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**Indian and Ramona Warehouse  
AIR QUALITY IMPACT ANALYSIS  
CITY OF PERRIS**

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## **LIST OF ABBREVIATED TERMS**

(1)	Reference
$\mu\text{g}/\text{m}^3$	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACMs	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
MMs	Mitigation Measures
NAAQS	National Ambient Air Quality Standards
$\text{NO}_2$	Nitrogen Dioxide
$\text{NO}_x$	Oxides of Nitrogen
Pb	Lead
$\text{PM}_{10}$	Particulate Matter 10 microns in diameter or less
$\text{PM}_{2.5}$	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Indian and Ramona Warehouse
PVCC SP	Perris Valley Commerce Center Specific Plan
PVCC SP EIR	Perris Valley Commerce Center Specific Plan Environmental Impact Report
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin

SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds



## EXECUTIVE SUMMARY

The results of this *Indian and Ramona Warehouse Air Quality Impact Analysis* are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA. The Project is required to incorporate applicable mitigation measures from the *Perris Valley Commerce Center Specific Plan (PVCCSP) Environmental Impact Report (EIR)*. Because these measures are a requirement for implementing projects within the PVCCSP, they are not considered to be project-specific mitigation measures.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	<i>Less Than Significant</i>	<i>n/a</i>
Localized Construction Emissions	3.6	<i>Less Than Significant</i>	<i>n/a</i>
Regional Operational Emissions	3.5	<i>Less Than Significant</i>	<i>n/a</i>
Localized Operational Emissions	3.6	<i>Less Than Significant</i>	<i>n/a</i>
CO "Hot Spot" Analysis	3.8	<i>Less Than Significant</i>	<i>n/a</i>
Air Quality Management Plan	3.9	<i>Less Than Significant</i>	<i>n/a</i>
Sensitive Receptors	3.10	<i>Less Than Significant</i>	<i>n/a</i>
Odors	3.11	<i>Less Than Significant</i>	<i>n/a</i>
Cumulative Impacts	3.12	<i>Less Than Significant</i>	<i>n/a</i>



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# 1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Indian and Ramona Warehouse (“Project”). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the South Coast Air Quality Management District (SCAQMD).

## 1.1 SITE LOCATION

The proposed Indian and Ramona Warehouse site is located in the City of Perris on the northwest corner of Indian Avenue and Ramona Expressway within the *Perris Valley Commerce Center Specific Plan* (PVCC SP), as shown on Exhibit 1-A.

## 1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a single high-cube transload and short-term storage warehouse building at approximately 428,730 square feet, as shown on Exhibit 1-B. Due to the location of the Project site in relation to APZ I and APZ II of the MARB/JPA, the Project has significant restrictions on its occupancy. At the time this air quality analysis was prepared, the future tenants of the proposed Project were unknown. To present the potential worst-case conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. It is expected that the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. This air quality analysis is intended to describe emission impacts associated with the expected typical industrial warehouse activities at the Project site. At the time of this analysis, no cold storage was planned at the Project site, and therefore is not analyzed in this report.

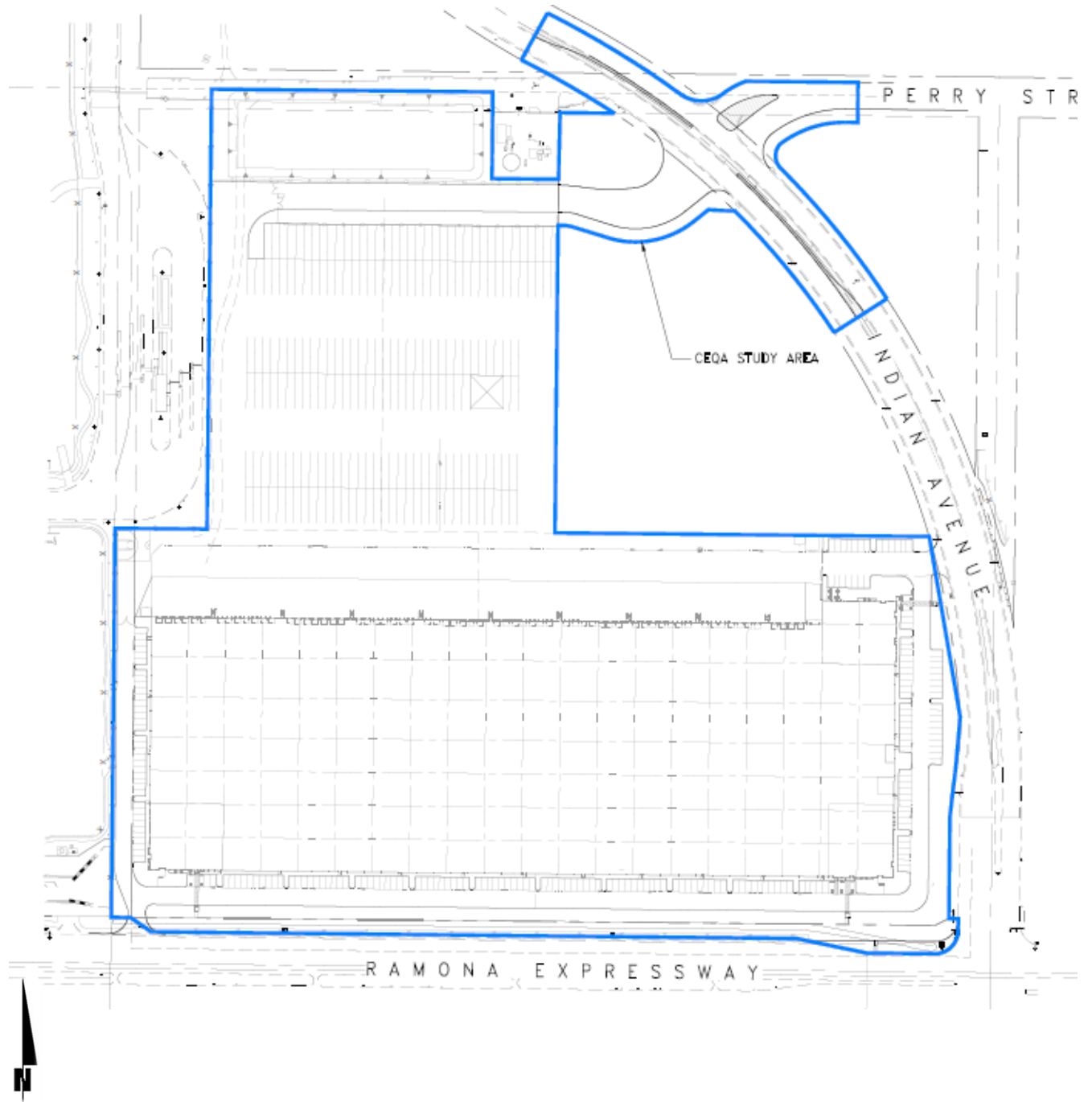
According to the *Indian and Ramona Warehouse Traffic Impact Analysis* prepared by Urban Crossroads, Inc., the Project is expected to generate a total of approximately 600 trip-ends per day (actual vehicles). (2) The Project trip generation includes 407 passenger cars and 193 truck trip-ends per day from Project operations within the Project site. This air study relies on the Project trips to accurately account for the effect of individual passenger car and truck trips on the study area roadway network.

**EXHIBIT 1-A: LOCATION MAP**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EXHIBIT 1-B: SITE PLAN



### 1.3 PVCC SP EIR MITIGATION MEASURES

The PVCC SP EIR mitigation measures for air quality are shown below; the Project is required to comply with all of these mitigation measures.

#### **MM Air 1**

To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts. This mitigation measure was completed with preparation of this report.

#### **MM Air 2**

Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

#### **MM Air 3**

To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,

- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved portions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM<sub>10</sub> generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

#### **MM Air 4**

Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

#### **MM Air 5**

Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

#### **MM Air 6**

The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or USEPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNO<sub>x</sub> unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

#### **MM Air 7**

During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

#### **MM Air 8**

Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

**MM Air 9**

To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize “Super-Compliant” VOC paints, which are defined in SCAQMD’s Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris’ Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

**MM Air 10**

To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project’s CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD’s Localized Significance Threshold analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

*A project-specific analysis addressing these topical areas is presented in Section 3.0 of this report.*

**MM Air 11**

Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of five minutes.

**MM Air 13**

In order to promote alternative fuels, and help support “clean” truck fleets, the developer/successor-in-interest shall provide building occupants and businesses with information related to SCAQMD’s Carl Moyer Program, or other state programs that restrict operations to “clean” trucks, such as 2007 or newer model year or 2010 compliant vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year would be used at a facility with three or more dock-high doors, the developer/successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP [On-road Heavy Duty Voucher Incentive Program], HVIP [Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project], and SOON [Surplus Off-Road Opt-in for NO<sub>x</sub>] funding programs, as identified on SCAQMD’s website (<http://www.aqmd.gov>). Tenants would be required to use those funds, if awarded.

**MM Air 14**

Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance would be required prior to the issuance of occupancy permits.

**MM Air 15**

To identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed implementing development projects that include an excess of 10 dock doors for a single building, a minimum of 100 truck trips per day, 40 truck trips with TRUs [Transport Refrigeration Units] per day, or TRU operations exceeding 300 hours per week, and that are subject to CEQA and are located adjacent to sensitive land uses; shall have a facility-specific Health Risk Assessment performed to assess the diesel particulate matter impacts from mobile-source traffic generated by that implementing development project. The results of the Health Risk Assessment shall be included in the CEQA documentation for each implementing development project.

*A project-specific Health Risk Assessment has been prepared under separate cover.*

**MM Air 18**

Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.

**MM Air 19**

In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

**MM Air 20**

Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24 and reduce indoor water use by 25 percent. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.



#### **1.4 CONSTRUCTION-SOURCE AND OPERATIONAL-SOURCE MITIGATION MEASURES**

The Project would not exceed any thresholds of significance for construction or operational-source emissions. It should be noted that the Project is required to comply with the applicable *Perris Valley Commerce Center Specific Plan Environmental Impact Report (PVCC SP EIR) SCH No. 2009081086* (3) mitigation measures as identified in Section 1.3. As such, a less than significant impact would occur for Project-related construction and operational-source emissions and no mitigation beyond what those identified in the PVCC SP EIR would be required.

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## 2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region. The air quality conditions in the Project area and region have not materially changed since the PVCC SP EIR was certified.

### 2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (4). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

### 2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year, there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO<sub>x</sub> and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

## 2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

## 2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-1 (5).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O<sub>3</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O<sub>3</sub> standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

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

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

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**TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)**

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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## 2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 38 permanent monitoring stations and 5 single-pollutant source Lead (Pb) air monitoring sites throughout the air district (6). In 2015, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> at most monitoring locations (7). No areas of the SCAB exceeded federal or state standards for NO<sub>2</sub>, SO<sub>2</sub>, CO, sulfates or lead. See Table 2-2, for attainment designations for the SCAB (8) (9). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

**TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)**

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	Nonattainment (“Extreme”)
Ozone - 8 hour standard	Nonattainment	Nonattainment (“Extreme”)
PM <sub>10</sub>	Nonattainment	Attainment (Maintenance)
PM <sub>2.5</sub>	Nonattainment	Nonattainment (“Serious”)
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassifiable/Attainment
Sulfur Dioxide	Attainment	Unclassifiable/Attainment
Lead <sup>1</sup>	Attainment	Nonattainment (Partial)

Source: State/Federal designations were taken from <http://www.arb.ca.gov/degis/adm/adm.htm>

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the South Coast Air Basin

## 2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O<sub>3</sub>) and Particulate Matter ≤ 10 Microns (PM<sub>10</sub>) is the South Coast Air Quality Management District Perris monitoring station (SRA 24), located approximately 3.17 miles south of the Project site (10). Data for Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Ultra-Fine Particulates (PM<sub>2.5</sub>), and Sulfur Dioxide (SO<sub>2</sub>) was obtained from the Metropolitan Riverside County 1 monitoring station (SRA 23), located approximately 11.69 miles northwest of the Project site, respectively. It should be noted that the Metropolitan Riverside County 1, station was utilized in lieu of the Perris monitoring station only where data was not available from the nearest monitoring site. The most recent three (3) years of data available is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site (11) (12).

<sup>1</sup> The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.



TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2014-2016

POLLUTANT	STANDARD	YEAR		
		2014	2015	2016
Ozone (O <sub>3</sub> )				
Maximum 1-Hour Concentration (ppm)		0.117	0.124	0.131
Maximum 8-Hour Concentration (ppm)		0.094	0.102	0.098
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	16	25	23
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	63	50	56
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	1
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	38	31	30
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	--	--	--
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		2.0	2.5	1.7
Maximum 8-Hour Concentration (ppm)		1.9	1.7	1.3
Nitrogen Dioxide (NO <sub>2</sub> )				
Maximum 1-Hour Concentration (ppm)		0.060	0.057	0.073
Annual Arithmetic Mean Concentration (ppm)		0.015	0.014	0.015
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Sulfur Dioxide (SO <sub>2</sub> )				
Maximum 1-Hour Concentration (ppm)		0.056	0.019	0.056
Particulate Matter ≤ 10 Microns (PM <sub>10</sub> )				
Maximum 24-Hour Concentration (µg/m <sup>3</sup> )		100	107	82
Annual Arithmetic Mean (µg/m <sup>3</sup> )		42.0	37.1	36.9
Number of Samples		361	355	302
Number of Samples Exceeding State Standard	> 50 µg/m <sup>3</sup>	101	68	58
Number of Samples Exceeding Federal Standard	> 150 µg/m <sup>3</sup>	0	0	0
Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> )				
Maximum 24-Hour Concentration (µg/m <sup>3</sup> )		48.9	54.7	39.1
Annual Arithmetic Mean (µg/m <sup>3</sup> )		12.5	11.9	12.5
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m <sup>3</sup>	5	9	4

-- = data not available from SCAQMD or ARB

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (13):

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant

at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- Sulfur Dioxide (SO<sub>2</sub>): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO<sub>2</sub> oxidizes in the atmosphere, it forms sulfates (SO<sub>4</sub>). Collectively, these pollutants are referred to as sulfur oxides (SO<sub>x</sub>).
- Nitrogen Oxides (Oxides of Nitrogen, or NO<sub>x</sub>): Nitrogen oxides (NO<sub>x</sub>) consist of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) and are formed when nitrogen (N<sub>2</sub>) combines with oxygen (O<sub>2</sub>). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO<sub>2</sub> is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO<sub>2</sub> is the most abundant in the atmosphere. As ambient concentrations of NO<sub>2</sub> are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO<sub>2</sub> than those indicated by regional monitors.
- Ozone (O<sub>3</sub>): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM<sub>10</sub> (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM<sub>10</sub> also causes visibility reduction and is a criteria air pollutant.
- PM<sub>2.5</sub> (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO<sub>2</sub> release from power plants and industrial facilities and nitrates that are formed from NO<sub>x</sub> release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM<sub>2.5</sub> is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O<sub>3</sub>, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- **Reactive Organic Gases (ROG):** Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROG's are a criteria pollutant since they are a precursor to O<sub>3</sub>, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- **Lead (Pb):** Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

## Health Effects of Air Pollutants

### Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

### Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

#### Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM<sub>2.5</sub> concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM<sub>10</sub> and PM<sub>2.5</sub>.

#### Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO<sub>2</sub> in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO<sub>2</sub> considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO<sub>2</sub>.

#### Sulfur Dioxide

A few minutes of exposure to low levels of SO<sub>2</sub> can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO<sub>2</sub>. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO<sub>2</sub>.

Animal studies suggest that despite SO<sub>2</sub> being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung

edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO<sub>2</sub> levels. In these studies, efforts to separate the effects of SO<sub>2</sub> from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

#### Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

#### Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

## **2.7 REGULATORY BACKGROUND**

Existing regulations have not materially changed since the PVCC SP EIR was prepared, as described below.

### **2.7.1 FEDERAL REGULATIONS**

The U.S. EPA is responsible for setting and enforcing the NAAQS for O<sub>3</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and lead (14). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (15). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, CO, PM<sub>2.5</sub>, and lead. The NAAQS were amended in July 1997 to include an additional standard for O<sub>3</sub> and to adopt a NAAQS for PM<sub>2.5</sub>. Table 3-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO<sub>x</sub>). NO<sub>x</sub> is a collective term that includes all forms of nitrogen oxides (NO, NO<sub>2</sub>, NO<sub>3</sub>) which are emitted as byproducts of the combustion process.

### 2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (16) (14).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);

- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROG<sub>s</sub>, NO<sub>x</sub>, CO and PM<sub>10</sub>. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

### **2.7.3 AIR QUALITY MANAGEMENT PLANNING**

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB for PM<sub>10</sub>, PM<sub>2.5</sub>, and ozone. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (17). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.9.

## **2.8 REGIONAL AIR QUALITY IMPROVEMENT**

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the Basin. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

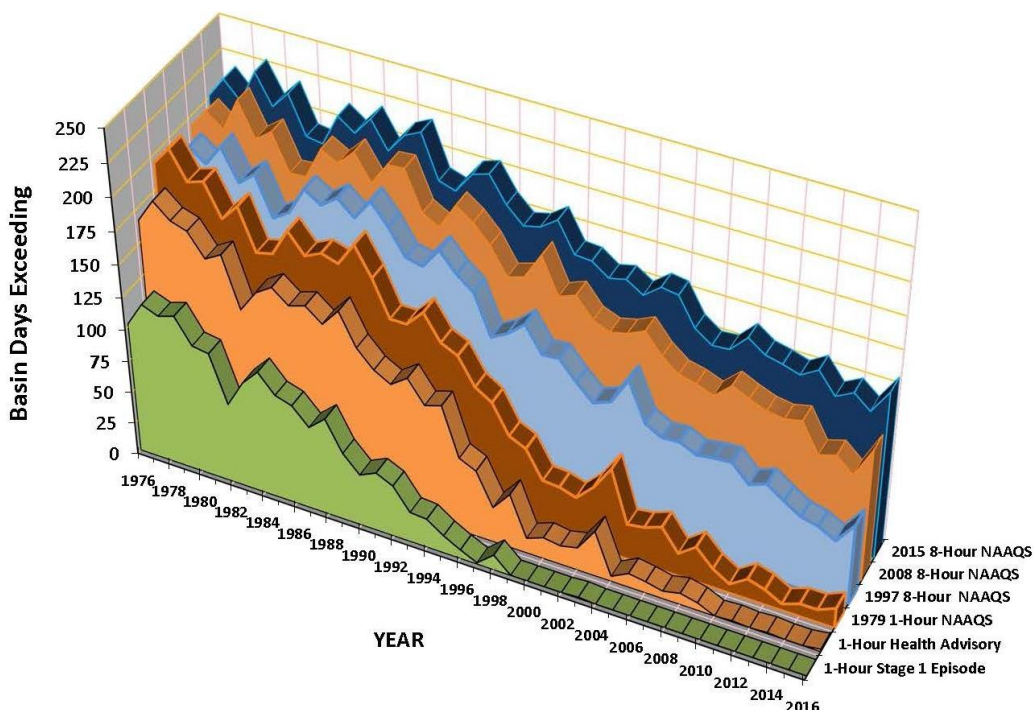
SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The 2012 AQMP states, “the remarkable historical improvement in air quality since the 1970’s is the direct result of Southern California’s comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs,” (18).

Ozone, NO<sub>x</sub>, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (19). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin

continue to increase, NO<sub>x</sub> and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO<sub>x</sub> emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. Ozone levels in the SCAB have decreased substantially over the last 30 years as shown in Table 2-4 (20). Today, the maximum measured concentrations are approximately one-third of concentrations within the late 70's.

**TABLE 2-4: SOUTH COAST AIR BASIN OZONE TREND**



Source: Air Quality Management District

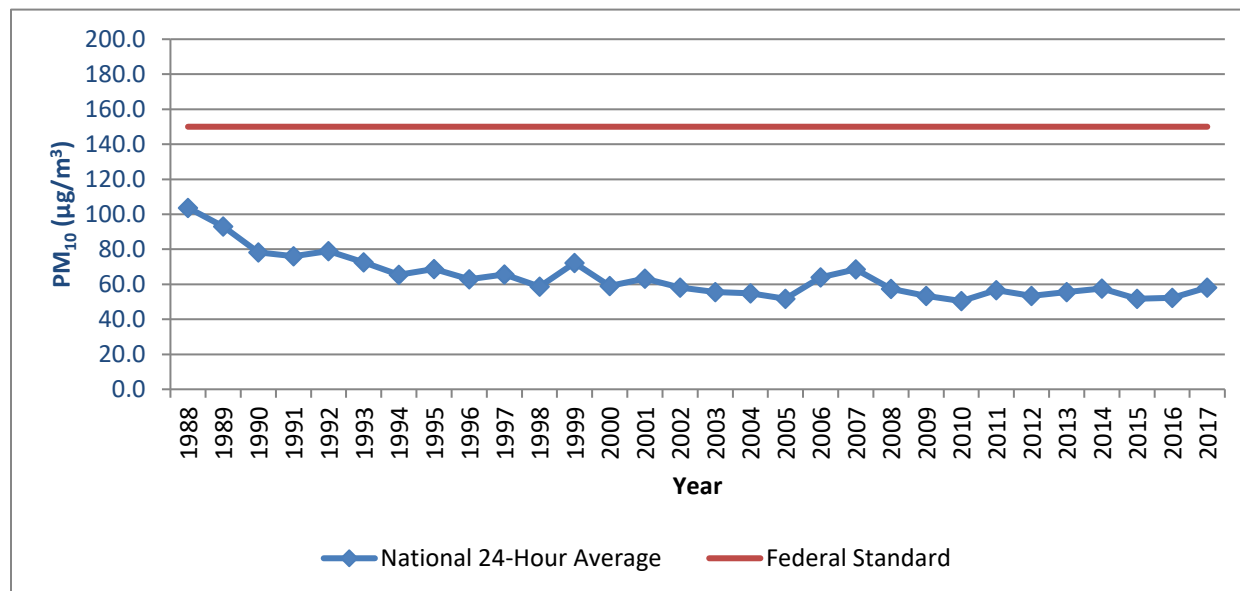
The overall trends of PM<sub>10</sub> and PM<sub>2.5</sub> in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM<sub>10</sub> have remained somewhat constant in the Basin and direct emissions of PM<sub>2.5</sub> have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

As with other pollutants, the most recent PM<sub>10</sub> statistics and also show overall improvement as illustrated in Tables 2-5 and 2-6. During the period for which data are available, the 24-hour national annual average concentration for PM<sub>10</sub> decreased by approximately 44 percent, from 103.7 µg/m<sup>3</sup> in 1988 to 58.2 µg/m<sup>3</sup> in 2017 (21). Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations will exceed the threshold. The 24-hour state annual average for emissions for PM<sub>10</sub>, have decreased by approximately 56 percent since 1988 (21). Although data in the late 1990's show some variability, this is probably due to meteorology rather than a change in emissions. Similar to the



ambient concentrations, the calculated number of days above the 24-hour PM<sub>10</sub> standards has also shown an overall drop.

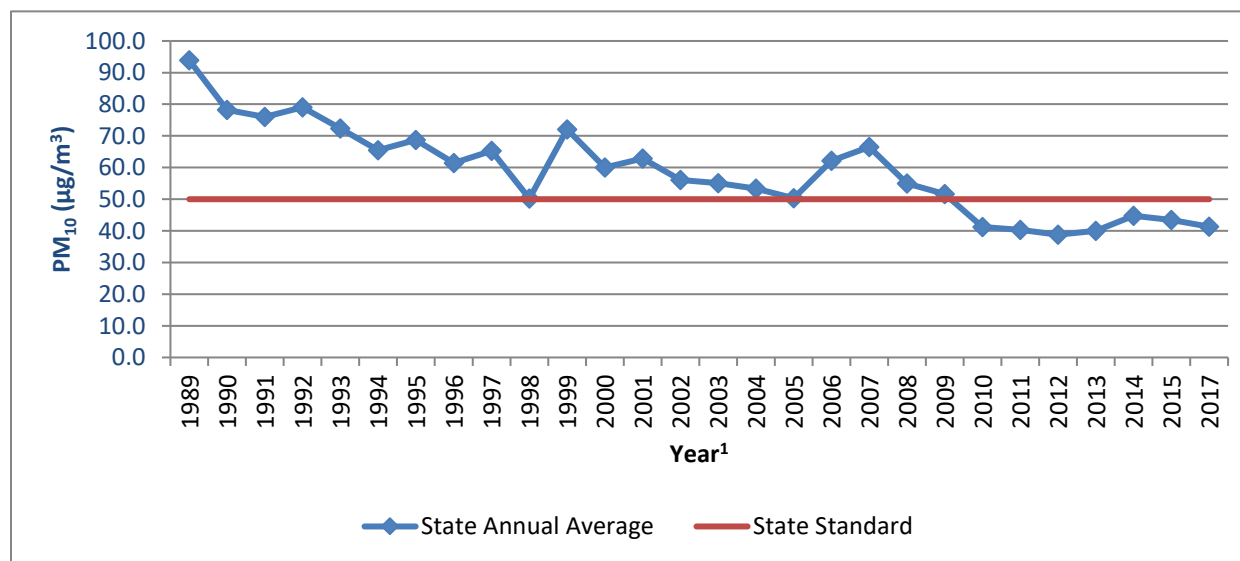
**TABLE 2-5: SOUTH COAST AIR BASIN (NATIONAL 24-HOUR AVERAGE) PM<sub>10</sub> TREND<sup>1</sup>**



Source: California Air Resource Board

<sup>1</sup> Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

**TABLE 2-6: SOUTH COAST AIR BASIN (STATE 24-HOUR AVERAGE) PM<sub>10</sub> TREND<sup>1</sup>**

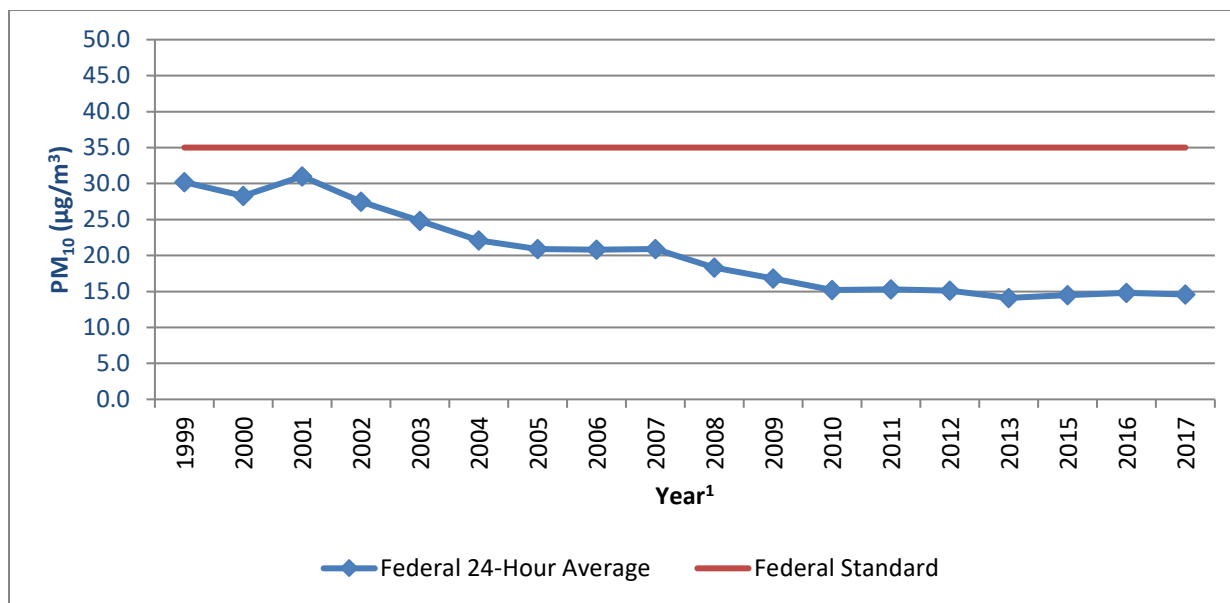


Source: California Air Resource Board

<sup>1</sup> Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

Table 2-7 shows the most recent 24-hour average PM<sub>2.5</sub> concentrations in the SCAB from 1999 through 2017. Overall, the national and state annual average concentrations have decreased by almost 52 percent and 30 percent respectively (21). The SCAB is currently designated as nonattainment for the State and national PM<sub>2.5</sub> standards.

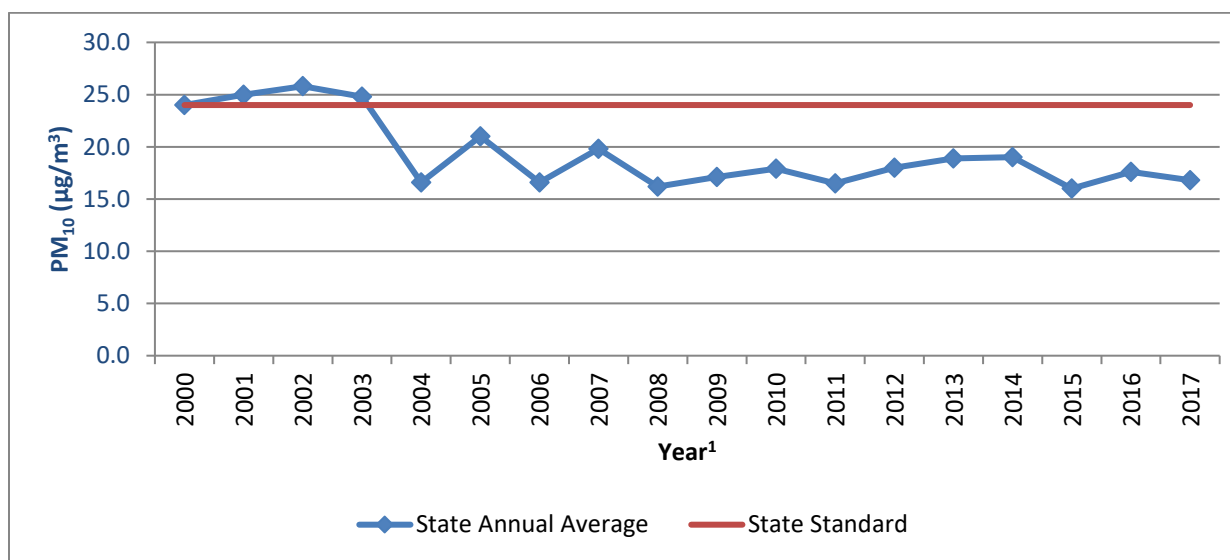
**TABLE 2-7: SOUTH COAST AIR BASIN (NATIONAL 24-HOUR AVERAGE) PM<sub>2.5</sub> TREND<sup>1</sup>**



Source: California Air Resource Board

<sup>1</sup> Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

**TABLE 2-8: SOUTH COAST AIR BASIN (STATE 24-HOUR AVERAGE) PM<sub>2.5</sub> TREND<sup>1</sup>**



Source: California Air Resource Board

<sup>1</sup> Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

While the 2012 AQMP PM<sub>10</sub> attainment demonstration and the 2015 associated supplemental SIP submission indicated that attainment of the 24-hour standard was predicted to occur by the end of 2015, it could not anticipate the effect of the ongoing drought on the measured PM<sub>2.5</sub>.

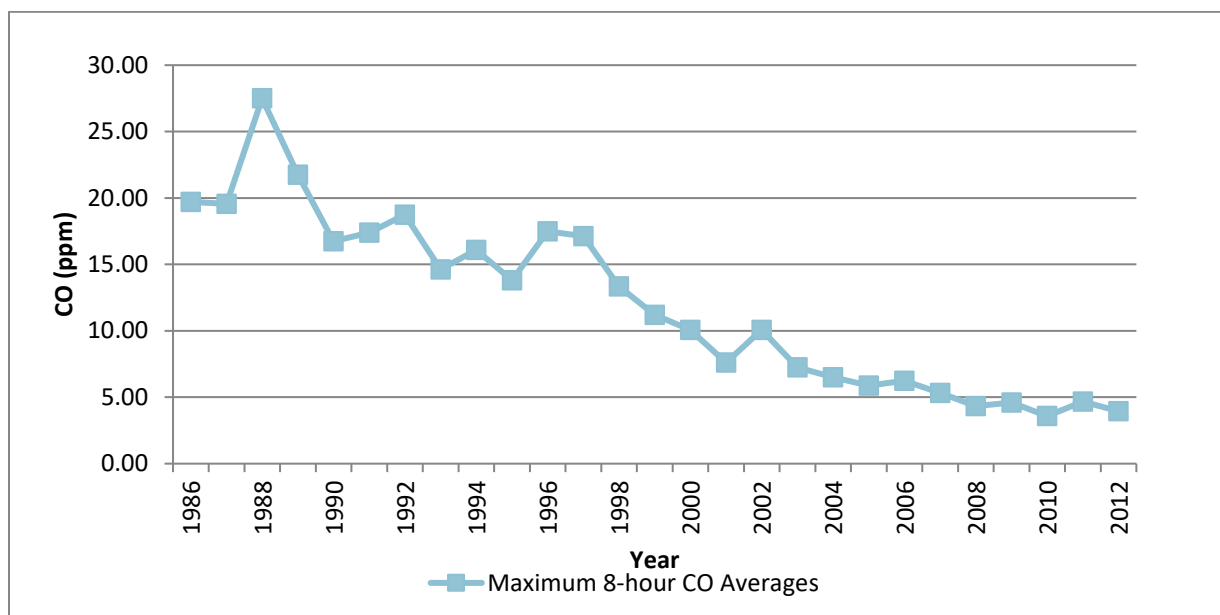
The 2006 to 2010 base period used for the 2012 attainment demonstration had near-normal rainfall. While the trend of PM<sub>2.5</sub>-equivalent emission reductions continued through 2015, the severe drought conditions contributed to the PM<sub>2.5</sub> increases observed after 2012. As a result of the disrupted progress toward attainment of the federal 24-hour PM<sub>2.5</sub> standard, SCAQMD submitted a request and the U.S. EPA approved, in January 2016, a “bump up” to the nonattainment classification from “moderate” to “serious,” with a new attainment deadline as soon as practicable, but not beyond December 31, 2019.

In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (22). Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 RTP/SCS and updated emission inventory methodologies for various source categories (23).

The most recent CO concentrations in the SCAB are shown in Tables 2-9 and 2-10 (21). CO concentrations in the SCAB have decreased markedly — a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the South Coast Air Basin. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

Part of the control process of the SCAQMD’s duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD’s CEQA Handbook (24). The single threshold of significance used to assess Project direct and cumulative impacts has in fact “worked” as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD, the District’s thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

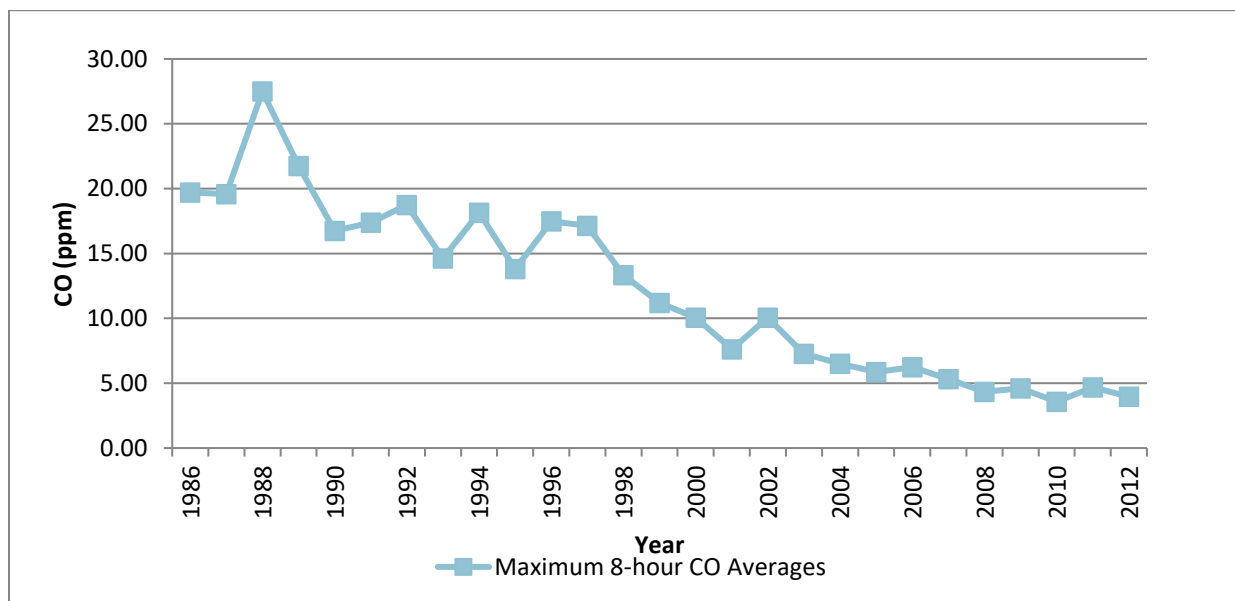
**TABLE 2-9: SOUTH COAST AIR BASIN (NATIONAL 24-HOUR AVERAGE) CARBON MONOXIDE TREND**



Source: California Air Resource Board

<sup>1</sup> The most recent year where 8-hour concentration data is available is 2012.

**TABLE 2-10: SOUTH COAST AIR BASIN (STATE 24-HOUR AVERAGE) CARBON MONOXIDE TREND**



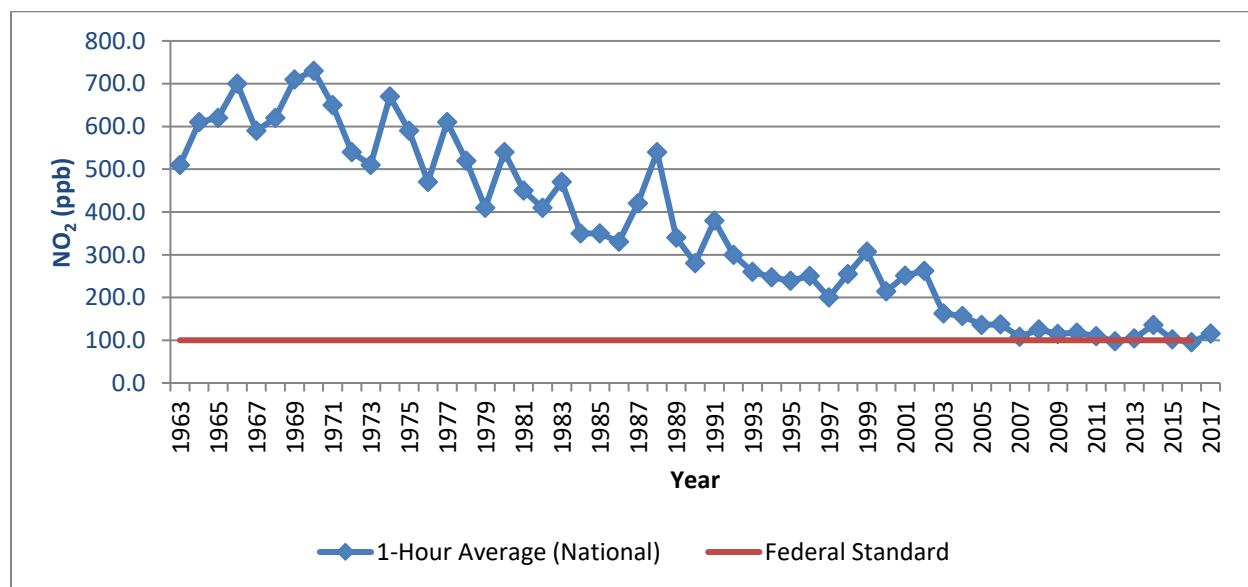
Source: California Air Resource Board

<sup>1</sup> The most recent year where 8-hour concentration data is available is 2012.

The most recent NO<sub>2</sub> data for the SCAB is shown in Tables 2-11 and 2-12 (21). Over the last 50 years, NO<sub>2</sub> values have decreased significantly; the peak 1-hour national and state averages for 2017 is approximately 77 percent lower than what it was during 1963. The SCAB attained the State 1-hour NO<sub>2</sub> standard in 1994, bringing the entire State into attainment. A new state annual average standard of 0.030 parts per million was adopted by the ARB in February 2007 (25). The new standard is just barely exceeded in the South Coast. NO<sub>2</sub> is formed from NO<sub>x</sub> emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California’s NO<sub>x</sub> emissions. These measures are expected to bring the South Coast into attainment of the State annual average standard.

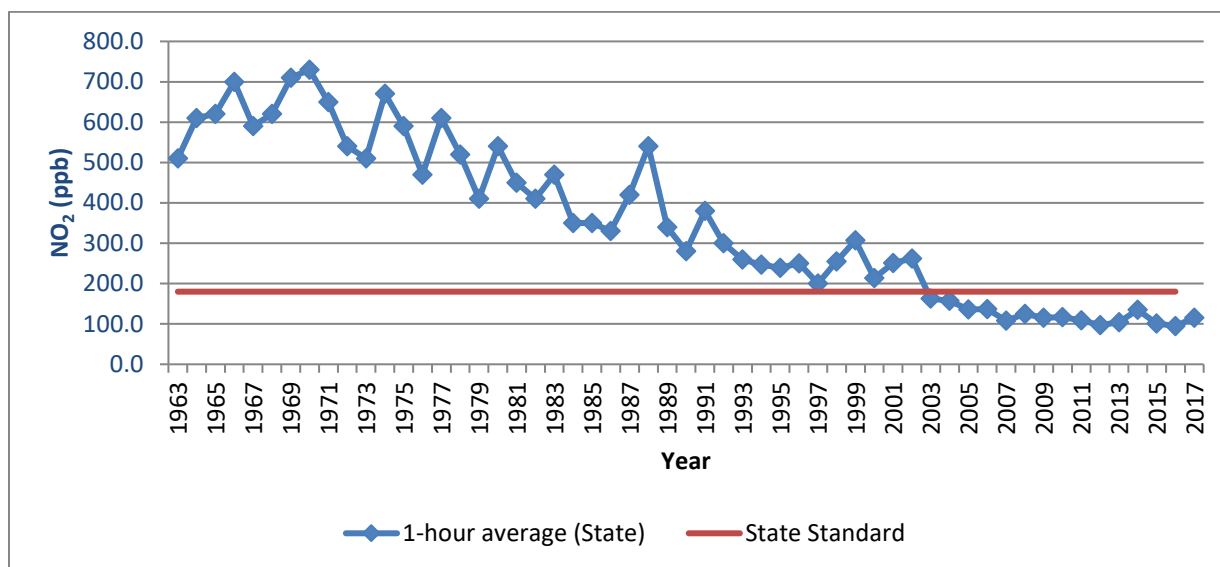
The American Lung Association website includes data collected from State air quality monitors that are used to compile an annual State of the Air report. The latest State of the Air Report compiled for the Basin was in 2017 (26). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area’s average number of high ozone days dropped from 38% regionally in the initial 2000 State of the Air report (1996–1998) to 69% in the 2004 report and continues to decrease the number of days. The region has also seen dramatic reduction in particle pollution since the initial 2000 State of the Air report (26).

**TABLE 2-11: SOUTH COAST AIR BASIN (NATIONAL 24-HOUR AVERAGE) NITROGEN DIOXIDE TREND**



Source: California Air Resource Board

**TABLE 2-12: SOUTH COAST AIR BASIN (STATE 24-HOUR AVERAGE) NITROGEN DIOXIDE TREND**



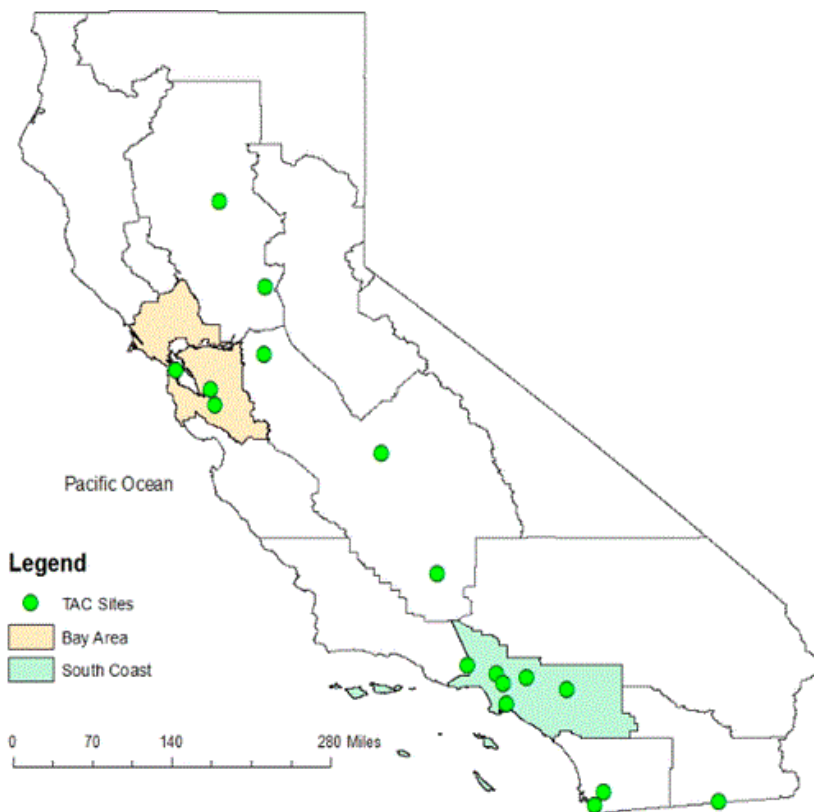
Source: California Air Resource Board

**TOXIC AIR CONTAMINANTS (TACS) TRENDS**

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article (27) which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde<sup>2</sup>. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

<sup>2</sup> It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

## EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES



Source: California Air Resources Board

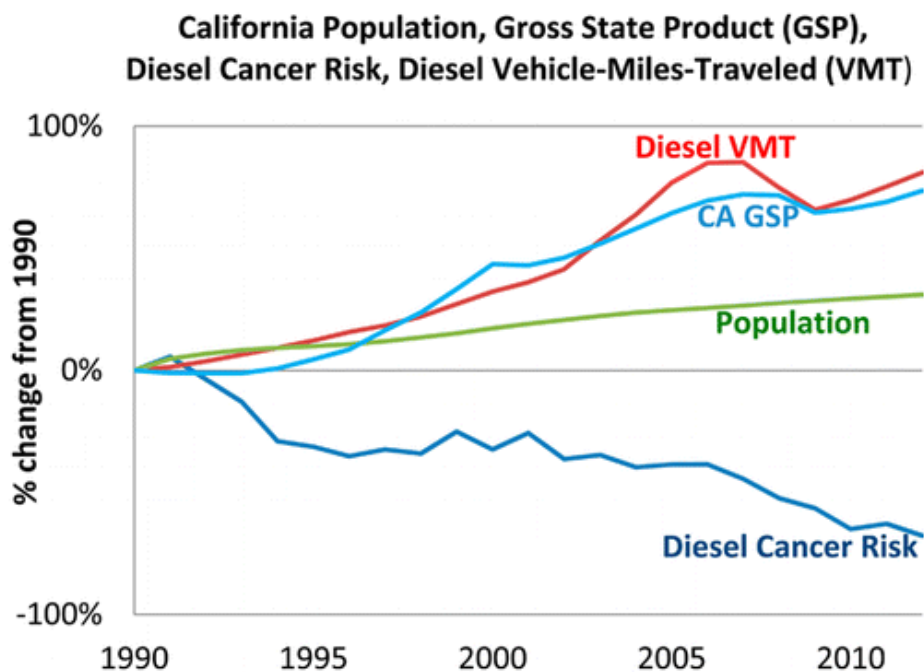
### Mobile Source TACs

CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic (OBD-II) system. The OBD II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life, and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase Check Engine or Service Engine Soon. The system will also store important information about the detected malfunction so that a repair technician can accurately find and fix the problem. ARB has recently developed similar OBD requirements for heavy-duty vehicles over 14,000 lbs. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations (27).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state's

population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

**EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND**



Source: California Air Resources Board

### DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (28), the CARB statewide On-road Truck and Bus Regulation (29), and the Ports of Los Angeles and Long Beach “Clean Truck Program” (CTP) require accelerated implementation of “clean trucks” into the statewide truck fleet (30). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

### CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment



process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). Diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is an approximately 17% decrease in comparison to the MATES-II study.

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,* which shows that cancer risk has decreased more than 55% between MATES III (2005) and MATES IV (2012) (25).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV calculated cancer risks based on monitoring data collected at ten fixed sites within the South Coast Air Basin (SCAB). None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 497.35 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

## **2.9 EXISTING PROJECT SITE AIR QUALITY CONDITIONS**

The Project site is presently vacant and does not support any uses that generate emissions on a regular basis. Emissions are only generated on an occasional basis when the site is disked by a tractor for vegetation control. Existing air quality conditions at the Project site would generally reflect ambient monitored conditions previously presented previously at Table 2-3.

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### **3 PROJECT AIR QUALITY IMPACT**

#### **3.1 INTRODUCTION**

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

#### **3.2 STANDARDS OF SIGNIFICANCE**

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized at Table 3-1 (31). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact. It should be noted that the SCAQMD provides a threshold for emissions of lead, however for purposes of this analysis no lead emissions are calculated as there are no substantive sources of lead emissions. Additionally, the air quality modeling program (discussed below) does not calculate any emissions of lead from typical construction or operational activities.

#### **3.3 CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE AQ EMISSIONS**

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (32). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.1 to 3.3.

**TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS<sup>A</sup>**

Pollutant	Construction	Operations
<b>Regional Thresholds<sup>A</sup></b>		
NO <sub>x</sub>	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM <sub>10</sub>	150 lbs/day	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day	55 lbs/day
SO <sub>x</sub>	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
<b>Localized Thresholds<sup>B</sup></b>		
NO <sub>x</sub>	220 lbs/day (Site Preparation)	270 lbs/day
	237 lbs/day (Grading)	
CO	1,230 lbs/day (Site Preparation)	1,577 lbs/day
	1,345 lbs/day (Grading)	
PM <sub>10</sub>	33 lbs/day (Site Preparation)	11 lbs/day
	36 lbs/day (Grading)	
PM <sub>2.5</sub>	9 lbs/day (Site Preparation)	3 lbs/day
	9 lbs/day (Grading)	

<sup>A</sup>: Based on SCAQMD Air Quality Significance Thresholds, March 2015; <sup>B</sup>: Based on SCAQMD lookup tables.

### 3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

Construction is expected to commence in January 2019 and will last through August 2020. The construction schedule utilized in the analysis, shown in Table 3-2, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission

regulations becoming more stringent.<sup>3</sup> The duration of construction activity was based upon information provided by the Project applicant and a 2020 opening year. A detailed summary of construction equipment, shown in Table 3-3. The site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated equipment both represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 and 3.3 of this analysis.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. It is our understanding the Project site will not require any demolition. Additionally, based on consultation with the Project applicant, the Project site is expected require 10,000 cubic yards of soil import. This analysis includes the projected impacts associated with an importation of 10,000 cubic yards of soil. A CalEEMod default 20-mile one-way trip length for hauling activity was used since the borrow site is unknown at this time.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from the Project applicant and the CalEEMod model.

**TABLE 3-2: CONSTRUCTION DURATION**

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2019	01/14/2019	10
Grading	01/15/2019	03/04/2019	35
Building Construction	03/05/2019	08/03/2020	370
Architectural Coating	07/07/2020	08/31/2020	40
Paving	08/04/2020	08/31/2020	20

Source: Construction activity based upon information provided by the Project applicant.

<sup>3</sup> As shown in the California Emissions Estimator Model (CalEEMod) User’s Guide Version 2016.3.2, Section 4.3 “OFFROAD Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

**TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Activity	Equipment	Amount	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: Construction equipment based on CalEEMod defaults.

### 3.4.1 CONSTRUCTION EMISSIONS SUMMARY

#### ***Impacts With No Mitigation Except For PVCC SP Mitigation***

The estimated maximum daily construction emissions are summarized in Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. It should be noted that the Project is required to comply with the applicable PVCC SP EIR mitigation measures as identified in Section 1.3. As shown, Project construction-source emissions would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. Thus, a less than significant impact would occur for Project-related construction-source emissions and no additional mitigation is required.

**TABLE 3-4: MAXIMUM DAILY PEAK CONSTRUCTION EMISSIONS SUMMARY  
(WITH NO MITIGATION EXCEPT FOR PVCC SP MITIGATION)**

Year	Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2019	6.69	75.12	42.78	0.14	11.05	6.75
2020	58.81	58.55	46.06	0.15	9.06	3.73
<b>Maximum Daily Emissions</b>	<b>58.81</b>	<b>75.12</b>	<b>42.78</b>	<b>0.15</b>	<b>11.05</b>	<b>6.75</b>
SCAQMD Regional Threshold	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod construction-source emissions are presented in Appendix 3.1.

### 3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

#### 3.5.1 AREA SOURCE EMISSIONS

##### Architectural Coatings

Over a period of time, the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

##### Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in the CalEEMod model. In the case of the industrial uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

##### Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the

landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

### 3.5.2 ENERGY SOURCE EMISSIONS

#### Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

### 3.5.3 MOBILE SOURCE EMISSIONS

#### Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 85 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, *Indian and Ramona Warehouse Traffic Impact Analysis* (Urban Crossroads) 2018 were utilized in this analysis (33). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), and heavy trucks) were used in the analysis.

The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their *Trip Generation* manual, 10th Edition, 2017, for warehouse (ITE Land Use Code 154). (34) Total vehicle mix percentages were obtained from *High Cube Transload and Short-Term Storage Warehouse Trip Generation Analysis* (October 2016), as identified in the Project's TIA. *The High Cube Warehouse Vehicle Trip Generation* provides vehicle mix for Short-Term Storage, Transload & Cold Storage, which consists of 32.2% trucks for daily trips.



The vehicle fleet mix, in terms of passenger cars and actual trucks, as derived from the traffic study for the Project, is comprised of the following: 67.81% Passenger Cars, 5.38% Light-Heavy-Duty (LHD)/2-axle, 6.67% Medium-Heavy-Duty (MHD)/3-axle, 20.13% Heavy-Heavy-Duty (HHD)/4+-axle trucks.

### 3.5.3.1 Trip Length

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

#### SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (35). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

#### Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

#### Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates (36). To maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project.

For passenger car trips, the Riverside County CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, Light-Heavy-Duty (LHD)/2-axle, Medium-Heavy-Duty (MHD)/3-axle, and Heavy-Heavy-Duty (HHD)/4+-axle trucks would travel a distance of 60 miles.

One model run was utilized in order to determine emissions resulting from vehicle operations. This run analyzed mobile-source emissions based on a trip length of 30.57 miles for both passenger cars and trucks. The trip length was determined by weighting the default trip length of 16.6 miles for passenger cars within Riverside County and a fleet mix of 67.81% Light-Duty-Auto vehicles (LDA) and the average truck trip length of 60 miles and a fleet mix of 5.38% LHD, 6.67% MHD, and 20.13% HHD. The estimated emissions resulting from vehicle operations are summarized in Section 3.5.4 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.3.

#### Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

### 3.5.4 OPERATIONAL EMISSIONS SUMMARY

Operational-source emissions are summarized on Table 3-5. It should be noted that the Project is required to comply with the applicable PVCC SP EIR mitigation measures as identified in Sections 1.3. As indicated, the Project would not exceed regional thresholds of significance established by the SCAQMD for emissions of any criteria pollutant. Thus, a less than significant impact would occur for Project-related operational-source emissions and no additional mitigation is required.

**TABLE 3-5: MAXIMUM OPERATIONAL EMISSIONS SUMMARY**

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source	9.89	4.2E-04	0.05	--	1.6E-04	1.6E-04
Energy Source	0.03	0.23	0.20	1.40E-03	0.02	0.02
Mobile	2.04	48.49	30.96	0.25	15.08	4.34
<b>Total Maximum Daily Emissions</b>	<b>11.95</b>	<b>48.72</b>	<b>31.20</b>	<b>0.25</b>	<b>15.10</b>	<b>4.35</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source	9.89	4.2E-04	0.05	--	1.6E-04	1.6E-04
Energy Source	0.03	0.23	0.20	1.40E-03	0.02	0.02
Mobile	1.92	49.68	26.86	0.24	15.09	4.34
<b>Total Maximum Daily Emissions</b>	<b>11.84</b>	<b>49.91</b>	<b>27.10</b>	<b>0.24</b>	<b>15.10</b>	<b>4.36</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod operational-source emissions are presented in Appendix 3.2.

Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

### 3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

#### BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (19). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO<sub>2</sub>, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM<sub>10</sub> and PM<sub>2.5</sub>; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (37).

#### APPLICABILITY OF LSTs FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST analysis is the Perris Valley monitoring station (SRA 24). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter ≤ 10 microns (PM<sub>10</sub>), and particulate matter ≤ 2.5 microns (PM<sub>2.5</sub>). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- CalEEMod is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (38) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.

- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than five acres per day then LST impacts are appropriately evaluated through dispersion modeling.

### EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs (39)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

### MAXIMUM DAILY DISTURBED ACREAGE

Table 3-6 is used to determine the maximum daily disturbed-acreage for use in determining the applicability of the SCAQMD's LST look-up tables. Based on Table 3-6, the proposed Project could actively disturb approximately 3.5 acres per day for the site preparation phase and 4.0 acres per day for the grading phase of construction. The acres disturbed is based on the equipment list and days in grading or site preparation phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday (as shown on Table 3-6). The equipment-specific grading rates are summarized in the CalEEMod user's guide, *Appendix A: Calculation Details for CalEEMod* (October 2017).

**TABLE 3-6: MAXIMUM DAILY DISTURBED-ACREAGE**

Construction Activity	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Crawler Tractors	4	0.5	8	2
	Rubber Tired Dozers	3	0.5	8	1.5
Total acres disturbed per day during Site Preparation					3.5
Construction Activity	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Grading	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1	8	2
Total acres disturbed per day during Grading					4.0

Source: Maximum daily disturbed acreage based on equipment list presented in Appendix 3.1.

### Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as “sensitive receptors”; they are also known to be locations where an individual can remain for 24 hours.

Sensitive receptors in the Project study include existing residential homes and school uses, as described below, at locations R1 to R5, as illustrated on Exhibit 3-A. The nearest sensitive receptor to the Project site where an individual could remain for 24-hours, is R1, which represents existing residential homes located approximately 187 feet/57 meters east of the project site.

The *Methodology* explicitly states that “LSTs based on shorter averaging periods, such as the NO<sub>2</sub> and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours (40).” Consistent with the SCAQMD’s Final LST Methodology, the nearest industrial or commercial use to the Project site will be used to determine impacts from emissions of NO<sub>2</sub> and CO.

The *Methodology* also explicitly states that “It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters (40).”



**EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS**



**Legend**

**Residential Receptor**

**TYPE**

-  Residential Receptor (R1)
-  Maximally Exposed Individual Residential Receptor

The nearest industrial or commercial uses are located immediately adjacent to the Project site. As such, a 25-meter receptor distance is utilized as a screening threshold to determine LSTs for emissions of NO<sub>2</sub> and CO and a 57-meter receptor distance is utilized for PM<sub>10</sub> and PM<sub>2.5</sub>.

- R1: Location R1 represents existing residential homes located approximately 187 feet east of the Project site.
- R2: Location R2 represents existing residential homes located approximately 1,218 feet east of the Project site near existing industrial uses.
- R3: Location R3 represents existing residential homes located approximately 1,815 feet southeast of the Project site.
- R4: Location R4 represents existing residential homes located approximately 1,513 feet northwest of the Project site.
- R5: Location R5 represents existing residential homes located approximately 1,936 feet west of the Project site.

#### **CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS**

Since the total acreage disturbed is less than five acres per day for the site preparation phase and the grading phase, the SCAQMD's screening look-up tables are utilized in determining impacts. It should be noted that since the look-up tables identifies thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized, consistent with SCAQMD guidance, in order to interpolate the threshold values for the other disturbed acreage and distances not identified in the look-up tables. Linear regression, as recommended by SCAQMD has been utilized to interpolate the thresholds at the 187 feet/57 meters receptor distance since the look-up tables identifies thresholds at 25 meters, 50 meters, 100 meters, 200 meters, and 500 meters. Calculations for LST thresholds are provided in Appendix 3.3.

#### ***Impacts without Mitigation***

Table 3-7 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Outputs from the model runs for construction LSTs are provided in Appendix 3.1. It should be noted that the Project is required to comply with the applicable PVCC SP EIR mitigation measures as identified in Sections 1.4. As shown, Project construction-source emissions would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. Thus, a less than significant impact would occur for Project-related construction-source emissions and no additional mitigation is required.

**TABLE 3-7: LOCALIZED SIGNIFICANCE SUMMARY OF CONSTRUCTION**

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Emissions	68.19	23.17	10.85	6.69
SCAQMD Localized Threshold	220	1,230	33	9
Threshold Exceeded?	NO	NO	NO	NO
On-Site Grading Emissions	Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Emissions	65.83	33.93	6.48	3.91
SCAQMD Localized Threshold	237	1,345	36	9
Threshold Exceeded?	NO	NO	NO	NO

Source: CalEEMod localized construction-source emissions are presented in Appendix 3.1.

### 3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

Table 3-8 shows the calculated emissions for the Project's operational activities compared with the applicable LSTs. Additional information concerning the Project's impacts on sensitive receptors is found in the Project's health risk assessment. The LST analysis includes on-site sources only; however, the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. In an effort to establish a maximum potential impact scenario for analytic purposes, the emissions shown on Table 3-8 represent all on-site Project-related stationary (area) sources and five percent (5%) of the Project-related mobile sources. Considering that the weighted trip length used in CalEEMod for the Project is approximately 30.57 miles, 5% of this total would represent an on-site travel distance for each car and truck of approximately 1.53 miles/8,078.4 feet, thus the 5% assumption is conservative and would tend to overstate the actual impact. The mobile source emissions also include any potential on-site idling that would occur since CalEEMod calculations are inclusive of on-site idling. Modeling based on these assumptions demonstrates that even within broad encompassing parameters, Project operational-source emissions would not exceed applicable LSTs. As shown below, emissions during operational activity would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant and a less than significant impact would occur.

As previously noted, a 25-meter receptor distance is utilized as a screening threshold to determine LSTs for emissions of NO<sub>2</sub> and CO and a 57-meter receptor distance is utilized for PM<sub>10</sub> and PM<sub>2.5</sub>.



**TABLE 3-8: LOCALIZED SIGNIFICANCE SUMMARY OF OPERATIONS**

Operational Activity	Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Emissions	2.71	1.80	0.77	0.24
SCAQMD Localized Significance Threshold	270	1,577	11	3
Threshold Exceeded?	NO	NO	NO	NO

Source: CalEEMod localized operational-source emissions are presented in Appendix 3.2.

### 3.8 CO “HOT SPOT” ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific carbon monoxide (CO) “hot spots” is not needed to reach this conclusion.

An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (41).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 3-9.

**TABLE 3-9: CO MODEL RESULTS**

Intersection Location	Carbon Monoxide Concentrations (parts per million)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	3.7
Sunset-Highland	4	4.5	3.5
La Cienega-Century	3.7	3.1	5.2
Long Beach-Imperial	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (41). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (42).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-10. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day and AM/PM traffic volumes of 8,062 vehicles per hour and 7,719 vehicles per hour respectively (41). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations ( $4.6 \text{ ppm} \times 4 = 18.4 \text{ ppm}$ ) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).<sup>4</sup> At buildout of the Project, as shown on Exhibit 7-2 of the TIA, the highest average daily trips on a segment of road would be 60,500 daily trips on Driveway 1 and Ramona Expressway, which is lower than the highest daily traffic volumes at Wilshire Blvd. and Veteran Ave. of 100,00 vehicles per day (33). Additionally, the highest AM/PM trips on a segment of road would be 4,091 vehicles per hour and 4,758 vehicles per hour respectively, which is lower than the highest AM/PM traffic volumes at Wilshire Blvd. and Veteran Ave. of 8,062 vehicles per hour and 7,719 vehicles per hour.

The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-11. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

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<sup>4</sup> Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

**TABLE 3-10: TRAFFIC VOLUMES**

Intersection Location	Peak Traffic Volumes (vehicles per hour)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

**TABLE 3-11: PROJECT PEAK TRAFFIC VOLUMES**

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Driveway 1/Ramona Expressway	0/0	4/19	1,542/2,126	1,999/1,715	3,546/3,860
Indian Avenue/Driveway 2	7/18	0/0	311/562	585/794	903/1,375
Indian Avenue/Perry Street	603/794	291/555	0/0	3/6	896/1,355
Indian Avenue/Ramona Expressway	294/411	287/557	1,542/2,126	1,969/1,663	4,091/4,758

Source: Indian and Ramona Warehouse Traffic Impact Analysis (Urban Crossroads, 2018).

### 3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (22). Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 RTP/SCS and updated emission inventory methodologies for various source

categories (43). The Project's consistency with the AQMP will be determined using the 2016 AQMP as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (24). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

### **Construction Impacts**

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized significance thresholds (LSTs) or regional significance thresholds were exceeded. The Project would not exceed the applicable LST thresholds or regional significance thresholds for construction activity as described in Section 3.6. Therefore, the Project would not conflict with the AQMP according to this criterion.

### **Operational Impacts**

The Project would not exceed the applicable LST or regional significance thresholds for operational activity as described in Section 3.7. Therefore, the Project would not conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the Project is consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

### **Overview**

The 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Perris General Plan is considered to be consistent with the AQMP.

### **Construction Impacts**

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

### **Operational Impacts**

The City of Perris General Plan land use and Zoning designation for the Project site is "PVCC SP". The PVCC SP land use designation for the Project site is "Light Industrial (LI)". The LI land use

designation provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials and retail related to manufacturing. Additionally, the Project is located within the Airport Overlay Zone - Accident Potential Zone I (APZ-I) and Accident Potential Zone II (APZ-II). APZ-I and APZ-II prohibit many uses that involve hazardous materials (such as gas stations), and those uses that have higher densities of people per acre. Both APZ-I and APZ-II prohibit new residential development, schools or churches. Non-residential development within APZ-I, will be limited to those uses that have not more than 25 persons per acre such as office parks, warehouses and distribution centers or similar uses. Non-residential development within APZ-II, will be limited to those uses that have not more than 50 persons per acre at any time, including hotels and motels (44). The Project is proposed to consist of a single warehouse building at approximately 428,730 square feet, which is consistent with the site's PVCC SP designation.

### **AQMP Consistency Conclusion**

The Project would not result in or cause NAAQS or CAAQS violations. The Project's proposed land use designation for the subject site is consistent with the development intensities as reflected in the adopted General Plan. The Project is therefore considered to be consistent with the AQMP.

### **3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS**

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that, the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO "hotspot." Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations. In addition, Urban Crossroads has prepared, under separate cover, a health risk assessment, which further analyzes the Project's Impacts on sensitive receptors.

### **3.11 ODORS**

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries

- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances (45). Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

### 3.12 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM<sub>10</sub>, PM<sub>2.5</sub>, and lead.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (46). In this report the AQMD clearly states (Page D-3):

*"...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*

*Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to

have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

#### Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

#### Operational Impacts

Project operational-source emissions would not exceed applicable SCAQMD regional thresholds. Therefore, Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

## 4 FINDINGS & CONCLUSIONS

### CONSTRUCTION-SOURCE EMISSIONS

#### *REGIONAL IMPACTS*

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. It should be noted that the Project is required to comply with the applicable *Perris Valley Commerce Center Specific Plan Environmental Impact Report (PVCC SP EIR) SCH No. 2009081086* (3) mitigation measures as identified in Sections 1.3. As such, a less than significant impact would occur for Project-related construction-source emissions and no mitigation beyond what those identified in the PVCC SP EIR would be required.

#### *LOCALIZED IMPACTS*

For localized emissions, the Project would not exceed the SCAQMD's localized significance threshold for any criteria pollutant. Therefore, a less than significant impact would occur.

#### *ODORS*

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less than significant.

### OPERATIONAL-SOURCE EMISSIONS

#### *REGIONAL IMPACTS*

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. It should be noted that the Project is required to comply with the applicable PVCC SP EIR mitigation measures as identified in Section 1.3. As such, a less than significant impact would occur for Project-related operational-source emissions and no mitigation beyond what those identified in the PVCC SP EIR would be required.

#### *LOCALIZED IMPACTS*

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact, thus a less than significant impact to sensitive receptors during operational activity is expected.



### *ODORS*

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (45). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less than significant.

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## 6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Indian and Ramona Warehouse Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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Master of Science in Environmental Studies  
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June, 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013  
Planned Communities and Urban Infill – Urban Land Institute • June, 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008  
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Air Dispersion Modeling – Lakes Environmental • June, 2006

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**APPENDIX 2.1:**

**STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS**

**TABLE 2-3**  
National Ambient Air Quality Standards (NAAQS) Attainment Status - South Coast Air Basin

Criteria Pollutant	Averaging Time	Designation <sup>a</sup>	Attainment Date <sup>b</sup>
Ozone (O <sub>3</sub> )	(1979) <b>1-Hour</b> (0.12 ppm) <sup>c</sup>	Nonattainment (“extreme”)	2/26/2023 (revised deadline)
	(2015) <b>8-Hour</b> (0.070 ppm) <sup>d</sup>	Pending – Expect Nonattainment (“extreme”)	Pending (beyond 2032)
	(2008) <b>8-Hour</b> (0.075 ppm) <sup>d</sup>	Nonattainment (“extreme”)	7/20/2032
	(1997) <b>8-Hour</b> (0.08 ppm) <sup>d</sup>	Nonattainment (“extreme”)	6/15/2024
PM <sub>2.5</sub> <sup>e</sup>	(2006) <b>24-Hour</b> (35 µg/m <sup>3</sup> )	Nonattainment (“serious”)	12/31/2019
	(2012) <b>Annual</b> (12.0 µg/m <sup>3</sup> )	Nonattainment (“moderate”)	12/31/2021
	(1997) <b>Annual</b> (15.0 µg/m <sup>3</sup> )	Attainment (final determination pending)	4/5/2015 (attained 2013)
PM <sub>10</sub> <sup>f</sup>	(1987) <b>24-hour</b> (150 µg/m <sup>3</sup> )	Attainment (Maintenance)	7/26/2013 (attained)
Lead (Pb) <sup>g</sup>	(2008) <b>3-Months Rolling</b> (0.15 µg/m <sup>3</sup> )	Nonattainment (Partial) (Attainment determination to be requested)	12/31/2015
CO	(1971) <b>1-Hour</b> (35 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	(1971) <b>8-Hour</b> (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
NO <sub>2</sub> <sup>h</sup>	(2010) <b>1-Hour</b> (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	(1971) <b>Annual</b> (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO <sub>2</sub> <sup>i</sup>	(2010) <b>1-Hour</b> (75 ppb)	Designations Pending (expect Unclassifiable/Attainment)	N/A (attained)
	(1971) <b>24-Hour</b> (0.14 ppm) (1971) <b>Annual</b> (0.03 ppm)	Unclassifiable/Attainment	3/19/1979 (attained)

- a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable
- b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for an attainment demonstration
- c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective 6/15/05 ; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard; original attainment date was 11/15/2010; the revised attainment date is 2/6/23
- d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone NAAQS implementation rule, effective 4/6/15; there are continuing obligations under the revoked 1997 and revised 2008 ozone NAAQS until they are attained
- e) The attainment deadline for the 2006 24-hour PM<sub>2.5</sub> NAAQS was 12/31/15 for the former “moderate” classification; U.S.EPA approved reclassification to “serious,” effective 2/12/16 with an attainment deadline of 12/31/2019; the 2012 (proposal year) annual PM<sub>2.5</sub> NAAQS was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m<sup>3</sup>; new annual designations were final 1/15/15, effective 4/15/15; on July 25, 2016 U.S. EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m<sup>3</sup>) and 24-hour PM<sub>2.5</sub> (65 µg/m<sup>3</sup>) NAAQS, effective August 24, 2016
- f) The annual PM<sub>10</sub> NAAQS was revoked, effective 12/18/06; the 24-hour PM<sub>10</sub> NAAQS deadline was 12/31/2006; the Basin’s Attainment Re-designation Request and PM<sub>10</sub> Maintenance Plan was approved by U.S. EPA on 6/26/13, effective 7/26/13
- g) Partial Nonattainment designation – Los Angeles County portion of the Basin only for near-source monitors; expect to remain in attainment based on current monitoring data; attainment re-designation request pending
- h) New 1-hour NO<sub>2</sub> NAAQS became effective 8/2/10, with attainment designations 1/20/12; annual NO<sub>2</sub> NAAQS retained
- i) The 1971 annual and 24-hour SO<sub>2</sub> NAAQS were revoked, effective 8/23/10; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO<sub>2</sub> 1-hour NAAQS; final area designations expected by 12/31/20 due to new source-specific monitoring requirements; Basin expected to be in attainment due to ongoing clean data



**TABLE 2-4**  
National Ambient Air Quality Standards (NAAQS) Attainment Status  
Coachella Valley Portion of the Salton Sea Air Basin

Criteria Pollutant	Averaging Time	Designation <sup>a</sup>	Attainment Date <sup>b</sup>
<b>Ozone (O<sub>3</sub>)</b>	(1979) <b>1-Hour</b> (0.12 ppm) <sup>c</sup>	Attainment	11/15/2007 (attained 12/31/2013)
	(2015) <b>8-Hour</b> (0.070 ppm) <sup>d</sup>	Pending – Expect Nonattainment (Severe)	Pending
	(2008) <b>8-Hour</b> (0.075 ppm) <sup>d</sup>	Nonattainment (Severe-15)	7/20/2027
	(1997) <b>8-Hour</b> (0.08 ppm) <sup>d</sup>	Nonattainment (Severe-15)	6/15/2019
<b>PM2.5<sup>e</sup></b>	(2006) <b>24-Hour</b> (35 µg/m <sup>3</sup> )	Unclassifiable/Attainment	N/A (attained)
	(2012) <b>Annual</b> (12.0 µg/m <sup>3</sup> )	Unclassifiable/Attainment	N/A (attained)
	(1997) <b>Annual</b> (15.0 µg/m <sup>3</sup> )	Unclassifiable/Attainment	N/A (attained)
<b>PM10<sup>f</sup></b>	(1987) <b>24-hour</b> (150 µg/m <sup>3</sup> )	Nonattainment (“serious”)	12/31/2006
<b>Lead (Pb)</b>	(2008) <b>3-Months Rolling</b> (0.15 µg/m <sup>3</sup> )	Unclassifiable/Attainment	Unclassifiable/ Attainment
<b>CO</b>	(1971) <b>1-Hour</b> (35 ppm)	Unclassifiable/Attainment	N/A (attained)
	(1971) <b>8-Hour</b> (9 ppm)	Unclassifiable/Attainment	N/A (attained)
<b>NO<sub>2</sub><sup>g</sup></b>	(2010) <b>1-Hour</b> (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	(1971) <b>Annual</b> (0.053 ppm)	Unclassifiable/Attainment	N/A (attained)
<b>SO<sub>2</sub><sup>h</sup></b>	(2010) <b>1-Hour</b> (75 ppb)	Designations Pending	N/A
	(1971) <b>24-Hour</b> (0.14 ppm) (1971) <b>Annual</b> (0.03 ppm)	Unclassifiable/Attainment	Unclassifiable/ Attainment

- a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable
- b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for an attainment demonstration
- c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective 6/15/05; the Southeast Desert Modified Air Quality Management Area, including the Coachella Valley, had not timely attained this standard by the 11/15/07 “severe-17” deadline, based on 2005-2007 data; on 8/25/14, U.S. EPA proposed a clean data finding based on 2011–2013 data and a determination of attainment for the former 1-hour ozone NAAQS for the Southeast Desert nonattainment area; this rule was finalized by U.S. EPA on 4/15/15, effective 5/15/15, that included preliminary 2014 data
- d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone NAAQS implementation rule, effective 4/6/15; there are continuing obligations under the 1997 and 2008 ozone NAAQS until they are attained
- e) The annual PM2.5 standard was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m<sup>3</sup>
- f) The annual PM10 standard was revoked, effective 12/18/06; the 24-hour PM10 NAAQS attainment deadline was 12/31/2006; the Coachella Valley Attainment Re-designation Request and PM10 Maintenance Plan was postponed by U.S. EPA pending additional monitoring and analysis in the southeastern Coachella Valley
- g) New 1-hour NO<sub>2</sub> NAAQS became effective 8/2/10; attainment designations 1/20/12; annual NO<sub>2</sub> NAAQS retained
- h) The 1971 Annual and 24-hour SO<sub>2</sub> NAAQS were revoked, effective 8/23/10; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO<sub>2</sub> 1-hour standard; final area designations expected by 12/31/2020 with SSAB expected to be designated Unclassifiable/Attainment

The current status of CAAQS attainment for the pollutants with State standards is presented in Table 2-5 for the Basin and the Riverside County portion of the SSAB (Coachella Valley).

TABLE 2-5

California Ambient Air Quality Standards (CAAQS) Attainment Status  
South Coast Air Basin and Coachella Valley portion of Salton Sea Air Basin

Pollutant	Averaging Time and Level <sup>b</sup>	Designation <sup>a</sup>	
		South Coast Air Basin	Coachella Valley
Ozone (O <sub>3</sub> )	1-Hour (0.09 ppm) <sup>c</sup>	Nonattainment	Nonattainment
	8-Hour (0.070 ppm) <sup>d</sup>	Nonattainment	Nonattainment
PM2.5	Annual (12.0 µg/m <sup>3</sup> )	Nonattainment	Attainment
PM10	24-Hour (50 µg/m <sup>3</sup> )	Nonattainment	Nonattainment
	Annual (20 µg/m <sup>3</sup> )	Nonattainment	Nonattainment
Lead (Pb)	30-Day Average (1.5 µg/m <sup>3</sup> )	Attainment	Attainment
CO	1-Hour (20 ppm)	Attainment	Attainment
	8-Hour (9.0 ppm)	Attainment	Attainment
NO <sub>2</sub>	1-Hour (0.18 ppm)	Attainment	Attainment
	Annual (0.030 ppm)	Attainment	Attainment
SO <sub>2</sub>	1-Hour (0.25 ppm)	Attainment	Attainment
	24-Hour (0.04 ppm)	Attainment	Attainment
Sulfates	24-Hour (25 µg/m <sup>3</sup> )	Attainment	Attainment
H <sub>2</sub> S <sup>c</sup>	1-Hour (0.03 ppm)	Unclassified	Unclassified <sup>c)</sup>

- a) CA State designations shown were updated by CARB in 2016, based on the 2013–2015 3-year period; stated designations are based on a 3-year data period after consideration of outliers and exceptional events; Source: <http://www.arb.ca.gov/degis/statedesig.htm#current>
- b) CA State standards, or CAAQS, for ozone, CO, SO<sub>2</sub>, NO<sub>2</sub>, PM10 and PM2.5 are values not to be exceeded; lead, sulfates, and H<sub>2</sub>S standards are values not to be equaled or exceeded; CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations
- c) SCAQMD began monitoring H<sub>2</sub>S in the southeastern Coachella Valley in November 2013 due to odor events related to the Salton Sea; three full years of data are not yet available for a State designation, but nonattainment is anticipated for the H<sub>2</sub>S CAAQS in at least part of the Coachella Valley

The 1979 federal 1-hour ozone standard (0.12 ppm) was revoked by the U.S. EPA and replaced by the 8-hour average ozone standard (0.08 ppm), effective June 15, 2005. However, the Basin and the former Southeast Desert Modified Air Quality Management Area (which included the Coachella Valley) had not attained the 1-hour federal ozone NAAQS by the attainment dates in 2010 and 2007, respectively, and, therefore, had continuing obligations under the former standard. On August 25, 2014, U.S. EPA

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**APPENDIX 3.1:**

**CALEEMOD CONSTRUCTION (UNMITIGATED) EMISSIONS MODEL OUTPUTS**

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**Ramona and Indian Warehouse (Construction - Unmitigated)**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	428.73	1000sqft	9.85	428,730.00	0
Other Non-Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Parking Lot	11.49	Acre	11.49	500,504.40	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - Total Site Area is 26.84 acres (24.2 on-site and 2.64 off-site). Per the Site Plan, 9.85 acres is Building, 11.49 acres is Parking.

Construction Phase - Architectural Coating activities will be conducted concurrent with Building Construction and Paving activities.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Trips and VMT -

Grading -

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Area Coating -

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstructionPhase	NumDays	20.00	40.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00

## Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	0.00
tblGrading	MaterialImported	0.00	10,000.00
tblLandUse	LotAcreage	9.84	9.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	403.01	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	99,143,812.50	0.00

## 2.0 Emissions Summary

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Ramona and Indian Warehouse (Construction - Unmitigated) - 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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1041</b>

**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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1041</b>

## Ramona and Indian Warehouse (Construction - Unmitigated) - 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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	3/4/2019	5	35	
3	Building Construction	Building Construction	3/5/2019	8/3/2020	5	370	
4	Architectural Coating	Architectural Coating	7/7/2020	8/31/2020	5	40	
5	Paving	Paving	8/4/2020	8/31/2020	5	20	

**Acres of Grading (Site Preparation Phase): 20**

**Acres of Grading (Grading Phase): 122.5**

**Acres of Paving: 16.99**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 643,095; Non-Residential Outdoor: 214,365; Striped Parking Area: 38,303 (Architectural Coating – sqft)**

#### OffRoad Equipment

## Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	212	0.43
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,250.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	448.00	175.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Site Preparation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	5.8450	68.1996	23.1708	0.0570		2.9720	2.9720		2.7343	2.7343		5,645.4173	5,645.4173	1.7862		5,690.0710
<b>Total</b>	<b>5.8450</b>	<b>68.1996</b>	<b>23.1708</b>	<b>0.0570</b>	<b>20.1873</b>	<b>2.9720</b>	<b>23.1593</b>	<b>10.1597</b>	<b>2.7343</b>	<b>12.8940</b>		<b>5,645.4173</b>	<b>5,645.4173</b>	<b>1.7862</b>		<b>5,690.0710</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.2 Site Preparation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0991	0.0608	0.7997	2.0600e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		204.7540	204.7540	5.7300e-003		204.8973
<b>Total</b>	<b>0.0991</b>	<b>0.0608</b>	<b>0.7997</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.2400e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.1400e-003</b>	<b>0.0545</b>		<b>204.7540</b>	<b>204.7540</b>	<b>5.7300e-003</b>		<b>204.8973</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8730	0.0000	7.8730	3.9623	0.0000	3.9623			0.0000			0.0000
Off-Road	5.8450	68.1996	23.1708	0.0570		2.9720	2.9720		2.7343	2.7343	0.0000	5,645.4173	5,645.4173	1.7862		5,690.0710
<b>Total</b>	<b>5.8450</b>	<b>68.1996</b>	<b>23.1708</b>	<b>0.0570</b>	<b>7.8730</b>	<b>2.9720</b>	<b>10.8451</b>	<b>3.9623</b>	<b>2.7343</b>	<b>6.6965</b>	<b>0.0000</b>	<b>5,645.4173</b>	<b>5,645.4173</b>	<b>1.7862</b>		<b>5,690.0710</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.2 Site Preparation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0991	0.0608	0.7997	2.0600e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		204.7540	204.7540	5.7300e-003		204.8973
<b>Total</b>	<b>0.0991</b>	<b>0.0608</b>	<b>0.7997</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.2400e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.1400e-003</b>	<b>0.0545</b>		<b>204.7540</b>	<b>204.7540</b>	<b>5.7300e-003</b>		<b>204.8973</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.7700	0.0000	9.7700	3.7165	0.0000	3.7165			0.0000			0.0000
Off-Road	5.4939	65.8336	33.9306	0.0715		2.6735	2.6735		2.4596	2.4596		7,079.5017	7,079.5017	2.2399		7,135.4987
<b>Total</b>	<b>5.4939</b>	<b>65.8336</b>	<b>33.9306</b>	<b>0.0715</b>	<b>9.7700</b>	<b>2.6735</b>	<b>12.4435</b>	<b>3.7165</b>	<b>2.4596</b>	<b>6.1761</b>		<b>7,079.5017</b>	<b>7,079.5017</b>	<b>2.2399</b>		<b>7,135.4987</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2006	9.1236	1.0972	0.0275	0.6248	0.0330	0.6578	0.1713	0.0315	0.2028		2,914.256 2	2,914.256 2	0.1811		2,918.782 8
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	0.1101	0.0676	0.8885	2.2900e-003	0.2236	1.3800e-003	0.2249	0.0593	1.2700e-003	0.0606		227.5045	227.5045	6.3700e-003		227.6637
<b>Total</b>	<b>0.3107</b>	<b>9.1912</b>	<b>1.9857</b>	<b>0.0298</b>	<b>0.8484</b>	<b>0.0344</b>	<b>0.8827</b>	<b>0.2306</b>	<b>0.0328</b>	<b>0.2634</b>		<b>3,141.760 7</b>	<b>3,141.760 7</b>	<b>0.1874</b>		<b>3,146.446 5</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8103	0.0000	3.8103	1.4494	0.0000	1.4494			0.0000			0.0000
Off-Road	5.4939	65.8336	33.9306	0.0715		2.6735	2.6735		2.4596	2.4596	0.0000	7,079.501 7	7,079.501 7	2.2399		7,135.498 7
<b>Total</b>	<b>5.4939</b>	<b>65.8336</b>	<b>33.9306</b>	<b>0.0715</b>	<b>3.8103</b>	<b>2.6735</b>	<b>6.4838</b>	<b>1.4494</b>	<b>2.4596</b>	<b>3.9090</b>	<b>0.0000</b>	<b>7,079.501 7</b>	<b>7,079.501 7</b>	<b>2.2399</b>		<b>7,135.498 7</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2006	9.1236	1.0972	0.0275	0.6248	0.0330	0.6578	0.1713	0.0315	0.2028		2,914.256 2	2,914.256 2	0.1811		2,918.782 8
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	0.1101	0.0676	0.8885	2.2900e-003	0.2236	1.3800e-003	0.2249	0.0593	1.2700e-003	0.0606		227.5045	227.5045	6.3700e-003		227.6637
<b>Total</b>	<b>0.3107</b>	<b>9.1912</b>	<b>1.9857</b>	<b>0.0298</b>	<b>0.8484</b>	<b>0.0344</b>	<b>0.8827</b>	<b>0.2306</b>	<b>0.0328</b>	<b>0.2634</b>		<b>3,141.760 7</b>	<b>3,141.760 7</b>	<b>0.1874</b>		<b>3,146.446 5</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6440	39.6763	19.1447	0.0430		1.8165	1.8165		1.6972	1.6972		4,187.533 0	4,187.533 0	1.1363		4,215.939 9
<b>Total</b>	<b>3.6440</b>	<b>39.6763</b>	<b>19.1447</b>	<b>0.0430</b>		<b>1.8165</b>	<b>1.8165</b>		<b>1.6972</b>	<b>1.6972</b>		<b>4,187.533 0</b>	<b>4,187.533 0</b>	<b>1.1363</b>		<b>4,215.939 9</b>



Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.5829	19.9209	3.7331	0.0461	1.1207	0.1513	1.2720	0.3227	0.1448	0.4674		4,852.7957	4,852.7957	0.3883		4,862.5030
Worker	2.4667	1.5138	19.9026	0.0512	5.0076	0.0309	5.0385	1.3280	0.0285	1.3565		5,096.1000	5,096.1000	0.1427		5,099.6667
<b>Total</b>	<b>3.0496</b>	<b>21.4346</b>	<b>23.6358</b>	<b>0.0972</b>	<b>6.1283</b>	<b>0.1822</b>	<b>6.3105</b>	<b>1.6507</b>	<b>0.1732</b>	<b>1.8239</b>		<b>9,948.8957</b>	<b>9,948.8957</b>	<b>0.5310</b>		<b>9,962.1697</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6440	39.6763	19.1447	0.0430		1.8165	1.8165		1.6972	1.6972	0.0000	4,187.5330	4,187.5330	1.1363		4,215.9399
<b>Total</b>	<b>3.6440</b>	<b>39.6763</b>	<b>19.1447</b>	<b>0.0430</b>		<b>1.8165</b>	<b>1.8165</b>		<b>1.6972</b>	<b>1.6972</b>	<b>0.0000</b>	<b>4,187.5330</b>	<b>4,187.5330</b>	<b>1.1363</b>		<b>4,215.9399</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.5829	19.9209	3.7331	0.0461	1.1207	0.1513	1.2720	0.3227	0.1448	0.4674		4,852.7957	4,852.7957	0.3883		4,862.5030
Worker	2.4667	1.5138	19.9026	0.0512	5.0076	0.0309	5.0385	1.3280	0.0285	1.3565		5,096.1000	5,096.1000	0.1427		5,099.6667
<b>Total</b>	<b>3.0496</b>	<b>21.4346</b>	<b>23.6358</b>	<b>0.0972</b>	<b>6.1283</b>	<b>0.1822</b>	<b>6.3105</b>	<b>1.6507</b>	<b>0.1732</b>	<b>1.8239</b>		<b>9,948.8957</b>	<b>9,948.8957</b>	<b>0.5310</b>		<b>9,962.1697</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3632	36.6770	18.6286	0.0430		1.6373	1.6373		1.5290	1.5290		4,114.5597	4,114.5597	1.1279		4,142.7566
<b>Total</b>	<b>3.3632</b>	<b>36.6770</b>	<b>18.6286</b>	<b>0.0430</b>		<b>1.6373</b>	<b>1.6373</b>		<b>1.5290</b>	<b>1.5290</b>		<b>4,114.5597</b>	<b>4,114.5597</b>	<b>1.1279</b>		<b>4,142.7566</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4878	18.0061	3.2941	0.0457	1.1206	0.1024	1.2231	0.3227	0.0980	0.4206		4,819.3412	4,819.3412	0.3615		4,828.3780
Worker	2.2798	1.3483	18.0640	0.0496	5.0076	0.0303	5.0379	1.3280	0.0279	1.3560		4,935.1435	4,935.1435	0.1265		4,938.3060
<b>Total</b>	<b>2.7675</b>	<b>19.3543</b>	<b>21.3581</b>	<b>0.0953</b>	<b>6.1282</b>	<b>0.1327</b>	<b>6.2610</b>	<b>1.6507</b>	<b>0.1259</b>	<b>1.7766</b>		<b>9,754.4847</b>	<b>9,754.4847</b>	<b>0.4880</b>		<b>9,766.6840</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3632	36.6770	18.6286	0.0430		1.6373	1.6373		1.5290	1.5290	0.0000	4,114.5597	4,114.5597	1.1279		4,142.7566
<b>Total</b>	<b>3.3632</b>	<b>36.6770</b>	<b>18.6286</b>	<b>0.0430</b>		<b>1.6373</b>	<b>1.6373</b>		<b>1.5290</b>	<b>1.5290</b>	<b>0.0000</b>	<b>4,114.5597</b>	<b>4,114.5597</b>	<b>1.1279</b>		<b>4,142.7566</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4878	18.0061	3.2941	0.0457	1.1206	0.1024	1.2231	0.3227	0.0980	0.4206		4,819.3412	4,819.3412	0.3615		4,828.3780
Worker	2.2798	1.3483	18.0640	0.0496	5.0076	0.0303	5.0379	1.3280	0.0279	1.3560		4,935.1435	4,935.1435	0.1265		4,938.3060
<b>Total</b>	<b>2.7675</b>	<b>19.3543</b>	<b>21.3581</b>	<b>0.0953</b>	<b>6.1282</b>	<b>0.1327</b>	<b>6.2610</b>	<b>1.6507</b>	<b>0.1259</b>	<b>1.7766</b>		<b>9,754.4847</b>	<b>9,754.4847</b>	<b>0.4880</b>		<b>9,766.6840</b>

**3.5 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.8983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904
<b>Total</b>	<b>52.2212</b>	<b>2.2451</b>	<b>2.4419</b>	<b>3.9600e-003</b>		<b>0.1479</b>	<b>0.1479</b>		<b>0.1479</b>	<b>0.1479</b>		<b>375.2641</b>	<b>375.2641</b>	<b>0.0291</b>		<b>375.9904</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.5 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4580	0.2709	3.6289	9.9500e-003	1.0060	6.0900e-003	1.0121	0.2668	5.6100e-003	0.2724		991.4351	991.4351	0.0254		992.0704
<b>Total</b>	<b>0.4580</b>	<b>0.2709</b>	<b>3.6289</b>	<b>9.9500e-003</b>	<b>1.0060</b>	<b>6.0900e-003</b>	<b>1.0121</b>	<b>0.2668</b>	<b>5.6100e-003</b>	<b>0.2724</b>		<b>991.4351</b>	<b>991.4351</b>	<b>0.0254</b>		<b>992.0704</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.8983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904
<b>Total</b>	<b>52.2212</b>	<b>2.2451</b>	<b>2.4419</b>	<b>3.9600e-003</b>		<b>0.1479</b>	<b>0.1479</b>		<b>0.1479</b>	<b>0.1479</b>	<b>0.0000</b>	<b>375.2641</b>	<b>375.2641</b>	<b>0.0291</b>		<b>375.9904</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.5 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4580	0.2709	3.6289	9.9500e-003	1.0060	6.0900e-003	1.0121	0.2668	5.6100e-003	0.2724		991.4351	991.4351	0.0254		992.0704
<b>Total</b>	<b>0.4580</b>	<b>0.2709</b>	<b>3.6289</b>	<b>9.9500e-003</b>	<b>1.0060</b>	<b>6.0900e-003</b>	<b>1.0121</b>	<b>0.2668</b>	<b>5.6100e-003</b>	<b>0.2724</b>		<b>991.4351</b>	<b>991.4351</b>	<b>0.0254</b>		<b>992.0704</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	1.5052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.8617</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
<b>Total</b>	<b>0.0763</b>	<b>0.0451</b>	<b>0.6048</b>	<b>1.6600e-003</b>	<b>0.1677</b>	<b>1.0200e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.3000e-004</b>	<b>0.0454</b>		<b>165.2392</b>	<b>165.2392</b>	<b>4.2400e-003</b>		<b>165.3451</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	1.5052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.8617</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
<b>Total</b>	<b>0.0763</b>	<b>0.0451</b>	<b>0.6048</b>	<b>1.6600e-003</b>	<b>0.1677</b>	<b>1.0200e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.3000e-004</b>	<b>0.0454</b>		<b>165.2392</b>	<b>165.2392</b>	<b>4.2400e-003</b>		<b>165.3451</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Ramona and Indian Warehouse (Construction - Unmitigated) - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Unrefrigerated Warehouse-No Rail	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					
Other Non-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
Unrefrigerated Warehouse-No Rail	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Unmitigated	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**7.0 Water Detail**

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Summer

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## 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**Ramona and Indian Warehouse (Construction - Unmitigated)**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	428.73	1000sqft	9.85	428,730.00	0
Other Non-Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Parking Lot	11.49	Acre	11.49	500,504.40	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - Total Site Area is 26.84 acres (24.2 on-site and 2.64 off-site). Per the Site Plan, 9.85 acres is Building, 11.49 acres is Parking.

Construction Phase - Architectural Coating activities will be conducted concurrent with Building Construction and Paving activities.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Trips and VMT -

Grading -

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Area Coating -

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstructionPhase	NumDays	20.00	40.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00



## Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	0.00
tblGrading	MaterialImported	0.00	10,000.00
tblLandUse	LotAcreage	9.84	9.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	403.01	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	99,143,812.50	0.00

## 2.0 Emissions Summary

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Ramona and Indian Warehouse (Construction - Unmitigated) - 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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1041</b>

**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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1041</b>

## Ramona and Indian Warehouse (Construction - Unmitigated) - 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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	3/4/2019	5	35	
3	Building Construction	Building Construction	3/5/2019	8/3/2020	5	370	
4	Architectural Coating	Architectural Coating	7/7/2020	8/31/2020	5	40	
5	Paving	Paving	8/4/2020	8/31/2020	5	20	

**Acres of Grading (Site Preparation Phase): 20**

**Acres of Grading (Grading Phase): 122.5**

**Acres of Paving: 16.99**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 643,095; Non-Residential Outdoor: 214,365; Striped Parking Area: 38,303 (Architectural Coating – sqft)**

#### OffRoad Equipment

## Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	212	0.43
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,250.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	448.00	175.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Site Preparation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	5.8450	68.1996	23.1708	0.0570		2.9720	2.9720		2.7343	2.7343		5,645.4173	5,645.4173	1.7862		5,690.0710
<b>Total</b>	<b>5.8450</b>	<b>68.1996</b>	<b>23.1708</b>	<b>0.0570</b>	<b>20.1873</b>	<b>2.9720</b>	<b>23.1593</b>	<b>10.1597</b>	<b>2.7343</b>	<b>12.8940</b>		<b>5,645.4173</b>	<b>5,645.4173</b>	<b>1.7862</b>		<b>5,690.0710</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.2 Site Preparation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0968	0.0630	0.6481	1.8400e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		183.6931	183.6931	4.9800e-003		183.8177
<b>Total</b>	<b>0.0968</b>	<b>0.0630</b>	<b>0.6481</b>	<b>1.8400e-003</b>	<b>0.2012</b>	<b>1.2400e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.1400e-003</b>	<b>0.0545</b>		<b>183.6931</b>	<b>183.6931</b>	<b>4.9800e-003</b>		<b>183.8177</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8730	0.0000	7.8730	3.9623	0.0000	3.9623			0.0000			0.0000
Off-Road	5.8450	68.1996	23.1708	0.0570		2.9720	2.9720		2.7343	2.7343	0.0000	5,645.4173	5,645.4173	1.7862		5,690.0710
<b>Total</b>	<b>5.8450</b>	<b>68.1996</b>	<b>23.1708</b>	<b>0.0570</b>	<b>7.8730</b>	<b>2.9720</b>	<b>10.8451</b>	<b>3.9623</b>	<b>2.7343</b>	<b>6.6965</b>	<b>0.0000</b>	<b>5,645.4173</b>	<b>5,645.4173</b>	<b>1.7862</b>		<b>5,690.0710</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.2 Site Preparation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0968	0.0630	0.6481	1.8400e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		183.6931	183.6931	4.9800e-003		183.8177
<b>Total</b>	<b>0.0968</b>	<b>0.0630</b>	<b>0.6481</b>	<b>1.8400e-003</b>	<b>0.2012</b>	<b>1.2400e-003</b>	<b>0.2024</b>	<b>0.0534</b>	<b>1.1400e-003</b>	<b>0.0545</b>		<b>183.6931</b>	<b>183.6931</b>	<b>4.9800e-003</b>		<b>183.8177</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.7700	0.0000	9.7700	3.7165	0.0000	3.7165			0.0000			0.0000
Off-Road	5.4939	65.8336	33.9306	0.0715		2.6735	2.6735		2.4596	2.4596		7,079.5017	7,079.5017	2.2399		7,135.4987
<b>Total</b>	<b>5.4939</b>	<b>65.8336</b>	<b>33.9306</b>	<b>0.0715</b>	<b>9.7700</b>	<b>2.6735</b>	<b>12.4435</b>	<b>3.7165</b>	<b>2.4596</b>	<b>6.1761</b>		<b>7,079.5017</b>	<b>7,079.5017</b>	<b>2.2399</b>		<b>7,135.4987</b>



Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2110	9.2155	1.2898	0.0268	0.6248	0.0336	0.6584	0.1713	0.0321	0.2034		2,841.9864	2,841.9864	0.1983		2,846.9427
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	0.1076	0.0700	0.7201	2.0500e-003	0.2236	1.3800e-003	0.2249	0.0593	1.2700e-003	0.0606		204.1034	204.1034	5.5400e-003		204.2419
<b>Total</b>	<b>0.3186</b>	<b>9.2854</b>	<b>2.0099</b>	<b>0.0289</b>	<b>0.8484</b>	<b>0.0349</b>	<b>0.8833</b>	<b>0.2306</b>	<b>0.0334</b>	<b>0.2640</b>		<b>3,046.0899</b>	<b>3,046.0899</b>	<b>0.2038</b>		<b>3,051.1846</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8103	0.0000	3.8103	1.4494	0.0000	1.4494			0.0000			0.0000
Off-Road	5.4939	65.8336	33.9306	0.0715		2.6735	2.6735		2.4596	2.4596	0.0000	7,079.5017	7,079.5017	2.2399		7,135.4987
<b>Total</b>	<b>5.4939</b>	<b>65.8336</b>	<b>33.9306</b>	<b>0.0715</b>	<b>3.8103</b>	<b>2.6735</b>	<b>6.4838</b>	<b>1.4494</b>	<b>2.4596</b>	<b>3.9090</b>	<b>0.0000</b>	<b>7,079.5017</b>	<b>7,079.5017</b>	<b>2.2399</b>		<b>7,135.4987</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2110	9.2155	1.2898	0.0268	0.6248	0.0336	0.6584	0.1713	0.0321	0.2034		2,841.9864	2,841.9864	0.1983		2,846.9427
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	0.1076	0.0700	0.7201	2.0500e-003	0.2236	1.3800e-003	0.2249	0.0593	1.2700e-003	0.0606		204.1034	204.1034	5.5400e-003		204.2419
<b>Total</b>	<b>0.3186</b>	<b>9.2854</b>	<b>2.0099</b>	<b>0.0289</b>	<b>0.8484</b>	<b>0.0349</b>	<b>0.8833</b>	<b>0.2306</b>	<b>0.0334</b>	<b>0.2640</b>		<b>3,046.0899</b>	<b>3,046.0899</b>	<b>0.2038</b>		<b>3,051.1846</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6440	39.6763	19.1447	0.0430		1.8165	1.8165		1.6972	1.6972		4,187.5330	4,187.5330	1.1363		4,215.9399
<b>Total</b>	<b>3.6440</b>	<b>39.6763</b>	<b>19.1447</b>	<b>0.0430</b>		<b>1.8165</b>	<b>1.8165</b>		<b>1.6972</b>	<b>1.6972</b>		<b>4,187.5330</b>	<b>4,187.5330</b>	<b>1.1363</b>		<b>4,215.9399</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.6119	19.8755	4.3404	0.0443	1.1207	0.1532	1.2739	0.3227	0.1466	0.4692		4,671.426 2	4,671.426 2	0.4314		4,682.210 1
Worker	2.4102	1.5671	16.1305	0.0459	5.0076	0.0309	5.0385	1.3280	0.0285	1.3565		4,571.916 8	4,571.916 8	0.1241		4,575.018 2
<b>Total</b>	<b>3.0220</b>	<b>21.4425</b>	<b>20.4709</b>	<b>0.0902</b>	<b>6.1283</b>	<b>0.1841</b>	<b>6.3124</b>	<b>1.6507</b>	<b>0.1750</b>	<b>1.8257</b>		<b>9,243.343 0</b>	<b>9,243.343 0</b>	<b>0.5554</b>		<b>9,257.228 3</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6440	39.6763	19.1447	0.0430		1.8165	1.8165		1.6972	1.6972	0.0000	4,187.533 0	4,187.533 0	1.1363		4,215.939 9
<b>Total</b>	<b>3.6440</b>	<b>39.6763</b>	<b>19.1447</b>	<b>0.0430</b>		<b>1.8165</b>	<b>1.8165</b>		<b>1.6972</b>	<b>1.6972</b>	<b>0.0000</b>	<b>4,187.533 0</b>	<b>4,187.533 0</b>	<b>1.1363</b>		<b>4,215.939 9</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.6119	19.8755	4.3404	0.0443	1.1207	0.1532	1.2739	0.3227	0.1466	0.4692		4,671.426 2	4,671.426 2	0.4314		4,682.210 1
Worker	2.4102	1.5671	16.1305	0.0459	5.0076	0.0309	5.0385	1.3280	0.0285	1.3565		4,571.916 8	4,571.916 8	0.1241		4,575.018 2
<b>Total</b>	<b>3.0220</b>	<b>21.4425</b>	<b>20.4709</b>	<b>0.0902</b>	<b>6.1283</b>	<b>0.1841</b>	<b>6.3124</b>	<b>1.6507</b>	<b>0.1750</b>	<b>1.8257</b>		<b>9,243.343 0</b>	<b>9,243.343 0</b>	<b>0.5554</b>		<b>9,257.228 3</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3632	36.6770	18.6286	0.0430		1.6373	1.6373		1.5290	1.5290		4,114.5597	4,114.5597	1.1279		4,142.756 6
<b>Total</b>	<b>3.3632</b>	<b>36.6770</b>	<b>18.6286</b>	<b>0.0430</b>		<b>1.6373</b>	<b>1.6373</b>		<b>1.5290</b>	<b>1.5290</b>		<b>4,114.559 7</b>	<b>4,114.559 7</b>	<b>1.1279</b>		<b>4,142.756 6</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5145	17.9118	3.8570	0.0440	1.1206	0.1036	1.2243	0.3227	0.0991	0.4218		4,638.248 3	4,638.248 3	0.4022		4,648.304 4
Worker	2.2326	1.3948	14.6126	0.0444	5.0076	0.0303	5.0379	1.3280	0.0279	1.3560		4,427.296 4	4,427.296 4	0.1100		4,430.045 5
<b>Total</b>	<b>2.7471</b>	<b>19.3066</b>	<b>18.4696</b>	<b>0.0884</b>	<b>6.1282</b>	<b>0.1339</b>	<b>6.2622</b>	<b>1.6507</b>	<b>0.1271</b>	<b>1.7777</b>		<b>9,065.544 7</b>	<b>9,065.544 7</b>	<b>0.5122</b>		<b>9,078.349 8</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3632	36.6770	18.6286	0.0430		1.6373	1.6373		1.5290	1.5290	0.0000	4,114.5597	4,114.559 7	1.1279		4,142.756 6
<b>Total</b>	<b>3.3632</b>	<b>36.6770</b>	<b>18.6286</b>	<b>0.0430</b>		<b>1.6373</b>	<b>1.6373</b>		<b>1.5290</b>	<b>1.5290</b>	<b>0.0000</b>	<b>4,114.559 7</b>	<b>4,114.559 7</b>	<b>1.1279</b>		<b>4,142.756 6</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5145	17.9118	3.8570	0.0440	1.1206	0.1036	1.2243	0.3227	0.0991	0.4218		4,638.248 3	4,638.248 3	0.4022		4,648.304 4
Worker	2.2326	1.3948	14.6126	0.0444	5.0076	0.0303	5.0379	1.3280	0.0279	1.3560		4,427.296 4	4,427.296 4	0.1100		4,430.045 5
<b>Total</b>	<b>2.7471</b>	<b>19.3066</b>	<b>18.4696</b>	<b>0.0884</b>	<b>6.1282</b>	<b>0.1339</b>	<b>6.2622</b>	<b>1.6507</b>	<b>0.1271</b>	<b>1.7777</b>		<b>9,065.544 7</b>	<b>9,065.544 7</b>	<b>0.5122</b>		<b>9,078.349 8</b>

**3.5 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.8983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904
<b>Total</b>	<b>52.2212</b>	<b>2.2451</b>	<b>2.4419</b>	<b>3.9600e-003</b>		<b>0.1479</b>	<b>0.1479</b>		<b>0.1479</b>	<b>0.1479</b>		<b>375.2641</b>	<b>375.2641</b>	<b>0.0291</b>		<b>375.9904</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.5 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4485	0.2802	2.9356	8.9300e-003	1.0060	6.0900e-003	1.0121	0.2668	5.6100e-003	0.2724		889.4122	889.4122	0.0221		889.9645
<b>Total</b>	<b>0.4485</b>	<b>0.2802</b>	<b>2.9356</b>	<b>8.9300e-003</b>	<b>1.0060</b>	<b>6.0900e-003</b>	<b>1.0121</b>	<b>0.2668</b>	<b>5.6100e-003</b>	<b>0.2724</b>		<b>889.4122</b>	<b>889.4122</b>	<b>0.0221</b>		<b>889.9645</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.8983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904
<b>Total</b>	<b>52.2212</b>	<b>2.2451</b>	<b>2.4419</b>	<b>3.9600e-003</b>		<b>0.1479</b>	<b>0.1479</b>		<b>0.1479</b>	<b>0.1479</b>	<b>0.0000</b>	<b>375.2641</b>	<b>375.2641</b>	<b>0.0291</b>		<b>375.9904</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.5 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4485	0.2802	2.9356	8.9300e-003	1.0060	6.0900e-003	1.0121	0.2668	5.6100e-003	0.2724		889.4122	889.4122	0.0221		889.9645
<b>Total</b>	<b>0.4485</b>	<b>0.2802</b>	<b>2.9356</b>	<b>8.9300e-003</b>	<b>1.0060</b>	<b>6.0900e-003</b>	<b>1.0121</b>	<b>0.2668</b>	<b>5.6100e-003</b>	<b>0.2724</b>		<b>889.4122</b>	<b>889.4122</b>	<b>0.0221</b>		<b>889.9645</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	1.5052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.8617</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>



Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
<b>Total</b>	<b>0.0748</b>	<b>0.0467</b>	<b>0.4893</b>	<b>1.4900e-003</b>	<b>0.1677</b>	<b>1.0200e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.3000e-004</b>	<b>0.0454</b>		<b>148.2354</b>	<b>148.2354</b>	<b>3.6800e-003</b>		<b>148.3274</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	1.5052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.8617</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
<b>Total</b>	<b>0.0748</b>	<b>0.0467</b>	<b>0.4893</b>	<b>1.4900e-003</b>	<b>0.1677</b>	<b>1.0200e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.3000e-004</b>	<b>0.0454</b>		<b>148.2354</b>	<b>148.2354</b>	<b>3.6800e-003</b>		<b>148.3274</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Ramona and Indian Warehouse (Construction - Unmitigated) - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Unrefrigerated Warehouse-No Rail	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					
Other Non-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
Unrefrigerated Warehouse-No Rail	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Unmitigated	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**7.0 Water Detail**

Ramona and Indian Warehouse (Construction - Unmitigated) - Riverside-South Coast County, Winter

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## 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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**APPENDIX 3.2:**

**CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS**

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**Ramona and Indian Warehouse (Operations)**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	428.73	1000sqft	9.85	428,730.00	0
Other Non-Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Parking Lot	11.49	Acre	11.49	500,504.40	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - Total Site Area is 26.84 acres (24.2 on-site and 2.64 off-site). Per the Site Plan, 9.85 acres is Building, 11.49 acres is Parking.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Architectural Coating -

Vehicle Trips - Operations Run Only. Trip Length represents the weighted Trip Length of Passenger Cars and Trucks.

Area Coating -

Energy Use -

Water And Wastewater - Water Demand based on the Generation Rate of 0.75 (Demand/AFY) as per the PVCC SP EIR.

Solid Waste -

Fleet Mix - Fleet Mix based on information provided in the TIA.

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.07	0.20
tblFleetMix	LDA	0.54	0.68
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.05
tblFleetMix	LHD2	5.3390e-003	0.00
tblFleetMix	MCY	4.6290e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.1200e-003	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3650e-003	0.00
tblFleetMix	SBUS	9.5900e-004	0.00
tblFleetMix	UBUS	1.2130e-003	0.00
tblLandUse	LotAcreage	9.84	9.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	30.57
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	0.94
tblVehicleTrips	SU_TR	1.68	0.87
tblVehicleTrips	WD_TR	1.68	1.40
tblWater	IndoorWaterUseRate	99,143,812.50	5,914,207.45





Ramona and Indian Warehouse (Operations) - 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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
Mobile	2.0353	48.4888	30.9628	0.2520	14.7150	0.3694	15.0844	3.9848	0.3517	4.3365		26,124.8131	26,124.8131	0.8678		26,146.5068
<b>Total</b>	<b>11.9539</b>	<b>48.7230</b>	<b>31.2049</b>	<b>0.2534</b>	<b>14.7150</b>	<b>0.3873</b>	<b>15.1023</b>	<b>3.9848</b>	<b>0.3696</b>	<b>4.3544</b>		<b>26,405.4334</b>	<b>26,405.4334</b>	<b>0.8734</b>	<b>5.1400e-003</b>	<b>26,428.8006</b>

**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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
Mobile	2.0353	48.4888	30.9628	0.2520	14.7150	0.3694	15.0844	3.9848	0.3517	4.3365		26,124.8131	26,124.8131	0.8678		26,146.5068
<b>Total</b>	<b>11.9539</b>	<b>48.7230</b>	<b>31.2049</b>	<b>0.2534</b>	<b>14.7150</b>	<b>0.3873</b>	<b>15.1023</b>	<b>3.9848</b>	<b>0.3696</b>	<b>4.3544</b>		<b>26,405.4334</b>	<b>26,405.4334</b>	<b>0.8734</b>	<b>5.1400e-003</b>	<b>26,428.8006</b>



Ramona and Indian Warehouse (Operations) - 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	Site Preparation	Site Preparation	1/25/2019	2/7/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 16.99

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	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
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**3.2 Site Preparation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**3.2 Site Preparation - 2019**

**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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Ramona and Indian Warehouse (Operations) - 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	2.0353	48.4888	30.9628	0.2520	14.7150	0.3694	15.0844	3.9848	0.3517	4.3365		26,124.8131	26,124.8131	0.8678		26,146.5068
Unmitigated	2.0353	48.4888	30.9628	0.2520	14.7150	0.3694	15.0844	3.9848	0.3517	4.3365		26,124.8131	26,124.8131	0.8678		26,146.5068

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	600.22	403.01	373.00	6,004,247	6,004,247
Total	600.22	403.01	373.00	6,004,247	6,004,247

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	30.57	8.40	6.90	100.00	0.00	0.00	100	0	0

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Unrefrigerated Warehouse-No Rail	0.678140	0.000000	0.000000	0.000000	0.053810	0.000000	0.066710	0.201340	0.000000	0.000000	0.000000	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
NaturalGas Unmitigated	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**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	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	2384.44	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
<b>Total</b>		<b>0.0257</b>	<b>0.2338</b>	<b>0.1964</b>	<b>1.4000e-003</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0178</b>	<b>0.0178</b>		<b>280.5228</b>	<b>280.5228</b>	<b>5.3800e-003</b>	<b>5.1400e-003</b>	<b>282.1898</b>

**Mitigated**

	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	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	2.38444	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
<b>Total</b>		<b>0.0257</b>	<b>0.2338</b>	<b>0.1964</b>	<b>1.4000e-003</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0178</b>	<b>0.0178</b>		<b>280.5228</b>	<b>280.5228</b>	<b>5.3800e-003</b>	<b>5.1400e-003</b>	<b>282.1898</b>

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Unmitigated	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**7.0 Water Detail**



Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**Ramona and Indian Warehouse (Operations)**  
**Riverside-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	428.73	1000sqft	9.85	428,730.00	0
Other Non-Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Parking Lot	11.49	Acre	11.49	500,504.40	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.4	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - Total Site Area is 26.84 acres (24.2 on-site and 2.64 off-site). Per the Site Plan, 9.85 acres is Building, 11.49 acres is Parking.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Architectural Coating -

Vehicle Trips - Operations Run Only. Trip Length represents the weighted Trip Length of Passenger Cars and Trucks.

Area Coating -

Energy Use -

Water And Wastewater - Water Demand based on the Generation Rate of 0.75 (Demand/AFY) as per the PVCC SP EIR.

Solid Waste -

Fleet Mix - Fleet Mix based on information provided in the TIA.

## Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.07	0.20
tblFleetMix	LDA	0.54	0.68
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.05
tblFleetMix	LHD2	5.3390e-003	0.00
tblFleetMix	MCY	4.6290e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.1200e-003	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3650e-003	0.00
tblFleetMix	SBUS	9.5900e-004	0.00
tblFleetMix	UBUS	1.2130e-003	0.00
tblLandUse	LotAcreage	9.84	9.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	30.57
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	0.94
tblVehicleTrips	SU_TR	1.68	0.87
tblVehicleTrips	WD_TR	1.68	1.40
tblWater	IndoorWaterUseRate	99,143,812.50	5,914,207.45





Ramona and Indian Warehouse (Operations) - 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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
Mobile	1.9208	49.6759	26.8579	0.2413	14.7150	0.3708	15.0858	3.9848	0.3530	4.3378		25,045.3626	25,045.3626	0.9022		25,067.9166
<b>Total</b>	<b>11.8394</b>	<b>49.9101</b>	<b>27.1001</b>	<b>0.2427</b>	<b>14.7150</b>	<b>0.3887</b>	<b>15.1037</b>	<b>3.9848</b>	<b>0.3710</b>	<b>4.3558</b>		<b>25,325.9829</b>	<b>25,325.9829</b>	<b>0.9078</b>	<b>5.1400e-003</b>	<b>25,350.2105</b>

**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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Energy	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
Mobile	1.9208	49.6759	26.8579	0.2413	14.7150	0.3708	15.0858	3.9848	0.3530	4.3378		25,045.3626	25,045.3626	0.9022		25,067.9166
<b>Total</b>	<b>11.8394</b>	<b>49.9101</b>	<b>27.1001</b>	<b>0.2427</b>	<b>14.7150</b>	<b>0.3887</b>	<b>15.1037</b>	<b>3.9848</b>	<b>0.3710</b>	<b>4.3558</b>		<b>25,325.9829</b>	<b>25,325.9829</b>	<b>0.9078</b>	<b>5.1400e-003</b>	<b>25,350.2105</b>

Ramona and Indian Warehouse (Operations) - 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	Site Preparation	Site Preparation	1/25/2019	2/7/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 16.99

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	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
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction



Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**3.2 Site Preparation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**3.2 Site Preparation - 2019**

**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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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Ramona and Indian Warehouse (Operations) - 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	1.9208	49.6759	26.8579	0.2413	14.7150	0.3708	15.0858	3.9848	0.3530	4.3378		25,045.36 26	25,045.36 26	0.9022		25,067.91 66
Unmitigated	1.9208	49.6759	26.8579	0.2413	14.7150	0.3708	15.0858	3.9848	0.3530	4.3378		25,045.36 26	25,045.36 26	0.9022		25,067.91 66

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	600.22	403.01	373.00	6,004,247	6,004,247
Total	600.22	403.01	373.00	6,004,247	6,004,247

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	30.57	8.40	6.90	100.00	0.00	0.00	100	0	0

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Unrefrigerated Warehouse-No Rail	0.678140	0.000000	0.000000	0.000000	0.053810	0.000000	0.066710	0.201340	0.000000	0.000000	0.000000	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
NaturalGas Unmitigated	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**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	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	2384.44	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
<b>Total</b>		<b>0.0257</b>	<b>0.2338</b>	<b>0.1964</b>	<b>1.4000e-003</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0178</b>	<b>0.0178</b>		<b>280.5228</b>	<b>280.5228</b>	<b>5.3800e-003</b>	<b>5.1400e-003</b>	<b>282.1898</b>

**Mitigated**

	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	lb/day										lb/day					
Other Non-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
Unrefrigerated Warehouse-No Rail	2.38444	0.0257	0.2338	0.1964	1.4000e-003		0.0178	0.0178		0.0178	0.0178		280.5228	280.5228	5.3800e-003	5.1400e-003	282.1898
<b>Total</b>		<b>0.0257</b>	<b>0.2338</b>	<b>0.1964</b>	<b>1.4000e-003</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0178</b>	<b>0.0178</b>		<b>280.5228</b>	<b>280.5228</b>	<b>5.3800e-003</b>	<b>5.1400e-003</b>	<b>282.1898</b>

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	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	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
Unmitigated	9.8928	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**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	1.1375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.7510					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3100e-003	4.2000e-004	0.0458	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0976	0.0976	2.6000e-004		0.1041
<b>Total</b>	<b>9.8928</b>	<b>4.2000e-004</b>	<b>0.0458</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.0976</b>	<b>0.0976</b>	<b>2.6000e-004</b>		<b>0.1041</b>

**7.0 Water Detail**

Ramona and Indian Warehouse (Operations) - Riverside-South Coast County, Winter

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## 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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**APPENDIX 3.3:**  
**LST THRESHOLDS**

**Linear Regression Threshold Estimate for Industrial and Commercial  
SRA 24**

Site Preparation

	Acres	2	5	3.5	25
<b>NO<sub>x</sub></b>	25	170	270	220	220
	50	200	302	251	
<b>CO</b>	25	882	1,577	1,230	1,230
	50	1,262	2,178	1,720	
	Acres	2	5	3.5	57
<b>PM<sub>10</sub></b>	50	20	40	30	33
	100	38	59	49	
<b>PM<sub>2.5</sub></b>	50	6	10	8	9
	100	10	16	13	

Grading

	Acres	2	5	4	25
<b>NO<sub>x</sub></b>	25	170	270	237	237
	50	200	302	268	
<b>CO</b>	25	882	1,577	1,345	1,345
	50	1,262	2,178	1,873	
	Acres	2	5	4.0	57
<b>PM<sub>10</sub></b>	50	20	40	33	36
	100	38	59	52	
<b>PM<sub>2.5</sub></b>	50	6	10	9	9
	100	10	16	14	

Operations

	Acres	5	25
<b>NO<sub>x</sub></b>	25	270	270
	50	302	
<b>CO</b>	25	1,577	1,577
	50	2,178	
	Acres	5	57
<b>PM<sub>10</sub></b>	50	10	11
	100	14	
<b>PM<sub>2.5</sub></b>	50	3	3
	100	4	

<b>NOX</b>	Nearest Sensitive Receptor Dist.	82	Feet
<b>CO</b>		25	Meters
	<b>Receptor Distance Used for LST</b>	<b>25</b>	<b>Meters</b>
<b>PM10</b>	Nearest Sensitive Receptor Dist.	187	Feet
<b>PM2.5</b>		57	Meters
	<b>Receptor Distance Used for LST</b>	<b>57</b>	<b>Meters</b>

- Google Maps
- Noise Report

Notes	