Air Quality and Greenhouse Gas Analysis Report
Ocean Mist Farms Storage and Process Remodel and Addition Project
Riverside County, California

Prepared for:
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Table of Contents

List of Tables

List of Figures

List of Exhibits

ACRONYMS AND ABBREVIATIONS

°C	Celsius
°F	Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2	carbon dioxide
CVAG	Coachella Valley Association of Governments
cy	cubic yard
DPM	diesel particulate matter
EMFAC	EMission FACtors
EPA	United States Environmental Protection Agency
IPCC	United Nations Intergovernmental Panel on Climate Change
LOS	Level of Service
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
mph	miles per hour
$MTCO_2e$	metric tons of carbon dioxide equivalent
NEPA	National Environmental Protection Act
NO_X	nitrogen oxides
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ppt	parts per trillion
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SMDP	Sediment Management Demonstration Project
SO_X	sulfur oxides

SP	service populations
TAC	toxic air contaminant
tpy	tons-per-year
UFP	ultrafine particles
VOC	volatile organic compounds

SECTION 1: EXECUTIVE SUMMARY

1.1 - Purpose and Methods of Analysis

The following air quality and greenhouse gas analysis was prepared to evaluate whether the estimated criteria air pollutant and greenhouse gas emissions generated from the project would cause significant impacts to air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows South Coast Air Quality Management District (SCAQMD) recommendations for quantification of emissions and evaluation of potential impacts to air resources.

1.2 - Project Summary

The Ocean Mist Farms Storage and Process Remodel and Addition Project (project) would consist of partial demolition of facilities at the existing Ocean Mist Farms facility in the City of Coachella, reconstruction/remodeling of the existing buildings, and expansion of the facility. The project site is located on the southeast corner of Enterprise Way at Avenue 52, and is addressed as 52300 Enterprise Way.

The project would consists of demolition of a total of 65,688 square feet (sf) of existing facility, construction of a 1,122 sf ice storage addition, an 18,000 sf covered sorting area, a 2,600 sf administration building, and additional truck and employee parking on the southeast corner of Industrial Way and Enterprise Way. Project construction is anticipated to start in 2015.

Exhibit 1 provides a regional vicinity map of the project location, while Exhibit 2 provides a local vicinity map of the project location. Exhibit 3 provides the project site plan. Detailed construction and operational activity and analysis assumptions are provided in Section 4, Modeling Parameters and Assumptions.

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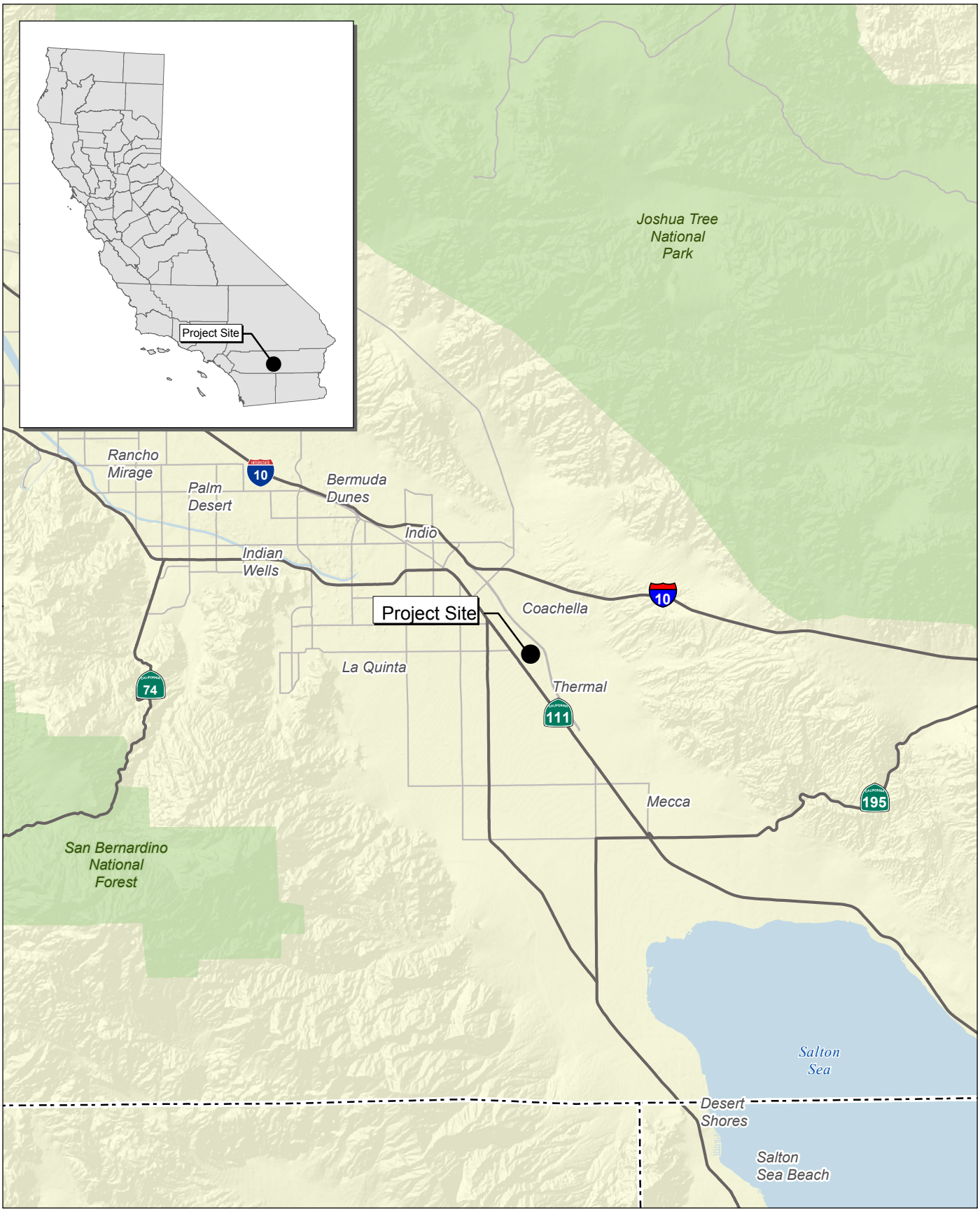

Source: Census 2000 Data, The CaSIL

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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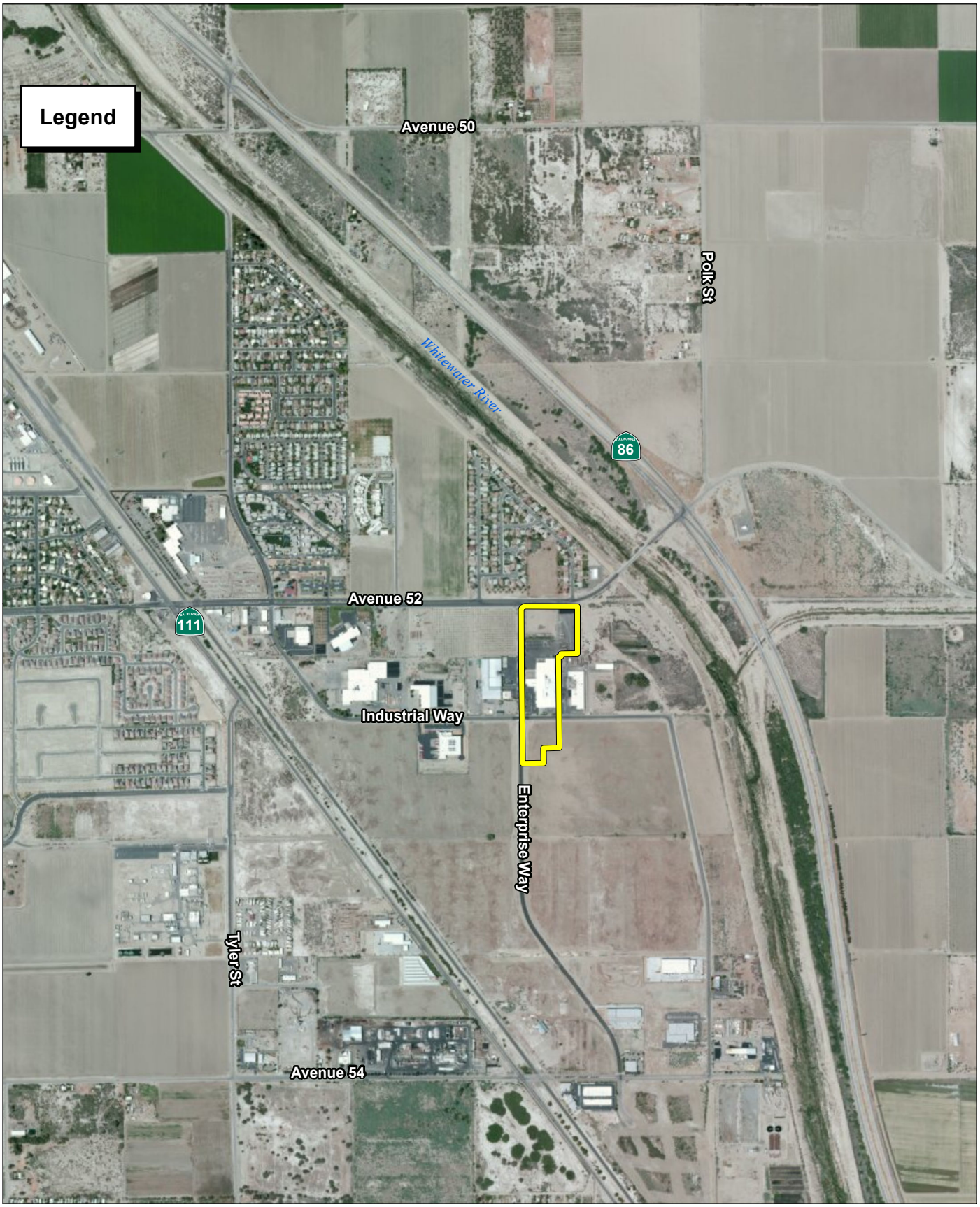

Source: ESRI, Riverside County

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1,500 750 0 1,500 Feet

Exhibit 2
Local Vicinity Map
Aerial Base

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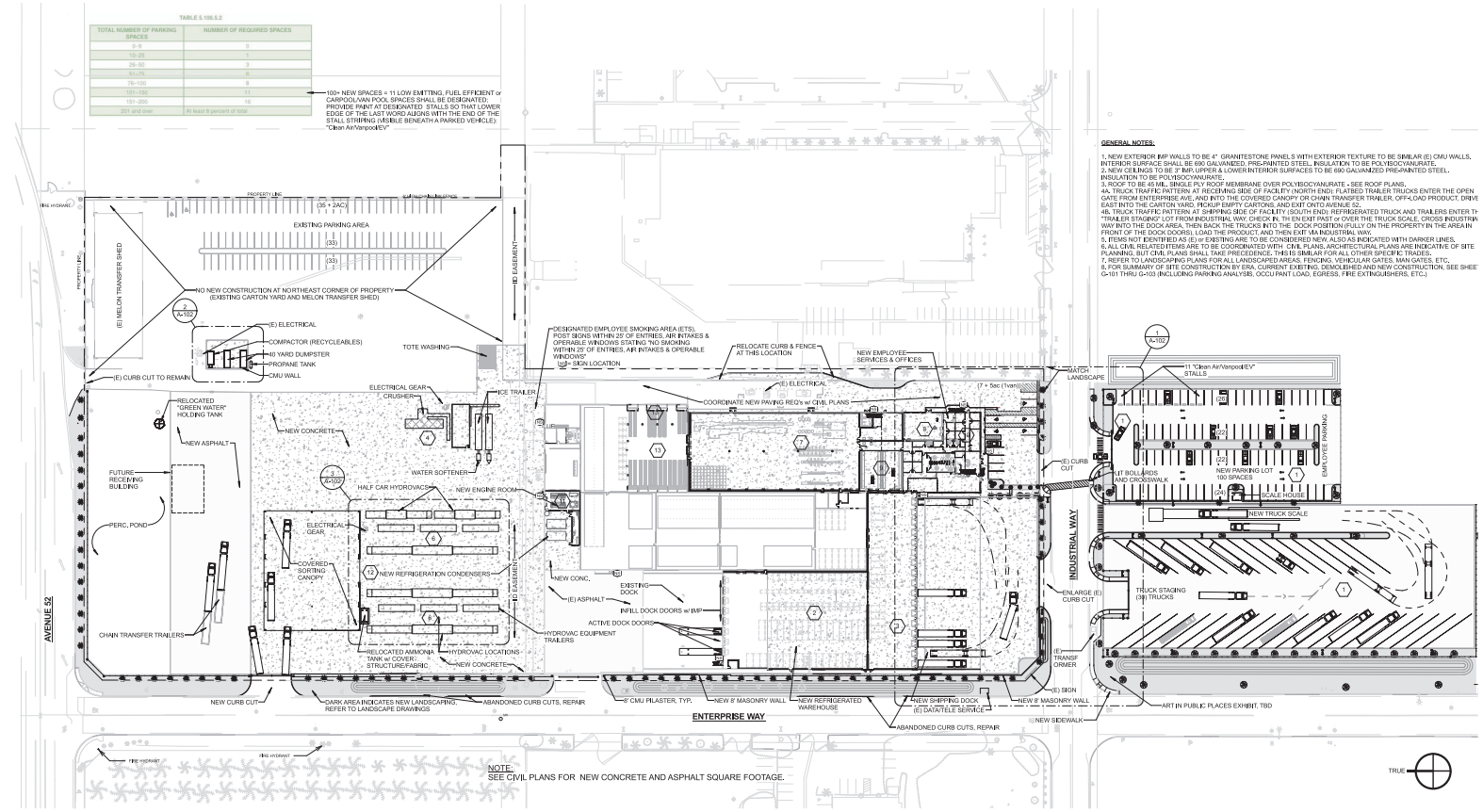

1 Site Plan - New
1" = 60'-0"

SITE PLAN KEY NOTES	
Note No	Note Content
1	FENCED IN EMPLOYEE PARKING AND TRUCK STAGING. INSTALL NE W TRUCK SCALE TO THIS AREA.
2	NEW COLD STORAGE WAREHOUSE. CONNECTS TO ROOM 3.
3	NEW SHIPPING DOCK. NEW CONSTRUCTION AND ROOM 1 RENOVATION.
4	RELOCATE ICE STORAGE BUNKER AND ICE INJECTION EQUIPMENT.
6	NEW LOCATION FOR HYDROVAC TUBES. SLOPE HYDROVAC SLAB TO DRAIN. (3) FULL CAR HYDROVACS & (2) HALF CAR HYDROVACS WILL BE INSTALLED.
7	VALUE ADD ROOM.
8	VALUE ADD EMPLOYEE WELFARE.
9	BATTERY CHARGING ROOM.
10	NEW OFFICES, 2 FLOORS.
11	CONSOLIDATE REFRIDGERATION EQUIPMENT AT NEW ENGINE ROOM AND INSTALL NEW NH3 PIPING AND EVAPOR ATORS THROUGHOUT THE FACILITY.
12	PROVIDE WASHDOWN STATIONS AT EACH HYDROVAC AND ICE INJECTOR. DRAINS AND SEWER AT EACH HYDROV AC, ICE GENERATORS AND ICE INJECTOR. CONDENSATE DRAINS AT EACH EVAPORATOR AND HVAC WITH DISCHARGE TO HUB DRAIN.
13	NEW FORCED AIR COOLERS.

Source: Hansen Rice Construction, 2014

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Exhibit 3
Site Plan

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1.3 - Standard Conditions

During construction and operation, the project must comply with applicable rules and regulations. The following are rules and regulations the project may be required to comply with, either directly, or indirectly.

1.3.1 - South Coast Air Quality Management District Rules

SCAQMD Rule 402 (Nuisance) prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 (Fugitive Dust) governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 miles per hour (mph), and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.

- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep onsite and offsite streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 403.1 (Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources) provides additional fugitive dust control emissions for projects within the Coachella Valley. These additional requirements are supplemental to Rule 403. Compliance with this rule is achieved through application of general requirements, Fugitive Dust Control Plan and other requirements for construction projects and earth-moving activities. General requirements include requirements for active operations within the Coachella Valley Blowsand Zone. However, the project is not located within the Coachella Valley Blowsand Zone. Applicable requirements include the following:

> Implement at least one of the control actions specified in Rule 403, Table 2 for the source category "Inactive Disturbed Surface Areas" to minimize wind driven fugitive dust from disturbed surface areas at such time when active operations have ceased for a period of at least 20 days.

SCAQMD Rule 1108 (Cutback Asphalt) governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 (Architectural Coatings) governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

Voluntary Rules

SCAQMD Regulation XXVII is voluntary and currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.

- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

1.3.2 - State of California

Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater. Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.

ARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to "neutral" or "park." Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

ARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the California Air Resources Board (ARB) adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

ARB Airborne Toxic Control Measure. In July 2001, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in

size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

1.4 - Summary of Analysis Results

The following is a summary of the analysis results. As shown below, the project would result in less than significant impacts for all air quality and greenhouse gas impact criteria analyzed. The project's less than significant impacts are due to the project's compliance with regulatory requirements, such as SCAQMD Rule 403 Best Management Practices, as well as the limited increase in operational activity.

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan. The project would not exceed the SCAQMD's localized thresholds; the project would not exceed the SCAQMD's regional thresholds.
Less than significant impact.

Impact AIR-2: The project would not violate air quality standards or contribute substantially to an existing or projected air quality violation.
Less than significant impact.

Impact AIR-3: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).
Less than significant impact.

Impact AIR-4: The project would not expose sensitive receptors to substantial pollutant concentrations.
Less than significant impact.

Impact AIR-5: The project would not create objectionable odors affecting a substantial number of people.
Less than significant impact.

Impact GHG-1: The project would generate direct and indirect greenhouse gas emissions; however, the project would not result in a significant impact on the environment.
Less than significant impact.

Impact GHG-2: The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.
Less than significant impact.

SECTION 2: LOCAL AND REGIONAL ENVIRONMENTAL SETTING

2.1 - Existing Physical Setting

2.1.1 - Local Climate

The project is within the Coachella Valley portion of the Salton Sea Air Basin, which is aligned in a northwest-southeast orientation stretching from San Gorgonio Pass to the U.S.-Mexico border. The Coachella Valley is a continental, desert region with a climate characterized by low annual rainfall, low humidity, hot days, and cool nights. Temperatures exceed 100 degrees Fahrenheit during the summer with daily highs near 110 degrees Fahrenheit during July and August. Rainfall in the area varies considerably; most precipitation normally occurs November through April.

The Coachella Valley is exposed to frequent gusty winds, the strongest of which occur northeast of the project site in San Gorgonio Pass, which is a wind power generation area. Stronger winds tend to occur in the open mid-portion of the valley, while lighter winds tend to occur closer to the foothills and mountains. Less frequently, widespread gusty winds occur over all areas of the valley. Within the project area, a natural sand migration process has direct and indirect effects on air quality. Called "blowsand," this natural sand migration process generates PM_{10} in two ways: (1) by direct particle erosion and fragmentation; and (2) by secondary effects (i.e., sand deposits on road surfaces being entrained by road traffic).

Wind plays an important role in air pollutant concentration. The wind speed and direction determine the horizontal dispersion and transport of air pollutants. During late autumn to early spring, the Salton Sea Air Basin is subject to wind flows associated with storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, known as the Santa Ana winds. Summer wind flows can be created by 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. The prevailing winds in the project area for a 24-hour period move predominantly from northwest to southeast, with an average of 3 meters per second (see
Exhibit 3). During 7:00 a.m. to 5:00 p.m., the wind blows from south to north with occasional winds blowing from northwest to southeast.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the Salton Sea Air Basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source.

2.1.2 - Local Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. For evaluation purposes, the SCAQMD has divided the area under its jurisdiction into 36 Source Receptor Areas. These Source Receptor Areas are designated to provide a general

representation of the local meteorological, terrain, and air quality conditions within the particular geographical area. The project is within Source Receptor Area 30. The nearest SCAQMD-operated monitoring station in which criteria pollutants data was collected is the Indio-Jackson Street monitoring station in Indio, California. The Indio-Jackson Street monitoring station is located approximately 4.5 miles northwest of the project site. Table 1 summarizes 2011 through 2013 published monitoring data, which is the most recent 3-year period available. The carbon monoxide data was collected from the Palm Springs-Fire Station monitoring station, located approximately 25.5 miles northwest of the project site. The data shows that during the past few years, the project area has exceeded the ozone and PM_{10} standards.

Table 1: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	Monitoring Year		
			2011	2012	2013
Ozone	1 Hour	Max 1 Hour (ppm)	0.099	0.102	0.105
		Days > State Standard (0.09 ppm)	3	2	2
	8 Hour	Max 8 Hour[1] (ppm)	0.090	0.090	0.087
		Days > State Standard (0.07 ppm)	42	45	38
		Days > National Standard (0.075 ppm)	19	24	18
Carbon monoxide[2]	1 Hour[3]	Max 1 Hour (ppm)	0.93	0.64	ND
	8 Hour	Max 8 Hour (ppm)	0.65	0.45	ND
		Days > State Standard (9.0 ppm)	0	0	0
		Days > National Standard (9 ppm)	0	0	0
Inhalable coarse particles (PM_{10})	Annual	Annual Average[1] ($\mu g/m^3$)	35.4	33.4	38.6
	24 hour	Max 24 Hour[1] ($\mu g/m^3$)	324.0	125.0	159.0
		Est Days > State Standard (50 $\mu g/m^3$)	18.6	43.2	85.2
		Est Days > National Standard (150 $\mu g/m^3$)	2.0	ND	3.0
Fine particulate matter ($PM_{2.5}$)[1]	Annual	Annual Average ($\mu g/m^3$)	7.1	7.6	8.3
	24 Hour	Max 24 Hour ($\mu g/m^3$)	35.4	18.4	25.8
		Est Days > National Standard (35 $\mu g/m^3$)	0	0	0

Notes and Abbreviations:
> = exceed
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter
ID = insufficient data
ND = no data
max = maximum
Est = estimated
State Standard = California Ambient Air Quality Standard
National Standard = National Ambient Air Quality Standard
[1] From the California Measurement
[2] From the Palm Springs-Fire Station
[3] The ARB does not report 1-hour CO data. Therefore, the 8-hour data were divided by a persistence factor of 0.7 to arrive at a 1-hour concentration.
Sources: California Air Resources Board 2014a.

2.1.3 - Attainment Status

The United States Environmental Protection Agency (EPA) and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or "form" of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the 3-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

The current attainment designations for the Salton Sea Air Basin are shown in Table 2. The Salton Sea Air Basin is designated as nonattainment for the state and federal ozone and PM_{10} standards. The City of Calexico is in nonattainment for the state $PM_{2.5}$ standard; however, the remainder of the Salton Sea Air Basin, including Riverside County, is in attainment for the state $PM_{2.5}$ standard.

Table 2: Salton Sea Air Basin-Riverside County Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment – Severe
Carbon monoxide	Attainment	Unclassifiable/Attainment
Nitrogen dioxide	Attainment	Unclassifiable/Attainment
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM_{10}	Nonattainment	Nonattainment – Serious
$PM_{2.5}$ (City of Calexico)	Nonattainment	Unclassifiable/Attainment
$PM_{2.5}$ (Remainder of Imperial County and Riverside County)	Attainment	Unclassifiable/Attainment
Lead	Attainment	Attainment
Source of State status: California Air Resources Board 2014b. Source of National status: U.S. Environmental Protection Agency 2014.		

2.2 - Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level. The ARB regulates at the state level. The SCAQMD regulates at the air basin level, including the Riverside County portion of the Salton Sea Air Basin.

2.2.1 - National and State

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are federal standards for the following criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970:

- Ozone
- Nitrogen dioxide
- Lead
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (ARB 2013c).

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The ARB also administers California Ambient Air Quality Standards (state standards) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 3.

Several pollutants listed in Table 3 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not use the chemical processes that create this pollutant, and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

Table 3: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO_X, and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_X) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.075 ppm			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide[b] (NO_2)	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration' increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NOx is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_X can react with compounds to form nitric acid and related small particles and result in PM related health effects.	NO_X is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NOx emissions. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Table 3 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide[c] (SO_2)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}.	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	—	0.5 ppm			
	24 Hour	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	- Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. - Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hour	—	35 µg/m^3			
	Annual	12 µg/m^3	12.0 µg/m^3			
Visibility-reducing particles	8 Hour	See note below[d]				

Table 3 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
					the size of the average human hair.	Secondary particles form from reactions in the atmosphere.
Sulfates	24 Hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO_4^{2-}. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[e]	30-day	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[e]	24 Hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.

Table 3 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).
Volatile organic compounds (VOC)		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at 1 to 2 percent by volume. The primary route of human exposure is through inhalation.

Table 3 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	DPM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Notes:
ppm = parts per million (concentration) $\mu g/m^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter

[a] Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 Hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[b] To attain the 1-hour nitrogen dioxide national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (0.100 ppm).

[c] On June 2, 2010, a new 1-hour 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 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.

[d] Visibility reducing particles: 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.

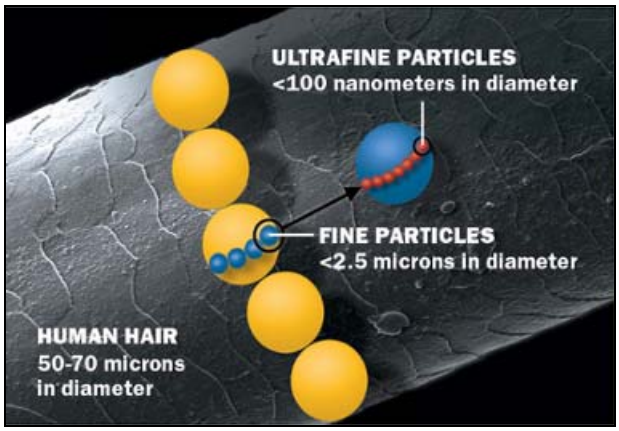
[e] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source of effects, properties, and sources: South Coast Air Quality Management District 2007a; California Environmental Protection Agency 2002; California Air Resources Board 2009; U.S. Environmental Protection Agency 2003, 2009a, 2009b, 2010, 2011a, and 2012; National Toxicology Program 2011a and 2011b. Source of standards: California Air Resources Board 2013c.

Ultrafine Particles

Ultrafine particles are particulate matter (PM) that exists in the ambient air and are less than 0.1 micrometer (µm or microns) in diameter. Ultrafine particles (UFP or $PM_{0.1}$) are included in the group called $PM_{2.5}$, particulate matter less than 2.5 micrometers in diameter. Figure 1 (Levin 2012) displays the relative size of the particles compared with a human hair, with PM_{10} (particulate matter less than 10 micrometers in diameter) indicated as yellow circles, $PM_{2.5}$ shown as blue circles, and ultrafine particles are shown as red circles.

Figure 1: Ultrafine Particles



Source: Levin 2012.

The SCAQMD contains a detailed chapter on ultrafine particles in its 2012 Air Quality Management Plan (AQMP). The AQMP summarizes current health effect research. The potential health effects from ultrafine particle exposure are similar to with $PM_{2.5}$ and PM_{10}: adverse cardio-respiratory responses included elevated blood pressure, and mild inflammatory and prothrombotic (obstruction of circulation) responses.

The SCAQMD has limited authority to regulate mobile source pollution; therefore, the SCAQMD will continue to fund ultrafine particle research activities. The AQMP indicated that future research and assessment is needed in the following areas:

- Chemical Composition. Chemical composition of ultrafine particles depends on many factors, including vehicle technology, fuel, and atmospheric chemical reactions after being emitted. Particle composition may be a factor determining particle toxicity; therefore, knowledge regarding the chemistry is important.
- Formation. More research is needed regarding the processes leading to ultrafine particle formation after emission and presence in the atmosphere.
- Standardized Measurement Methods and Procedures. Currently, there is no standard method for conducting size-classified or particle-number measurements. Characteristics measured in ambient and emission testing studies are highly dependent on the measurement instrument/ protocol used and its setting.

- Measurements at Hot Spot Locations. More measurements should be taken at "hot spots" where large numbers of vehicles are operated.
- Emissions Inventories. Vehicle emission factors for different particle size ranges and for particle numbers are highly uncertain, and there are no emission inventories for ultrafine particles from motor vehicles. New estimations of ultrafine particle levels should not be derived solely from vehicle emission factors (i.e., EMFAC) but have to include predictions for formation near the tailpipe and in the atmosphere.
- Air Quality Modeling. Modeling tools will need to be developed to simulate the formation and transport over a wide range of atmospheric conditions and emissions scenarios. The dispersion near the first few hundred meters of the roadway needs to be better understood.
- Health Effects. New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to UFPs and to help develop health guidelines and potential regulations. The health effects of inorganic (largely related to oil consumption ash constituents) UFP emissions from vehicles are only now starting to receive significant attention.
- Other Sources. More work is needed to better understand size, composition, and health impact of particles near stationary source and other processes (rather than just motor vehicles).

In its recent revisions to the national ambient air quality standards for particulate matter, the EPA states that, "In considering both the currently available health effects evidence and the air quality data, the Policy Assessment concluded that this information was still too limited to provide support for consideration of a distinct PM standard for ultrafine particles" (EPA 2013).

Considering the above information, this assessment does not specifically distinguish between ultrafine particles and $PM_{2.5}$ or quantify in particular ultrafine particles. However, $PM_{2.5}$ emissions are estimated and a significance finding is provided for them.

Asbestos

Asbestos is listed as a toxic air contaminant by ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma.

There are no known likely areas of naturally occurring asbestos in the project area (USGS 2011).

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality (ARB 2009b) presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

However, some researchers that think the risk from DPM is over exaggerated (Enstrom 2008). Moreover, the current methodological protocols required by SCAQMD and ARB when studying the health risk posed by DPM assume the following: (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. These are incredibly conservative assumptions that are not replicated in reality. Most people are indoors for 18 to 20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. Thus, the health risk assessments prepared pursuant to these protocols exaggerate the risk of cancer associated with DPM exposure.

DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM.

The SCAQMD conducted a detailed TAC emission inventory, air sampling, and dispersion modeling study called the Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II) and

(MATES-III). However, the MATES Studies provided information only for TACs within the South Coast Air Basin, and does not extend to the Riverside County portion of the Salton Sea Air Basin.

2.2.2 - South Coast Air Quality Management District

The agency for air pollution control for the Riverside County portion of the Salton Sea Air Basin is the SCAQMD. The SCAQMD is responsible for controlling emissions primarily from stationary sources. The SCAQMD maintains air quality monitoring stations throughout the South Coast Air Basin and a portion of the Salton Sea Air Basin. The SCAQMD is also responsible for developing, updating, and implementing the AQMP for the region, in coordination with the Southern California Association of Governments. The SCAQMD also has roles under CEQA.

Air Quality Management Plans

An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

2003 AQMP

One of the purposes of the 2003 AQMP is to lead the basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM_{10} federal standards (SCAQMD 2003). One of the purposes of the 2007 AQMP is to lead the basin into compliance of the federal 8-hour ozone and $PM_{2.5}$ standards.

The 2003 AQMP also replaced the 1997 attainment demonstration for the federal CO standard and provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the federal nitrogen dioxide standard that the South Coast Air Basin has met since 1992 (SCAQMD AQMP 2003, page 1-1).

The 2003 AQMP also incorporated new scientific data in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP used complex modeling to show that with the control measures, the basin would be in compliance with the federal and state standards for all pollutants by 2010, except for the state ozone and PM_{10} standards and the state ozone and PM_{10} standard after 2010 or by the earliest practicable date, as mandated by the California Health and Safety Code Section 40462. The ARB approved the 2003 AQMP on August 1, 2003. The EPA's adequacy finding on the emissions budgets for conformity determination in the basin was published in the Federal Register (69 FR 15325-15326).

2007 AQMP

The 2007 AQMP, which was adopted by the SCAQMD on June 1, 2007 (SCAQMD 2007a). On July 13, 2007, the SCAQMD Board adopted the 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to ARB for its approval and subsequent submittal to the EPA. On September 27, 2007, ARB adopted the State Strategy for the 2007 State Implementation Plan and the 2007 AQMP as part of the State Implementation Plan. On January 15, 2009, the EPA's

regional administrator signed a final rule to approve in part and disapprove in part the SCAQMD 2003 1-hour ozone plan and the nitrogen dioxide maintenance plan. The parts of the plan that were approved strengthen the State Implementation Plan. The Clean Air Act does not require the disapproved portions of the plan, and the disapprovals do not start sanctions clocks.

The 2007 AQMP outlines a detailed strategy for meeting the federal health-based standards for $PM_{2.5}$ by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions will be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood burning fireplaces and restaurant charbroilers.

2012 AQMP

The 2012 AQMP was adopted December 7, 2012 (SCAQMD 2012). The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the federal 8-hour ozone standards. The AQMP will be submitted to the U.S. EPA as the State Implementation Plan (SIP) once it is approved by the SCAQMD Governing Board and the ARB. Specifically, the AQMP will serve as the official SIP submittal for the federal 2006 24-hour $PM_{2.5}$ standard, for which U.S. EPA has established a due date of December 14, 2012. In addition, the AQMP will update specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory and, 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP proposes Basin-wide $PM_{2.5}$ measures that will be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress towards meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education.

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP include the following:

- Further NO_x reductions from RECLAIM
- Further reductions from residential wood burning devices
- Further reductions from open burning
- Emission reductions from under-fired charbroilers
- Further ammonia reductions from livestock waste
- Backstop measures for indirect sources of emissions from ports and port-related sources
- Further criteria pollutant reductions from education, outreach and incentives

There are multiple VOC and NO_x reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, mold release products, consumer products.

The 2012 also contains proposed mobile source implementation measures for the deployment of zero- and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harborcraft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposes the following mobile source implementation measures:

- On-road mobile sources:
  - Accelerated penetration of partial zero-emission and zero-emission vehicles and light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles
  - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives
  - Further emission reductions from heavy-duty vehicles serving near-dock railyards through a proposed control measure that calls for a requirement that any cargo container moved between the Ports of Los Angeles and Long Beach to the nearby railyards by with zero-emission technologies
- Off-road mobile sources:
  - Extension of the SOON provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment
  - Further emission reductions from freight and passenger locomotives calls for an accelerated use of Tier 4 locomotives in the Basin
  - Further emission reductions from ocean-going marine vessels while at berth
  - Emission reductions from ocean-going marine vessels

The 2012 AQMP also relies upon the Southern California Association of Governments regional transportation strategy, which is in its adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:

1. Linking regional transportation planning to air quality planning: making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: the RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation—biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

2003 Coachella Valley State Implementation Plan

The SCAG and the Coachella Valley Association of Governments (CVAG) are key participants in local and regional air quality improvement efforts. CVAG has also been instrumental in initiating programs that address regional air quality issues and shortcomings. The 2003 Coachella Valley State Implementation Plan (2003 CVSIP) was prepared by the SCAQMD, local Coachella Valley jurisdictions, agencies, and stakeholders. The CVSIP includes control measures and attainment demonstrations and an analysis of the most stringent measures. The SCAQMD also employs a Coachella Valley PM10 air quality inspector, who works closely with CVAG, local jurisdictions, and developers to implement effective, site-specific PM10 mitigation measures.

SCAQMD Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. The rules and regulations that apply to this project include, but are not limited to, the rules listed in the Standard Conditions section of this report.

SCAQMD CEQA Guidance

The SCAQMD has two roles under CEQA:

1. Lead Agency: responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the SCAQMD where the SCAQMD has primary approval authority over the project.
2. Commenting Agency: the SCAQMD reviews and comments on air quality analyses prepared by other public agencies (such as the proposed project).

The SCAQMD also provides guidance and thresholds for CEQA air quality and greenhouse gas analyses. The result of this guidance as well as State regulations to control air pollution is an overall improvement in the project area, as shown previously.

City of Coachella General Plan

The City of Coachella has released a draft Comprehensive General Plan Update (General Plan 2035) for public review and comment. The City will hold a public hearing on the draft General Plan 2035 on November 5, 2014. However, the General Plan 2020 is the current adopted general plan for the City of Coachella. The following General Plan 2020 policies are applicable to the proposed project:

Environmental Hazards/Safety Element

- **Goal:** A clean environment free of hazardous waste and municipal refuse.
  - **Objective:** the City shall ensure that land uses not negatively impact the natural environment of the City.
    - **Policy:** The City shall carefully review development projects located in the City to ensure that noxious fumes or hazardous materials are not directly or indirectly produced that would jeopardize the health of its citizens or the quality of its environment.

SECTION 3: CLIMATE CHANGE SETTING

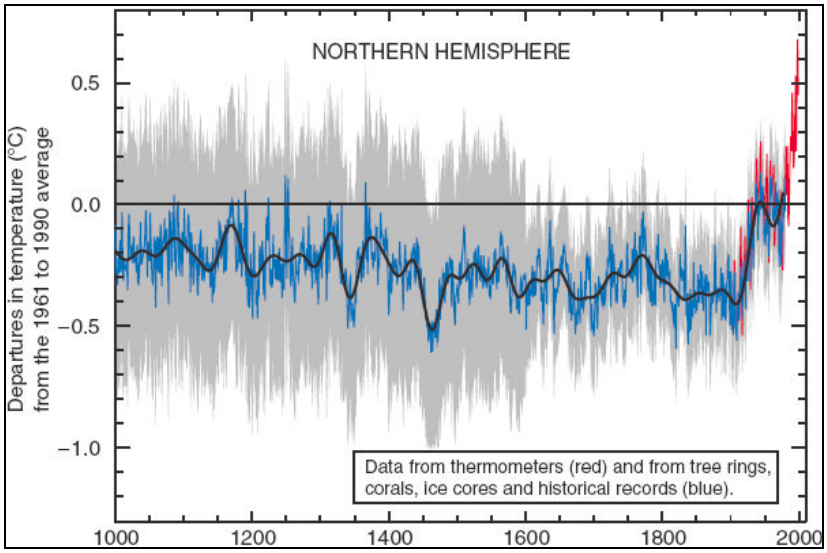
3.1 - Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

Some question the validity of the temperature graph used by the IPCC in some form in the Third and Fourth Assessment Reports. The graph is shown in Figure 2. The figure shows that temperatures are relatively stable until 1900, when the temperature increases rapidly. Some scientists have had trouble duplicating the data used for the graph (McIntyre and McKitrick 2003) and indicated when the data is correctly handled "shows the 20th century climate to be unexceptional compared to earlier centuries" (McKitrick 2005). Hans von Storch, a German climate scientist, claimed that the methods used by Mann et al. probably underestimated the temperature fluctuations in the past by a factor of two or more (Von Storch et al. 2004).

Figure 2: Historical Temperature Changes



Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (from CCCC 2006 and Moser et al. 2009).

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If

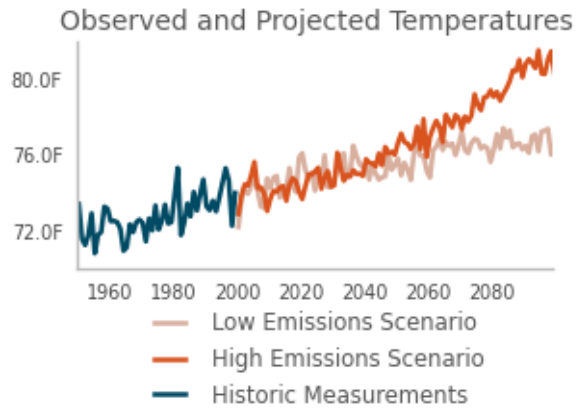
emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Consequences of Climate Change in the Coachella Area

Figure 3 displays a chart of measured historical and projected annual average temperatures in the Coachella area. As shown in the figure, temperatures are expected to rise in the low and high greenhouse gas emissions scenarios.

Figure 3: Observed and Projected Temperatures from Climate Change in Coachella



Source: CalAdapt 2013, using data from Maurer et al. 2002 and California Energy Commission, 2008

3.2 - Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming affect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential. Greenhouse gases defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 4.

Table 4: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

Table 4 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.		

Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light.

Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, as opposed to other greenhouse gases that can remain in the

atmosphere for years. Black carbon can be deposited on snow, where it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

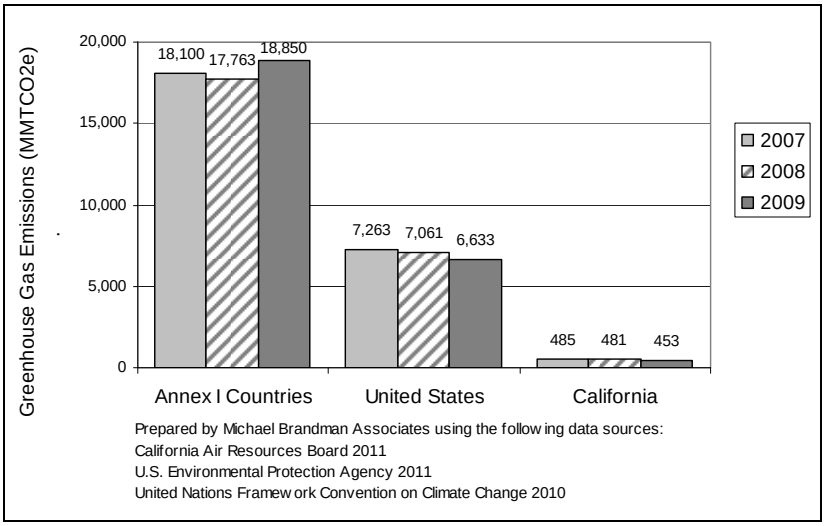
The project would emit black carbon through emissions of DPM during construction. However, procedures to quantify changes due to black carbon emissions have not been widely accepted or thoroughly researched (IPCC 2007a; Wilson and Walters 2012). Therefore, impacts to climate change from black carbon are speculative at this time and no further discussion is necessary.

Although there could be health effects resulting from changes in the climate and the consequences that can bring about, inhalation of greenhouse gases at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen (CDC 2010 and OSHA 2003).

3.2.1 - Emissions Inventories

Emissions worldwide were approximately 49,000 million metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2004 (IPCC 2007b). Greenhouse gas emissions in 2007, 2008, and 2009 are shown in Figure 4. Annex I parties refer to countries that joined the United Nations Framework Convention on Climate Change.

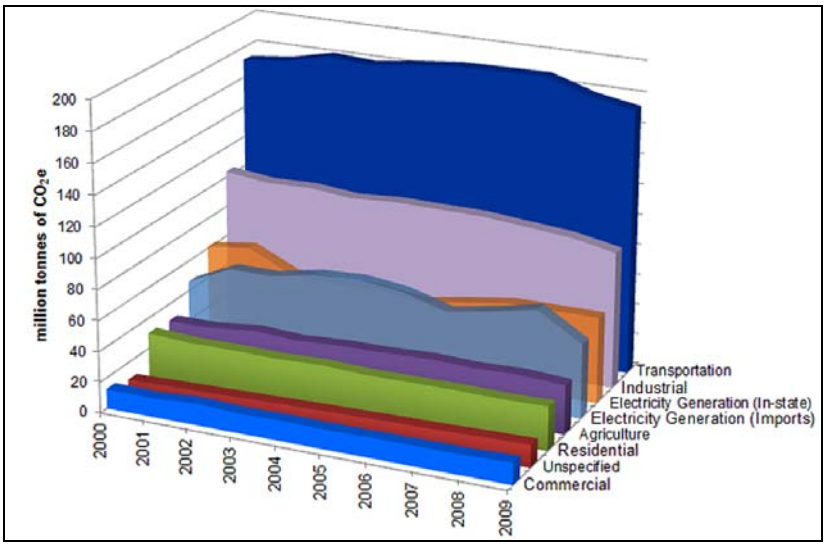
Figure 4: Greenhouse Gas Emissions Trends



As shown in Figure 5, the main contribution of greenhouse gas emissions in California between years 2000 and 2009 was transportation. The second highest sector was industrial, which includes sources

from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output.

Figure 5: Greenhouse Gas Emission Trends by Sector in California



Source: ARB 2011a.

3.3 - Regulatory Environment

3.3.1 - International

Climate change is a global issue involving greenhouse gas emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce greenhouse gases.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets

binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of five percent against 1990 levels over the five-year period 2008-2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The United States has not entered into force of the Kyoto Protocol. However, other countries have entered, such as Australia, Canada, China, the European Union (Belgium, Denmark, Germany, the Hellenic Republic, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, Great Britain, and Northern Ireland), Japan, Mexico, and New Zealand.

3.3.2 - National

Prior to the last decade, there have been no concrete federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the federal government, greenhouse gases, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section "Clean Vehicles" below.

The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas.

In September 2011, the EPA Office of Inspector General evaluated the EPA's compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a federal appeals court rejected a lawsuit by thirteen states against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations Intergovernmental Panel on Climate Change rather than doing its own research or testing data according to federal standards. The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah. Virginia intends to petition the Supreme Court to review the case.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration are working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of *heavy-duty trucks and buses*. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting

requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

> This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_x Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce greenhouse gases among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional greenhouse gas emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap and trade program is estimated to be fully implemented in 2015.

3.3.3 - California

Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued EPA to challenge its granting of the waiver to California for its standards. California assisted EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Low Carbon Fuel Standard – Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the

"life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (CEC 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011 included a preliminary injunction against ARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the ARB to continue to implement and enforce the regulation.

SB 1368. In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the Office of Planning and Research submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments.

The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include greenhouse gas questions.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an

increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 $MMTCO_2e$ on December 6, 2007 (ARB 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (ARB 2008c).

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 $MMTCO_2e$ by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (ARB 2008a). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the

inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[1]

The Scoping Plan was first approved by the Board in 2008 and must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 greenhouse gas reduction goal. The ARB has begun to update the Scoping Plan and plans to bring an updated Scoping Plan to the ARB Board for consideration.

SB 375. Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. The Southern California Association of Governments has adopted emissions reductions for per capita light duty vehicles from 2005 levels of 7 percent by 2020 and 13 percent by 2035.

Concerning CEQA, SB 375, section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase

[1] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of the ARB Scoping Plan for the implementation of AB 32, the Court enjoined ARB from further rulemaking under AB 32 until ARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, ARB filed an appeal. On June 24, 2011, the Court of Appeal granted ARB's petition staying the trail court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, ARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. The ARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the " . . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

3.3.4 - Local Policies and Regulations

City of Coachella General Plan

The City of Coachella is has released a draft Comprehensive General Plan Update (General Plan 2035), including a draft Climate Action Plan, for public review and comment. The City will hold a public hearing on the draft General Plan 2035 on November 5, 2014.

However, the General Plan 2020 is the current adopted general plan for the City of Coachella. The following General Plan 2020 policies are applicable to the proposed project:

Conservation Element

- **Policy:** The City shall prepare and adopt a water efficient landscape ordinance.
  - **Goal:** The conservation of energy resources and the development of alternative energy sources shall be encouraged by the City.
    - **Objective:** The City shall plan for energy conservation in the development of new projects and the provision of services.
- **Policy:** The City shall encourage energy conservation in the development of new projects through proper orientation of the building, shading standards, and by incorporating into City codes planning and building standards which reduce the consumption of energy resources.

SECTION 4: MODELING PARAMETERS AND ASSUMPTIONS

4.1 - Model Selection

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors are the emission rate of a pollutant given the activity over time; for example, grams of NO_X per horsepower hour. The ARB has published emission factors for on-road mobile vehicles/trucks in the EMFAC mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) was developed in cooperation with the SCAQMD and other air districts throughout the state. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions associated with construction and operation from a variety of land uses.

The emissions modeling for the project conducted used the most current version of CalEEMod, CalEEMod version 2013.2.2, to estimate project-generated construction air pollutant emissions.

4.2 - Construction

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from onsite and offsite activities. Onsite emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM_{10}) from disturbed soil. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM_{10} and $PM_{2.5}$).

This section details the phasing and construction equipment assumptions used within the emissions analysis.

4.2.1 - Construction Phasing

The project will be implemented in three construction phases beginning in 2016 and concluding in July of 2019. The sequence of construction activities is shown below.

Demolition

The project construction would result in demolition of existing building facilities and pavement. Emissions from demolition activity and debris removal (on-road hauling) for the facilities and pavement were estimated separately.

The project would involve demolition activity on three buildings, with a total of 65,688 sf of facility to be demolished and removed. In addition, a total of 176,913 sf of existing pavement would be

demolished. Assuming an average depth of 4 inches, approximately 2,184 cubic yards of pavement would be removed. According to the CalRecycle's Solid Waste Cleanup Program, asphalt and concrete construction debris weights approximately 2,400 pounds per cubic yard. Therefore, an estimated 2,621 tons of pavement debris would be removed from the project site.

Site Work/Grading

Project construction would include site work and grading activity. A total of 21,380 cubic yards of material would be exported during site work and grading, include export of pavement debris. Emissions for removal of approximately 2,184 cubic yards of pavement debris is contained within the demolition phase. Therefore, it is assumed that 19,196 cubic yards of export would be soils or other material removed during grading.

Construction Equipment and Development Schedule Assumptions

The applicant provided detailed construction timeline information. However, project-specific construction equipment assumptions are not currently known. CalEEMod default construction equipment schedule and equipment activity is based on detailed construction industry studies. The CalEEMod default construction phase durations consist of 330 total working days. The detailed construction phase durations provided by the client consists of 399 total working days, and includes activities such as mechanical, electrical and plumbing installation by building. Because the CalEEMod default and applicant-provided detailed total construction durations are substantially similar, and because the project-specific construction equipment activity is unknown, the CalEEMod default construction phase durations and activity assumptions were utilized to conservatively estimate potential construction-generated impacts.

The construction equipment assumptions are shown in Table 5. The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, the horsepower is the power of an engine—the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

Table 5: Construction Equipment Assumptions

Activity	Equipment	Number	Hours per day	Horsepower	Load Factor
Demolition - Pavement	Concrete/Industrial Saws	2	8	81	0.73
	Excavators	3	8	162	0.38
	Rubber Tired Dozers	2	8	255	0.40
Demolition - Buildings	Concrete/Industrial Saws	1	8	81	0.73
	Excavators	3	8	162	0.38
	Rubber Tired Dozers	2	8	255	0.40

Table 5 (cont.): Construction Equipment Assumptions

Activity	Equipment	Number	Hours per day	Horsepower	Load Factor
Site Work/ Grading	Excavators	1	8	162	0.38
	Graders	1	8	174	0.41
	Rubber Tired Dozers	1	8	255	0.40
	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	226	0.29
	Forklifts	3	8	89	0.20
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Paving	Pavers	2	8	125	0.42
	Paving Equipment	2	8	130	0.36
	Rollers	2	8	80	0.38
Architectural Coatings	Air Compressors	1	6	78	0.48
Source: CalEEMod and FirstCarbon Solutions.					

Equipment Tiers and Emission Factors

Equipment tiers refer to a generation of emission standards established by the US EPA and ARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Tier 2 engines were manufactured between 2001 and 2007. Tier 3 engines were manufactured between 2006 and 2011. Tier 4 engines are the newest and some incorporate hybrid electric technology; they were manufactured after 2007 (SCAQMD 2011b).

CalEEMod contains an inventory of construction equipment that incorporates estimates of the number of equipment, their age, their horsepower, and equipment tier from which rates of emissions are developed. The CalEEMod 2013.2.2 default tier mix was used in this analysis for the estimation of emissions from onsite construction equipment for the unmitigated scenario.

Construction Offsite (Onroad) Trips

CalEEMod has 3 categories of onroad trips: worker trips, hauling trips, and vendor trips. Hauling trips would include soils hauling and demolition materials hauling. Vendor trips are materials delivery, including concrete delivery. The following data and assumptions were used for onroad trips.

Worker Trips: Worker trips are accounted for based on 1.25 trips per piece of equipment (the CalEEMod default). The CalEEMod default worker trip length of 14.7 miles was used for employee trips.

Hauling Trips: Demolition of existing buildings and pavement would result in removal and transfer of materials. CalEEMod default hauling assumptions based on the square footage of buildings, tonnage of pavement, and cubic yards of soils to be hauled.

Vendor Trips: Building construction would require delivery of materials. CalEEMod defaults for vendor trips were utilized.

A summary of the construction related trips is shown in Table 6. Note that the total number of offsite construction trips would not necessarily occur on the same day, since the various construction activities would vary each day. In addition, worker and vendor trips are reflected as a daily trip rate, whereas hauling trips are reflected as total trips.

Table 6: Construction Offsite Trips

Activity	Construction Trips per Day		Total Trips
	Worker	Vendor	Haul
Demolition – Pavement	18	0	259
Demolition – Building	15	0	299
Site Work	15	0	2,400
Building Construction	150	58	0
Paving	15	0	0
Architectural Coatings	30	0	0
Source: FirstCarbon Solutions and CalEEMod.			

Dust Generation

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod, based on the number of acres traversed by the grading equipment.

Only some pieces of equipment generate fugitive dust in CalEEMod. The CalEEMod manual identifies various equipment and the acreage disturbed in an 8-hour day:

- Crawler tractors, graders, and rubber tired dozers: 0.5 acres per 8-hour day
- Scrapers: 1 acre per 8-hour day

Therefore, the following acres are the quantity disturbed per day, per phase, according to the disturbed acreage quantities listed above:

- Demolition Pavement = 1 acre
- Demolition Building = 1 acre
- Grading = 1 acre

SCAQMD Rule 403 requires fugitive dust generating activities follow best available control measures to reduce emissions of fugitive dust. These measures are accounted for in CalEEMod as "mitigation" because the model categorizes the measures as "mitigation," even though they are technically not mitigation. The best available control measures and the associated measure in CalEEMod are displayed in Table 7.

Table 7: Best Available Control Measures

Best Available Control Measure[1]	Associated Measure in CalEEMod [2]
Clearing and Grubbing	
02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing.	Water exposed surfaces three times per day
02-2 Stabilize soil during clearing and grubbing activities. 02-3 Stabilize soil immediately after clearing and grubbing activities.	Soil stabilizers for unpaved roads
Earth Moving Activities	
08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earth-moving activities are complete	Pre-water to 12%
Import/Export of Bulk Materials	
09-1 Stabilize material while loading to reduce fugitive dust emissions. 09-2 Maintain at least six inches of freeboard on haul vehicles. 09-3 Stabilize material while transporting to reduce fugitive dust emissions. 09-4 Stabilize material while unloading to reduce fugitive dust emissions. 09-5 Comply with Vehicle Code Section 23114.	Water exposed surfaces three times per day
Landscaping	
10-1 Stabilize soils, materials, slopes Guidance: Apply water to materials to stabilize; maintain materials in a crusted condition; maintain effective cover over materials; stabilize sloping surfaces using soil until vegetation or ground cover can effectively stabilize the slopes; hydroseed prior to rain season.	Replace ground cover in disturbed areas when unused for more than 10 days

Table 7 (cont.): Best Available Control Measures

Best Available Control Measure[1]	Associated Measure in CalEEMod [2]
Staging Areas	
13-1 Stabilize staging areas during use by limiting vehicle speeds to 15 miles per hour.	Reduce speed on unpaved roads to 15 miles per hour.
Traffic Areas for Construction Activities	
15-1 Stabilize all off-road traffic and parking areas. 15-2 Stabilize all haul routes. 15-3 Direct construction traffic over established haul routes. Guidance: Apply gravel/paving to all haul routes as soon as possible to all future roadway areas; barriers can be used to ensure vehicles are only used on established parking areas/haul routes.	Water exposed surfaces three times per day
Sources: [1] SCAQMD Rule 403. [2] CalEEMod output in Appendix A.	

4.2.2 - Localized Analysis Methodology

To facilitate the localized assessment process, the SCAQMD provides a series of look-up tables that contain localized significance thresholds each Source Receptor Area within the basin (SCAQMD 2009). If onsite construction emissions exceed the localized significance thresholds, then the project would be considered to have a significant air quality impact. The current look-up tables are estimated by the SCAQMD based on air quality data from the years 2006 through 2008.

The localized significance thresholds appropriate to the project area were obtained from the look-up tables in the SCAQMD Final Localized Significance Threshold Methodology for a 1-acre project in Source Receptor Area 30. In addition to the dependence on geographic location within the SCAQMD (e.g., the Source Receptor Area), the localized thresholds also depend on the distance to the impacted receptor from the source of emissions. The distance to the nearest sensitive receptors are residences located north of Avenue 52, approximately 65 meters from the project site boundary. Look-up table values are provided for receptors at 50 meters and 100 meters. Therefore, the localized significance threshold value for a receptor at 65 meters was calculated through linear interpolation between the values for 50 meters and 100 meters, as shown in Table 8.

Table 8: Localized Significance Threshold Determination

Parameter	Threshold (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
LST Threshold at 50 meters	166	1387	13	5
LST Threshold at 100 meters	238	2565	35	10
Interpolation for 65 Meters	187.60	1,740.40	19.60	6.50

Notes:
LST = localized significance threshold
NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 60, 1-acre site at 50 meters and 100 meters

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (SCAQMD 2011c). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2) The maximum number of acres disturbed on the peak day.
3) Any emission control devices added onto off-road equipment.
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

4.3 - Operation and Maintenance Activities

Operational emissions are those emissions that occur during operation of the project. The major sources are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the project site. The emissions were estimated using CalEEMod. The operational phasing and trip generation rates are shown in Table 9. The trip generation rates are from the project-specific Traffic Impact Analysis (Lochsa 2014).

Table 9: Project Trip Generation

Parameter	Daily Trucks			Daily Employees
	Receiving	Shipping	Total Truck	
Existing	75	120	195	75
With Project	100	150	250	165
Net Increase	25	30	55	90
Daily Trips Per Truck or Employee	2	2	2	4
Daily New Trips	50	60	110	360
Source: Lochsa, 2014.				

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline and diesel-powered vehicles). The employee vehicles fleet mix used in this analysis is assumed to include passengers cars, light duty trucks 1, light duty trucks 2, and medium duty trucks. The employee vehicle fleet mix is shown in Table 10. The heavy duty trucks fleet mix is assumed to include light-heavy duty trucks 1, light-heavy duty trucks 2, medium-heavy duty trucks, and heavy-heavy duty trucks. The heavy duty trucks vehicle fleet mix is shown in Table 11.

Table 10: Project Vehicle Fleet Mix for CalEEMod Runs – Employee Vehicles

Vehicle Class	Daily Trips (%)
Light Duty Passenger (LDA)	60.2
Light Duty Trucks 1 (LDT1)	6.9
Light Duty Trucks 2 (LDT2)	19.2
Medium Duty Trucks (MDT)	13.7
All other vehicle classes	0.0
Total	100

Table 11: Project Vehicle Fleet Mix for CalEEMod Runs –Trucks

Vehicle Class	Daily Trips (%)
Light-Heavy Duty Trucks 1 (LHDT1)	15.7
Light-Heavy Duty Trucks 2 (LHDT2)	2.2
Medium-Heavy Duty Trucks (MHDT)	22.3

Table 11 (cont.): Project Vehicle Fleet Mix for CalEEMod Runs –Trucks

Vehicle Class	Daily Trips (%)
Heavy-Heavy Duty Trucks (HHDT)	59.8
All other vehicle classes	0.0
Total	100

Electricity

There would be emissions from the power plants that would generate electricity to be used by the project (for lighting, etc.). CalEEMod was used to estimate these emissions from the project.

Electricity Emission Factor

The default CalEEMod emission factors for Imperial Irrigation District (from the year 2006) are as follows:

- Carbon dioxide: 1,270.9 pounds per megawatt hour (lbs/MWh)
- Methane: 0.029 lb/MWh
- Nitrous oxide: 0.006 lb/MWh

By 2020, the Imperial Irrigation District, the electric provider for the project will be required to achieve the 33 percent renewable portfolio standard (RPS). The Imperial Irrigation District had 9 percent renewable energy in its portfolio in 2006. Therefore, to achieve a 33-percent reduction as required by California's Renewable Electricity Standard, 24 percent more renewable energy in the utility's portfolio is needed. The emission factors used in the 2020 analysis are as follows:

- Carbon dioxide: 935.72 pounds/MWh
- Methane: 0.021 pounds/MWh
- Nitrous oxide: 0.004 pounds/MWh

Electricity Consumption

CalEEMod has three categories for electricity consumption: electricity that is impacted by Title 24 regulations, non-Title 24 electricity, and lighting. Title 24 uses are defined as the major building envelope systems covered by California Building Code Title 24 Part 6, such as space heating, space cooling, water heating, and ventilation. Lighting is defined separately, since it can be both part and not part of Title-24. Since lighting is not considered as part of the building envelope energy budget, CalEEMod does not consider lighting to have any further association with Title 24 references in the program. Non-Title 24 includes everything else, such as appliances and electronics. In order to properly divide the total electricity consumption into the three categories, the percentage for each category is determined by using percentages derived from the CalEEMod default electricity intensity.

Natural Gas

There would be emissions from the combustion of natural gas used for the project (water heaters, heat, etc.). CalEEMod has two categories for natural gas consumption: Title 24 and non-Title 24. For a pharmacy, approximately 100 percent of the natural gas consumption is impacted by Title 24 regulations, for a high turn-over restaurant and fast-food restaurant with drive-through, approximately 30 percent of the natural gas consumption is impacted by Title 24 (see Appendix D of the CalEEMod manual).

Energy Efficiency

The 2013 Title 24 Standard is 30 percent better for non-residential construction, as well as require "solar-ready roofs" to accommodate future installation of solar photovoltaic panels. The energy efficiency attributable to compliance with Title 24 Standards is incorporated into the emissions modeling through the 'mitigation' module because of how CalEEMod is designed. However, Title 24 compliance is mandatory and, as such, is not considered mitigation under CEQA.

Water and Wastewater

Greenhouse gas emissions would be emitted from the use of electricity to pump water to the project and to treat wastewater. The water usage volumes for these land use types were estimated using CalEEMod default values. Note that the California Green Building Code requires reductions in indoor water consumption, as described in "Regulatory Environment." Because of how CalEEMod is structured, compliance with the Green Building Code requirements is applied as "mitigation" in the model, although regulatory compliance is not considered mitigation under CEQA.

Solid Waste

Greenhouse gas emissions would be generated from the decomposition of solid waste generated by the project. CalEEMod was used to estimate the greenhouse gas emissions from this source. The CalEEMod default for the following mix of landfill types:

- Landfill no gas capture: 6%
- Landfill capture gas flare: 94%
- Landfill capture gas energy recovery: 0%

SECTION 5: AIR QUALITY IMPACT ANALYSIS

This section calculates the expected emissions from construction and operation of the project as a necessary requisite for assessing the regulatory significance of project emissions on a regional and localized level.

5.1 - CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable SCAQMD thresholds and methodologies are contained under each impact statement below.

5.2 - Impact Analysis

Consistency with Air Quality Management Plan

Impact AIR-1: **The project would not conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the AQMP:

1. Indicator: Whether the 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 timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
   Project applicability: applicable and assessed below.
2. Indicator: A project would conflict with the AQMP if it will exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the SCAG and CVAG that generated the mobile inventory used by the SCAQMD for AQMP are not available. Therefore, this indicator is not applicable.
   Project applicability: not applicable.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis uses the following criteria to address this potential impact:

- Step 1: Project's contribution to air quality violations (SCAQMD's first indictor)
- Step 2: Assumptions in AQMP (SCAQMD's second indictor)
- Step 3: Compliance with applicable emission control measures in the AQMPs

Step 1: Project's Contribution to Air Quality Violations

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD AQMP 1993, page 12-3). As shown in Impact AIR-2, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the basin is in nonattainment (ozone, nitrogen dioxide, PM_{10}, $PM_{2.5}$) at a monitoring station in the basin. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent

with the goals of the AQMP—to achieve attainment of pollutants. As discussed in Impact AIR-3, the project would not exceed the regional significance thresholds. Therefore, the project would be consistent with the AQMP. The project meets this criterion, and impacts would be less than significant.

Step 2: Assumptions in AQMP

As discussed above, the proposed project would be consistent with the applicable AQMP if the proposed project would not exceed the growth assumptions in the AQMP. The primary method of determining consistency with the AQMP growth assumptions is consistency with the General Plan land use designation for the project site. The City of Coachella General Plan designates the project site as "Light Industrial." The proposed project would be consistent with the General Plan land use designation, and would not increase population or VMT above that anticipated under buildout of the General Plan. Therefore, the proposed project is consistent with the growth assumptions in the AQMP.

Step 3: Control Measures

The proposed project would also comply with all applicable rules and regulations of the AQMP. Because of the nature of the proposed project, which includes earth-moving activity, SCAQMD 403 applies (SCAQMD 2005). Rule 403 governs emissions of fugitive dust during construction and operation activities. The rule requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Compliance with this rule is achieved through application of standard Best Management Practices (BMPs), such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites. The proposed project's compliance with SCAQMD Rule 403 would result in consistency with the applicable AQMP control measures. As such, emissions of fugitive dust during construction would be minimal.

Accordingly, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, and the impact would be less than significant.

Summary

Analysis Step 1: the project would not contribute to air quality violations because its construction emissions do not exceed the SCAQMD regional significance threshold for construction emissions. Therefore, the project is consistent with this criterion.

Analysis Step 2: The project would be consistent with the City of Coachella General Plan designation and is consistent with the adopted SCAQMD AQMP. Therefore, the project is consistent with this criterion.

Analysis Step 3: The project would comply with all applicable rules and regulations. Therefore, the project is consistent with this criterion.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Potential for Air Quality Standard Violation

Impact AIR-2:	**The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

Impact Analysis

Two criteria are used to assess the significance of this impact: (1) the localized construction analysis and (2) the CO hot spot analysis.

Localized Construction Analysis

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (also referred to as an LST analysis). Localized significance thresholds represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standard. Localized significance thresholds were developed in recognition of the fact that criteria pollutants such as CO, NO_X, and PM_{10}, and $PM_{2.5}$ in particular, can have local impacts at nearby sensitive receptors as well as regional impacts. The localized significance thresholds are developed for each source receptor area and are applicable to NO_X, CO, PM_{10}, and $PM_{2.5}$.

The localized assessment methodology limits the emissions in the analysis to those generated from onsite activities. The onsite emissions during construction are compared with the localized significance thresholds and are summarized in Table 12. The onsite emissions were generated as discussed in Section 4, Modeling Parameters and Assumptions. Onsite emissions are from fugitive dust during grading and off-road diesel emissions. As shown in Table 12, unmitigated emissions during construction do not exceed the localized significance thresholds.

Table 12: Localized Significance Analysis

Activity	Onsite Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition – Paving	53.36	39.88	3.94	2.84
Demolition – Buildings	48.36	36.07	3.72	2.48
Site Work/Grading	40.42	26.67	4.93	3.46
Building 2015	30.03	18.74	0.21	1.99
Building 2016	28.51	18.51	1.97	1.85
Paving	22.39	14.82	1.26	1.16
Architectural Coatings	2.37	1.88	0.20	0.20
Maximum Daily Emissions	53.36	39.88	4.93	3.46
Localized Significance Threshold	187.60	1,740.40	19.60	6.50
Exceed Threshold?	No	No	No	No

Notes:
MF = Microfiltration
NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Phases are assumed to not overlap; therefore, the maximum daily emissions are from the highest representative phase.
Source of emissions: FCS 2014.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 60, 65 meters, 1-acre site.

The localized construction analysis uses thresholds that represent the maximum project emissions that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard (SCAQMD 2008b). If the project results in emissions that do not exceed the localized significance thresholds, it follows that those emissions would not cause or contribute to a local exceedance of the appropriate ambient air quality standard. The localized construction analysis demonstrates that the project would not exceed the localized significance thresholds for CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation during construction.

Carbon Monoxide Hot Spot Analysis

CO hot spot thresholds ensure that emissions of CO associated with traffic impacts from a project, in combination with CO emissions from existing and forecasted regional traffic, do not exceed state or federal standards for CO at any traffic intersection impacted by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the state CO 1-hour standard of 20 parts per million (ppm), state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the state or federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and

idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol (University of California, Davis 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria:

1) The intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or
2) The project decreases LOS at an intersection from C to D.

The Traffic Impact Analysis prepared for this project by Lochsa Engineering analyzed the following scenarios:

- Existing Condition (2014)
- Existing plus Project Condition (2014)
- Completion Year without and with Project (2015): ambient growth
- Cumulative Completion Year without and with project (2015):ambient growth and cumulative development projects

Overall, the traffic analysis looked at two intersections within the study area. The results of analysis found that within the study area intersections, one intersection is projected to operate at unacceptable LOS levels during peak hours at completion year with project and in the completion year with cumulative growth plus project. Because LOS would degrade to unacceptable levels, further CO hot spot analysis was required.

Using the CALINE4 model, potential CO hot-spots were analyzed at the intersection of Enterprise Way and Avenue 52. There are several inputs to the CALINE4 model. One input is the traffic volumes, which is from the project-specific traffic report. The traffic volumes with the project were used for the buildout scenario as well as emission factors generated using the EMFAC2011 model for the scenario years (2014 and 2015).

As shown in Table 13, the estimated 1-hour and 8-hour average CO concentrations in combination with background concentrations are below the state and federal standards. The project is not anticipated to contribute substantially to an existing or projected air quality violation of CO.

Table 13: Localized Carbon Monoxide Concentrations

Scenario	Intersection	Peak Hour	Estimated CO Concentration (ppm)				Significant Impact?
			1 Hour Impact[(1)]	Significance Threshold	8 Hour Impact[(2)]	Significance Threshold	
2015 Ambient Growth + Project	Avenue 52 at Enterprise Way	AM	3.7	20.0	2.6	9.0	No
2015 Ambient Growth + Cumulative + Project	Avenue 52 at Enterprise Way	AM	3.2	20.0	2.25	9.0	No

Notes:
(1) The 1-hour concentration is the CALINE4 project increment (see Appendix D for model output) plus the 1-hour background concentration of 0.93 ppm (from Table 1). The 1-hour background was calculated by dividing 8-hour background CO by 0.7 (persistence factor).
(2) The 8-hour concentration is the CALINE4 project increment (see Appendix D) multiplied by 0.7 (persistence factor to convert the 1-hour average CALINE4 model output to an 8-hour average), then adding the 8 hour background concentration of 0.65 ppm (from Table 1).
Source: see Appendix B.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Cumulative Impacts

Impact AIR-3: **The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

This impact is related to regional criteria pollutant impacts. The non-attainment regional pollutants of concern are ozone, PM_{10}, and $PM_{2.5}$. Ozone is not emitted directly into the air but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, VOC and NO_x, react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SCAQMD does not have a recommended ozone threshold, but it does have thresholds of significance for VOC and NO_x. This impact section includes analysis of, and significance determinations for, those pollutants.

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project

exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The project area is in nonattainment for PM_{10} and ozone. Therefore, if the project exceeds the regional thresholds for PM_{10}, then it contributes to a cumulatively considerable impact for those pollutants. If the project exceeds the regional threshold for NO_X or VOC, then it follows that the project would contribute to a cumulatively considerable impact for ozone. If the project exceeds the NO_X threshold, it could contribute cumulatively to nitrogen dioxide concentrations.

Regional emissions include those generated from all onsite and offsite activities. Regional significance thresholds have been established by the SCAQMD, because emissions from projects in the area can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. SCAQMD's significance thresholds for project construction and operation are provided within the respective analyses below.

Construction Regional Emissions

Table 14 summarizes construction-related emissions (without mitigation). For the assumptions used in generating the emissions, please refer to Section 4 of this report. The information shown in Table 14 indicates that the SCAQMD regional emission thresholds would not be exceeded for any criteria pollutant. Therefore, the project would not result in a considerable net increase in a criteria pollutant for which the region is nonattainment, and impacts would be less than significant.

Table 14: Construction Air Pollutant Emissions by Activity

Activity	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition – Paving	5.58	56.92	44.15	0.06	4.40	3.02
Demolition – Buildings	4.89	52.45	40.69	0.05	4.21	2.68
Site Work/Grading	6.47	72.73	58.05	0.12	7.97	4.82
Building 2015	4.98	32.43	35.12	0.05	1.86	2.51
Building 2016	4.57	33.26	33.08	0.05	3.60	2.35
Paving	2.61	22.45	15.55	0.02	1.39	1.19
Architectural Coatings	48.39	2.49	3.35	0.01	0.45	0.26
Maximum Daily Emissions	48.39	72.73	58.05	0.12	7.97	4.82
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Notes:
NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Each of the above activities does not occur at the same time; therefore, the maximum daily emissions represent the maximum emissions that would occur in one day.
Source of emissions: FCS 2014.
Source of thresholds: South Coast Air Quality Management District 2009

Operational Regional Emissions

Operational emissions occur over the lifetime of a project. In general, the various sources of operational emissions include area, energy, mobile, waste, and water sources. Project operation would result in an increase in employee trip generation and truck trip generation. Therefore, project operation result in an increase in criteria pollutants or ozone precursors. Project operational emissions were estimated using CalEEMod. The emissions quantification methodology and assumptions, as well as the detailed modeling output, are provided in Section 4. CalEEMod provides emissions estimates by winter and summer seasons. As shown in Table 15 and Table 16, project's emissions do not exceed the SCAQMD's regional thresholds during the winter or summer seasons. Therefore, project operations would result in a less than significant regional air quality impact.

Table 15: Operational Regional Pollutants (Winter Season)

Source	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	8.68	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.18	0.15	0.00	0.01	0.01
Mobile – Trucks	2.86	50.60	33.73	0.12	5.01	2.15
Mobile - Employees	1.07	1.84	16.40	0.04	3.44	0.92
Total Project Operation	12.64	52.62	50.28	0.16	8.46	3.09
SCAQMD Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Notes:
VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide
SO_X = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter
Source of emissions: Appendix A: CalEEMod Output.
Source of thresholds: South Coast Air Quality Management District 2011a.

Table 16: Operational Regional Pollutants (Summer Season)

Source	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	8.68	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.18	0.15	0.00	0.01	0.01
Mobile – Trucks	2.73	47.07	30.51	0.12	5.09	2.15
Mobile - Employees	1.42	1.71	19.83	0.04	3.44	0.92

Table 16 (cont.): Operational Regional Pollutants (Summer Season)

Source	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Project Operation	12.85	48.96	50.49	0.16	8.54	3.09
SCAQMD Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Notes:
VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide
SO_X = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter
Source of emissions: Appendix A: CalEEMod Output.
Source of thresholds: South Coast Air Quality Management District 2011a.

Cumulative Health Impacts

The area is in nonattainment for ozone and PM_{10}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as the elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 3. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

The regional analysis of construction and operational emissions indicates that the project would not exceed the SCAQMD regional significance thresholds. Therefore, the project would not result in cumulatively considerable health impacts.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Sensitive Receptors

Impact AIR-4: The project would not expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (SCAQMD 2008a). Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and carbon monoxide), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

The closest sensitive receptors are the existing residences 65 meters north of the project site.

Localized Significance Threshold Analysis

The localized construction analysis uses thresholds that represent the maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard (SCAQMD 2008b). The thresholds are based on the ambient concentrations of that pollutant for each source receptor area and on the location of the sensitive receptors. If the project results in emissions under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. The standards are set to protect the health of sensitive individuals. If the standards are not exceeded at the sensitive receptor locations, it follows that the receptors would not be exposed to substantial pollutant concentrations.

As identified in Impact AIR-2, the localized construction analysis demonstrated that the project would not exceed the localized thresholds for CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$. Therefore, during construction, the project would not expose sensitive receptors to substantial pollutant concentrations of CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$.

Criteria Pollutant Analysis

Emissions of NO_X and VOC (ozone precursors) during construction from only the project would not expose sensitive receptors to substantial pollutant concentrations. (See the Impact AIR-3 analysis for an assessment of the cumulative contribution of ozone precursors.)

A CO hot spot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project. The CO hot spot analysis demonstrated that emissions of CO during operation would not result in an exceedance of the most stringent ambient air quality standards for CO. The standards are set to protect the health of sensitive individuals. If the standards are not exceeded, then the sensitive

individuals would not be significantly impacted. As shown in Impact AIR-2, the project would not generate or substantially contribute to a CO hotspot. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact.

Toxic Air Pollutants - Onsite Workers

A variety of state and national programs protect workers from safety hazards, including high air pollutant concentrations (California OSHA and CDC 2012).

Onsite workers are not required to be addressed through this health risk assessment process. A document published by the California Air Pollution Control Officers Association (CAPCOA 2009), Health Risk Assessments for Proposed Land Use Projects, indicates that onsite receptors are included in risk assessments if they are persons not employed by the project. Persons not employed by the project would not remain onsite for any significant period. Therefore, a health risk assessment for onsite workers is not required or recommended.

Toxic Air Pollutants - Construction

The construction equipment would emit DPM, which is a carcinogen. However, the DPM emissions are short-term in nature. Determination of risk from DPM is considered over a 70-year exposure time. Guidance published by the CAPCOA (2009) Health Risk Assessments for Proposed Land Use Projects does not include guidance for health risks from construction projects addressed in CEQA; risks near construction projects are expected to be included later when the toxic emissions from construction activities are better understood. The distances between areas of project construction activity and the nearest relative sensitive receptors is approximately 65 meters. Therefore, considering the dispersion of the emissions and the short timeframe, exposure to DPM is anticipated to be less than significant.

Toxic Air Pollutants - Operation

The ARB Air Quality and Land Use Handbook contains recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (ARB 2005), including recommendations for distances between sensitive receptors and certain land uses. The emissions source of concern for the project would be the increase in heavy duty truck activity.

ARB recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). As shown in Table 9, the project would result in an increase in truck activity. Specifically, the project would increase the number of trucks by 55 trucks per day. Therefore, the project would increase the number of trucks by less than the ARB’s threshold for siting recommendations and would result in a less than significant impact.

Asbestos-Containing Materials

In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers

when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The EPA has since determined that severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act. However, most uses of asbestos for building material are not banned.

Therefore, the potential source of asbestos exposure for the project is the demolition activity of the existing receiving building.

SCAQMD's Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, includes the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos-containing waste materials (ACWM). The Rule further states that the SCAQMD shall be notified of the intent to conduct any demolition or renovation activity (SCAQMD 2007).

Compliance with SCAQMD, federal, and state regulations reduces the potential of asbestos-containing material exposure to a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Objectionable Odors

Impact AIR-5:	**The project would not create objectionable odors affecting a substantial number of people.**

Impact Analysis

Background Information

Odors can cause a variety of responses. The impact of an odor results from interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception.

Odor is typically a warning system that prevents animals and humans from consuming spoiled food or toxic materials. Odor-related symptoms reported in a number of studies include nervousness, headache, sleeplessness, fatigue, dizziness, nausea, loss of appetite, stomach ache, sinus congestion,

eye irritation, nose irritation, runny nose, sore throat, cough, and asthma exacerbation (SCAQMD 2007b).

The SCAQMD's role is to protect the public's health from air pollution by overseeing and enforcing regulations (SCAQMD 2007b). The SCAQMD's resolution activity for odor compliance is mandated under California Health & Safety Code Section 41700, and falls under SCAQMD Rule 402. This rule on Public Nuisance Regulation states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

The SCAQMD indicates that the number of overall complaints has declined over the last 5 years. Over the last 4 years, odor complaints make up 50 to 55 percent of the total nuisance complaints. Over the past decade, odors from paint and coating operations have decreased from 27 to 7 percent and odors from refuse collection stations have increased from 9 to 34 percent (SCAQMD 2007b).

Project Analysis

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

The SCAQMD was contacted to determine the number of odor complaints, if any, against the existing facility in the period between October 2009 and October 2014. The SCAQMD found no records of odor complaints against the facility.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors. The project would result in an expansion of an existing agricultural produce packing facility. Produce received by the facility would be fresh, and the facility currently experiences minimal levels of product loss. Therefore, the facility does not produce a substantial level of putrescible (decaying) material. In addition, product-handling equipment, such as the receiving and sorting room, refrigerated storage, and value add room, are enclosed and would not result in releases of odorants.

The existing facility has two onsite dumpsters that are picked up twice a week. The onsite dumpsters are located on the north side of the project site, and would be moved approximately 30 yards closer to the northern project boundary. As previously stated, the facility produces minimal amounts of putrescible materials. The majority of waste produced by the facility is cardboard, and does not present an adverse odor risk. Therefore, the project would not result in significant operational odor impacts.

Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

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SECTION 6: GREENHOUSE GAS IMPACT ANALYSIS

6.1 - CEQA Guidelines

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

(b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

6.2 - Impact Analysis

Greenhouse Gas Inventory

Impact GHG-1:	**The project would not generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

Threshold Development

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The CAPCOA explored a variety of threshold approaches, but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (ARB 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 $MTCO_2e$ per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The Bay Area Air Quality Management District and the San Joaquin Valley Air Pollution Control District have both developed greenhouse gas thresholds. However, those thresholds are not applicable to the project since the project is under the jurisdiction of the SCAQMD. The SCAQMD is in the process of developing thresholds, as discussed below.

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers, as follows:

- Tier 1 consists of evaluating whether or not a project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 is a screening threshold level to determine significance using a 90 percent emission capture rate approach and is 10,000 $MTCO_2e$ per year (with construction emissions amortized over 30 years and added to operational emissions).
- Tier 4 was not approved in the interim greenhouse gas threshold.
- Tier 5 would allow the project proponent to purchase offsite mitigation to reduce greenhouse gas emissions to less than the screening level (in Tier 3).

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (SCAQMD draft local agency threshold); however, the SCAQMD Board has not approved the thresholds as of the date of this analysis. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 $MTCO_2e$ per year
  - Based on land use type: residential: 3,500 $MTCO_2e$ per year; commercial: 1,400 $MTCO_2e$ per year; industrial: 10,000 $MTCO_2e$; or mixed use: 3,000 $MTCO_2e$ per year
- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$/SP/year for projects and 6.6 $MTCO_2e$/SP/year for plans;
  - Option 3, 2035 target: 3.0 $MTCO_2e$/SP/year for projects and 4.1 $MTCO_2e$/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD discusses its draft thresholds in the following excerpt (SCAQMD 2008c):

> The overarching policy objective with regard to establishing a GHG [greenhouse gas] significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.
>
> As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to some type of CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact.
>
> Therefore, the policy objective of staff's recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for less than one percent of future 2050 statewide GHG emissions target (85 $MMTCO_2e/yr$). In addition, these small projects would be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory.

In summary, the SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate.

Thresholds of Significance for this Project

To determine whether the project is significant, this project uses the SCAQMD draft local agency tiered threshold. The threshold is as follows:

- Tier 1: The project is not exempt under CEQA; go to Tier 2.
- Tier 2: There is no greenhouse gas reduction plan applicable to the project; go to Tier 3.
- Tier 3: project greenhouse gas emissions compared with the threshold: 100,000 $MTCO_2e$ per year for industrial land uses(see analysis below).

Section 15064.4(b) of the CEQA Guideline amendments for greenhouse gas emissions state that a lead agency may take into account the following three considerations in assessing the significance of impacts from greenhouse gas emissions.

- **Consideration #1**: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2**: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3**: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Greenhouse Gas Inventory

This analysis is restricted to greenhouse gases identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide.

The project may also emit greenhouse gases that are not defined by AB 32. For example, the project may generate aerosols. Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high global warming potential; however, the Intergovernmental Panel on Climate Change states that it has a low level of scientific certainty (IPCC 2007a). Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities. The project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a greenhouse gas; however, unlike the

other greenhouse gases, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain greenhouse gases defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

An upstream emission source (also known as life cycle emissions) refers to emissions that were generated during the manufacture of products to be used for construction of the project. Upstream emission sources for the project include but are not limited emissions from the manufacture of cement, emissions from the manufacture of steel, and/or emissions from the transportation of building materials to the seller. The upstream emissions were not estimated because they are not within the control of the project and to do so would be speculative. Additionally, the California Air Pollution Control Officers Association White Paper on CEQA and Climate Change supports this conclusion by stating, "The full life-cycle of GHG [greenhouse gas] emissions from construction activities is not accounted for . . . and the information needed to characterize [life-cycle emissions] would be speculative at the CEQA analysis level" (CAPCOA 2008). Therefore, pursuant to CEQA Guidelines Sections 15144 and 15145, upstream /life cycle emissions are speculative and no further discussion is necessary.

Construction

The project would emit greenhouse gases from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment). For assumptions used in estimating these emissions, please refer to Section 4. The emissions modeling represents a conservative analysis, and is used to assess the project's potential greenhouse gas impacts.

Project construction equipment and worker vehicles are estimated to generate a total of approximately 668 $MTCO_2e$. The emissions are from all phases of construction.

Operation

Operational or long-term emissions occur over the life of the project. The operational emissions for the project are shown in Table 17. For the assumptions and descriptions for the emission sources, please refer to Section 4.

Table 17: Operational Greenhouse Gas Emissions

Emissions Source	Emissions ($MTCO_2e$)
Area	0.01
Energy	272.21
Waste	11.73

Table 17 (cont.): Operational Greenhouse Gas Emissions

Emissions Source	Emissions ($MTCO_2e$)
Water	44.60
Mobile – Trucks	2,043.69
Mobile – Employees	581.25
Amortized Construction	22.27
Total Project Emissions	**2,975.75**
SCAQMD Threshold	**10,000**
Significant?	**No**

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
Source of emissions: Appendix A: CalEEMod Output.
Source of thresholds: South Coast Air Quality Management District 2011a.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Reduction Plans

Impact GHG-2 **The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

The City of Coachella has a draft Climate Action Plan that outlines the City's commitment in reducing greenhouse gas emissions. Although the Climate Action Plan had not been adopted at the time of project analysis, the Climate Action Plan's emission reduction goal of 15 percent below 2010 levels by 2020 is consistent with AB 32 reduction goals and the ARB's Scoping Plan. Therefore, project consistency with the draft Climate Action Plan is utilized for this analysis. Consistency with the City's draft Climate Action Plan would also demonstrate consistency with the State's adopted Climate Change Scoping Plan.

To determine significance, the analysis first will quantify project-related greenhouse gas emissions under a 2010 scenario, and then compare these emissions with those emissions that would occur

when compliance with applicable regulatory measures is assumed in 2020. The standard and methodology is explained in further detail, below.

2010 Scenario

Operational emissions under the 2010 scenario were modeled using CalEEMod 2013.2.2. Modeling assumptions for the year 2010 were used to represent 2020 business as usual conditions (without the benefit of regulations adopted to reduce greenhouse gas emissions). The City of Coachella's Climate Action Plan uses the year 2010 as the current level of greenhouse gas emissions in its Climate Action Plan inventory. The 15 percent reduction from 2020 target is tied to the recommendation of the ARB and the Climate Change Scoping Plan, which suggests that local governments work to reduce emissions by 15 percent below current levels. The year 2010 represents conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). Full assumptions and CalEEMod model outputs are provided in Appendix A. Results of this analysis are presented below in Table 18.

2020 Scenario

Operational emissions for the year 2020 were modeled using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other greenhouse gas reduction policies, as described in the CalEEMod User's Guide (SCAQMD 2011). Additional greenhouse gas reduction measures, such as further passenger vehicle efficiency standards under AB 1493 (Pavley), were adopted as revisions to the State's Low Emission Vehicle Program (LEV III) and will be in effect beginning in 2017, but have not yet been incorporated into EMFAC and CalEEMod assumptions and therefore have not been considered in this analysis as a conservative assumption. Full assumptions and CalEEMod model outputs are provided in Appendix A. Results of this analysis are presented below in Table 18.

Table 18: 2010 and 2020 Project Operational Greenhouse Gas Emissions

Source	Emissions ($MTCO_2e$ per year)	
	2010	2020 (with Regulations)
Area	0.01	0.01
Energy	272.21	197.33
Mobile - Employees	676.09	478.72
Mobile – Trucks (Shipping)	2,103.77	1,872.07
Waste	11.73	11.73
Water	44.60	34.43
Operation Subtotal	3,108.41	2,594.29

Amortized Construction Subtotal	22.27	22.27
Total	3,130.68	2,616.56
Reduction		16.42
Significance Threshold		15%
Are emissions significant?		No
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalents Source of business as usual emissions: CalEEMod output for the year 2010 (Appendix A). Source of 2020 emissions: CalEEMod output for the year 2020(Appendix A).		

As shown in Table 18, the project has a reduction of 16.42 percent from 2010 to the year 2020 with regulations incorporated. This is above the 15-percent reduction required to exceed the amount needed to demonstrate consistency with the City of Coachella's Climate Action Plan and is consistent with AB 32 targets.

As discussed in Section 3, ARB adopted the Climate Change Scoping Plan (Scoping Plan), which outlines actions recommended to obtain the emission reduction goals contained in AB 32. The Scoping Plan states, "The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate" (ARB 2008, page 4). The year 2020 goal of AB 32 corresponds with the mid-term target established by S-3-05, which aims to reduce California's fair-share contribution of greenhouse gases in 2050 to levels that will stabilize the climate. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target, with each sector having a different emission reduction target. Most of the measures target the transportation and electricity sectors. Therefore, the majority of measures are not directly applicable or implementable at the project-level.

The 2020 emission reduction target established by the City's Climate Action Plan is consistent with the emission reduction goals of AB 32, and the adopted Scoping Plan is the implementation plan for achieving that emission reduction goal. Therefore, the intent of City's Climate Action Plan is consistent with the emission reduction goals and ARB's Scoping Plan.

Therefore, it stands to reason that if a project is consistent with the City's Climate Action Plan and achieves the required target reduction, then the project would also be consistent with the State's greenhouse gas reduction goals, including the State's AB 32 goals and ARB's Scoping Plan. As shown above, the project is consistent with the City's Climate Action Plan and the Scoping Plan and would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

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Appendix A: CalEEMod Output

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Ocean Mist Farms Expansion - Construction

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2016
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Default phase and phase durations, adjusted to start 3-23-2015. Pavement Demolition seperated from Building Demolition
Off-road Equipment - 1 Concrete/Industrial Saw added to defaults
Trips and VMT - Default Construction Trips
Demolition - 3 bldgs to be demolished, total of 65,688sf. 176,913 sf pavement demo, Assumed average 4" deep = 2,184 cy, 1.2 tons/cy = 2,621 tons
Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content
Area Coating - Low/No VOC coatings. Assumes 50 g/L or less VOC content
Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements
Grading - Total of 21,380 cy of export. Assumed 2,184 cy of pavement addressed in Demolition phase, remaining 19,196 cy addressed in grading phase.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblConstructionPhase	PhaseEndDate	4/29/2016	4/28/2016
tblConstructionPhase	PhaseStartDate	6/13/2015	6/12/2015
tblGrading	MaterialExported	0.00	19,196.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	11.4488	108.1589	93.1642	0.1678	6.3683	5.3637	11.7321	2.3436	4.9774	7.3210	0.0000	16,843.6215	16,843.6215	1.7433	0.0000	16,880.2306
2016	48.3882	33.2643	33.0831	0.0513	1.5378	2.0647	3.6025	0.4132	1.9379	2.3512	0.0000	4,846.6163	4,846.6163	0.7284	0.0000	4,861.9131
Total	**59.8370**	**141.4232**	**126.2473**	**0.2190**	**7.9062**	**7.4284**	**15.3346**	**2.7568**	**6.9153**	**9.6721**	**0.0000**	**21,690.2378**	**21,690.2378**	**2.4717**	**0.0000**	**21,742.1437**

2.2 Overall Operational

Not Applicable

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition - Pavement	Demolition	3/23/2015	4/17/2015	5	20	
2	Demolition - Buildings	Demolition	4/18/2015	5/15/2015	5	20	
3	Grading	Grading	5/16/2015	6/12/2015	5	20	
4	Building Construction	Building Construction	6/12/2015	4/28/2016	5	230	
5	Paving	Paving	4/29/2016	5/26/2016	5	20	
6	Architectural Coating	Architectural Coating	5/27/2016	6/23/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 310,046; Non-Residential Outdoor: 103,349 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition - Pavement	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition - Pavement	Excavators	3	8.00	162	0.38
Demolition - Pavement	Rubber Tired Dozers	2	8.00	255	0.40
Demolition - Buildings	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition - Buildings	Excavators	3	8.00	162	0.38
Demolition - Buildings	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition - Pavement	7	18.00	0.00	259.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Demolition - Buildings	6	15.00	0.00	299.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,400.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	58.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - Pavement - 2015

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					1.1004	0.0000	1.1004	0.1666	0.0000	0.1666			0.0000			0.0000
Off-Road	5.2205	53.3573	39.8772	0.0462		2.8388	2.8388		2.6737	2.6737	0.0000	4,719.8591	4,719.8591	1.1824		4,744.6902
Total	**5.2205**	**53.3573**	**39.8772**	**0.0462**	**1.1004**	**2.8388**	**3.9392**	**0.1666**	**2.6737**	**2.8404**	**0.0000**	**4,719.8591**	**4,719.8591**	**1.1824**		**4,744.6902**

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	0.2772	3.4802	3.2980	9.1900e-003	0.2269	0.0871	0.3140	0.0622	0.0801	0.1423		934.9427	934.9427	5.9700e-003		935.0680
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	0.0785	0.0791	0.9764	1.7800e-003	0.1506	9.7000e-004	0.1516	0.0400	8.9000e-004	0.0408		151.2734	151.2734	7.8300e-003		151.4380
Total	**0.3557**	**3.5593**	**4.2743**	**0.0110**	**0.3775**	**0.0881**	**0.4655**	**0.1022**	**0.0810**	**0.1832**		**1,086.2161**	**1,086.2161**	**0.0138**		**1,086.5060**

3.3 Demolition - Buildings - 2015

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					1.2687	0.0000	1.2687	0.1921	0.0000	0.1921			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**1.2687**	**2.4508**	**3.7195**	**0.1921**	**2.2858**	**2.4779**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

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	0.3200	4.0177	3.8073	0.0106	0.2619	0.1005	0.3625	0.0718	0.0925	0.1643		1,079.3354	1,079.3354	6.8900e-003		1,079.4801
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	0.0654	0.0659	0.8137	1.4800e-003	0.1255	8.1000e-004	0.1263	0.0333	7.4000e-004	0.0340		126.0612	126.0612	6.5300e-003		126.1983
Total	**0.3854**	**4.0836**	**4.6209**	**0.0121**	**0.3874**	**0.1014**	**0.4888**	**0.1051**	**0.0932**	**0.1983**		**1,205.3966**	**1,205.3966**	**0.0134**		**1,205.6784**

3.4 Grading - 2015

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					2.6028	0.0000	2.6028	1.3205	0.0000	1.3205			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**2.6028**	**2.3284**	**4.9312**	**1.3205**	**2.1421**	**3.4626**	**0.0000**	**3,129.0158**	**3,129.0158**	**0.9341**		**3,148.6328**

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	2.5685	32.2493	30.5601	0.0852	2.1023	0.8070	2.9094	0.5766	0.7423	1.3189		8,663.5617	8,663.5617	0.0553		8,664.7228
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	0.0654	0.0659	0.8137	1.4800e-003	0.1255	8.1000e-004	0.1263	0.0333	7.4000e-004	0.0340		126.0612	126.0612	6.5300e-003		126.1983
Total	**2.6339**	**32.3152**	**31.3738**	**0.0867**	**2.2278**	**0.8078**	**3.0357**	**0.6099**	**0.7430**	**1.3529**		**8,789.6229**	**8,789.6229**	**0.0618**		**8,790.9211**

3.5 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

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	0.6693	4.7389	8.2362	9.6900e-003	0.2827	0.1027	0.3854	0.0803	0.0945	0.1748		974.7937	974.7937	7.2200e-003		974.9454
Worker	0.6538	0.6588	8.1365	0.0148	1.2550	8.0600e-003	1.2631	0.3329	7.4000e-003	0.3403		1,260.6120	1,260.6120	0.0653		1,261.9830
Total	**1.3231**	**5.3977**	**16.3727**	**0.0245**	**1.5377**	**0.1108**	**1.6485**	**0.4132**	**0.1019**	**0.5150**		**2,235.4057**	**2,235.4057**	**0.0725**		**2,236.9284**

3.5 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.5726	4.1655	7.2579	9.6700e-003	0.2828	0.0895	0.3723	0.0804	0.0823	0.1627		963.6384	963.6384	6.4900e-003		963.7747
Worker	0.5880	0.5924	7.3186	0.0148	1.2550	7.7900e-003	1.2628	0.3329	7.1700e-003	0.3401		1,213.6915	1,213.6915	0.0599		1,214.9494
Total	**1.1606**	**4.7580**	**14.5765**	**0.0245**	**1.5378**	**0.0973**	**1.6351**	**0.4132**	**0.0895**	**0.5027**		**2,177.3299**	**2,177.3299**	**0.0664**		**2,178.7241**

3.6 Paving - 2016

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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5548**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

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	0.0588	0.0592	0.7319	1.4800e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		121.3692	121.3692	5.9900e-003		121.4949
Total	**0.0588**	**0.0592**	**0.7319**	**1.4800e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**121.3692**	**121.3692**	**5.9900e-003**		**121.4949**

3.7 Architectural Coating - 2016

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	47.9022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**48.2706**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

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	0.1176	0.1185	1.4637	2.9600e-003	0.2510	1.5600e-003	0.2526	0.0666	1.4300e-003	0.0680		242.7383	242.7383	0.0120		242.9899
Total	**0.1176**	**0.1185**	**1.4637**	**2.9600e-003**	**0.2510**	**1.5600e-003**	**0.2526**	**0.0666**	**1.4300e-003**	**0.0680**		**242.7383**	**242.7383**	**0.0120**		**242.9899**

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Ocean Mist Farms Expansion - Operations Buildings

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Area, Energy, Water and Waste Emissions Only

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Energy	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547
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
Total	**8.7032**	**0.1792**	**0.1536**	**1.0700e-003**	**0.0000**	**0.0136**	**0.0136**	**0.0000**	**0.0136**	**0.0136**		**214.9530**	**214.9530**	**4.1400e-003**	**3.9400e-003**	**216.2615**

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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					
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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	12.50	4.20	5.40	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.482740	0.062178	0.166963	0.152374	0.036454	0.007000	0.011131	0.070507	0.001226	0.001858	0.004551	0.000490	0.002528

5.0 Energy Detail

4.4 Fleet Mix

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	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547
NaturalGas Unmitigated	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547

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					
General Office Building	26	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0588	3.0588	6.0000e-005	6.0000e-005	3.0774
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
Refrigerated Warehouse-No Rail	159.347	1.7200e-003	0.0156	0.0131	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003		18.7467	18.7467	3.6000e-004	3.4000e-004	18.8608
General Light Industry	1641.7	0.0177	0.1610	0.1352	9.7000e-004		0.0122	0.0122		0.0122	0.0122		193.1410	193.1410	3.7000e-003	3.5400e-003	194.3164
Total		**0.0197**	**0.1791**	**0.1505**	**1.0800e-003**		**0.0136**	**0.0136**		**0.0136**	**0.0136**		**214.9465**	**214.9465**	**4.1200e-003**	**3.9400e-003**	**216.2547**

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	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Unmitigated	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-004	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Total	**8.6835**	**3.0000e-005**	**3.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.4400e-003**	**6.4400e-003**	**2.0000e-005**		**6.8300e-003**

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Ocean Mist Farms Expansion - Operations Trucks

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Trucks Only

Vehicle Trips - 110 daily truck trips, 40 miles per trip, 100% Primary

Vechicle Emission Factors - Trucks Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.60
tblVehicleEF	LDA	0.48	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	7.0000e-003	0.02

tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.00
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.22
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	12.50	40.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	110.00
tblVehicleTrips	SU_TR	0.98	110.00
tblVehicleTrips	WD_TR	11.01	110.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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					
Mobile	2.8605	50.6003	33.7278	0.1221	3.8297	1.1808	5.0105	1.0646	1.0862	2.1508		12,381.2754	12,381.2754	0.0911		12,383.1884

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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	2.8605	50.6003	33.7278	0.1221	3.8297	1.1808	5.0105	1.0646	1.0862	2.1508		12,381.2754	12,381.2754	0.0911		12,383.1884
Unmitigated	2.8605	50.6003	33.7278	0.1221	3.8297	1.1808	5.0105	1.0646	1.0862	2.1508		12,381.2754	12,381.2754	0.0911		12,383.1884

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	110.00	110.00	110.00	1,601,600	1,601,600
Total	110.00	110.00	110.00	1,601,600	1,601,600

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	40.00	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157000	0.022000	0.223000	0.598000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Employee

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Employees Only

Vehicle Trips - 360 daily Employee trips, 100% Primary, 100% C-W

Vechicle Emission Factors - Employee Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	LDA	0.48	0.60
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.17	0.19
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	7.0000e-003	0.00

tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	360.00
tblVehicleTrips	SU_TR	0.98	360.00
tblVehicleTrips	WD_TR	11.01	360.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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					
Mobile	1.0729	1.8427	16.3998	0.0387	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,325.8258	3,325.8258	0.1704		3,329.4031

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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	1.0729	1.8427	16.3998	0.0387	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,325.8258	3,325.8258	0.1704		3,329.4031
Unmitigated	1.0729	1.8427	16.3998	0.0387	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,325.8258	3,325.8258	0.1704		3,329.4031

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.00	360.00	360.00	1,638,000	1,638,000
Total	360.00	360.00	360.00	1,638,000	1,638,000

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	12.50	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602000	0.069000	0.192000	0.137000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Buildings

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Area, Energy, Water and Waste Emissions Only

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Energy	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547
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
Total	**8.7032**	**0.1792**	**0.1536**	**1.0700e-003**	**0.0000**	**0.0136**	**0.0136**	**0.0000**	**0.0136**	**0.0136**		**214.9530**	**214.9530**	**4.1400e-003**	**3.9400e-003**	**216.2615**

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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					
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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	12.50	4.20	5.40	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.482740	0.062178	0.166963	0.152374	0.036454	0.007000	0.011131	0.070507	0.001226	0.001858	0.004551	0.000490	0.002528

5.0 Energy Detail

4.4 Fleet Mix

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	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547
NaturalGas Unmitigated	0.0197	0.1791	0.1505	1.0700e-003		0.0136	0.0136		0.0136	0.0136		214.9465	214.9465	4.1200e-003	3.9400e-003	216.2547

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					
General Office Building	26	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0588	3.0588	6.0000e-005	6.0000e-005	3.0774
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
Refrigerated Warehouse-No Rail	159.347	1.7200e-003	0.0156	0.0131	9.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003		18.7467	18.7467	3.6000e-004	3.4000e-004	18.8608
General Light Industry	1641.7	0.0177	0.1610	0.1352	9.7000e-004		0.0122	0.0122		0.0122	0.0122		193.1410	193.1410	3.7000e-003	3.5400e-003	194.3164
Total		**0.0197**	**0.1791**	**0.1505**	**1.0800e-003**		**0.0136**	**0.0136**		**0.0136**	**0.0136**		**214.9465**	**214.9465**	**4.1200e-003**	**3.9400e-003**	**216.2547**

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	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Unmitigated	8.6835	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-004	3.0000e-005	3.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.4400e-003	6.4400e-003	2.0000e-005		6.8300e-003
Total	**8.6835**	**3.0000e-005**	**3.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.4400e-003**	**6.4400e-003**	**2.0000e-005**		**6.8300e-003**

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Ocean Mist Farms Expansion - Operations Trucks

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Trucks Only

Vehicle Trips - 110 daily truck trips, 40 miles per trip, 100% Primary

Vechicle Emission Factors - Trucks Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.60
tblVehicleEF	LDA	0.48	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	7.0000e-003	0.02

tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.00
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.22
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	12.50	40.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	110.00
tblVehicleTrips	SU_TR	0.98	110.00
tblVehicleTrips	WD_TR	11.01	110.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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					
Mobile	2.7263	47.0736	30.5052	0.1222	3.8297	1.1788	5.0086	1.0646	1.0844	2.1490		12,397.6132	12,397.6132	0.0905		12,399.5145

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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	2.7263	47.0736	30.5052	0.1222	3.8297	1.1788	5.0086	1.0646	1.0844	2.1490		12,397.6132	12,397.6132	0.0905		12,399.5145
Unmitigated	2.7263	47.0736	30.5052	0.1222	3.8297	1.1788	5.0086	1.0646	1.0844	2.1490		12,397.6132	12,397.6132	0.0905		12,399.5145

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	110.00	110.00	110.00	1,601,600	1,601,600
Total	110.00	110.00	110.00	1,601,600	1,601,600

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	40.00	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157000	0.022000	0.223000	0.598000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Employee

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Employees Only

Vehicle Trips - 360 daily Employee trips, 100% Primary, 100% C-W

Vechicle Emission Factors - Employee Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	LDA	0.48	0.60
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.17	0.19
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	7.0000e-003	0.00
tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	360.00
tblVehicleTrips	SU_TR	0.98	360.00
tblVehicleTrips	WD_TR	11.01	360.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Not Applicable

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					
Mobile	1.4187	1.7081	19.8272	0.0417	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,576.7120	3,576.7120	0.1704		3,580.2893

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

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	1.4187	1.7081	19.8272	0.0417	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,576.7120	3,576.7120	0.1704		3,580.2893
Unmitigated	1.4187	1.7081	19.8272	0.0417	3.4187	0.0185	3.4372	0.9063	0.0170	0.9233		3,576.7120	3,576.7120	0.1704		3,580.2893

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.00	360.00	360.00	1,638,000	1,638,000
Total	360.00	360.00	360.00	1,638,000	1,638,000

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	12.50	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602000	0.069000	0.192000	0.137000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Construction

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2016
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Default phase and phase durations, adjusted to start 3-23-2015. Pavement Demolition seperated from Building Demolition

Off-road Equipment - 1 Concrete/Industrial Saw added to defaults

Trips and VMT - Default Construction Trips

Demolition - 3 bldgs to be demolished, total of 65,688sf. 176,913 sf pavement demo, Assumed average 4" deep = 2,184 cy, 1.2 tons/cy = 2,621 tons

Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content

Area Coating - Low/No VOC coatings. Assumes 50 g/L or less VOC content

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Grading - Total of 21,380 cy of export. Assumed 2,184 cy of pavement addressed in Demolition phase, remaining 19,196 cy addressed in grading phase.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblConstructionPhase	PhaseEndDate	4/29/2016	4/28/2016
tblConstructionPhase	PhaseStartDate	6/13/2015	6/12/2015
tblGrading	MaterialExported	0.00	19,196.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.5214	4.4269	3.9631	5.9500e-003	0.1889	0.2477	0.4366	0.0544	0.2319	0.2863	0.0000	531.3611	531.3611	0.0793	0.0000	533.0269
2016	0.6990	1.6713	1.5850	2.4600e-003	0.0680	0.1024	0.1704	0.0183	0.0960	0.1143	0.0000	212.7874	212.7874	0.0349	0.0000	213.5202
Total	**1.2204**	**6.0982**	**5.5481**	**8.4100e-003**	**0.2569**	**0.3501**	**0.6070**	**0.0727**	**0.3279**	**0.4006**	**0.0000**	**744.1485**	**744.1485**	**0.1142**	**0.0000**	**746.5470**

2.2 Overall Operational

Not Applicable

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition - Pavement	Demolition	3/23/2015	4/17/2015	5	20	
2	Demolition - Buildings	Demolition	4/18/2015	5/15/2015	5	20	
3	Grading	Grading	5/16/2015	6/12/2015	5	20	
4	Building Construction	Building Construction	6/12/2015	4/28/2016	5	230	
5	Paving	Paving	4/29/2016	5/26/2016	5	20	
6	Architectural Coating	Architectural Coating	5/27/2016	6/23/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 310,046; Non-Residential Outdoor: 103,349 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition - Pavement	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition - Pavement	Excavators	3	8.00	162	0.38
Demolition - Pavement	Rubber Tired Dozers	2	8.00	255	0.40
Demolition - Buildings	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition - Buildings	Excavators	3	8.00	162	0.38
Demolition - Buildings	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition - Pavement	7	18.00	0.00	259.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Demolition - Buildings	6	15.00	0.00	299.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,400.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	58.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - Pavement - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0110	0.0000	0.0110	1.6700e-003	0.0000	1.6700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0522	0.5336	0.3988	4.6000e-004		0.0284	0.0284		0.0267	0.0267	0.0000	42.8178	42.8178	0.0107	0.0000	43.0431
Total	**0.0522**	**0.5336**	**0.3988**	**4.6000e-004**	**0.0110**	**0.0284**	**0.0394**	**1.6700e-003**	**0.0267**	**0.0284**	**0.0000**	**42.8178**	**42.8178**	**0.0107**	**0.0000**	**43.0431**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-003	0.0367	0.0344	9.0000e-005	2.2400e-003	8.7000e-004	3.1100e-003	6.1000e-004	8.0000e-004	1.4200e-003	0.0000	8.4729	8.4729	5.0000e-005	0.0000	8.4740
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	8.2000e-004	8.7800e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3511	1.3511	7.0000e-005	0.0000	1.3526
Total	**3.4300e-003**	**0.0375**	**0.0431**	**1.1000e-004**	**3.7200e-003**	**8.8000e-004**	**4.6000e-003**	**1.0000e-003**	**8.1000e-004**	**1.8200e-003**	**0.0000**	**9.8240**	**9.8240**	**1.2000e-004**	**0.0000**	**9.8266**

3.3 Demolition - Buildings - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0127	0.0000	0.0127	1.9200e-003	0.0000	1.9200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4412	37.4412	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**0.0127**	**0.0245**	**0.0372**	**1.9200e-003**	**0.0229**	**0.0248**	**0.0000**	**37.4412**	**37.4412**	**0.0102**	**0.0000**	**37.6544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2400e-003	0.0423	0.0397	1.1000e-004	2.5800e-003	1.0100e-003	3.5900e-003	7.1000e-004	9.3000e-004	1.6300e-003	0.0000	9.7814	9.7814	6.0000e-005	0.0000	9.7827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	6.8000e-004	7.3200e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1259	1.1259	6.0000e-005	0.0000	1.1272
Total	**3.7600e-003**	**0.0430**	**0.0470**	**1.2000e-004**	**3.8100e-003**	**1.0200e-003**	**4.8300e-003**	**1.0400e-003**	**9.4000e-004**	**1.9700e-003**	**0.0000**	**10.9073**	**10.9073**	**1.2000e-004**	**0.0000**	**10.9099**

3.4 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0260	0.0000	0.0260	0.0132	0.0000	0.0132	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.4042	0.2667	3.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	28.3859	28.3859	8.4700e-003	0.0000	28.5639
Total	**0.0383**	**0.4042**	**0.2667**	**3.0000e-004**	**0.0260**	**0.0233**	**0.0493**	**0.0132**	**0.0214**	**0.0346**	**0.0000**	**28.3859**	**28.3859**	**8.4700e-003**	**0.0000**	**28.5639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0260	0.3396	0.3184	8.5000e-004	0.0207	8.0800e-003	0.0288	5.6900e-003	7.4300e-003	0.0131	0.0000	78.5129	78.5129	5.0000e-004	0.0000	78.5235
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	6.8000e-004	7.3200e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1259	1.1259	6.0000e-005	0.0000	1.1272
Total	**0.0265**	**0.3403**	**0.3257**	**8.6000e-004**	**0.0220**	**8.0900e-003**	**0.0300**	**6.0200e-003**	**7.4400e-003**	**0.0135**	**0.0000**	**79.6388**	**79.6388**	**5.6000e-004**	**0.0000**	**79.6507**

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2653	2.1772	1.3590	1.9400e-003		0.1535	0.1535		0.1443	0.1443	0.0000	176.8957	176.8957	0.0444	0.0000	177.8277
Total	**0.2653**	**2.1772**	**1.3590**	**1.9400e-003**		**0.1535**	**0.1535**		**0.1443**	**0.1443**	**0.0000**	**176.8957**	**176.8957**	**0.0444**	**0.0000**	**177.8277**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0491	0.3580	0.6316	7.0000e-004	0.0202	7.4900e-003	0.0277	5.7500e-003	6.8900e-003	0.0126	0.0000	63.8199	63.8199	4.8000e-004	0.0000	63.8301
Worker	0.0378	0.0496	0.5304	1.0600e-003	0.0895	5.8000e-004	0.0901	0.0238	5.4000e-004	0.0243	0.0000	81.6304	81.6304	4.2900e-003	0.0000	81.7206
Total	**0.0869**	**0.4076**	**1.1621**	**1.7600e-003**	**0.1097**	**8.0700e-003**	**0.1178**	**0.0295**	**7.4300e-003**	**0.0369**	**0.0000**	**145.4503**	**145.4503**	**4.7700e-003**	**0.0000**	**145.5507**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1448	1.2115	0.7865	1.1400e-003		0.0836	0.0836		0.0786	0.0786	0.0000	102.9152	102.9152	0.0255	0.0000	103.4512
Total	**0.1448**	**1.2115**	**0.7865**	**1.1400e-003**		**0.0836**	**0.0836**		**0.0786**	**0.0786**	**0.0000**	**102.9152**	**102.9152**	**0.0255**	**0.0000**	**103.4512**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0247	0.1842	0.3318	4.1000e-004	0.0119	3.8300e-003	0.0157	3.3700e-003	3.5200e-003	6.8900e-003	0.0000	36.9826	36.9826	2.5000e-004	0.0000	36.9880
Worker	0.0199	0.0261	0.2799	6.2000e-004	0.0525	3.3000e-004	0.0528	0.0139	3.0000e-004	0.0142	0.0000	46.0706	46.0706	2.3100e-003	0.0000	46.1191
Total	**0.0446**	**0.2103**	**0.6117**	**1.0300e-003**	**0.0643**	**4.1600e-003**	**0.0685**	**0.0173**	**3.8200e-003**	**0.0211**	**0.0000**	**83.0532**	**83.0532**	**2.5600e-003**	**0.0000**	**83.1071**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	4.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0256**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.1000e-004	6.5900e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0840	1.0840	5.0000e-005	0.0000	1.0852
Total	**4.7000e-004**	**6.1000e-004**	**6.5900e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0840**	**1.0840**	**5.0000e-005**	**0.0000**	**1.0852**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**0.4827**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	1.2300e-003	0.0132	3.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1680	2.1680	1.1000e-004	0.0000	2.1703
Total	**9.4000e-004**	**1.2300e-003**	**0.0132**	**3.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4800e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**2.1680**	**2.1680**	**1.1000e-004**	**0.0000**	**2.1703**

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Ocean Mist Farms Expansion - Operations Buildings

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Default phase and phase durations, adjusted to start 3-23-2015. Pavement Demolition seperated from Building Demolition

Vehicle Trips - Area, Energy, Water and Waste Emissions Only

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction

Not Applicable

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5847	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Energy	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	271.5373	271.5373	6.0700e-003	1.7700e-003	272.2122
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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	5.2351	0.0000	5.2351	0.3094	0.0000	11.7323
Water						0.0000	0.0000		0.0000	0.0000	1.5493	38.4714	40.0208	0.1600	3.9400e-003	44.6021
Total	**1.5883**	**0.0327**	**0.0277**	**2.0000e-004**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**6.7845**	**310.0092**	**316.7937**	**0.4755**	**5.7100e-003**	**328.5471**

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	12.50	4.20	5.40	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.482740	0.062178	0.166963	0.152374	0.036454	0.007000	0.011131	0.070507	0.001226	0.001858	0.004551	0.000490	0.002528

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	235.9505	235.9505	5.3800e-003	1.1100e-003	236.4088
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	235.9505	235.9505	5.3800e-003	1.1100e-003	236.4088
NaturalGas Mitigated	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	35.5868	35.5868	6.8000e-004	6.5000e-004	35.8034
NaturalGas Unmitigated	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	35.5868	35.5868	6.8000e-004	6.5000e-004	35.8034

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	599220	3.2300e-003	0.0294	0.0247	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9767	31.9767	6.1000e-004	5.9000e-004	32.1713
General Office Building	9490	5.0000e-005	4.7000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5064	0.5064	1.0000e-005	1.0000e-005	0.5095
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	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	58161.6	3.1000e-004	2.8500e-003	2.3900e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1037	3.1037	6.0000e-005	6.0000e-005	3.1226
Total		**3.5900e-003**	**0.0327**	**0.0275**	**2.0000e-004**		**2.4900e-003**	**2.4900e-003**		**2.4900e-003**	**2.4900e-003**	**0.0000**	**35.5868**	**35.5868**	**6.8000e-004**	**6.6000e-004**	**35.8034**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	199260	114.8675	2.6200e-003	5.4000e-004	115.0907
General Office Building	27794	16.0224	3.7000e-004	8.0000e-005	16.0536
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	136081	78.4469	1.7900e-003	3.7000e-004	78.5993
Refrigerated Warehouse-No Rail	46166.4	26.6136	6.1000e-004	1.3000e-004	26.6653
Total		**235.9505**	**5.3900e-003**	**1.1200e-003**	**236.4088**

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	tons/yr										MT/yr					
Mitigated	1.5847	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Unmitigated	1.5847	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3931					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Total	**1.5847**	**0.0000**	**2.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	40.0208	0.1600	3.9300e-003	44.5996
Unmitigated	40.0208	0.1600	3.9400e-003	44.6021

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.1625 / 0	32.5652	0.1364	3.3500e-003	36.4671
General Office Building	0.462108 / 0.283227	5.4292	0.0152	3.8000e-004	5.8659
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.259 / 0	2.0263	8.4800e-003	2.1000e-004	2.2691
Total		**40.0207**	**0.1600**	**3.9400e-003**	**44.6021**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	5.2351	0.3094	0.0000	11.7323
Mitigated	5.2351	0.3094	0.0000	11.7323

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	22.32	4.5308	0.2678	0.0000	10.1537
General Office Building	2.42	0.4912	0.0290	0.0000	1.1009
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No	1.05	0.2131	0.0126	0.0000	0.4777
Total		**5.2351**	**0.3094**	**0.0000**	**11.7323**

Ocean Mist Farms Expansion - Operations Trucks

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Trucks Only

Vehicle Trips - 110 daily truck trips, 40 miles per trip, 100% Primary

Vechicle Emission Factors - Trucks Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.60
tblVehicleEF	LDA	0.48	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	7.0000e-003	0.02

tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.00
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.22
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	12.50	40.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	110.00
tblVehicleTrips	SU_TR	0.98	110.00
tblVehicleTrips	WD_TR	11.01	110.00

2.0 Emissions Summary

2.1 Overall Construction

Not Applicable

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mobile	0.4986	9.0545	5.6632	0.0222	0.6869	0.2144	0.9013	0.1913	0.1973	0.3885	0.0000	2,043.3738	2,043.3738	0.0150	0.0000	2,043.6882

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4986	9.0545	5.6632	0.0222	0.6869	0.2144	0.9013	0.1913	0.1973	0.3885	0.0000	2,043.3738	2,043.3738	0.0150	0.0000	2,043.6882
Unmitigated	0.4986	9.0545	5.6632	0.0222	0.6869	0.2144	0.9013	0.1913	0.1973	0.3885	0.0000	2,043.3738	2,043.3738	0.0150	0.0000	2,043.6882

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	110.00	110.00	110.00	1,601,600	1,601,600
Total	110.00	110.00	110.00	1,601,600	1,601,600

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	40.00	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157000	0.022000	0.223000	0.598000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Employee

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2015
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Mobile Analysis - Employees Only

Vehicle Trips - 360 daily Employee trips, 100% Primary, 100% C-W

Vechicle Emission Factors - Employee Analysis

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	LDA	0.48	0.60
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.17	0.19
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	7.0000e-003	0.00

tblVehicleEF	MCY	4.5510e-003	0.00
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MH	2.5280e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	1.2260e-003	0.00
tblVehicleEF	SBUS	4.9000e-004	0.00
tblVehicleEF	UBUS	1.8580e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	360.00
tblVehicleTrips	SU_TR	0.98	360.00
tblVehicleTrips	WD_TR	11.01	360.00

2.0 Emissions Summary

2.1 Overall Construction

Not Applicable

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mobile	0.2091	0.3221	3.2392	7.4500e-003	0.6118	3.3700e-003	0.6152	0.1624	3.0900e-003	0.1655	0.0000	580.6565	580.6565	0.0281	0.0000	581.2465

3.0 Construction Detail

Not Applicable

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2091	0.3221	3.2392	7.4500e-003	0.6118	3.3700e-003	0.6152	0.1624	3.0900e-003	0.1655	0.0000	580.6565	580.6565	0.0281	0.0000	581.2465
Unmitigated	0.2091	0.3221	3.2392	7.4500e-003	0.6118	3.3700e-003	0.6152	0.1624	3.0900e-003	0.1655	0.0000	580.6565	580.6565	0.0281	0.0000	581.2465

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.00	360.00	360.00	1,638,000	1,638,000
Total	360.00	360.00	360.00	1,638,000	1,638,000

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	12.50	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602000	0.069000	0.192000	0.137000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Buildings

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2010
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content

Vehicle Trips - Area, Energy, Water and Waste Emissions Only

Area Coating - Low/No VOC coatings. Assumes 50 g/L or less VOC content

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Area Mitigation - No change

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblProjectCharacteristics	OperationalYear	2014	2010
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	2.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Energy											0.0000	271.5373	271.5373	6.0700e-003	1.7700e-003	272.2122
Mobile								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste											5.2351	0.0000	5.2351	0.3094	0.0000	11.7323
Water											1.5493	38.4714	40.0208	0.1600	3.9400e-003	44.6021
Total								**0.0000**			**6.7845**	**310.0092**	**316.7937**	**0.4755**	**5.7100e-003**	**328.5471**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Energy											0.0000	271.5373	271.5373	6.0700e-003	1.7700e-003	272.2122
Mobile								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste											5.2351	0.0000	5.2351	0.3094	0.0000	11.7323
Water											1.5493	38.4714	40.0208	0.1600	3.9300e-003	44.5996
Total								**0.0000**			**6.7845**	**310.0092**	**316.7937**	**0.4754**	**5.7000e-003**	**328.5447**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.18**	**0.00**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	235.9505	235.9505	5.3800e-003	1.1100e-003	236.4088
Electricity Unmitigated											0.0000	235.9505	235.9505	5.3800e-003	1.1100e-003	236.4088
NaturalGas Mitigated											0.0000	35.5868	35.5868	6.8000e-004	6.5000e-004	35.8034
NaturalGas Unmitigated											0.0000	35.5868	35.5868	6.8000e-004	6.5000e-004	35.8034

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	599220											0.0000	31.9767	31.9767	6.1000e-004	5.9000e-004	32.1713
General Office Building	9490											0.0000	0.5064	0.5064	1.0000e-005	1.0000e-005	0.5095
Other Non-Asphalt Surfaces	0											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
Refrigerated Warehouse-No	58161.6											0.0000	3.1037	3.1037	6.0000e-005	6.0000e-005	3.1226
Total												**0.0000**	**35.5868**	**35.5868**	**6.8000e-004**	**6.6000e-004**	**35.8034**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	599220											0.0000	31.9767	31.9767	6.1000e-004	5.9000e-004	32.1713
General Office Building	9490											0.0000	0.5064	0.5064	1.0000e-005	1.0000e-005	0.5095
Other Non-Asphalt Surfaces	0											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
Refrigerated Warehouse-No	58161.6											0.0000	3.1037	3.1037	6.0000e-005	6.0000e-005	3.1226
Total												**0.0000**	**35.5868**	**35.5868**	**6.8000e-004**	**6.6000e-004**	**35.8034**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	199260	114.8675	2.6200e-003	5.4000e-004	115.0907
General Office Building	27794	16.0224	3.7000e-004	8.0000e-005	16.0536
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	136081	78.4469	1.7900e-003	3.7000e-004	78.5993
Refrigerated Warehouse-No	46166.4	26.6136	6.1000e-004	1.3000e-004	26.6653
Total		**235.9505**	**5.3900e-003**	**1.1200e-003**	**236.4088**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	199260	114.8675	2.6200e-003	5.4000e-004	115.0907
General Office Building	27794	16.0224	3.7000e-004	8.0000e-005	16.0536
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	136081	78.4469	1.7900e-003	3.7000e-004	78.5993
Refrigerated Warehouse-No	46166.4	26.6136	6.1000e-004	1.3000e-004	26.6653
Total		**235.9505**	**5.3900e-003**	**1.1200e-003**	**236.4088**

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	tons/yr										MT/yr					
Mitigated											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Unmitigated											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Total											**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Total											**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	40.0208	0.1600	3.9300e-003	44.5996
Unmitigated	40.0208	0.1600	3.9400e-003	44.6021

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.1625 / 0	32.5652	0.1364	3.3500e-003	36.4671
General Office Building	0.462108 / 0.283227	5.4292	0.0152	3.8000e-004	5.8659
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No	0.259 / 0	2.0263	8.4800e-003	2.1000e-004	2.2691
Total		**40.0207**	**0.1600**	**3.9400e-003**	**44.6021**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.1625 / 0	32.5652	0.1363	3.3500e-003	36.4650
General Office Building	0.462108 / 0.283227	5.4292	0.0152	3.8000e-004	5.8657
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No [illegible]	0.259 / 0	2.0263	8.4800e-003	2.1000e-004	2.2689
Total		**40.0207**	**0.1600**	**3.9400e-003**	**44.5996**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	5.2351	0.3094	0.0000	11.7323
Mitigated	5.2351	0.3094	0.0000	11.7323

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	22.32	4.5308	0.2678	0.0000	10.1537
General Office Building	2.42	0.4912	0.0290	0.0000	1.1009
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No	1.05	0.2131	0.0126	0.0000	0.4777
Total		**5.2351**	**0.3094**	**0.0000**	**11.7323**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	22.32	4.5308	0.2678	0.0000	10.1537
General Office Building	2.42	0.4912	0.0290	0.0000	1.1009
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No	1.05	0.2131	0.0126	0.0000	0.4777
Total		**5.2351**	**0.3094**	**0.0000**	**11.7323**

9.0 Operational Offroad

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

10.0 Vegetation

Ocean Mist Farms Expansion - Operations Employee 2010

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2010
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Mobile Analysis - Trucks Only

Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content

Vehicle Trips - 360 daily Employee trips, 100% Primary, 100% C-W

Vechicle Emission Factors - Employee Analysis

Vechicle Emission Factors - Employee Analysis

Vechicle Emission Factors - Employee Analysis

Consumer Products - Mobile Run

Area Coating - Mobile Run

Landscape Equipment - Mobile Run

Energy Use - Mobile Run

Water And Wastewater - Mobile Run

Solid Waste - Mobile Run

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Area Mitigation - No change

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblEnergyUse	LightingElect	4.15	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	T24E	3.75	0.00
tblEnergyUse	T24NG	3.65	0.00
tblProjectCharacteristics	OperationalYear	2014	2010
tblSolidWaste	SolidWasteGenerationRate	0.93	0.00
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	LDA	0.48	0.60
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.17	0.19
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	8.6230e-003	0.00
tblVehicleEF	MCY	4.3630e-003	0.00
tblVehicleEF	MDV	0.16	0.14
tblVehicleEF	MH	2.6720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	1.3900e-003	0.00
tblVehicleEF	SBUS	5.1300e-004	0.00
tblVehicleEF	UBUS	2.0210e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	360.00
tblVehicleTrips	SU_TR	0.98	360.00
tblVehicleTrips	WD_TR	11.01	360.00
tblWater	IndoorWaterUseRate	177,733.75	0.00
tblWater	OutdoorWaterUseRate	108,933.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	675.1324	675.1324	0.0458	0.0000	676.0932
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**675.1324**	**675.1324**	**0.0458**	**0.0000**	**676.0933**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	675.1324	675.1324	0.0458	0.0000	676.0932
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**675.1324**	**675.1324**	**0.0458**	**0.0000**	**676.0933**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	675.1324	675.1324	0.0458	0.0000	676.0932
Unmitigated											0.0000	675.1324	675.1324	0.0458	0.0000	676.0932

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.00	360.00	360.00	1,638,000	1,638,000
Total	360.00	360.00	360.00	1,638,000	1,638,000

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	12.50	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602000	0.069000	0.192000	0.137000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Trucks 2010

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2010
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Mobile Analysis - Trucks Only

Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content

Vehicle Trips - 110 daily truck trips, 40 miles per trip, 100% Primary

Vechicle Emission Factors - Trucks Analysis

Vechicle Emission Factors - Trucks Analysis

Vechicle Emission Factors - Trucks Analysis

Consumer Products - Mobile Run

Area Coating - Mobile Run

Landscape Equipment - Mobile Run

Energy Use - Mobile Run

Water And Wastewater - Mobile Run

Solid Waste - Mobile Run

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Area Mitigation - No change

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblEnergyUse	LightingElect	4.15	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	T24E	3.75	0.00
tblEnergyUse	T24NG	3.65	0.00
tblProjectCharacteristics	OperationalYear	2014	2010
tblSolidWaste	SolidWasteGenerationRate	0.93	0.00
tblVehicleEF	HHD	0.06	0.60
tblVehicleEF	LDA	0.48	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.05	0.16
tblVehicleEF	LHD2	8.6230e-003	0.02
tblVehicleEF	MCY	4.3630e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.6720e-003	0.00
tblVehicleEF	MHD	0.01	0.22
tblVehicleEF	OBUS	1.3900e-003	0.00
tblVehicleEF	SBUS	5.1300e-004	0.00
tblVehicleEF	UBUS	2.0210e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	12.50	40.00
tblVehicleTrips	CW_TTP	33.00	100.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	110.00
tblVehicleTrips	SU_TR	0.98	110.00
tblVehicleTrips	WD_TR	11.01	110.00
tblWater	IndoorWaterUseRate	177,733.75	0.00
tblWater	OutdoorWaterUseRate	108,933.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile								0.1906			0.0000	2,103.0449	2,103.0449	0.0344	0.0000	2,103.7667
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total								**0.1906**			**0.0000**	**2,103.0449**	**2,103.0449**	**0.0344**	**0.0000**	**2,103.7667**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile								0.1906			0.0000	2,103.0449	2,103.0449	0.0344	0.0000	2,103.7667
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total								**0.1906**			**0.0000**	**2,103.0449**	**2,103.0449**	**0.0344**	**0.0000**	**2,103.7667**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated								0.1906			0.0000	2,103.0449	2,103.0449	0.0344	0.0000	2,103.7667
Unmitigated								0.1906			0.0000	2,103.0449	2,103.0449	0.0344	0.0000	2,103.7667

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	110.00	110.00	110.00	1,601,600	1,601,600
Total	110.00	110.00	110.00	1,601,600	1,601,600

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	40.00	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157000	0.022000	0.223000	0.598000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Buildings

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.60	1000sqft	0.06	2,600.00	0
General Light Industry	18.00	1000sqft	0.41	18,000.00	0
Refrigerated Warehouse-No Rail	1.12	1000sqft	0.03	1,120.00	0
Other Non-Asphalt Surfaces	4.14	Acre	4.14	180,338.40	0
Parking Lot	3.55	Acre	3.55	154,638.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	935.72	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 emission factors: BAU emissions factors for Energy reflect compliance with the 33% RPS standard.

Land Use - 2020

Construction Phase - Default phase and phase durations, adjusted to start 3-23-2015. Pavement Demolition seperated from Building Demolition

Off-road Equipment - 1 Concrete/Industrial Saw added to defaults

Trips and VMT - Default Construction Trips

Demolition - 3 bldgs to be demolished, total of 65,688sf. 176,913sf pavement demo, 4" deep = 2,184cy, 1.2 tons/cy = 2,621 tons

Architectural Coating - Low/No VOC coatings. Assumes 50g/L or less VOC content

Vehicle Trips - Area, Energy, Water and Waste Emissions Only

Area Coating - Low/No VOC coatings. Assumes 50 g/L or less VOC content

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Area Mitigation - No change

Energy Mitigation - Newest Title 24 (2013) is not accounted for in this version of CalEEMod. Title 24 2013 is 30% more efficient than the previous Title 24 2008 standards for non-residential buildings

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use - 2020

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	1270.9	935.72
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	2.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Energy											0.0000	209.3090	209.3090	4.5800e-003	1.4000e-003	209.8377
Mobile											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste											5.2351	0.0000	5.2351	0.3094	0.0000	11.7323
Water											1.5493	28.3252	29.8745	0.1598	3.8800e-003	34.4320
Total											**6.7845**	**237.6347**	**244.4192**	**0.4737**	**5.2800e-003**	**256.0025**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Energy											0.0000	196.8468	196.8468	4.3200e-003	1.2700e-003	197.3322
Mobile											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste											5.2351	0.0000	5.2351	0.3094	0.0000	11.7323
Water											1.5493	28.3252	29.8745	0.1598	3.8700e-003	34.4303
Total											**6.7845**	**225.1725**	**231.9570**	**0.4735**	**5.1400e-003**	**243.4954**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.24**	**5.10**	**0.06**	**2.65**	**4.89**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	166.1300	166.1300	3.7300e-003	7.1000e-004	166.4284
Electricity Unmitigated											0.0000	173.7222	173.7222	3.9000e-003	7.4000e-004	174.0343
NaturalGas Mitigated											0.0000	30.7168	30.7168	5.9000e-004	5.6000e-004	30.9038
NaturalGas Unmitigated											0.0000	35.5868	35.5868	6.8000e-004	6.5000e-004	35.8034

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	599220											0.0000	31.9767	31.9767	6.1000e-004	5.9000e-004	32.1713
General Office Building	9490											0.0000	0.5064	0.5064	1.0000e-005	1.0000e-005	0.5095
Other Non-Asphalt Surfaces	0											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
Refrigerated Warehouse-No	58161.6											0.0000	3.1037	3.1037	6.0000e-005	6.0000e-005	3.1226
Total												**0.0000**	**35.5868**	**35.5868**	**6.8000e-004**	**6.6000e-004**	**35.8034**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	511956											0.0000	27.3199	27.3199	5.2000e-004	5.0000e-004	27.4862
General Office Building	6643											0.0000	0.3545	0.3545	1.0000e-005	1.0000e-005	0.3567
Other Non-Asphalt Surfaces	0											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
Refrigerated Warehouse-No	57012.5											0.0000	3.0424	3.0424	6.0000e-005	6.0000e-005	3.0609
Total												**0.0000**	**30.7168**	**30.7168**	**5.9000e-004**	**5.7000e-004**	**30.9038**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	199260	84.5730	1.9000e-003	3.6000e-004	84.7249
General Office Building	27794	11.7968	2.6000e-004	5.0000e-005	11.8180
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	136081	57.7578	1.3000e-003	2.5000e-004	57.8616
Refrigerated Warehouse-No	46166.4	19.5947	4.4000e-004	8.0000e-005	19.6299
Total		**173.7222**	**3.9000e-003**	**7.4000e-004**	**174.0343**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	184734	78.4077	1.7600e-003	3.4000e-004	78.5485
General Office Building	24869	10.5553	2.4000e-004	5.0000e-005	10.5743
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	136081	57.7578	1.3000e-003	2.5000e-004	57.8616
Refrigerated Warehouse-No	45729.6	19.4093	4.4000e-004	8.0000e-005	19.4441
Total		**166.1300**	**3.7400e-003**	**7.2000e-004**	**166.4285**

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	tons/yr										MT/yr					
Mitigated											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Unmitigated											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Total											**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	5.3000e-004	5.3000e-004	0.0000	0.0000	5.6000e-004
Total											**0.0000**	**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	29.8745	0.1598	3.8700e-003	34.4303
Unmitigated	29.8745	0.1598	3.8800e-003	34.4320

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.1625 / 0	24.3249	0.1362	3.3000e-003	28.2074
General Office Building	0.462108 / 0.283227	4.0360	0.0152	3.7000e-004	4.4695
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.259 / 0	1.5136	8.4700e-003	2.1000e-004	1.7551
Total		**29.8745**	**0.1598**	**3.8800e-003**	**34.4320**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.1625 / 0	24.3249	0.1361	3.3000e-003	28.2060
General Office Building	0.462108 / 0.283227	4.0360	0.0151	3.7000e-004	4.4693
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.259 / 0	1.5136	8.4700e-003	2.1000e-004	1.7550
Total		**29.8745**	**0.1597**	**3.8800e-003**	**34.4303**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	5.2351	0.3094	0.0000	11.7323
Mitigated	5.2351	0.3094	0.0000	11.7323

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	22.32	4.5308	0.2678	0.0000	10.1537
General Office Building	2.42	0.4912	0.0290	0.0000	1.1009
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.05	0.2131	0.0126	0.0000	0.4777
Total		**5.2351**	**0.3094**	**0.0000**	**11.7323**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	22.32	4.5308	0.2678	0.0000	10.1537
General Office Building	2.42	0.4912	0.0290	0.0000	1.1009
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.05	0.2131	0.0126	0.0000	0.4777
Total		**5.2351**	**0.3094**	**0.0000**	**11.7323**

9.0 Operational Offroad

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

10.0 Vegetation

Ocean Mist Farms Expansion - Operations Employee 2020

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Mobile Analysis - Trucks Only

Vehicle Trips - 360 daily Employee trips, 100% Primary, 100% C-W

Vechicle Emission Factors - Employee Analysis

Vechicle Emission Factors - Employee Analysis

Vechicle Emission Factors - Employee Analysis

Consumer Products - Mobile Run

Area Coating - Mobile Run

Landscape Equipment - Mobile Run

Energy Use - Mobile Run

Water And Wastewater - Mobile Run

Solid Waste - Mobile Run

Area Mitigation - No change

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblEnergyUse	LightingElect	4.15	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	T24E	3.75	0.00
tblEnergyUse	T24NG	3.65	0.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.93	0.00
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	LDA	0.48	0.60
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT2	0.17	0.19
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.7790e-003	0.00
tblVehicleEF	MCY	4.5240e-003	0.00
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MH	2.5330e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	1.1360e-003	0.00
tblVehicleEF	SBUS	4.6000e-004	0.00
tblVehicleEF	UBUS	1.8320e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	360.00

tblVehicleTrips	SU_TR	0.98	360.00
tblVehicleTrips	WD_TR	11.01	360.00
tblWater	IndoorWaterUseRate	177,733.75	0.00
tblWater	OutdoorWaterUseRate	108,933.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	478.2966	478.2966	0.0201	0.0000	478.7184
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**478.2966**	**478.2966**	**0.0201**	**0.0000**	**478.7184**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	478.2966	478.2966	0.0201	0.0000	478.7184
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**478.2966**	**478.2966**	**0.0201**	**0.0000**	**478.7184**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated								0.1624			0.0000	478.2966	478.2966	0.0201	0.0000	478.7184
Unmitigated								0.1624			0.0000	478.2966	478.2966	0.0201	0.0000	478.7184

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.00	360.00	360.00	1,638,000	1,638,000
Total	360.00	360.00	360.00	1,638,000	1,638,000

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	12.50	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602000	0.069000	0.192000	0.137000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Ocean Mist Farms Expansion - Operations Trucks 2020

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	15			**Operational Year**	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Mobile Analysis - Trucks Only

Vehicle Trips - 110 daily truck trips, 40 miles per trip, 100% Primary

Vechicle Emission Factors - Trucks Analysis

Vechicle Emission Factors - Trucks Analysis

Vechicle Emission Factors - Trucks Analysis

Consumer Products - Mobile Run

Area Coating - Mobile Run

Landscape Equipment - Mobile Run

Energy Use - Mobile Run

Water And Wastewater - Mobile Run

Solid Waste - Mobile Run

Construction Off-road Equipment Mitigation - Mandatory compliance with SCAQMD Rule 403 requirements

Area Mitigation - No change

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblEnergyUse	LightingElect	4.15	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	T24E	3.75	0.00
tblEnergyUse	T24NG	3.65	0.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.93	0.00
tblVehicleEF	HHD	0.07	0.60
tblVehicleEF	LDA	0.48	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.7790e-003	0.02
tblVehicleEF	MCY	4.5240e-003	0.00
tblVehicleEF	MDV	0.15	0.00
tblVehicleEF	MH	2.5330e-003	0.00
tblVehicleEF	MHD	0.01	0.22
tblVehicleEF	OBUS	1.1360e-003	0.00
tblVehicleEF	SBUS	4.6000e-004	0.00
tblVehicleEF	UBUS	1.8320e-003	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	12.50	40.00
tblVehicleTrips	CW_TTP	33.00	100.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	2.37	110.00
tblVehicleTrips	SU_TR	0.98	110.00
tblVehicleTrips	WD_TR	11.01	110.00
tblWater	IndoorWaterUseRate	177,733.75	0.00
tblWater	OutdoorWaterUseRate	108,933.59	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	1,871.8425	1,871.8425	0.0110	0.0000	1,872.0728
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**1,871.8425**	**1,871.8425**	**0.0110**	**0.0000**	**1,872.0728**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	1,871.8425	1,871.8425	0.0110	0.0000	1,872.0728
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**1,871.8425**	**1,871.8425**	**0.0110**	**0.0000**	**1,872.0728**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,871.8425	1,871.8425	0.0110	0.0000	1,872.0728
Unmitigated											0.0000	1,871.8425	1,871.8425	0.0110	0.0000	1,872.0728

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	110.00	110.00	110.00	1,601,600	1,601,600
Total	110.00	110.00	110.00	1,601,600	1,601,600

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	40.00	4.20	5.40	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157000	0.022000	0.223000	0.598000	0.000000	0.000000	0.000000	0.000000	0.000000

Appendix B: CO Hotspot Results

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CO Template
Updated 3/19/07

1-hour background	0.93
8-hour background	0.65
Persistence Factor	0.7

Intersection	Caline4 Output (1-hour)	1-hour (with background)	8-hour (without background)	8-hour (with background)
Enterprise Way at Avenue 52 AM Growth + Project	0.2	1.1	0.14	0.8
Enterprise Way at Avenue 52 AM Growth + Cumulative + Project	0.3	1.2	0.21	0.9

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Enterprise Way at Avenue 52 + Project AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	5.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	*	10	0	10	600	* AG	205	3.1	.0	12.8
B. NB Approach	*	10	600	10	757	* AG	82	3.7	.0	12.8
C. NB Depart	*	10	757	10	914	* AG	0	3.7	.0	12.8
D. NB External	*	10	914	10	1514	* AG	0	3.1	.0	12.8
E. NB Left	*	10	600	5	757	* AG	123	3.7	.0	12.8
F. SB Left	*	0	914	5	757	* AG	0	3.7	.0	12.8
G. SB External	*	0	1514	0	914	* AG	0	3.1	.0	12.8
H. SB Approach	*	0	914	0	757	* AG	0	3.7	.0	12.8
I. SB Depart	*	0	757	0	600	* AG	343	3.7	.0	12.8
J. SB External	*	0	600	0	0	* AG	343	3.1	.0	12.8
K. EB External	*	-750	750	-150	750	* AG	194	3.1	.0	17.5
L. EB Approach	*	-150	750	5	750	* AG	194	3.7	.0	17.5
M. EB Depart	*	5	750	160	750	* AG	162	3.7	.0	17.5
N. EB External	*	160	750	760	750	* AG	162	3.1	.0	17.5
O. WB External	*	760	764	160	764	* AG	334	3.1	.0	17.5
P. WB Approach	*	160	764	5	764	* AG	105	3.7	.0	17.5
Q. WB Depart	*	5	764	-150	764	* AG	228	3.7	.0	17.5
R. WB External	*	-150	764	-750	764	* AG	228	3.1	.0	17.5
S. EB Left	*	-150	750	5	757	* AG	0	3.7	.0	17.5
T. WB Left	*	160	764	5	757	* AG	229	3.7	.0	17.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Enterprise Way at Avenue 52 + Project AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-8	740	2.0
2. Receptor	18	740	2.0
3. Receptor	18	775	2.0
4. Receptor	-8	775	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	84.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	274.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	184.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	176.	.2	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Enterprise Way at Avenue 52 Cumulative P
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	5.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	*	10	0	10	600	* AG	214	3.1	.0	12.8
B. NB Approach	*	10	600	10	757	* AG	91	3.7	.0	12.8
C. NB Depart	*	10	757	10	914	* AG	0	3.7	.0	12.8
D. NB External	*	10	914	10	1514	* AG	0	3.1	.0	12.8
E. NB Left	*	10	600	5	757	* AG	123	3.7	.0	12.8
F. SB Left	*	0	914	5	757	* AG	0	3.7	.0	12.8
G. SB External	*	0	1514	0	914	* AG	0	3.1	.0	12.8
H. SB Approach	*	0	914	0	757	* AG	0	3.7	.0	12.8
I. SB Depart	*	0	757	0	600	* AG	364	3.7	.0	12.8
J. SB External	*	0	600	0	0	* AG	364	3.1	.0	12.8
K. EB External	*	-750	750	-150	750	* AG	292	3.1	.0	17.5
L. EB Approach	*	-150	750	5	750	* AG	292	3.7	.0	17.5
M. EB Depart	*	5	750	160	750	* AG	269	3.7	.0	17.5
N. EB External	*	160	750	760	750	* AG	269	3.1	.0	17.5
O. WB External	*	760	764	160	764	* AG	575	3.1	.0	17.5
P. WB Approach	*	160	764	5	764	* AG	325	3.7	.0	17.5
Q. WB Depart	*	5	764	-150	764	* AG	448	3.7	.0	17.5
R. WB External	*	-150	764	-750	764	* AG	448	3.1	.0	17.5
S. EB Left	*	-150	750	5	757	* AG	0	3.7	.0	17.5
T. WB Left	*	160	764	5	757	* AG	250	3.7	.0	17.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Enterprise Way at Avenue 52 Cumulative P
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-8	740	2.0
2. Receptor	18	740	2.0
3. Receptor	18	775	2.0
4. Receptor	-8	775	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	84.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	275.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	184.	.3	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	176.	.3	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0