive Thru	2.43	1000sqft	0.06	2,425.00	0
Parking Lot	31.00	Space	0.28	12,400.00	0
Other Asphalt Surfaces	22.16	1000sqft	0.51	22,160.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.14	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Hemet Retail Unmit - Riverside-South Coast County, Summer

Project Characteristics - Adjusted RPS 2021

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Architectural Coating - SCAQMD R1113

Vehicle Trips - Scaled based on project-specific traffic report.

Area Coating - SCAQMD R1113

Energy Use - Adjust 2019 Title 24 standards 30% less electricity use.

Construction Off-road Equipment Mitigation - Dust control measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	41.00
tblConstructionPhase	NumDays	100.00	65.00
tblConstructionPhase	NumDays	2.00	35.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	7/21/2021	8/2/2021
tblConstructionPhase	PhaseEndDate	7/7/2021	7/2/2021

Hemet Retail Unmit - Riverside-South Coast County, Summer

tblConstructionPhase	PhaseEndDate	2/17/2021	4/2/2021
tblConstructionPhase	PhaseEndDate	7/14/2021	7/23/2021
tblConstructionPhase	PhaseStartDate	7/15/2021	6/5/2021
tblConstructionPhase	PhaseStartDate	2/18/2021	4/5/2021
tblConstructionPhase	PhaseStartDate	2/16/2021	2/15/2021
tblConstructionPhase	PhaseStartDate	7/8/2021	7/5/2021
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	6.62	4.63
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	12.38	8.67
tblGrading	AcresOfGrading	17.50	1.22
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.14
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

Hemet Retail Unmit - Riverside-South Coast County, Summer

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	6.00	2.00
tblTripsAndVMT	WorkerTripNumber	16.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	863.10	823.18
tblVehicleTrips	ST_TR	722.03	744.36
tblVehicleTrips	SU_TR	758.45	723.37
tblVehicleTrips	SU_TR	542.72	559.51
tblVehicleTrips	WD_TR	737.99	703.85
tblVehicleTrips	WD_TR	496.12	511.46

2.0 Emissions Summary

Hemet Retail Unmit - Riverside-South Coast County, 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					
2021	1.6731	9.5272	7.7704	0.0156	0.1953	0.3768	0.5643	0.0521	0.3511	0.3910	0.0000	1,510.6684	1,510.6684	0.4458	0.0000	1,521.8133
Maximum	1.6731	9.5272	7.7704	0.0156	0.1953	0.3768	0.5643	0.0521	0.3511	0.3910	0.0000	1,510.6684	1,510.6684	0.4458	0.0000	1,521.8133

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					
2021	1.6731	9.5272	7.7704	0.0156	0.1953	0.3768	0.5439	0.0521	0.3511	0.3910	0.0000	1,510.668 4	1,510.668 4	0.4458	0.0000	1,521.813 3
Maximum	1.6731	9.5272	7.7704	0.0156	0.1953	0.3768	0.5439	0.0521	0.3511	0.3910	0.0000	1,510.668 4	1,510.668 4	0.4458	0.0000	1,521.813 3

[illegible]

Hemet Retail Unmit - Riverside-South Coast County, 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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Energy	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
Mobile	5.5562	35.9255	37.4604	0.1443	8.5160	0.0968	8.6128	2.2786	0.0907	2.3693		14,780.1025	14,780.1025	1.1407		14,808.6208
Total	5.6866	36.1049	37.6169	0.1453	8.5160	0.1105	8.6264	2.2786	0.1044	2.3830		14,995.3439	14,995.3439	1.1449	3.9500e-003	15,025.1421

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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Energy	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
Mobile	5.5562	35.9255	37.4604	0.1443	8.5160	0.0968	8.6128	2.2786	0.0907	2.3693		14,780.1025	14,780.1025	1.1407		14,808.6208
Total	5.6866	36.1049	37.6169	0.1453	8.5160	0.1105	8.6264	2.2786	0.1044	2.3830		14,995.3439	14,995.3439	1.1449	3.9500e-003	15,025.1421

Hemet Retail Unmit - Riverside-South Coast County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/15/2021	4/2/2021	5	35	
2	Building Construction	Building Construction	4/5/2021	7/2/2021	5	65	
3	Paving	Paving	7/5/2021	7/23/2021	5	15	
4	Architectural Coating	Architectural Coating	6/5/2021	8/2/2021	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.79

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,783; Non-Residential Outdoor: 2,261; Striped Parking Area: 2,074 (Architectural Coating – sqft)

OffRoad Equipment

Hemet Retail Unmit - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Grading	Excavators	2	4.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Building Construction	Welders	2	4.00	46	0.45
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	10.00	2.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.2 Grading - 2021**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					0.0370	0.0000	0.0370	3.9900e-003	0.0000	3.9900e-003			0.0000			0.0000
Off-Road	0.8223	9.4918	6.7449	0.0141		0.3759	0.3759		0.3458	0.3458		1,368.0175	1,368.0175	0.4424		1,379.0786
Total	0.8223	9.4918	6.7449	0.0141	0.0370	0.3759	0.4129	3.9900e-003	0.3458	0.3498		1,368.0175	1,368.0175	0.4424		1,379.0786

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	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347
Total	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.2 Grading - 2021**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					0.0166	0.0000	0.0166	1.8000e-003	0.0000	1.8000e-003			0.0000			0.0000
Off-Road	0.8223	9.4918	6.7449	0.0141		0.3759	0.3759		0.3458	0.3458	0.0000	1,368.0175	1,368.0175	0.4424		1,379.0786
Total	0.8223	9.4918	6.7449	0.0141	0.0166	0.3759	0.3925	1.8000e-003	0.3458	0.3476	0.0000	1,368.0175	1,368.0175	0.4424		1,379.0786

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	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347
Total	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.3 Building Construction - 2021**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	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224		597.8702	597.8702	0.1533		601.7022
Total	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224		597.8702	597.8702	0.1533		601.7022

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	4.9300e-003	0.1927	0.0347	5.7000e-004	0.0147	4.0000e-004	0.0151	4.2200e-003	3.8000e-004	4.6000e-003		60.2247	60.2247	3.9900e-003		60.3245
Worker	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347
Total	0.0639	0.2281	0.5196	2.0000e-003	0.1652	1.2700e-003	0.1664	0.0441	1.1800e-003	0.0453		202.8756	202.8756	7.3400e-003		203.0592

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.3 Building Construction - 2021**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	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224	0.0000	597.8702	597.8702	0.1533		601.7022
Total	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224	0.0000	597.8702	597.8702	0.1533		601.7022

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	4.9300e-003	0.1927	0.0347	5.7000e-004	0.0147	4.0000e-004	0.0151	4.2200e-003	3.8000e-004	4.6000e-003		60.2247	60.2247	3.9900e-003		60.3245
Worker	0.0590	0.0354	0.4850	1.4300e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		142.6509	142.6509	3.3500e-003		142.7347
Total	0.0639	0.2281	0.5196	2.0000e-003	0.1652	1.2700e-003	0.1664	0.0441	1.1800e-003	0.0453		202.8756	202.8756	7.3400e-003		203.0592

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.4 Paving - 2021**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	0.5116	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562		789.5732	789.5732	0.2470		795.7493
Paving	0.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6496	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562		789.5732	789.5732	0.2470		795.7493

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	0.0472	0.0283	0.3880	1.1500e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		114.1207	114.1207	2.6800e-003		114.1878
Total	0.0472	0.0283	0.3880	1.1500e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		114.1207	114.1207	2.6800e-003		114.1878

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.4 Paving - 2021**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	0.5116	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562	0.0000	789.5732	789.5732	0.2470		795.7493
Paving	0.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6496	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562	0.0000	789.5732	789.5732	0.2470		795.7493

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	0.0472	0.0283	0.3880	1.1500e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		114.1207	114.1207	2.6800e-003		114.1878
Total	0.0472	0.0283	0.3880	1.1500e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		114.1207	114.1207	2.6800e-003		114.1878

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.5 Architectural Coating - 2021**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	0.7457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.9646	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

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	0.0118	7.0800e-003	0.0970	2.9000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		28.5302	28.5302	6.7000e-004		28.5470
Total	0.0118	7.0800e-003	0.0970	2.9000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		28.5302	28.5302	6.7000e-004		28.5470

Hemet Retail Unmit - Riverside-South Coast County, Summer

3.5 Architectural Coating - 2021**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	0.7457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.9646	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

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	0.0118	7.0800e-003	0.0970	2.9000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		28.5302	28.5302	6.7000e-004		28.5470
Total	0.0118	7.0800e-003	0.0970	2.9000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		28.5302	28.5302	6.7000e-004		28.5470

4.0 Operational Detail - Mobile

Hemet Retail Unmit - Riverside-South Coast County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5562	35.9255	37.4604	0.1443	8.5160	0.0968	8.6128	2.2786	0.0907	2.3693		14,780.10 25	14,780.10 25	1.1407		14,808.62 08
Unmitigated	5.5562	35.9255	37.4604	0.1443	8.5160	0.0968	8.6128	2.2786	0.0907	2.3693		14,780.10 25	14,780.10 25	1.1407		14,808.62 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	1,475.97	1,726.21	1516.91	1,529,435	1,529,435
Fast Food Restaurant with Drive Thru	1,240.29	1,805.07	1356.81	1,669,742	1,669,742
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,716.26	3,531.28	2,873.72	3,199,178	3,199,178

4.3 Trip Type Information

Hemet Retail Unmit - Riverside-South Coast County, Summer

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 (24 Hour)	18.50	10.10	7.90	0.90	80.10	19.00	24	15	61
Fast Food Restaurant with Drive Thru	18.50	10.10	7.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Hemet Retail Unmit - Riverside-South Coast County, 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					
NaturalGas Mitigated	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
NaturalGas Unmitigated	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

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 (24 Hour)	12.7544	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5005	1.5005	3.0000e-005	3.0000e-005	1.5094
Fast Food Restaurant with Drive Thru	1816.69	0.0196	0.1781	0.1496	1.0700e-003		0.0135	0.0135		0.0135	0.0135		213.7283	213.7283	4.1000e-003	3.9200e-003	214.9984
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		0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

Hemet Retail Unmit - Riverside-South Coast County, 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 (24 Hour)	0.0127544	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5005	1.5005	3.0000e-005	3.0000e-005	1.5094
Fast Food Restaurant with Drive Thru	1.81669	0.0196	0.1781	0.1496	1.0700e-003		0.0135	0.0135		0.0135	0.0135		213.7283	213.7283	4.1000e-003	3.9200e-003	214.9984
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		0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

6.0 Area Detail**6.1 Mitigation Measures Area**

Hemet Retail Unmit - Riverside-South Coast County, 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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Unmitigated	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

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	8.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Total	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

Hemet Retail Unmit - Riverside-South Coast County, 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	8.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Total	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

7.0 Water Detail**7.1 Mitigation Measures Water****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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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Hemet Retail Unmit - Riverside-South Coast County, Summer

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

Hemet Retail Unmit - Riverside-South Coast County, Winter

Hemet Retail Unmit
Riverside-South Coast County, Winter

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	2.10	1000sqft	0.05	2,097.00	0
Fast Food Restaurant with Drive Thru	2.43	1000sqft	0.06	2,425.00	0
Parking Lot	31.00	Space	0.28	12,400.00	0
Other Asphalt Surfaces	22.16	1000sqft	0.51	22,160.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.14	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Hemet Retail Unmit - Riverside-South Coast County, Winter

Project Characteristics - Adjusted RPS 2021

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Architectural Coating - SCAQMD R1113

Vehicle Trips - Scaled based on project-specific traffic report.

Area Coating - SCAQMD R1113

Energy Use - Adjust 2019 Title 24 standards 30% less electricity use.

Construction Off-road Equipment Mitigation - Dust control measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	41.00
tblConstructionPhase	NumDays	100.00	65.00
tblConstructionPhase	NumDays	2.00	35.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	7/21/2021	8/2/2021
tblConstructionPhase	PhaseEndDate	7/7/2021	7/2/2021

Hemet Retail Unmit - Riverside-South Coast County, Winter

tblConstructionPhase	PhaseEndDate	2/17/2021	4/2/2021
tblConstructionPhase	PhaseEndDate	7/14/2021	7/23/2021
tblConstructionPhase	PhaseStartDate	7/15/2021	6/5/2021
tblConstructionPhase	PhaseStartDate	2/18/2021	4/5/2021
tblConstructionPhase	PhaseStartDate	2/16/2021	2/15/2021
tblConstructionPhase	PhaseStartDate	7/8/2021	7/5/2021
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	6.62	4.63
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	12.38	8.67
tblGrading	AcresOfGrading	17.50	1.22
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.14
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

Hemet Retail Unmit - Riverside-South Coast County, Winter

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	6.00	2.00
tblTripsAndVMT	WorkerTripNumber	16.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	863.10	823.18
tblVehicleTrips	ST_TR	722.03	744.36
tblVehicleTrips	SU_TR	758.45	723.37
tblVehicleTrips	SU_TR	542.72	559.51
tblVehicleTrips	WD_TR	737.99	703.85
tblVehicleTrips	WD_TR	496.12	511.46

2.0 Emissions Summary

Hemet Retail Unmit - Riverside-South Coast County, 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					
2021	1.6733	9.5284	7.6727	0.0154	0.1953	0.3768	0.5643	0.0521	0.3511	0.3910	0.0000	1,495.9373	1,495.9373	0.4453	0.0000	1,507.0709
Maximum	1.6733	9.5284	7.6727	0.0154	0.1953	0.3768	0.5643	0.0521	0.3511	0.3910	0.0000	1,495.9373	1,495.9373	0.4453	0.0000	1,507.0709

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					
2021	1.6733	9.5284	7.6727	0.0154	0.1953	0.3768	0.5439	0.0521	0.3511	0.3910	0.0000	1,495.9373	1,495.9373	0.4453	0.0000	1,507.0709
Maximum	1.6733	9.5284	7.6727	0.0154	0.1953	0.3768	0.5439	0.0521	0.3511	0.3910	0.0000	1,495.9373	1,495.9373	0.4453	0.0000	1,507.0709

[illegible]

Hemet Retail Unmit - Riverside-South Coast County, 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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Energy	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
Mobile	4.5870	35.2598	35.5296	0.1321	8.5160	0.0993	8.6152	2.2786	0.0931	2.3717		13,536.87 19	13,536.87 19	1.2357		13,567.76 39
Total	4.7174	35.4392	35.6861	0.1332	8.5160	0.1129	8.6289	2.2786	0.1067	2.3853		13,752.11 33	13,752.11 33	1.2398	3.9500e-003	13,784.28 52

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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Energy	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
Mobile	4.5870	35.2598	35.5296	0.1321	8.5160	0.0993	8.6152	2.2786	0.0931	2.3717		13,536.87 19	13,536.87 19	1.2357		13,567.76 39
Total	4.7174	35.4392	35.6861	0.1332	8.5160	0.1129	8.6289	2.2786	0.1067	2.3853		13,752.11 33	13,752.11 33	1.2398	3.9500e-003	13,784.28 52

Hemet Retail Unmit - Riverside-South Coast County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/15/2021	4/2/2021	5	35	
2	Building Construction	Building Construction	4/5/2021	7/2/2021	5	65	
3	Paving	Paving	7/5/2021	7/23/2021	5	15	
4	Architectural Coating	Architectural Coating	6/5/2021	8/2/2021	5	41	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 1.22****Acres of Paving: 0.79****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,783; Non-Residential Outdoor: 2,261; Striped Parking Area: 2,074 (Architectural Coating – sqft)****OffRoad Equipment**

Hemet Retail Unmit - Riverside-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Grading	Excavators	2	4.00	158	0.38
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Building Construction	Welders	2	4.00	46	0.45
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	10.00	2.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.2 Grading - 2021**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					0.0370	0.0000	0.0370	3.9900e-003	0.0000	3.9900e-003			0.0000			0.0000
Off-Road	0.8223	9.4918	6.7449	0.0141		0.3759	0.3759		0.3458	0.3458		1,368.0175	1,368.0175	0.4424		1,379.0786
Total	0.8223	9.4918	6.7449	0.0141	0.0370	0.3759	0.4129	3.9900e-003	0.3458	0.3498		1,368.0175	1,368.0175	0.4424		1,379.0786

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	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923
Total	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.2 Grading - 2021**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					0.0166	0.0000	0.0166	1.8000e-003	0.0000	1.8000e-003			0.0000			0.0000
Off-Road	0.8223	9.4918	6.7449	0.0141		0.3759	0.3759		0.3458	0.3458	0.0000	1,368.0175	1,368.0175	0.4424		1,379.0786
Total	0.8223	9.4918	6.7449	0.0141	0.0166	0.3759	0.3925	1.8000e-003	0.3458	0.3476	0.0000	1,368.0175	1,368.0175	0.4424		1,379.0786

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	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923
Total	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.3 Building Construction - 2021**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	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224		597.8702	597.8702	0.1533		601.7022
Total	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224		597.8702	597.8702	0.1533		601.7022

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	5.2200e-003	0.1915	0.0407	5.5000e-004	0.0147	4.1000e-004	0.0151	4.2200e-003	3.9000e-004	4.6100e-003		58.1692	58.1692	4.4400e-003		58.2801
Worker	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923
Total	0.0644	0.2282	0.4279	1.8300e-003	0.1652	1.2800e-003	0.1665	0.0441	1.1900e-003	0.0453		186.0890	186.0890	7.3400e-003		186.2724

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.3 Building Construction - 2021**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	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224	0.0000	597.8702	597.8702	0.1533		601.7022
Total	0.6061	4.8179	3.5861	6.5900e-003		0.2353	0.2353		0.2224	0.2224	0.0000	597.8702	597.8702	0.1533		601.7022

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	5.2200e-003	0.1915	0.0407	5.5000e-004	0.0147	4.1000e-004	0.0151	4.2200e-003	3.9000e-004	4.6100e-003		58.1692	58.1692	4.4400e-003		58.2801
Worker	0.0592	0.0366	0.3872	1.2800e-003	0.1505	8.7000e-004	0.1514	0.0399	8.0000e-004	0.0407		127.9199	127.9199	2.9000e-003		127.9923
Total	0.0644	0.2282	0.4279	1.8300e-003	0.1652	1.2800e-003	0.1665	0.0441	1.1900e-003	0.0453		186.0890	186.0890	7.3400e-003		186.2724

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.4 Paving - 2021**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	0.5116	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562		789.5732	789.5732	0.2470		795.7493
Paving	0.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6496	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562		789.5732	789.5732	0.2470		795.7493

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	0.0473	0.0293	0.3098	1.0300e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		102.3359	102.3359	2.3200e-003		102.3938
Total	0.0473	0.0293	0.3098	1.0300e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		102.3359	102.3359	2.3200e-003		102.3938

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.4 Paving - 2021**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	0.5116	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562	0.0000	789.5732	789.5732	0.2470		795.7493
Paving	0.1380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6496	5.0910	5.4679	8.3000e-003		0.2776	0.2776		0.2562	0.2562	0.0000	789.5732	789.5732	0.2470		795.7493

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	0.0473	0.0293	0.3098	1.0300e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		102.3359	102.3359	2.3200e-003		102.3938
Total	0.0473	0.0293	0.3098	1.0300e-003	0.1204	6.9000e-004	0.1211	0.0319	6.4000e-004	0.0326		102.3359	102.3359	2.3200e-003		102.3938

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.5 Architectural Coating - 2021**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	0.7457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.9646	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

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	0.0118	7.3300e-003	0.0774	2.6000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		25.5840	25.5840	5.8000e-004		25.5985
Total	0.0118	7.3300e-003	0.0774	2.6000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		25.5840	25.5840	5.8000e-004		25.5985

Hemet Retail Unmit - Riverside-South Coast County, Winter

3.5 Architectural Coating - 2021**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	0.7457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.9646	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

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	0.0118	7.3300e-003	0.0774	2.6000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		25.5840	25.5840	5.8000e-004		25.5985
Total	0.0118	7.3300e-003	0.0774	2.6000e-004	0.0301	1.7000e-004	0.0303	7.9800e-003	1.6000e-004	8.1400e-003		25.5840	25.5840	5.8000e-004		25.5985

4.0 Operational Detail - Mobile

Hemet Retail Unmit - Riverside-South Coast County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.5870	35.2598	35.5296	0.1321	8.5160	0.0993	8.6152	2.2786	0.0931	2.3717		13,536.87 19	13,536.87 19	1.2357		13,567.76 39
Unmitigated	4.5870	35.2598	35.5296	0.1321	8.5160	0.0993	8.6152	2.2786	0.0931	2.3717		13,536.87 19	13,536.87 19	1.2357		13,567.76 39

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	1,475.97	1,726.21	1516.91	1,529,435	1,529,435
Fast Food Restaurant with Drive Thru	1,240.29	1,805.07	1356.81	1,669,742	1,669,742
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,716.26	3,531.28	2,873.72	3,199,178	3,199,178

4.3 Trip Type Information

Hemet Retail Unmit - Riverside-South Coast County, Winter

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 (24 Hour)	18.50	10.10	7.90	0.90	80.10	19.00	24	15	61
Fast Food Restaurant with Drive Thru	18.50	10.10	7.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Hemet Retail Unmit - Riverside-South Coast County, 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					
NaturalGas Mitigated	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078
NaturalGas Unmitigated	0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

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 (24 Hour)	12.7544	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5005	1.5005	3.0000e-005	3.0000e-005	1.5094
Fast Food Restaurant with Drive Thru	1816.69	0.0196	0.1781	0.1496	1.0700e-003		0.0135	0.0135		0.0135	0.0135		213.7283	213.7283	4.1000e-003	3.9200e-003	214.9984
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		0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

Hemet Retail Unmit - Riverside-South Coast County, 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 (24 Hour)	0.0127544	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5005	1.5005	3.0000e-005	3.0000e-005	1.5094
Fast Food Restaurant with Drive Thru	1.81669	0.0196	0.1781	0.1496	1.0700e-003		0.0135	0.0135		0.0135	0.0135		213.7283	213.7283	4.1000e-003	3.9200e-003	214.9984
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		0.0197	0.1794	0.1507	1.0800e-003		0.0136	0.0136		0.0136	0.0136		215.2288	215.2288	4.1300e-003	3.9500e-003	216.5078

6.0 Area Detail**6.1 Mitigation Measures Area**

Hemet Retail Unmit - Riverside-South Coast County, 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	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Unmitigated	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

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	8.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Total	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

Hemet Retail Unmit - Riverside-South Coast County, 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	8.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135
Total	0.1107	5.0000e-005	5.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0126	0.0126	3.0000e-005		0.0135

7.0 Water Detail**7.1 Mitigation Measures Water****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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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Hemet Retail Unmit - Riverside-South Coast County, Winter

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

Trip Rate from Traffic Report

Land Use	Quantity (SF)	Rate (/KSF)	Weekday	Saturday	Sunday
Fast Food with Drive-Thru	2,500	496.12	1,240	1,805	1,357
Convenience Market (24-hour)	2,000	737.99	1,476		

Trip Ratio Calculations - Weekday, Saturday, Sunday

Default		CalEEMod Default Trip Rates			Percent of Weekday		Revised Trip Rates for CalEEMod		
VehicleTripsLandUseSubType	VehicleTripsLandUseSizeMetric	WD_TR	ST_TR	SU_TR	Saturday	Sunday	Rick Provided WD_TR	Calc Based on Rick & % ST_TR	Calc Based on Rick & % SU_TR
Fast Food with Drive-Thru	2.425	496.12	722.03	542.72	146%	109%	511.46	744.36	559.51
Convenience Market (24-hour)	2.097	737.99	863.1	758.45	117%	103%	703.85	823.18	723.37

Drive-Through Emissions

Source	Unit		VOC	NOx	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Dirve-thru Fast Food Restaurant												
	Vehicles Using Drive-Through per Year	Maximum vehicle trip/day	1,805									
	Idle Time (per trip)	vehicle trip/year	486,896									
		Minutes/trip	5									
		hour/trip	0.083									
		Miles per hour	5									
		Distance (miles)/trip	0.42									
	Emissions:	Factor ¹	0.18	0.25	2.39	0.01	0.01	0.01	816.89	0.09	0.02	
		Grams/day	138.23	188.25	1,797.54	5.96	9.45	8.75				
		pounds/day	0.30	0.42	3.96	0.01	0.02	0.02				
		ton/yr							182.68	0.0192	0.0046	
		Metric Ton/year							165.73	0.0174	0.0042	171.04

1 Based on EMFAC2017 (v1.0.2) Emission Rates for RUNEX at 5 mph to simulate drive through operations

Notes:
Assumes a Global Warming Potential for N2O of 298, and CH4 of 28

EMFAC2017 (v1.0.2) Emission Rates

Region Type: County

Region: RIVERSIDE

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
RIVERSIDE	2021	LDA	Aggregate		5 GAS	52239.4	0.073494139	0.009524392	0.010358516	662.2137768	0.018339236	0.008471245	0.069241364	0.100994904	1.349505439	0.006553142
RIVERSIDE	2021	LDA	Aggregate		5 DSL	500.2315	0.167267417	0.026016848	0.027193214	524.5377712	0.00947418	0.082450033	0.203973512	0.232210282	3.413429709	0.004958768
RIVERSIDE	2021	LDT1	Aggregate		5 GAS	5286.496	0.279762045	0.014459745	0.015725564	780.2800044	0.054103843	0.020084707	0.236053609	0.344263814	3.457998267	0.007721503
RIVERSIDE	2021	LDT1	Aggregate		5 DSL	1.663883	0.881211511	0.715528986	0.747882031	1029.927629	0.047312564	0.161890281	1.01861164	1.159621631	4.422683169	0.00973652
RIVERSIDE	2021	LDT2	Aggregate		5 GAS	16837.13	0.169019293	0.009888201	0.010754038	835.1929864	0.03012528	0.013708224	0.120478453	0.175723446	2.018430202	0.008264912
RIVERSIDE	2021	LDT2	Aggregate		5 DSL	102.8276	0.160202831	0.018969769	0.019827498	694.7063572	0.012160386	0.109198165	0.261805956	0.298048675	2.159748571	0.006567473
RIVERSIDE	2021	LHDT1	Aggregate		5 GAS	1377.99	0.377770067	0.007272885	0.007909926	1918.225347	0.040328014	0.024113737	0.182285656	0.265990802	1.984674517	0.018982395
RIVERSIDE	2021	LHDT1	Aggregate		5 DSL	999.8298	2.203436924	0.077512652	0.081017431	1243.827613	0.03558079	0.195512379	0.766033457	0.872078161	3.125698481	0.011758644
RIVERSIDE	2021	LHDT2	Aggregate		5 GAS	210.2204	0.358834425	0.006416152	0.00697815	2196.183439	0.030295617	0.02429329	0.127696838	0.186334926	1.17737579	0.021733015
RIVERSIDE	2021	LHDT2	Aggregate		5 DSL	387.118	1.889586389	0.068338956	0.071428941	1314.39849	0.035202662	0.206605139	0.75789259	0.862810325	3.163330557	0.012425793
RIVERSIDE	2021	MCY	Aggregate		5 GAS	468.0269	1.523119056	0.009861682	0.010551236	539.3037493	1.882618865	0.088655828	12.63629018	15.62461075	50.22761096	0.005336848
RIVERSIDE	2021	MDV	Aggregate		5 GAS	13455.86	0.222560204	0.009880058	0.010741513	1038.863643	0.040591755	0.017425636	0.172274634	0.246739673	2.580531609	0.010280398
RIVERSIDE	2021	MDV	Aggregate		5 DSL	300.6889	0.158478816	0.015800784	0.016515226	886.8383571	0.009236707	0.13939864	0.198860859	0.226389867	3.581847349	0.008383812
RIVERSIDE	2021	MH	Aggregate		5 GAS	107.463	0.727164274	0.007974624	0.008673131	4079.080291	0.087684592	0.046424817	0.360800133	0.526478707	4.336294316	0.040365806
RIVERSIDE	2021	MH	Aggregate		5 DSL	39.61764	15.0619828	0.316054987	0.330345591	2091.442786	0.050307969	0.328745681	1.083100954	1.233038427	2.409116979	0.019771656
RIVERSIDE	2021	OBUS	Aggregate		5 GAS	47.92035	0.92445755	0.005047421	0.00548953	4032.775663	0.093481507	0.046070448	0.441396989	0.644085451	3.516284383	0.039907584
RIVERSIDE	2021	OBUS	Aggregate		5 DSL	38.36927	11.94493191	0.290817309	0.303966777	2847.518016	0.08535512	0.447590178	1.83767232	2.09205005	3.266369106	0.026901938
RIVERSIDE	2021	SBUS	Aggregate		5 GAS	190.4042	0.525021307	0.003279575	0.003566837	1934.09778	0.038711068	0.03420756	0.188826861	0.275535713	1.353118443	0.019139465
RIVERSIDE	2021	SBUS	Aggregate		5 DSL	355.0733	17.40619681	0.129086459	0.134923176	2410.319226	0.034626034	0.378868617	0.745489017	0.848682498	1.245457082	0.022771501
RIVERSIDE	2021	UBUS	Aggregate		5 GAS	156.2713	0.312999743	0.005334018	0.005801231	3581.465774	0.022109779	0.031083884	0.06660986	0.097196952	0.410526245	0.035441507
RIVERSIDE	2021	UBUS	Aggregate		5 DSL	0.816624	1.448834606	0.004373681	0.00457144	1987.550104	0.085423482	0.312415198	0.001220533	0.087180929	0.170602803	0.018789496
RIVERSIDE	2021	UBUS	Aggregate		5 NG	526.2192	0.712789019	0.005961095	0.006230629	2669.221397	8.935692016	0.544138243	0.133608635	9.126008924	58.55600592	0
					Aggregate Avg g/mile		0.250290076	0.011636096	0.012564319	816.8930552	0.08590302	0.020653963	0.183790678	0.298022468	2.389975755	0.007919225

Delivery truck idling and TRU emissions

		Car/Truck Count		VOC	NOx	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Idling Trucks	hr/vehicle	vehicles/day	vehicles/year	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	MT/yr	MT/yr	MT/yr	MT/yr
Convience Store	0.25	2	104	0.000051	0.000058	0.000718	0.000002	0.000003	0.000003	0.161166	0.000002	0.000025	0.168775
Dirve-thru Fast Food Restaurant	0.25	4	208	0.000102	0.000116	0.001437	0.000003	0.000006	0.000005	0.322333	0.000005	0.000051	0.337550
TRU (Drive-thru Fast Food Restaruant)	0.50	2	104	0.002432	0.023600	0.019762	0.000004	0.000928	0.000854	0.474402	-	-	0.474402
			TOTAL	0.002585	0.023774	0.021917	0.000009	0.000936	0.000862	0.957901	0.000007	0.000076	0.980726

Assumptions:

1 lb =	453.6 g
1 MT =	1000000 g
1 MT =	2000 lb
Truck Idle Time	15 minutes/trip
Truck TRU Idle Time	30 minutes/trip

EMFAC2017 (v1.0.2) Emission Rates

Region Type: County

Region: RIVERSIDE

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Year	Speed	Fuel	Population	VMT	Trips	CALCULATED																			
									ROG_IDLEX	TOG_IDLEX	CO_IDLEX	NOx_IDLEX	CO2_IDLEX	CH4_IDLEX	PM10_IDLEX	PM2_5_IDLEX	SOx_IDLEX	N2O_IDLEX	ROG_IDLEX	TOG_IDLEX	CO_IDLEX	NOx_IDLEX	CO2_IDLEX	CH4_IDLEX	PM10_IDLEX	PM2_5_IDLEX	SOx_IDLEX	N2O_IDLEX
RIVERSIDE	2021	HHDT	Aggregate	Aggregate	DSL	27250.49	3825933	312944.6	6.674635605	7.598565	86.88741	84.40708	16206.86	0.31002	0.123348	0.118012	0.153114	2.547493	0.061011294	0.069456714	0.794217648	0.771545482	148.1431536	0.002833817	0.001127498	0.001078723	0.001399583	0.023286041
RIVERSIDE	2021	MHDT	Aggregate	Aggregate	DSL	15756.36	963068.1	151121.4	0.121790715	0.138649	2.373493	8.291139	837.202	0.005657	0.029217	0.027953	0.007909	0.131596	0.020783399	0.023660317	0.40503301	1.414870102	142.8672351	0.000965335	0.004985771	0.004770089	0.001349739	0.02245674
HHDT and MHDT Composite																			0.046273	0.052678	0.651633	1.007239	146.210223	0.002149	0.002541	0.002431	0.001381	0.022982
RIVERSIDE	2021	LDA	Aggregate	Aggregate	GAS	750300.9	29816029	3552292	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDA	Aggregate	Aggregate	DSL	6761.576	284051.9	32376.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDA	Aggregate	Aggregate	ELEC	10150.83	397377.3	51147.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT1	Aggregate	Aggregate	GAS	80587.48	3017206	366690.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT1	Aggregate	Aggregate	DSL	42.61598	937.3229	139.3726	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT1	Aggregate	Aggregate	ELEC	312.6717	12704.03	1592.297	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT2	Aggregate	Aggregate	GAS	246596.5	9631964	1154463	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT2	Aggregate	Aggregate	DSL	1288.993	58422.34	6390.045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LDT2	Aggregate	Aggregate	ELEC	1692.169	54349.02	8602.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	LHDT1	Aggregate	Aggregate	GAS	20885.97	692854.1	311169.9	0.45664908	0.666341	3.750864	0.039863	122.4859	0.126649	0	0	0.001212	0.003199	0.262442	0.382954751	2.15566922	0.022909579	70.3941699	0.072786828	0	0	0.000696607	0.001838704
RIVERSIDE	2021	LHDT1	Aggregate	Aggregate	DSL	19999.78	695951.6	251572	0.109759705	0.124954	0.909745	2.32175	137.6742	0.005098	0.027287	0.026106	0.001302	0.02164	0.06308029	0.071812717	0.522841998	1.33433923	79.12310025	0.002929959	0.015682106	0.015003705	0.000747998	0.01243705
RIVERSIDE	2021	LHDT2	Aggregate	Aggregate	GAS	3292.647	108726.5	49055.53	0.458215314	0.668627	3.761022	0.039963	141.2574	0.12839	0	0	0.001398	0.003191	0.245034927	0.357554391	2.011241732	0.021370498	75.53872825	0.068657711	0	0	0.000747517	0.00170616
RIVERSIDE	2021	LHDT2	Aggregate	Aggregate	DSL	7676.541	267713.8	96561.22	0.109759705	0.124954	0.909745	2.321113	221.256	0.005098	0.027304	0.026123	0.002092	0.034778	0.058695029	0.066820389	0.486494693	1.241236651	118.3187257	0.002726272	0.014601063	0.013969427	0.001118537	0.018598056
RIVERSIDE	2021	MCY	Aggregate	Aggregate	GAS	35659.72	267522.4	71319.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	MDV	Aggregate	Aggregate	GAS	208791.4	7677993	957457.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	MDV	Aggregate	Aggregate	DSL	3985.675	171354.6	19488.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	MDV	Aggregate	Aggregate	ELEC	787.1077	25973.7	4035.648	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	MH	Aggregate	Aggregate	GAS	6261.086	50694.81	626.359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	MH	Aggregate	Aggregate	DSL	2593.425	21461.99	259.3425	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	OBUS	Aggregate	Aggregate	GAS	589.4801	27261.01	11794.32	0.745348379	1.087611	5.769077	0.065	382.4352	0.198914	0	0	0.003785	0.005507	0.126330234	0.184340781	0.977809591	0.011016877	64.81951944	0.03371422	0	0	0.000641442	0.000933399
RIVERSIDE	2021	OBUS	Aggregate	Aggregate	DSL	347.993	24855.13	3314.356	1.087356733	1.237873	11.86623	19.20508	2533.802	0.050505	0.077083	0.073748	0.023938	0.398278	0.034193608	0.03892682	0.373151849	0.603933255	79.67931302	0.001588205	0.002423995	0.002319134	0.000752771	0.012524478
RIVERSIDE	2021	SBUS	Aggregate	Aggregate	GAS	475.4713	19228.88	1901.885	10.6396621	15.52537	82.22964	0.926404	2659.705	2.409363	0	0	0.02632	0.086396	0.334580569	0.488219181	2.585837623	0.029132211	83.63851353	0.075766142	0	0	0.000827671	0.002716842
RIVERSIDE	2021	SBUS	Aggregate	Aggregate	DSL	1131.956	35858.76	13062.61	0.279787069	0.318516	5.536054	46.7765	3732.85	0.012995	0.053748	0.051423	0.035266	0.586752	0.279787069	0.318516281	5.536053612	46.77649668	3732.850296	0.012995385	0.053747619	0.051422521	0.035266119	0.586752083
RIVERSIDE	2021	UBUS	Aggregate	Aggregate	GAS	163.4848	23017.82	653.9394	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	UBUS	Aggregate	Aggregate	DSL	1.105798	58.5719	4.423192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	UBUS	Aggregate	Aggregate	ELEC	5.058469	271.5304	20.23388	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIVERSIDE	2021	UBUS	Aggregate	Aggregate	NG	306.6216	41979.73	1226.486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDA, LDT1, LDT2, LHDT1, LHDT2, MCY, and MDV Composite																			0.00607	0.008393	0.052484	0.063758	6.054367	0.001345	0.000346	0.000331	0.000058	0.000784

Notes:

≥ Duration:

HHDT	109.4	min/day
MHDT	5.86	min/day
LHDT1	1.74	min/day
LHDT2	1.87	min/day
OBUS	5.9	min/day
SBUS	31.8	min/day

OFFROAD2017 (v1.0.1) Emissions Inventory
Region Type: County
Region: Riverside
Calendar Year: 2021
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2017 Equipment Types
Units: Emissions: tons/day, Fuel Consumption: gallons/year, Activity: hours/year, HP-Hours: HP-hours/year

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2_5_tpd	SOx_tpd	NH3_tpd	Fuel_gpy	Total_Activity_hpy	Total_Activity_hpd	Total_Population	Horsepower_Hours_hhpy
Riverside	2021	TRU - Instate Truck TRU	1993	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	2021	TRU - Instate Truck TRU	1994	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverside	2021	TRU - Instate Truck TRU	1995	25	Diesel	4.27835E-07	2.33851E-06	4.14562E-06	3.89603E-05	2.13272E-07	1.9621E-07	3.52016E-10	3.20122E-10	0.024731	19.61363429	0.014411193	276.5522434	1425.22367
Riverside	2021	TRU - Instate Truck TRU	1996	25	Diesel	7.59249E-07	4.14999E-06	7.35694E-06	6.91401E-05	3.78479E-07	3.48201E-07	6.24698E-10	5.68097E-10	0.043888	34.80693308	0.025574528	490.7777564	4425.055738
Riverside	2021	TRU - Instate Truck TRU	1997	25	Diesel	1.57155E-06	8.58997E-06	1.52279E-05	0.000143111	7.83405E-07	7.20733E-07	1.29305E-09	1.17589E-09	0.090842	72.04605714	0.052936118	1015.849406	11871.23043
Riverside	2021	TRU - Instate Truck TRU	1998	25	Diesel	3.51337E-06	1.92038E-05	3.40437E-05	0.000319941	1.75139E-06	1.61128E-06	2.89075E-09	2.62883E-09	0.203087	161.0667745	0.118344434	2271.041521	30108.732
Riverside	2021	TRU - Instate Truck TRU	1999	25	Diesel	8.0198E-06	4.38355E-05	7.77099E-05	0.000730314	3.9978E-06	3.67798E-06	6.59856E-09	6.0007E-09	0.463577	367.6590004	0.270138869	5183.991906	41363.32234
Riverside	2021	TRU - Instate Truck TRU	2000	25	Diesel	6.65952E-06	3.90073E-05	6.4793E-05	0.000936417	4.22673E-06	3.88859E-06	8.5506E-09	7.69417E-09	0.594403	471.4166607	0.34637521	6646.974916	49284.86743
Riverside	2021	TRU - Instate Truck TRU	2001	25	Diesel	7.55704E-06	4.42644E-05	7.35253E-05	0.00106262	4.79637E-06	4.41266E-06	9.70298E-09	8.73114E-09	0.674513	534.950757	0.393057132	7542.805673	52695.43778
Riverside	2021	TRU - Instate Truck TRU	2002	25	Diesel	8.23924E-06	4.82603E-05	8.01627E-05	0.001158546	5.22935E-06	4.81101E-06	1.05789E-08	9.51932E-09	0.735403	583.2423205	0.428539545	8223.716719	117369.2522
Riverside	2021	TRU - Instate Truck TRU	2003	25	Diesel	1.92629E-05	0.00011283	0.000187416	0.002708618	1.22259E-05	1.12479E-05	2.47329E-08	2.22557E-08	1.719333	1363.589053	1.001902317	19226.60565	251122.9322
Riverside	2021	TRU - Instate Truck TRU	2004	25	Diesel	3.85222E-05	0.000225639	0.000374797	0.005416732	2.44496E-05	2.24937E-05	4.94612E-08	4.45072E-08	3.438345	2726.924223	2.003618092	38449.63155	500930.6391
Riverside	2021	TRU - Instate Truck TRU	2005	25	Diesel	5.27626E-05	0.000428886	0.000512038	0.010295923	3.75739E-05	3.4568E-05	9.45212E-08	8.45976E-08	6.535479	5183.236267	3.808402841	73083.63136	680535.8212
Riverside	2021	TRU - Instate Truck TRU	2006	25	Diesel	6.91102E-05	0.000561769	0.000670684	0.013485937	4.92155E-05	4.52782E-05	1.23807E-07	1.10809E-07	8.560384	6789.172924	4.988370995	95727.33822	750747.6492
Riverside	2021	TRU - Instate Truck TRU	2007	25	Diesel	7.40744E-05	0.000602121	0.00071886	0.014454648	5.27507E-05	4.85306E-05	1.327E-07	1.18768E-07	9.175287	7276.846986	5.346691393	102603.5425	2085054.791
Riverside	2021	TRU - Instate Truck TRU	2008	25	Diesel	0.000200943	0.001633386	0.001950066	0.039211412	7.15489E-05	6.5825E-05	3.59979E-07	3.22185E-07	24.88998	19740.04837	14.50407668	278334.682	781942.5355
Riverside	2021	TRU - Instate Truck TRU	2009	25	Diesel	7.3884E-05	0.000600573	0.000717011	0.014417479	2.63075E-05	2.42029E-05	1.32359E-07	1.18463E-07	9.151694	7258.135526	5.332943076	102339.7109	930360.5
Riverside	2021	TRU - Instate Truck TRU	2010	25	Diesel	8.64256E-05	0.000702519	0.000838723	0.01686482	3.07732E-05	2.83113E-05	1.54827E-07	1.38572E-07	10.70518	8490.190683	6.238200355	119711.6886	1342471.724
Riverside	2021	TRU - Instate Truck TRU	2011	25	Diesel	0.000122857	0.000998653	0.001192271	0.023973875	4.65885E-05	4.28614E-05	2.20091E-07	1.96984E-07	15.21775	12069.07459	8.867799113	170173.9518	3520068.244
Riverside	2021	TRU - Instate Truck TRU	2012	25	Diesel	0.000317839	0.002583586	0.003084489	0.062022099	0.000120528	0.000110885	5.69391E-07	5.09611E-07	39.36938	31223.54392	22.94161934	440251.9693	1607336.041
Riverside	2021	TRU - Instate Truck TRU	2013	25	Diesel	0.000142651	0.001159554	0.001384367	0.027836496	5.40947E-05	4.97671E-05	2.55552E-07	2.28722E-07	17.6696	14013.61904	10.29656065	197592.0285	1853482.193
Riverside	2021	TRU - Instate Truck TRU	2014	25	Diesel	0.000306607	0.002492283	0.002975485	0.059830273	0.000116268	0.000106967	5.49269E-07	4.91602E-07	37.97809	30120.12158	22.13087551	424693.7142	6233616.857
Riverside	2021	TRU - Instate Truck TRU	2015	25	Diesel	0.000540837	0.004396247	0.005248587	0.105537216	0.000205091	0.000188683	9.68879E-07	8.67158E-07	66.9912	53130.19027	39.03761225	749135.6828	3943452.553
Riverside	2021	TRU - Instate Truck TRU	2016	25	Diesel	0.000339006	0.002755645	0.003289907	0.066152591	0.000128554	0.00011827	6.07311E-07	5.4355E-07	41.99127	33302.94172	24.46946489	469571.4782	4273973.97
Riverside	2021	TRU - Instate Truck TRU	2017	25	Diesel	0.000364389	0.002961973	0.003536238	0.071105748	0.00013818	0.000127126	6.52783E-07	5.84248E-07	45.13535	35796.49024	26.30160929	504730.5124	4709742.798
Riverside	2021	TRU - Instate Truck TRU	2018	25	Diesel	0.000398492	0.003239177	0.003867185	0.077760351	0.000151112	0.000139023	7.13875E-07	6.38927E-07	49.35945	39146.59117	28.76310887	551966.9355	7014569.719
Riverside	2021	TRU - Instate Truck TRU	2019	25	Diesel	0.000589262	0.004789873	0.005718528	0.114986679	0.000223454	0.000205577	1.05563E-06	9.44801E-07	72.98938	57887.29633	42.53291428	816210.8783	5087272.098
Riverside	2021	TRU - Instate Truck TRU	2020	25	Diesel	0.000424426	0.003449988	0.004118868	0.082821118	0.000160946	0.000148071	7.60335E-07	6.80509E-07	52.57185	41694.31314	30.63505741	587889.8152	5447197.163
						ROG	CO	Nox	CO2	PM10	PM2.5	SOx	NH3					
						tons/hr/TRU	tons/hr/TRU	tons/hr/TRU	tons/hr/TRU	tons/hr/TRU	tons/hr/TRU	tons/hr/TRU	tons/hr/TRU					
						1.22E-06	9.88086E-06	1.17998E-05	0.000237201	4.63863E-07	4.26754E-07	2.1776E-09	1.94899E-09					
						lb/hr/TRU	lb/hr/TRU	lb/hr/TRU	lb/hr/TRU	lb/hr/TRU	lb/hr/TRU	lb/hr/TRU	lb/hr/TRU					
						2.43E-03	1.98E-02	2.36E-02	4.74E-01	9.28E-04	8.54E-04	4.36E-06	3.90E-06					