

**APPENDIX 1**

**AIR QUALITY and GHG IMPACT ANALYSES**

**AS-153**

**AMERICAN ORGANICS VICTOR VALLEY REGIONAL COMPOSTING FACILITY  
EXPANSION PROJECT**

**VICTORVILLE, CALIFORNIA**

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## ATMOSPHERIC SETTING

The climate of the Victor Valley, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville and surrounding high desert communities. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El Cajon Pass into the upper desert to the northeast of the heavily developed portions of the Los Angeles Basin. This daily airflow brings polluted air into the area late in the afternoon from late spring to early fall. This transport pattern creates both unhealthy air quality as well as destroying the scenic vistas of the mountains surrounding the Victor Valley.

The low annual humidity, moderate temperature swings, very low rainfall and frequent breezy conditions are typical of California's "Upper Desert" subclimate. Most years do not see temperatures drop below about 20°F or above about 105°F. Occasionally, however, there are some very hot temperatures over 105°F with a record high of 113°F in 1995, and some colder temps down to a record low of -1°F in December 1949.

The Victor Valley is in a transition area between the semi-arid conditions of the Los Angeles Basin and the completely arid portions of the Mojave Desert. The Valley's location in the "rainshadow" of the San Gabriel Mountains further enhances its dryness. Rainfall averages around 6 inches per year, with light to moderate rain falling on only 10 days per year. Because of Southern California's location on the edge of the mid-latitude storm track, a shift in the jet stream aloft of a few hundred miles north or south can mean the difference between a year with twice the annual average rainfall and one with drought conditions where less than one-half of the normal rainfall is observed. The project area may occasionally experience a light winter snowfall (1-2 inches per year), but temperatures do not remain cold enough for the snow to stay on the ground for very long.

Winds blow primarily from south to north and from west to east in response to the regional pattern of airflow from the cool ocean to the heated interior. A large portion of the airflow across the proposed project area therefore has its origin in more developed areas of the Los Angeles Basin. Over 50 percent of all airflow derives from a narrow sector from south through west. These winds are moderately strong, averaging from 8-12 mph, but become light and variable at night with about 10 percent of all hours almost complete calm. Afternoon winds may, at times, exceed 20 mph and begin to pick up fine dust and other loose material.

The wind distribution is an important atmospheric parameter because it controls both the initial rate of pollutant dispersal near the source as well as the ultimate regional trajectory of air pollution. These prevailing winds provide a vehicle for visible smog to be transported from the South Coast Air Basin through the mountain passes to the Mojave Desert Air Basin (MDAB). The rapid daytime heating of the lower air leads to convective activity. This exchange of upper air tends to accelerate surface winds during the warm part of the day when convection is at a maximum. During the winter, the rapid cooling of the surface layers at night retards this exchange of momentum which often results in calm winds.

In addition to winds which govern the horizontal dispersion of locally generated emissions, vertical temperature structure controls the depth through which pollutants can be mixed. The strong surface heating by day in the Mojave Desert usually creates a vertical temperature distribution that decreases rapidly with height (unstable). At night, especially in winter, cool air settles in low-lying areas and forms shallow radiation-induced temperature inversions (stable) that may temporarily restrict the dispersion of low-level pollutant emissions. Such inversions "burn off" rapidly after sunrise. The elevated subsidence/marine inversions that create major air quality problems in coastal environments are rarely observed in the desert. When they do form, their bases are from 6 - 8,000 feet mean sea level and thus do not impede vertical dispersion. The low-level radiation inversions, however, play an important role in limiting the dispersive capacity of the local airshed from late evening to the next morning. Because they burn off rapidly in the morning, their importance to the dispersion of air contaminants is limited to localized effects.

# AIR QUALITY SETTING

## AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	3 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.19 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (666 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>	—	
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	<b>No National Standards</b>		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

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

California Air Resources Board (5/4/16)

Table 1 (continued)

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

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**Table 2**  
**Health Effects of Major Criteria Pollutants**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>• Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced tolerance for exercise.</li> <li>• Impairment of mental function.</li> <li>• Impairment of fetal development.</li> <li>• Death at high levels of exposure.</li> <li>• Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Motor vehicle exhaust.</li> <li>• High temperature stationary combustion.</li> <li>• Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness.</li> <li>• Reduced visibility.</li> <li>• Reduced plant growth.</li> <li>• Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases.</li> <li>• Irritation of eyes.</li> <li>• Impairment of cardiopulmonary function.</li> <li>• Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of blood function and nerve construction.</li> <li>• Behavioral and hearing problems in children.</li> </ul>
Respirable Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>• Stationary combustion of solid fuels.</li> <li>• Construction activities.</li> <li>• Industrial processes.</li> <li>• Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced lung function.</li> <li>• Aggravation of the effects of gaseous pollutants.</li> <li>• Aggravation of respiratory and cardio respiratory diseases.</li> <li>• Increased cough and chest discomfort.</li> <li>• Soiling.</li> <li>• Reduced visibility.</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>• Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>• Residential and agricultural burning.</li> <li>• Industrial processes.</li> <li>• Also, formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases respiratory disease.</li> <li>• Lung damage.</li> <li>• Cancer and premature death.</li> <li>• Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Combustion of sulfur-containing fossil fuels.</li> <li>• Smelting of sulfur-bearing metal ores.</li> <li>• Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema).</li> <li>• Reduced lung function.</li> <li>• Irritation of eyes.</li> <li>• Reduced visibility.</li> <li>• Plant injury.</li> <li>• Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.



Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO<sub>2</sub>) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO<sub>2</sub> standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup> which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

Of the standards shown in Table 1, those for ozone (O<sub>3</sub>), and particulate matter (PM-10) are exceeded at times in the MDAB. They are called "non-attainment pollutants." Because of the variations in both the regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

## BASELINE AIR QUALITY

Monitoring of air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Existing levels of criteria air pollutants in the project area can generally be inferred from measurements conducted at the Victorville Station at 14306 Park Avenue. Although the Victorville Station monitors most of the spectrum of pollutants, data for CO is no longer monitored in the Mojave Desert. Table 4 summarizes the last three years of monitoring data from the available data at for this Victorville monitoring station. From these data one can infer that baseline air quality levels near the project site are occasionally unhealthful, but that such violations of clean air standards usually affect only those people most sensitive to air pollution exposure.

- a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded approximately 7 percent of all days in the last three years while the 1-hour state standard has been exceeded less than one percent of all days. The 8-hour federal standard has been exceeded approximately 5 percent of all days in the past three years. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade
- b. Respirable dust (PM-10) levels often exceed the state standard of 50  $\mu\text{g}/\text{m}^3$  but the less stringent federal PM-10 standard of 150  $\mu\text{g}/\text{m}^3$  is violated with much less frequency. However, given the high Max. 24-Hour concentrations it is clear that PM-10 is still of concern.
- c. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There has only been one measured violation in the last three years.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

**Table 3**

**Air Quality Monitoring Summary (2016-2018)  
(Number of Days Standards Were Exceeded, and  
Maximum Levels During Such Violations)  
(Entries shown as estimated days exceeding standard)**

<b>Pollutant/Standard</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Ozone</b>			
1-Hour > 0.09 ppm (S)	4	0	5
8-Hour > 0.07 ppm (S)	33	17	55
8- Hour > 0.075 ppm (F)	18	7	27
Max. 1-Hour Conc. (ppm)	0.100	0.088	0.107
Max. 8-Hour Conc. (ppm)	0.086	0.082	0.097
<b>Nitrogen Dioxide</b>			
1-Hour > 0.18 ppm (S)	0	0	0
Max. 1-Hour Conc. (ppm)	0.097	0.057	0.057
<b>Inhalable Particulates (PM-10)</b>			
24-Hour > 50 µg/m <sup>3</sup> (S)	na	na	na
24-Hour > 150 µg/m <sup>3</sup> (F)	1.9	1.0	1.0
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	226.5	182.5	165.2
<b>Ultra-Fine Particulates (PM-2.5)</b>			
24-Hour > 35 µg/m <sup>3</sup> (F)	1	0	0
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	41.5	27.2	32.7

na = not available  
S=State Standard  
F=Federal Standard

Source: Victorville Station: Ozone, CO, NO<sub>2</sub>, PM-10, PM-2.5  
data: [www.arb.ca.gov/adam/](http://www.arb.ca.gov/adam/)

# AIR QUALITY IMPACTS

## STANDARDS OF SIGNIFICANCE

The Mojave Desert AQMD has adopted numerical emissions thresholds as indicators of potential impact even if the actual air quality increment cannot be directly quantified. The MDAQMD thresholds are as follows:

Carbon Monoxide (CO)	548 pounds/day	100 tons/year
Nitrogen Oxides (NO <sub>x</sub> )	137 pounds/day	25 tons/year
Sulfur Oxides (SO <sub>x</sub> )	137 pounds/day	25 tons/year
Reactive Organic Gases (ROG)	137 pounds/day	25 tons/year
Particulate Matter (PM-10)	82 pounds/day	15 tons/year
Particulate Matter (PM-2.5)	65 pounds/day	12 tons/year
GHG	548,000 pounds/day	100,000 tons/year

## ADJACENT USES

The project site is located in the high desert region of San Bernardino County. The area surrounding the project site is rural in nature with very little development. There are no sensitive uses within one mile of the facility. The land uses surrounding the project are as follows:

- To the South is the VVRCF, and beyond that the land is vacant, with vegetation characteristic of the High Desert. The land uses to the south are Specific Plan (Southern California Logistics Airport) and Open Space
- To the North is VVWRA, which is located on land designated for Open Space and Specific Plan (Southern California Logistics Airport);
- To the East of the project site is the Mojave River; this area located outside of the boundaries of Victorville, in unincorporated San Bernardino County
- To the West of the project site is land owned and managed by VVWRA in support of their operations. Farther to the west is the Southern California Logistics Airport. Land to the west of the project site is designated as Specific Plan (Southern California Logistics Airport).

## PROJECT DESCRIPTION

The proposed project will expand the VVRCF operated by American Organics on VVWRA from 28.8 acres to 50.0 acres. The proposed Expansion Project would not require any additional infrastructure in support of the expanded area of operation

Almost 14 acres of the expansion will be utilized for blending/processing of composted materials. The other portion of 7.3 acres will be for storage of finished product. American Organics will operate within its current permitted daily intake and maximum capacity.

Grading will be accomplished by transferring material from one portion of the site to another and should not result in any appreciable import or export. The Project includes measure to control onsite runoff through the development of a retention basin

Construction for the expanded VVRCF operations is planned to begin in Q1 of 2021. It is estimated that the expanded area for VVRCF operations will be completed by approximately the Q4 of 2021. The project does not propose any new structures. It is anticipated that the construction will occur in the following order (generally):

- 1: Clear and prep VVRCF Expansion area.
- 2a: Remove stockpiled material from Planning Area 2 and transport it to the VVRCF expansion site.
- 2b: Compact and grade VVRCF Expansion area as stockpiled fill material is transferred to the site. Excavate the area required to install the retention basin at the northeastern corner of the Planning Area 4.
- 2c: Compact and grade Planning Area 2 at grade with Shay Road as stockpiled material is transferred to the VVRCF site.
  - Note: items 2a, 2b, and 2c may occur concurrently.
- 3: Fence entire VVRCF site, and remove the existing fence between the expanded operational area and existing operational area. Fence Planning Area 2.
- 4: Install underground water line and fire hydrants

Delivery of construction supplies and removal of any of the materials cleared from the VVRCF Expansion site, if necessary, will be accomplished using trucks during normal working hours. It is anticipated that an average of 10 round trips per day for 75 working days would occur. It is anticipated that a maximum number of 10 employees will be required to support the construction of the project each day. Grading will be by traditional mechanized grading and compaction equipment. Stockpiled materials will be transferred and placed utilizing scrapers that will travel back and forth between the two sections of the site for the majority of construction. Equipment utilized will be traditional site development equipment of scrapers, wheel compactors, vibratory compactors, water trucks, petroleum powered forklifts, and various hand tools traditional to grading operations.

## **CONSTRUCTION ACTIVITY IMPACTS**

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. CalEEMod was used to analyze project impacts.

Utilizing information provided by the project manager, Table 4 was developed and provides the construction activity modeled for the project.

**Table 4**  
**Construction Activity Equipment and Durations**  
**Year 2021**  
**21.3 acres**

<b>Phase Name and Duration</b>	<b>Round Trips per Day</b>	<b>Equipment</b>
<b>Clear and Prep</b> 3 months	10 Employees	1 Scrapper
		2 Loader/Backhoes
		2 Dozers
<b>Grading and Compacting</b> 4 months	10 Employees 10 Vendor Deliveries	2 Scrapers
		2 Forklifts
		2 Compactors
		1 Grader
		1 Loader/Backhoes
		1 Water Truck
<b>Concrete Pads, Fencing, Utilities</b> 3 months	10 Employees 2 Vendor Deliveries	2 Forklifts
		2 Loader/Backhoes
		2 Rollers
		1 Concrete Mixer

Utilizing this indicated equipment fleet shown in Table 4 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 5 as compared to the MDAQMD thresholds. Maximum annual project-related air pollution emissions relative to the yearly MDAQMD thresholds are shown in Table 6.

**Table 5**  
**Daily Emissions (lbs/day)**

<b>Maximal Construction Emissions</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM-10</b>	<b>PM-2.5</b>
2021						
<b>Peak Daily Project Emissions</b>	2.5	27.8	18.8	0.1	20.3	11.6
MDAQMD Thresholds	137	137	548	137	82	82
<i>Exceeds Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

**Table 6**  
**Annual Emissions (tons/year)**

<b>Maximal Construction Emissions</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM-10</b>	<b>PM-2.5</b>
2021						
<b>Annual Project Emissions</b>	0.2	2.2	1.6	0.0	1.0	0.6
MDAQMD Thresholds	25	25	100	25	15	15
<i>Exceeds Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Maximum project-related air pollution emissions were compared to daily and annual MDAQMD thresholds. Maximum daily and annual emissions are less than their associated CEQA thresholds.

## **OPERATIONAL IMPACTS**

The project does not propose to construct any new buildings. The facility throughput permit is not being changed as a result of this project. The project will not create any additional car or truck trips. There are no operational impacts associated with this project, beyond the additional dust generated by the expanded area of operation. VVWRA operations will be mitigated per the terms identified in the existing lease agreement between the VVWRA and American Organics. The VVRCF Expansion will require the installation of a 20-foot dust control screen/berm on VVWRA property to minimize dust migration.

# MITIGATION

## CONSTRUCTION EMISSIONS MITIGATION

Short-term emissions are primarily related to the construction of the project and are recognized to be short in duration and without lasting impacts on air quality. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures (BACMs) be used as required by the Mojave AQMD Rule 403. Recommended construction activity mitigation includes:

### Dust Control

- Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces and haul roads 3 times/day.
- Cover all stockpiles with tarps.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.

## OPERATIONAL EMISSIONS MITIGATION

Additionally, the following mitigation measures are recommended to be implemented to minimize operational dust emissions:

### Dust Control

During project operations a water truck shall be available on-site at all times for dust control.

Additional wind breaks and/or fencing shall be developed in areas that are susceptible to high wind induced dusting, where required by VVRWA.

All material transported off-site with dust blow off potential shall be sufficiently watered or securely covered to prevent excessive amounts of dust being generated.





## PROJECT RELATED GHG EMISSIONS GENERATION

### GHG THRESHOLDS

The MDAQMD has published thresholds for Greenhouse Gases emissions (CO<sub>2</sub>e). The daily threshold is 548,000 lbs/day and the annual threshold is 100,000 MT/year.

### CONSTRUCTION ACTIVITY GHG EMISSIONS

The project is assumed to require less than three months for installation. The CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO<sub>2</sub>e emissions identified in Table 7.

**Table 7**  
**Construction Emissions (Metric Tons CO<sub>2</sub>e)**

Year 2021	CO <sub>2</sub> e Daily	MT CO <sub>2</sub> e Annual
Construction Emissions	4,472.8	291.2
Threshold	548,000	100,000

CalEEMod Output provided in appendix

Construction GHG emissions are less than applicable thresholds.

### PROJECT OPERATIONAL GHG EMISSIONS

There are no operational emissions associated with this project.

### CONSISTENCY WITH GHG PLANS, PROGRAMS AND POLICIES

The Victorville City Council in September 2015 passed a Climate Action Plan that outlined the path to reducing greenhouse emissions by 15 percent below 2008 levels, a mark set by the state. However, the proposed expansion, with the exception minor amounts of one-time GHG emissions during construction, is considered GHG neutral. The project will not increase production or associated vehicular trips as a result of implementation. If anything, the project should be considered GHG positive because it improves the processing of green-waste and other waste products which in turn should encourage more recycling.

## **CALEEMOD2016.3.2 COMPUTER MODEL OUTPUT**

- **DAILY EMISIONS**
- **ANNUAL EMISSIONS**

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**American Organics Expansion 2021**  
**Riverside-Mojave Desert MDAQMD County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	13.90	0.00	0
Other Non-Asphalt Surfaces	1.00	Acre	7.30	43,560.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - 21.1 acre site- no structures

Construction Phase - Prep: 3 months, Grading and Compacting: 4 months, Fencing and Utilities: 3 months

Trips and VMT - 10 construction workers per day

Off-road Equipment - Prep: 1 dozer , 2 loader/backhoes, 1 scraper

Off-road Equipment - Grading: 1 scraper, 2 loader/backhoes, 2 forklifts, 2 compactors, 1 water truck, 1 grader

Off-road Equipment - Concrete Pads, Fencing and Utilities: 2 rollers, 2 forklifts, 2 loader/backhoes, 1 cement mixer

Construction Off-road Equipment Mitigation -

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	80.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	4/1/2021	7/21/2021
tblConstructionPhase	PhaseEndDate	9/29/2022	10/22/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	3/25/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	4/1/2021
tblConstructionPhase	PhaseStartDate	9/2/2022	8/1/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	217.50	87.50
tblLandUse	LotAcreage	0.00	13.90
tblLandUse	LotAcreage	1.00	7.30
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

**2.0 Emissions Summary**

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American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>



American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/25/2021	5	60	
2	Grading	Grading	4/1/2021	7/21/2021	5	80	
3	Concrete Pads, Fencing, Utilities	Paving	8/1/2021	10/22/2021	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 7.3

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

#### OffRoad Equipment

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Forklifts	2	8.00	89	0.20
Grading	Plate Compactors	2	8.00	8	0.43
Concrete Pads, Fencing, Utilities	Forklifts	2	8.00	89	0.20
Grading	Off-Highway Trucks	1	4.00	402	0.38
Concrete Pads, Fencing, Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete Pads, Fencing, Utilities	Cement and Mortar Mixers	1	4.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Concrete Pads, Fencing, Utilities	Rollers	2	8.00	80	0.38
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	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
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pads, Fencing, Utilities	6	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.9696	0.0000	18.9696	10.4272	0.0000	10.4272			0.0000			0.0000
Off-Road	2.3504	25.4657	15.5629	0.0299		1.1724	1.1724		1.0786	1.0786			2,897.0639	0.9370		2,920.4881
<b>Total</b>	<b>2.3504</b>	<b>25.4657</b>	<b>15.5629</b>	<b>0.0299</b>	<b>18.9696</b>	<b>1.1724</b>	<b>20.1420</b>	<b>10.4272</b>	<b>1.0786</b>	<b>11.5058</b>			<b>2,897.0639</b>	<b>0.9370</b>		<b>2,920.4881</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
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
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.0771</b>	<b>0.0412</b>	<b>0.5632</b>	<b>1.5800e-003</b>	<b>0.1643</b>	<b>1.0000e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.2000e-004</b>	<b>0.0445</b>			<b>157.6225</b>	<b>3.8300e-003</b>		<b>157.7183</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**3.2 Site Preparation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3981	0.0000	7.3981	4.0666	0.0000	4.0666			0.0000			0.0000
Off-Road	2.3504	25.4657	15.5629	0.0299		1.1724	1.1724		1.0786	1.0786			2,897.0639	0.9370		2,920.4881
<b>Total</b>	<b>2.3504</b>	<b>25.4657</b>	<b>15.5629</b>	<b>0.0299</b>	<b>7.3981</b>	<b>1.1724</b>	<b>8.5705</b>	<b>4.0666</b>	<b>1.0786</b>	<b>5.1452</b>			<b>2,897.0639</b>	<b>0.9370</b>		<b>2,920.4881</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
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
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.0771</b>	<b>0.0412</b>	<b>0.5632</b>	<b>1.5800e-003</b>	<b>0.1643</b>	<b>1.0000e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.2000e-004</b>	<b>0.0445</b>			<b>157.6225</b>	<b>3.8300e-003</b>		<b>157.7183</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7089	0.0000	7.7089	3.7251	0.0000	3.7251			0.0000			0.0000
Off-Road	2.3988	25.9115	17.8512	0.0386		1.1111	1.1111		1.0238	1.0238			3,715.6777	1.1866		3,745.3423
<b>Total</b>	<b>2.3988</b>	<b>25.9115</b>	<b>17.8512</b>	<b>0.0386</b>	<b>7.7089</b>	<b>1.1111</b>	<b>8.8200</b>	<b>3.7251</b>	<b>1.0238</b>	<b>4.7489</b>			<b>3,715.6777</b>	<b>1.1866</b>		<b>3,745.3423</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0477	1.8814	0.3367	5.3900e-003	0.1355	3.7000e-003	0.1392	0.0390	3.5400e-003	0.0425			568.8001	0.0394		569.7855
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.1249</b>	<b>1.9225</b>	<b>0.8999</b>	<b>6.9700e-003</b>	<b>0.2998</b>	<b>4.7000e-003</b>	<b>0.3045</b>	<b>0.0826</b>	<b>4.4600e-003</b>	<b>0.0870</b>			<b>726.4226</b>	<b>0.0433</b>		<b>727.5038</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Summer

**3.3 Grading - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0065	0.0000	3.0065	1.4528	0.0000	1.4528			0.0000			0.0000
Off-Road	2.3988	20.4190	17.8512	0.0386		1.1111	1.1111		1.0238	1.0238			3,715.6777	1.1866		3,745.3423
<b>Total</b>	<b>2.3988</b>	<b>20.4190</b>	<b>17.8512</b>	<b>0.0386</b>	<b>3.0065</b>	<b>1.1111</b>	<b>4.1176</b>	<b>1.4528</b>	<b>1.0238</b>	<b>2.4766</b>			<b>3,715.6777</b>	<b>1.1866</b>		<b>3,745.3423</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0477	1.8814	0.3367	5.3900e-003	0.1355	3.7000e-003	0.1392	0.0390	3.5400e-003	0.0425			568.8001	0.0394		569.7855
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.1249</b>	<b>1.9225</b>	<b>0.8999</b>	<b>6.9700e-003</b>	<b>0.2998</b>	<b>4.7000e-003</b>	<b>0.3045</b>	<b>0.0826</b>	<b>4.4600e-003</b>	<b>0.0870</b>			<b>726.4226</b>	<b>0.0433</b>		<b>727.5038</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0416	10.1824	10.7712	0.0149		0.6334	0.6334		0.5833	0.5833			1,431.2977	0.4574		1,442.7318
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0416</b>	<b>10.1824</b>	<b>10.7712</b>	<b>0.0149</b>		<b>0.6334</b>	<b>0.6334</b>		<b>0.5833</b>	<b>0.5833</b>			<b>1,431.2977</b>	<b>0.4574</b>		<b>1,442.7318</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	9.5500e-003	0.3763	0.0673	1.0800e-003	0.0271	7.4000e-004	0.0278	7.8000e-003	7.1000e-004	8.5100e-003			113.7600	7.8800e-003		113.9571
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.0867</b>	<b>0.4174</b>	<b>0.6305</b>	<b>2.6600e-003</b>	<b>0.1914</b>	<b>1.7400e-003</b>	<b>0.1931</b>	<b>0.0514</b>	<b>1.6300e-003</b>	<b>0.0530</b>			<b>271.3825</b>	<b>0.0117</b>		<b>271.6754</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0416	7.6401	10.7712	0.0149		0.6334	0.6334		0.5833	0.5833			1,431.2977	0.4574		1,442.7318
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0416</b>	<b>7.6401</b>	<b>10.7712</b>	<b>0.0149</b>		<b>0.6334</b>	<b>0.6334</b>		<b>0.5833</b>	<b>0.5833</b>			<b>1,431.2977</b>	<b>0.4574</b>		<b>1,442.7318</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	9.5500e-003	0.3763	0.0673	1.0800e-003	0.0271	7.4000e-004	0.0278	7.8000e-003	7.1000e-004	8.5100e-003			113.7600	7.8800e-003		113.9571
Worker	0.0771	0.0412	0.5632	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			157.6225	3.8300e-003		157.7183
<b>Total</b>	<b>0.0867</b>	<b>0.4174</b>	<b>0.6305</b>	<b>2.6600e-003</b>	<b>0.1914</b>	<b>1.7400e-003</b>	<b>0.1931</b>	<b>0.0514</b>	<b>1.6300e-003</b>	<b>0.0530</b>			<b>271.3825</b>	<b>0.0117</b>		<b>271.6754</b>

**4.0 Operational Detail - Mobile**



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**4.1 Mitigation Measures Mobile**

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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Unmitigated	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-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	lb/day										lb/day					
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>		<b>4.7000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000			4.7000e-004
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>			<b>4.7000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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**11.0 Vegetation**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	13.90	0.00	0
Other Non-Asphalt Surfaces	1.00	Acre	7.30	43,560.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - 21.1 acre site- no structures

Construction Phase - Prep: 3 months, Grading and Compacting: 4 months, Fencing and Utilities: 3 months

Trips and VMT - 10 construction workers per day

Off-road Equipment - Prep: 1 dozer , 2 loader/backhoes, 1 scraper

Off-road Equipment - Grading: 1 scraper, 2 loader/backhoes, 2 forklifts, 2 compactors, 1 water truck, 1 grader

Off-road Equipment - Concrete Pads, Fencing and Utilities: 2 rollers, 2 forklifts, 2 loader/backhoes, 1 cement mixer

Construction Off-road Equipment Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	80.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	4/1/2021	7/21/2021
tblConstructionPhase	PhaseEndDate	9/29/2022	10/22/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	3/25/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	4/1/2021
tblConstructionPhase	PhaseStartDate	9/2/2022	8/1/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	217.50	87.50
tblLandUse	LotAcreage	0.00	13.90
tblLandUse	LotAcreage	1.00	7.30
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00



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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.8380	0.8380
2	4-1-2021	6-30-2021	0.9866	0.8081
3	7-1-2021	9-30-2021	0.4832	0.3866
		Highest	0.9866	0.8380

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	4.3300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
Waste						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
Waste						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/25/2021	5	60	
2	Grading	Grading	4/1/2021	7/21/2021	5	80	
3	Concrete Pads, Fencing, Utilities	Paving	8/1/2021	10/22/2021	5	60	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 87.5**

**Acres of Paving: 7.3**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Forklifts	2	8.00	89	0.20
Grading	Plate Compactors	2	8.00	8	0.43
Concrete Pads, Fencing, Utilities	Forklifts	2	8.00	89	0.20
Grading	Off-Highway Trucks	1	4.00	402	0.38
Concrete Pads, Fencing, Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete Pads, Fencing, Utilities	Cement and Mortar Mixers	1	4.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Concrete Pads, Fencing, Utilities	Rollers	2	8.00	80	0.38
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pads, Fencing, Utilities	6	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5691	0.0000	0.5691	0.3128	0.0000	0.3128			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0705	0.7640	0.4669	9.0000e-004		0.0352	0.0352		0.0324	0.0324			78.8452	0.0255	0.0000	79.4827
<b>Total</b>	<b>0.0705</b>	<b>0.7640</b>	<b>0.4669</b>	<b>9.0000e-004</b>	<b>0.5691</b>	<b>0.0352</b>	<b>0.6043</b>	<b>0.3128</b>	<b>0.0324</b>	<b>0.3452</b>			<b>78.8452</b>	<b>0.0255</b>	<b>0.0000</b>	<b>79.4827</b>

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**3.2 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	2.0500e-003	1.3200e-003	0.0145	4.0000e-005	4.8500e-003	3.0000e-005	4.8800e-003	1.2900e-003	3.0000e-005	1.3100e-003			3.9492	9.0000e-005	0.0000	3.9515
<b>Total</b>	<b>2.0500e-003</b>	<b>1.3200e-003</b>	<b>0.0145</b>	<b>4.0000e-005</b>	<b>4.8500e-003</b>	<b>3.0000e-005</b>	<b>4.8800e-003</b>	<b>1.2900e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>			<b>3.9492</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.9515</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2219	0.0000	0.2219	0.1220	0.0000	0.1220			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0705	0.7640	0.4669	9.0000e-004		0.0352	0.0352		0.0324	0.0324			78.8451	0.0255	0.0000	79.4826
<b>Total</b>	<b>0.0705</b>	<b>0.7640</b>	<b>0.4669</b>	<b>9.0000e-004</b>	<b>0.2219</b>	<b>0.0352</b>	<b>0.2571</b>	<b>0.1220</b>	<b>0.0324</b>	<b>0.1544</b>			<b>78.8451</b>	<b>0.0255</b>	<b>0.0000</b>	<b>79.4826</b>

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**3.2 Site Preparation - 2021**

**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
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	2.0500e-003	1.3200e-003	0.0145	4.0000e-005	4.8500e-003	3.0000e-005	4.8800e-003	1.2900e-003	3.0000e-005	1.3100e-003			3.9492	9.0000e-005	0.0000	3.9515
<b>Total</b>	<b>2.0500e-003</b>	<b>1.3200e-003</b>	<b>0.0145</b>	<b>4.0000e-005</b>	<b>4.8500e-003</b>	<b>3.0000e-005</b>	<b>4.8800e-003</b>	<b>1.2900e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>			<b>3.9492</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.9515</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3084	0.0000	0.3084	0.1490	0.0000	0.1490			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0960	1.0365	0.7141	1.5500e-003		0.0444	0.0444		0.0410	0.0410			134.8323	0.0431	0.0000	135.9087
<b>Total</b>	<b>0.0960</b>	<b>1.0365</b>	<b>0.7141</b>	<b>1.5500e-003</b>	<b>0.3084</b>	<b>0.0444</b>	<b>0.3528</b>	<b>0.1490</b>	<b>0.0410</b>	<b>0.1900</b>			<b>134.8323</b>	<b>0.0431</b>	<b>0.0000</b>	<b>135.9087</b>



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**3.3 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	1.9500e-003	0.0759	0.0146	2.1000e-004	5.3400e-003	1.5000e-004	5.4900e-003	1.5400e-003	1.4000e-004	1.6900e-003			20.3270	1.5000e-003	0.0000	20.3645
Worker	2.7400e-003	1.7600e-003	0.0194	6.0000e-005	6.4600e-003	4.0000e-005	6.5000e-003	1.7200e-003	4.0000e-005	1.7500e-003			5.2656	1.3000e-004	0.0000	5.2687
<b>Total</b>	<b>4.6900e-003</b>	<b>0.0777</b>	<b>0.0340</b>	<b>2.7000e-004</b>	<b>0.0118</b>	<b>1.9000e-004</b>	<b>0.0120</b>	<b>3.2600e-003</b>	<b>1.8000e-004</b>	<b>3.4400e-003</b>			<b>25.5926</b>	<b>1.6300e-003</b>	<b>0.0000</b>	<b>25.6332</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1203	0.0000	0.1203	0.0581	0.0000	0.0581			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0960	0.8168	0.7141	1.5500e-003		0.0444	0.0444		0.0410	0.0410			134.8321	0.0431	0.0000	135.9085
<b>Total</b>	<b>0.0960</b>	<b>0.8168</b>	<b>0.7141</b>	<b>1.5500e-003</b>	<b>0.1203</b>	<b>0.0444</b>	<b>0.1647</b>	<b>0.0581</b>	<b>0.0410</b>	<b>0.0991</b>			<b>134.8321</b>	<b>0.0431</b>	<b>0.0000</b>	<b>135.9085</b>

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**3.3 Grading - 2021**

**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
Vendor	1.9500e-003	0.0759	0.0146	2.1000e-004	5.3400e-003	1.5000e-004	5.4900e-003	1.5400e-003	1.4000e-004	1.6900e-003			20.3270	1.5000e-003	0.0000	20.3645
Worker	2.7400e-003	1.7600e-003	0.0194	6.0000e-005	6.4600e-003	4.0000e-005	6.5000e-003	1.7200e-003	4.0000e-005	1.7500e-003			5.2656	1.3000e-004	0.0000	5.2687
<b>Total</b>	<b>4.6900e-003</b>	<b>0.0777</b>	<b>0.0340</b>	<b>2.7000e-004</b>	<b>0.0118</b>	<b>1.9000e-004</b>	<b>0.0120</b>	<b>3.2600e-003</b>	<b>1.8000e-004</b>	<b>3.4400e-003</b>			<b>25.5926</b>	<b>1.6300e-003</b>	<b>0.0000</b>	<b>25.6332</b>

**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3055	0.3231	4.5000e-004		0.0190	0.0190		0.0175	0.0175			38.9535	0.0125	0.0000	39.2647
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0313</b>	<b>0.3055</b>	<b>0.3231</b>	<b>4.5000e-004</b>		<b>0.0190</b>	<b>0.0190</b>		<b>0.0175</b>	<b>0.0175</b>			<b>38.9535</b>	<b>0.0125</b>	<b>0.0000</b>	<b>39.2647</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	2.9000e-004	0.0114	2.1900e-003	3.0000e-005	8.0000e-004	2.0000e-005	8.2000e-004	2.3000e-004	2.0000e-005	2.5000e-004			3.0491	2.3000e-004	0.0000	3.0547
Worker	2.0500e-003	1.3200e-003	0.0145	4.0000e-005	4.8500e-003	3.0000e-005	4.8800e-003	1.2900e-003	3.0000e-005	1.3100e-003			3.9492	9.0000e-005	0.0000	3.9515
<b>Total</b>	<b>2.3400e-003</b>	<b>0.0127</b>	<b>0.0167</b>	<b>7.0000e-005</b>	<b>5.6500e-003</b>	<b>5.0000e-005</b>	<b>5.7000e-003</b>	<b>1.5200e-003</b>	<b>5.0000e-005</b>	<b>1.5600e-003</b>			<b>6.9982</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>7.0062</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.2292	0.3231	4.5000e-004		0.0190	0.0190		0.0175	0.0175			38.9535	0.0125	0.0000	39.2647
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0313</b>	<b>0.2292</b>	<b>0.3231</b>	<b>4.5000e-004</b>		<b>0.0190</b>	<b>0.0190</b>		<b>0.0175</b>	<b>0.0175</b>			<b>38.9535</b>	<b>0.0125</b>	<b>0.0000</b>	<b>39.2647</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**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
Vendor	2.9000e-004	0.0114	2.1900e-003	3.0000e-005	8.0000e-004	2.0000e-005	8.2000e-004	2.3000e-004	2.0000e-005	2.5000e-004			3.0491	2.3000e-004	0.0000	3.0547
Worker	2.0500e-003	1.3200e-003	0.0145	4.0000e-005	4.8500e-003	3.0000e-005	4.8800e-003	1.2900e-003	3.0000e-005	1.3100e-003			3.9492	9.0000e-005	0.0000	3.9515
<b>Total</b>	<b>2.3400e-003</b>	<b>0.0127</b>	<b>0.0167</b>	<b>7.0000e-005</b>	<b>5.6500e-003</b>	<b>5.0000e-005</b>	<b>5.7000e-003</b>	<b>1.5200e-003</b>	<b>5.0000e-005</b>	<b>1.5600e-003</b>			<b>6.9982</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>7.0062</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					
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
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	4.3300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000			4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

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

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

**American Organics Expansion 2021**  
**Riverside-Mojave Desert MDAQMD County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	13.90	0.00	0
Other Non-Asphalt Surfaces	1.00	Acre	7.30	43,560.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	28
<b>Climate Zone</b>	10			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - 21.1 acre site- no structures

Construction Phase - Prep: 3 months, Grading and Compacting: 4 months, Fencing and Utilities: 3 months

Trips and VMT - 10 construction workers per day

Off-road Equipment - Prep: 1 dozer , 2 loader/backhoes, 1 scraper

Off-road Equipment - Grading: 1 scraper, 2 loader/backhoes, 2 forklifts, 2 compactors, 1 water truck, 1 grader

Off-road Equipment - Concrete Pads, Fencing and Utilities: 2 rollers, 2 forklifts, 2 loader/backhoes, 1 cement mixer

Construction Off-road Equipment Mitigation -

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	80.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	4/1/2021	7/21/2021
tblConstructionPhase	PhaseEndDate	9/29/2022	10/22/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	3/25/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	4/1/2021
tblConstructionPhase	PhaseStartDate	9/2/2022	8/1/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	217.50	87.50
tblLandUse	LotAcreage	0.00	13.90
tblLandUse	LotAcreage	1.00	7.30
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00



## American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Concrete Pads, Fencing, Utilities
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

## 2.0 Emissions Summary

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American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	3/25/2021	5	60	
2	Grading	Grading	4/1/2021	7/21/2021	5	80	
3	Concrete Pads, Fencing, Utilities	Paving	8/1/2021	10/22/2021	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 7.3

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

#### OffRoad Equipment

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Forklifts	2	8.00	89	0.20
Grading	Plate Compactors	2	8.00	8	0.43
Concrete Pads, Fencing, Utilities	Forklifts	2	8.00	89	0.20
Grading	Off-Highway Trucks	1	4.00	402	0.38
Concrete Pads, Fencing, Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete Pads, Fencing, Utilities	Cement and Mortar Mixers	1	4.00	9	0.56
Grading	Graders	1	8.00	187	0.41
Concrete Pads, Fencing, Utilities	Rollers	2	8.00	80	0.38
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	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
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pads, Fencing, Utilities	6	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.9696	0.0000	18.9696	10.4272	0.0000	10.4272			0.0000			0.0000
Off-Road	2.3504	25.4657	15.5629	0.0299		1.1724	1.1724		1.0786	1.0786			2,897.0639	0.9370		2,920.4881
<b>Total</b>	<b>2.3504</b>	<b>25.4657</b>	<b>15.5629</b>	<b>0.0299</b>	<b>18.9696</b>	<b>1.1724</b>	<b>20.1420</b>	<b>10.4272</b>	<b>1.0786</b>	<b>11.5058</b>			<b>2,897.0639</b>	<b>0.9370</b>		<b>2,920.4881</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
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
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.0737</b>	<b>0.0426</b>	<b>0.4611</b>	<b>1.4200e-003</b>	<b>0.1643</b>	<b>1.0000e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.2000e-004</b>	<b>0.0445</b>			<b>141.4850</b>	<b>3.3600e-003</b>		<b>141.5690</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

**3.2 Site Preparation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3981	0.0000	7.3981	4.0666	0.0000	4.0666			0.0000			0.0000
Off-Road	2.3504	25.4657	15.5629	0.0299		1.1724	1.1724		1.0786	1.0786			2,897.0639	0.9370		2,920.4881
<b>Total</b>	<b>2.3504</b>	<b>25.4657</b>	<b>15.5629</b>	<b>0.0299</b>	<b>7.3981</b>	<b>1.1724</b>	<b>8.5705</b>	<b>4.0666</b>	<b>1.0786</b>	<b>5.1452</b>			<b>2,897.0639</b>	<b>0.9370</b>		<b>2,920.4881</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
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
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.0737</b>	<b>0.0426</b>	<b>0.4611</b>	<b>1.4200e-003</b>	<b>0.1643</b>	<b>1.0000e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.2000e-004</b>	<b>0.0445</b>			<b>141.4850</b>	<b>3.3600e-003</b>		<b>141.5690</b>

American Organics Expansion 2021 - Riverside-Mojave Desert MDAQMD County, Winter

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7089	0.0000	7.7089	3.7251	0.0000	3.7251			0.0000			0.0000
Off-Road	2.3988	25.9115	17.8512	0.0386		1.1111	1.1111		1.0238	1.0238			3,715.6777	1.1866		3,745.3423
<b>Total</b>	<b>2.3988</b>	<b>25.9115</b>	<b>17.8512</b>	<b>0.0386</b>	<b>7.7089</b>	<b>1.1111</b>	<b>8.8200</b>	<b>3.7251</b>	<b>1.0238</b>	<b>4.7489</b>			<b>3,715.6777</b>	<b>1.1866</b>		<b>3,745.3423</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0506	1.8670	0.3971	5.2000e-003	0.1355	3.8100e-003	0.1393	0.0390	3.6400e-003	0.0426			548.2445	0.0439		549.3416
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.1244</b>	<b>1.9096</b>	<b>0.8581</b>	<b>6.6200e-003</b>	<b>0.2998</b>	<b>4.8100e-003</b>	<b>0.3046</b>	<b>0.0826</b>	<b>4.5600e-003</b>	<b>0.0871</b>			<b>689.7295</b>	<b>0.0472</b>		<b>690.9105</b>



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**3.3 Grading - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0065	0.0000	3.0065	1.4528	0.0000	1.4528			0.0000			0.0000
Off-Road	2.3988	20.4190	17.8512	0.0386		1.1111	1.1111		1.0238	1.0238			3,715.6777	1.1866		3,745.3423
<b>Total</b>	<b>2.3988</b>	<b>20.4190</b>	<b>17.8512</b>	<b>0.0386</b>	<b>3.0065</b>	<b>1.1111</b>	<b>4.1176</b>	<b>1.4528</b>	<b>1.0238</b>	<b>2.4766</b>			<b>3,715.6777</b>	<b>1.1866</b>		<b>3,745.3423</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0506	1.8670	0.3971	5.2000e-003	0.1355	3.8100e-003	0.1393	0.0390	3.6400e-003	0.0426			548.2445	0.0439		549.3416
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.1244</b>	<b>1.9096</b>	<b>0.8581</b>	<b>6.6200e-003</b>	<b>0.2998</b>	<b>4.8100e-003</b>	<b>0.3046</b>	<b>0.0826</b>	<b>4.5600e-003</b>	<b>0.0871</b>			<b>689.7295</b>	<b>0.0472</b>		<b>690.9105</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0416	10.1824	10.7712	0.0149		0.6334	0.6334		0.5833	0.5833			1,431.2977	0.4574		1,442.7318
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0416</b>	<b>10.1824</b>	<b>10.7712</b>	<b>0.0149</b>		<b>0.6334</b>	<b>0.6334</b>		<b>0.5833</b>	<b>0.5833</b>			<b>1,431.2977</b>	<b>0.4574</b>		<b>1,442.7318</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0101	0.3734	0.0794	1.0400e-003	0.0271	7.6000e-004	0.0279	7.8000e-003	7.3000e-004	8.5300e-003			109.6489	8.7800e-003		109.8683
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.0839</b>	<b>0.4160</b>	<b>0.5405</b>	<b>2.4600e-003</b>	<b>0.1914</b>	<b>1.7600e-003</b>	<b>0.1932</b>	<b>0.0514</b>	<b>1.6500e-003</b>	<b>0.0530</b>			<b>251.1339</b>	<b>0.0121</b>		<b>251.4373</b>

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**3.4 Concrete Pads, Fencing, Utilities - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0416	7.6401	10.7712	0.0149		0.6334	0.6334		0.5833	0.5833			1,431.2977	0.4574		1,442.7318
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0416</b>	<b>7.6401</b>	<b>10.7712</b>	<b>0.0149</b>		<b>0.6334</b>	<b>0.6334</b>		<b>0.5833</b>	<b>0.5833</b>			<b>1,431.2977</b>	<b>0.4574</b>		<b>1,442.7318</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0101	0.3734	0.0794	1.0400e-003	0.0271	7.6000e-004	0.0279	7.8000e-003	7.3000e-004	8.5300e-003			109.6489	8.7800e-003		109.8683
Worker	0.0737	0.0426	0.4611	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445			141.4850	3.3600e-003		141.5690
<b>Total</b>	<b>0.0839</b>	<b>0.4160</b>	<b>0.5405</b>	<b>2.4600e-003</b>	<b>0.1914</b>	<b>1.7600e-003</b>	<b>0.1932</b>	<b>0.0514</b>	<b>1.6500e-003</b>	<b>0.0530</b>			<b>251.1339</b>	<b>0.0121</b>		<b>251.4373</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
User Defined Industrial	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
Unmitigated	0.0238	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-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	lb/day										lb/day					
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000		4.7000e-004
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>		<b>4.7000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	8.3000e-003					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			4.4000e-004	0.0000			4.7000e-004
<b>Total</b>	<b>0.0238</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>4.4000e-004</b>	<b>0.0000</b>			<b>4.7000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators



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

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

Equipment Type	Number
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**11.0 Vegetation**

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