

AIR QUALITY ASSESSMENT

Monserate Winery and Events
Fallbrook, CA

Lead Agency:

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COMMON ACRONYMS

Air Quality Impact Assessments (AQIA)
Assembly Bill 32 (AB32)
California Air Resource Board (CARB)
California Ambient Air Quality Standards (CAAQS)
California Environmental Quality Act (CEQA)
Carbon Dioxide (CO₂)
Cubic Yards (CY)
Diesel Particulate Matter (DPM)
Environmental Protection Agency (EPA)
EPA Office of Air Quality Planning and Standards (OAQPS)
Hazardous Air Pollutants (HAPs)
Hydrogen Sulfide (H₂S)
International Residential Code (IRC)
Level of Service (LOS)
Low Carbon Fuel Standard (LCFS)
Methane (CH₄)
National ambient air quality standards (NAAQS)
Nitrous Oxide (N₂O)
North County Transit District (NCTD)
Reactive Organic Gas (ROG)
Regional Air Quality Strategy (RAQS)
San Diego Air Basin (SDAB)
San Diego Air Pollution Control District (SDAPCD)
South Coast Air Quality Management District (SCAQMD)
Specific Plan Area (SPA)
State Implementation Plan (SIP)
Toxic Air Contaminants (TACs)
Vehicle Miles Traveled (VMT)

EXECUTIVE SUMMARY

This air quality impact study has been completed to determine the air quality impacts associated with the development of the proposed Monserate Winery Project (Project) on an approximately 116-acre site located along Gird Road in Fallbrook, CA. The subject site previously supported a golf course and restaurant use which are no longer operational and the restaurant was previously demolished.

The proposed winery will consist of a wine tasting facility and three venues which will include a place to bottle and store wine, a kitchen, a dining room, a tasting room, a barn and all ancillary buildings to support the operation. The Project will also provide picnic and venue locations for events such as weddings. In total, all facilities would have a cumulative area of 56,040 Square Foot (SF).

The Project seeks a Major Use Permit (MUP) modification to remove the restaurant and golf course uses and replace those uses with the proposed winery operation. The affected area would be 24.8-acres of a 116-acre property. The remaining land area not affected by the proposed MUP modification will be placed within a dedicated open space/agricultural easement to prohibit future development. It should be noted however, portions of this dedication will be planted with vineyards in support of the proposed use.

All construction phases of the Project are anticipated to start late 2019 and full buildout is expected sometime in 2020. Wine production would be expected in 2020 depending on vine output; however, full operations are expected in 2021.

Based upon the analysis of construction and operation activities for the Project, the Project would generate less than significant levels of pollutants during construction and operational activities. The Project would generate temporary construction odors from equipment exhaust and paving activities, though these odors would be short term and would not be considered an impact. Wine production includes waste material consisting of mostly grape skins. This material will be placed in the vineyards and disc-ed into the soil immediately after placement which will be used as a natural fertilizer. Additionally, the project would use a settlement pond for liquid waste produced during winemaking which has been approved by the San Diego Regional Water Quality Control Board. Given this, the project would be required to meet DEH requirements for which potential odor impacts would be reviewed and minimized. Given this, long term odor impacts would not be expected from this Project. Furthermore, health risk impacts were analyzed, and it was found that estimated cancer risk would be less than 10 in one million exposed which would be less than significant with the application of best available control technology. It should be noted that implementation of the following mitigation measures and design feature will be a condition to the approval of this Project.

1. Mitigation Measure: All construction diesel equipment would be Tier IV compliant and shall include Diesel Particulate Filters (DPF).
2. Design Feature: The Project would install 100% LED lighting for both interior and exterior lighting and will install smart meters.

Finally, the Project is zoned A70 (Limited Agricultural) with an open space (Recreation) General Plan Land Use designation. The Project would be consistent with the A70 zoning and the previous use as a golf course with a restaurant which would no longer be operational under the proposed MUP Modification. Also, as identified in the Project traffic analysis, the MUP modification would be expected to generate fewer annual VMT compared to the previous golf course development. Finally, since no direct impacts are expected, and since no cumulative projects of significance in terms of size are expected, no significant cumulative operational impacts would be expected. Therefore, all proposed operations would therefore be consistent within both the RAQS and SIP and a less than significant impact is expected.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine potential air quality impacts (if any) that may be created by construction, area or operational emissions (short term or long term) from the proposed Monserate Winery Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to reduce impacts to the extent feasible.

1.2 Project Location

The proposed Monserate Winery Project site is located in the community of Fallbrook, California in northwestern unincorporated San Diego County. The site lies approximately 1.5 miles north of State Route 76 (SR 76) and approximately 1.5 miles west of Interstate 15 (I-15). The subject property [County Assessor Parcel Numbers (APNs) 107-240-16, -17, and -51; 124-182-01 and -02; 124-330-04, -14, -15, and -20] is approximately 116 acres in size, located within the Fallbrook Community Plan Area. The vicinity of the site is shown in Figure 1-A.

1.3 Project Description

The Project is a Major Use Permit (MUP) modification to authorize a winery/passive open space with event/venues or similar gathering and/or spa facilities on the site. The land area affected by the proposed MUP modification is comprised of an approximately 23.7-acre portion of the 116-acre property which has a zoning designation of zoned Limited Agricultural A-70 and has an open space (Recreation) General Plan Land Use designation. The remaining land area not affected by the proposed MUP modification will be placed within a dedicated open space/agricultural easement to prohibit future development; however, portions of this land area would be planted with vineyards in support of the proposed use.

Additionally, a portion of the overall 116-acre property (APNs 124-182-01 and -02) located to the east of Gird Road (previously a portion of the former golf course that operated on the subject site) has been planted as a vineyard since 2017. This area is not part of the current Major Use Permit modification authorizing the winery and event center and is being removed from the previous golf course Major Use Permit authority.

The proposed structures would total approximately 56,040 SF. This includes the 17,362 SF main tasting room and restaurant as well as three additional event/venue areas with supporting facilities which would encompass 38,396 SF, and a 282 SF pump house. A more

detailed description of these facilities is further described below. The Project site plan is shown in Figure 1-B below.

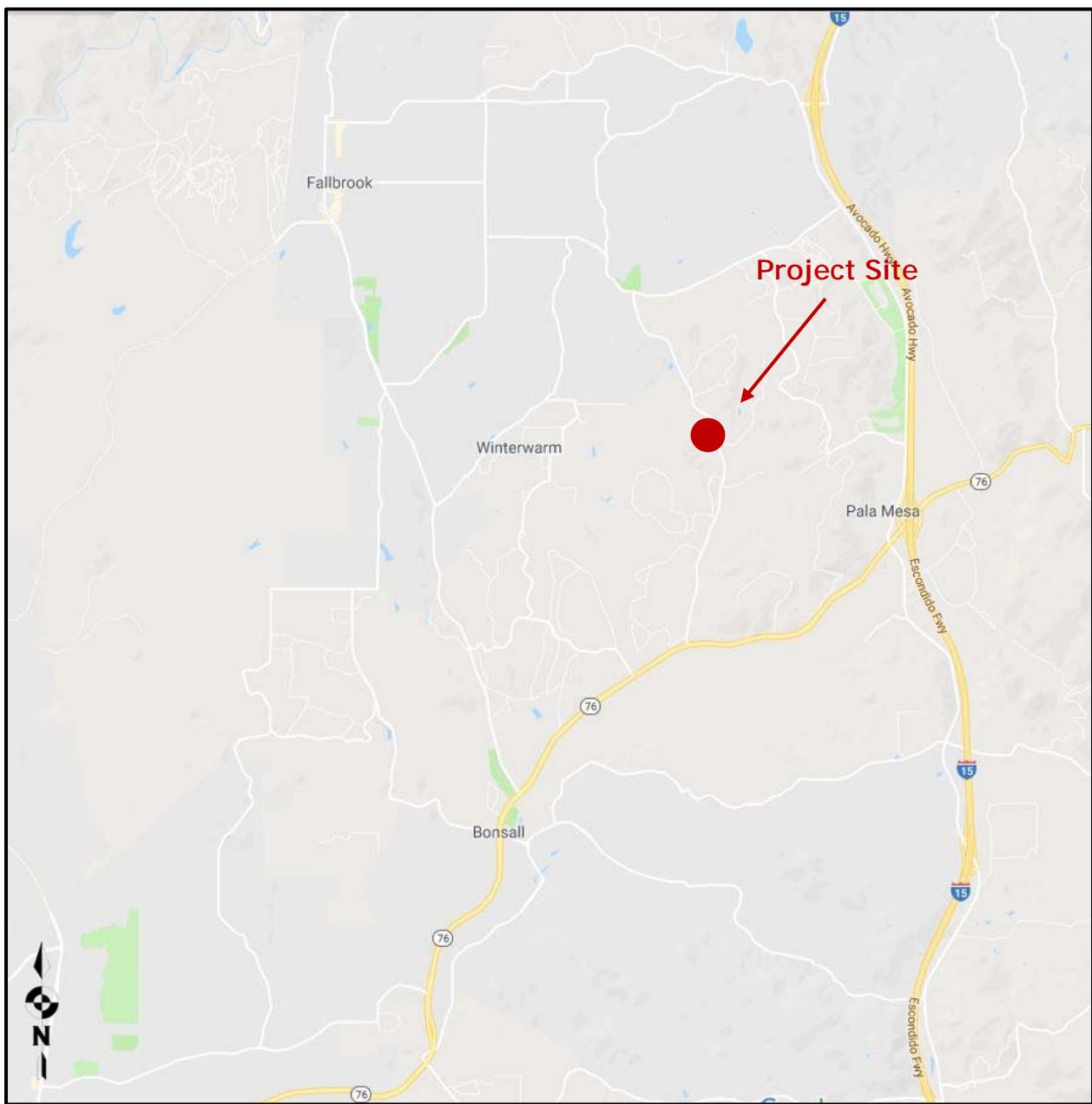
The Wine Tasting facility (17,362 SF) would include a large tasting room and several outdoor patios for use in serving wine tasting guests and members and to support accessory events held at the property. This building would also offer a restaurant for public dining. A commercial catering kitchen, staff lounge, meat curing room, and dish washing room are proposed in support of the wine tasting activities and restaurant. Several offices, restrooms, janitor storage, and storage areas would also be accommodated within this structure.

Venue 1 (22,673 SF) would be located just to the southwest of the tasting room/restaurant building and would consist of the indoor production area (approximately 3,600 SF) with wine making facilities, bottle storage room, barrel room, crushing rooms, and a covered outdoor patio for ingress/egress and initial processing activities, as well as several offices, a break room, a laboratory, storage areas, and restroom. Separate bridal/groom suites (approximately 3,200 SF), each with lockers, restrooms, grooming areas, and patios for the bride and groom and their guests are also proposed. A central courtyard would separate the bridal/groom suites from the wine making facilities. A pavilion is also proposed adjacent to the courtyard for hosting of weddings or other events. Several additional offices, including two sales offices, and a lobby/reception area would also be accommodated within this structure.

Venue 2 (7,349 SF) would be located to the west side of the onsite drainage, west of the main facilities, and would consist of an approximately 3,400 SF barn style building for holding events. A separate building is proposed just to the west of the barn that would offer restrooms, storage and other supporting uses. An open grassy area is proposed to the north of Venue 2 that could potentially be used for hosting periodic special events such as an art show or car show (e.g., combined with wine tasting events).

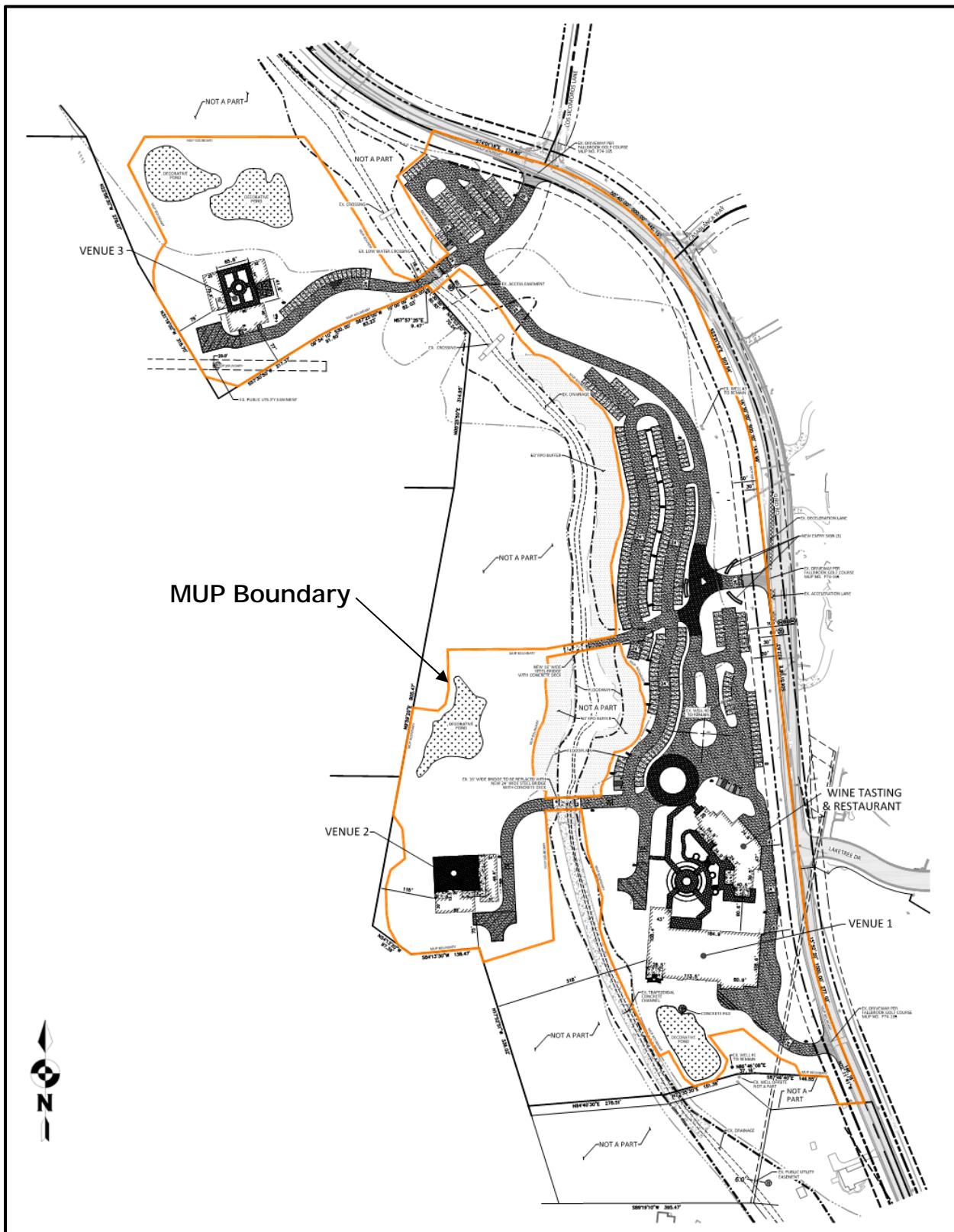
Venue 3 (8,374 SF) would be located to the northwest of the tasting room building and would offer bride/groom suits similar to those proposed for Venue 1. Separate bride and groom suites, each with a changing/grooming area, lockers, restrooms, janitor storage, and a patio are proposed for this venue. Additional men's/women's restrooms would serve event guests. A central courtyard would separate the bride/groom facilities and would serve to host scheduled events. A second building would adjoin the bride/groom suites to the south, along with men's and women's restrooms, for the hosting of events.

Figure 1-A: Project Vicinity Map



Source: (Google, 2018)

Figure 1-B: Project Site Plan



(Empire Design Group, INC., 2018)

Operations

Full operations are expected in 2021 though it is anticipated that wine production will commence in the year 2020 depending on vine production. The winery would be capable of producing an estimated 10,000 cases of wine annually in its initial stages, with production ultimately expanding to a maximum of approximately 25,000 cases of wine (annually) over time. Initial production at the winery would be significantly below the 120,000-gallon production limit, as regulated and allowed by County ordinance.

Winery production activities would largely occur during the months of August, September, and October. During these months, the winery would generally operate from morning to later evening to accommodate fruit as it is ready to be used in production. Wine production would generally occur within the interior of the winery building, with occasional crushing and processing occurring outside under the covered patio. Approximately 32,000 gallons of wastewater will be produced in the building would be captured collectively and treated in accordance with applicable County of San Diego Department of Environmental Health (DEH) requirements. In addition, an evaporation pond plan (or other DEH-approved system) for treatment of 32,000 gallons of wastewater generated by winery production activities is proposed and would include aeration systems to reduce odors.

Development of a holding pond could result in long-term odors related to on-site water discharge. This holding pond would be subject County DEH review and approval and would be required to implement design features that would reduce potential odors generated by the holding pond. Odor reducing design features could include, but are not limited to, aeration systems and solid material removal systems.

Events and Weddings

It is anticipated that the site would host weddings and/or events on average three times a week, for a total of 170 events per year, per venue. Any event would accommodate a maximum of 250 guests. Most events would be held on Friday, Saturday, or Sunday and would be scheduled to occur when the tasting room is closed so that overlap in the arrival and/or departure of guests and parking with other general visitors of the winery does not occur.

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The current site was used as an 18-hole golf course which has been closed and would not be a use included within the MUP modification. The site as it exists today, has an existing vineyard in the southern portion of the site which was established in 2017 and no structures exist onsite. Elevations onsite range from roughly 320 feet on the southern boundary to roughly 380 feet on the northern boundary of the Project. Land uses surrounding the Project site include rural residential uses which are immediately adjacent to the Project site.

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heat up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure system drops to the south and brings cooler, moister weather from the north. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Meteorological trends within the Fallbrook area generally show daytime highs ranging between 67°F in the winter to approximately 83°F in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 44°F in the winter to approximately 62°F in the summer. Precipitation is generally about 13 inches per year (WRCC, 2016). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant pattern though throughout the year is usually from the west or westerly (WRCC, 2018).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.*
2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.*
3. ***Nitrogen Dioxide (NO₂):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO₂ is usually visible as a reddish-brown air layer over urban areas. NO₂ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.*
4. ***Particulate Matter (PM₁₀ or PM_{2.5}):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM₁₀ particles are 10 microns (μm) or less and PM_{2.5} particles are 2.5 (μm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.*
5. ***Ozone (O₃):*** *is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.*

6. *Sulfur Dioxide (SO_2): is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.*

2.3.2 State Standards and Definitions

The State of California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) also restrict four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. *Visibility Reducing Particles: Particles in the Air that obstruct the visibility.*
2. *Sulfates: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
3. *Hydrogen Sulfide (H_2S): is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 Parts per Million (ppm)) can cause a loss of consciousness and possibly death.*
4. *Vinyl Chloride: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards											
Pollutant	Average Time	California Standards ¹		Federal Standards ²							
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷					
Ozone (O_3) ⁸	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry					
	8 Hour	0.070 ppm (137 $\mu g/m^3$)		0.070 ppm (137 $\mu g/m^3$)							
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis					
	Annual Arithmetic Mean	20 $\mu g/m^3$		-							
Fine Particulate Matter (PM2.5) ⁹	24 Hour	No Separate State Standard		35 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis					
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	12 $\mu g/m^3$							
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	-	Non-Dispersive Infrared Photometry					
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)							
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		-							
Nitrogen Dioxide (NO ₂) ¹⁰	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	Gas Phase Chemiluminescence	0.053 ppm (100 $\mu g/m^3$) ⁸	Same as Primary Standard	Gas Phase Chemiluminescence					
	1 Hour	0.18 ppm (339 $\mu g/m^3$)		0.100 ppm ⁸ (188/ $\mu g/m^3$)							
Sulfur Dioxide (SO ₂) ¹¹	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm ¹⁰ (for Certain Areas)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararoosaniline Method) ⁹					
	24 Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm ¹⁰ (for Certain Areas) (See Footnote 9)	-						
	3 Hour	-		-	0.5 ppm (1300 $\mu g/m^3$)						
	1 Hour	0.25 ppm (655 $\mu g/m^3$)		75 ppb (196 $\mu g/m^3$)	-						
Lead ^{12,13}	30 Day Average	1.5 $\mu g/m^3$	Atomic Absorption	-	-	-					
	Calendar Quarter	-		1.5 $\mu g/m^3$	Same as Primary Standard	High Volume Sampler and Atomic Absorption					
	Rolling 3-Month Average	-		0.15 $\mu g/m^3$							
Visibility Reducing Particles	8 Hour	See footnote 14									
Sulfates	24 Hour	25 $\mu g/m^3$	Ion Chromatography								
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence								
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 $\mu g/m^3$)	Gas Chromatography								
<p>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.</p> <p>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 $\mu g/m^3$ 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.</p> <p>3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.</p> <p>4. Any equivalent procedure 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.</p> <p>5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.</p> <p>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.</p> <p>7. Reference method as described by the 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 EPA.</p> <p>8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.</p> <p>9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.</p> <p>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.</p> <p>11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.</p> <p>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.</p> <p>13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ 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.</p> <p>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.</p>											
Source: (California Air Resources Board, 5/4/2016)											

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. California Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM_{2.5} standard and many areas are in non-attainment for PM₁₀ as well. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basins to attain ambient air quality standards.

The San Diego County Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within San Diego County. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on Volatile Organic Compounds (VOCs) and oxides of nitrogen (NO_x). Currently, San Diego is in "non-attainment" status for federal O₃ and the State PM₁₀, PM_{2.5}, and O₃; however, an attainment plan is only available for O₃. The RAQS was adopted in 1992 and has been updated as recently as 2016 which was the latest update incorporating minor changes to the prior 2009 update.

The 2016 update mostly summarizes how the 2009 update has lowered NO_x and VOCs emissions which reduces ozone and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NO_x reduction measures. NO_x and VOCs are Ozone precursors and react organically to form Ozone. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status with respect to both federal and state nonattainment status by pollutants for San Diego County is shown in Table 2.2 on the following page (SDAPCD, 2019).

The RAQS is largely based on population predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than Projected by SANDAG may create a significant impact if the Project produces unmitigable air quality emissions or if the Project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

San Diego County Air Basin Attainment Status by Pollutant		
Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

* The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

2.3.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

- A: Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?
- B: Result in emissions that would violate any air quality standard or contribute substantially to an existing or Projected air quality violation?
- C: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM10, PM2.5 or exceed quantitative thresholds for O3 precursors, NOX and VOCs)?

- D:* Expose sensitive receptors (including, but not limited to, schools, hospitals, residences, resident care facilities, or day-care centers) to substantial pollutant concentrations?
- E:* Create objectionable odors affecting a substantial number of people?

2.3.5 SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established thresholds in Rule 20.2 for new or modified stationary sources. The County's Guidelines for Determining Significance and Report Format and Content Requirements incorporate screening level thresholds from Rule 20.2 for use in all County related Air Quality Impact Assessments (AQIA) and for determining CEQA air quality impacts (County of San Diego, 2007). These screening criteria can be used to demonstrate that a Project's total emissions would not result in a significant impact as defined by CEQA. Also, since SDAPCD does not have AQIA threshold for VOCs, it is acceptable to use the Coachella Valley VOC threshold from South Coast Air Quality Management District. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the Project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 on the following page.

Non-Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that Projects that propose to increase cancer risk to between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the Project increase the incremental cancer risk to over 10 in one million or a health hazard index (chronic and acute) greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

The U.S. Environmental Protection Agency (U.S. EPA) uses the term VOC and CARB's Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term however for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because Air Quality models directly calculates ROG in place of VOC.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

2.4 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting monitoring data. SDAPCD operates 11 monitoring sites, which collect data on criteria pollutants. The Project is closest to the Camp Pendleton and Escondido Monitoring stations which are located approximately 15 and 32 miles respectively from the Project site. Because each site logs different data, both sites were used. Table 2.4 on the following page identifies the criteria pollutants monitored at the aforementioned stations.

Four additional sites collect meteorological data which is used by SDAPCD to assist with pollutant forecasting, data analysis and characterization of pollutant transport. Figure 2-A on Page 14 below shows the relative locations of the monitoring sites. SDAPCD published the five-year air quality summary for all of the monitoring stations; however, only data within the last three years is shown as this adequately identifies the background ambient air quality environment (SDAPCD, 2015).

Table 2.4: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2015	2016	2017	Days Exceeded over 3 years
O ³ (ppm)	Camp Pendleton or Escondido Monitoring Station	1 Hour	0.09 ppm	No Standard	0.09	0.08	0.09	0
* PM ₁₀ (µg/m ³)		8 Hour	0.070 ppm	0.070 ppm	0.08	0.07	0.08	10
* PM _{2.5} (µg/m ³)		24 Hour	50 µg/m ³	150 µg/m ³	30	-	-	N/A
NO ₂ (ppm)		Annual Arithmetic Mean	20 µg/m ³	No Standard	19.4	-	-	N/A
* CO (ppm)		24 Hour	No Standard	35 µg/m ³	29.4	-	-	N/A
		Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	8.6	-	-	N/A
		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.006	0.006	0.006	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.060	0.072	0.063	N/A
		1 Hour	20 ppm	35 ppm	3.1	-	-	N/A
		8 Hour	9 ppm	9 ppm	2.0	-	-	N/A

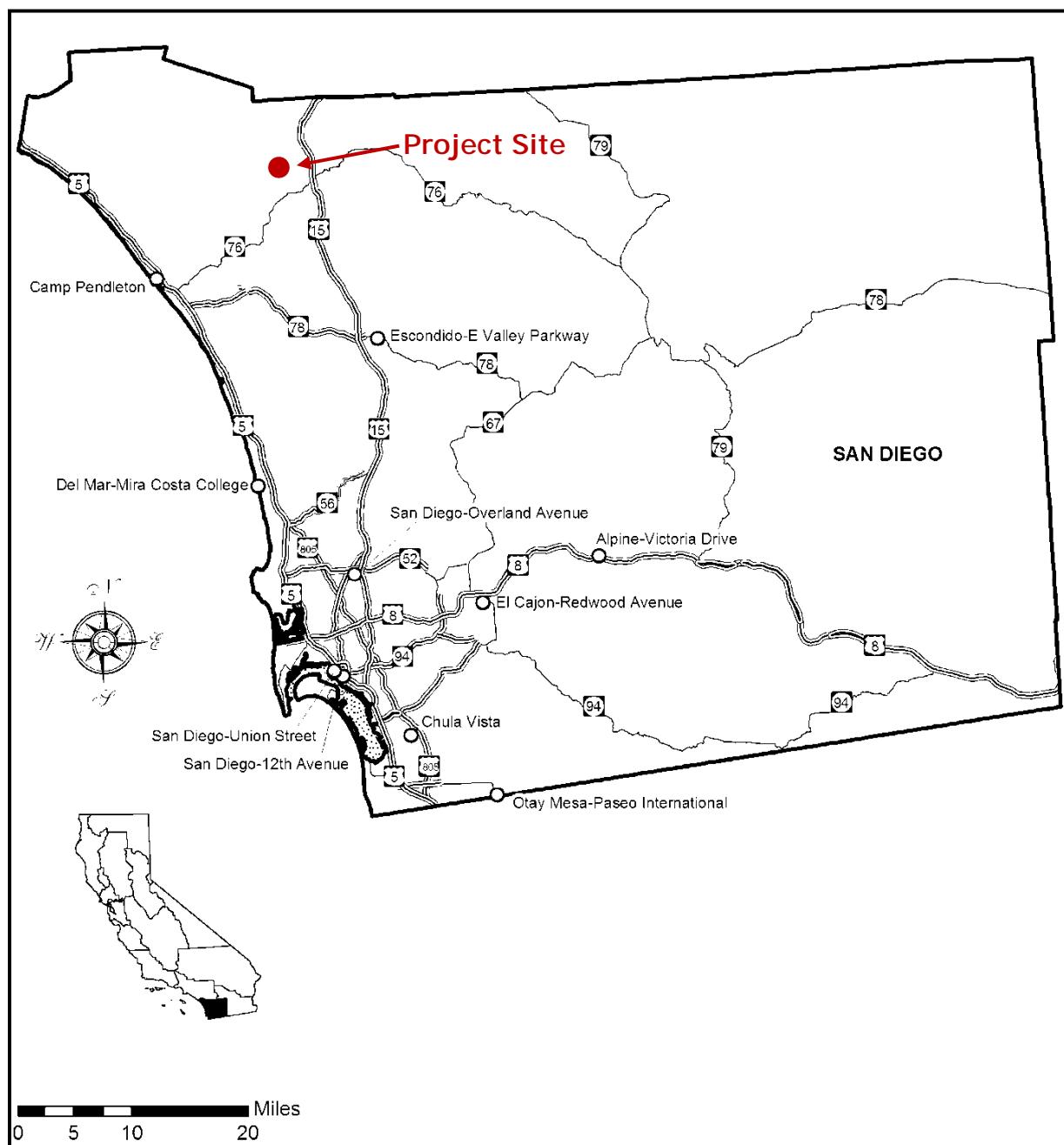
Notes:

- Yearly maximums marked with “-“ indicated data was not available for either monitoring station.

Days exceeded marked with “N/A” indicate no data available

* Data was selected from the closest Escondido Location

Figure 2-A: Ambient Air Quality Monitoring Stations within SDAB – CARB



3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the Project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in *Attachment A* to this report.

The AERMOD dispersion model will be used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The notable toxic air contaminant from construction is diesel exhaust, since exposure to diesel exhaust is known to cause cancer and acute and chronic health effects. Diesel exhaust emissions can be estimated using the annual PM₁₀ exhaust emissions from onsite construction operations obtained from the annual CalEEMod model output by summing each onsite source for the construction duration. The AERMOD input/output file for the Project is provided in *Attachments B and C* for both unmitigated and mitigated scenarios which include higher tiered diesel motors and adjacent or nearby sensitive residential receptors included. Both these scenarios are further discussed later in this report.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (County of San Diego, 2007):

Equation 1

$$Dose_{air} = C_{air} * (BR/BW) * A * EF * (1 \times 10^{-6})$$

- Dose_{air} = Dose through inhalation (mg/kg/d)
C_{air} = Concentration in air ($\mu\text{g}/\text{m}^3$) Annual average DPM concentration in $\mu\text{g}/\text{m}^3$ - SCREEN3 predicts a 1-hr concentration and is corrected to an annual average by multiplying the 1-hr average by 0.08 (US EPA, 1992)
BR/BW = Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A = Inhalation absorption factor (assumed to be 1)
EF = Exposure frequency (unitless, days/365 days)

1×10^{-6} = Milligrams to micrograms conversion (10^{-3} mg/ μ g), cubic meters to liters conversion (10^{-3} m³/l)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the Project models attached to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, February 2015):

Equation 2

$$RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

RISK _{inh-res}	=	Residential inhalation cancer risk
DOSE _{air}	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor (mg/kg-day ⁻¹)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

The California Office of Environmental Health Hazard Assessment (OEHHA) recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years. Health risk calculations are shown in *Attachment D* to this report.

Non-Cancer risks or risks defined as chronic or acute are also known with respect to DPM and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, February 2015). Diesel Exhaust has a REL of 5 μ g/m³ and targets the respiratory system.

A graphical representation of the modeling locations is shown on a site aerial below in Figure 3-A. The red points (1-5) represent the sensitive residential receptor locations where air quality emissions are calculated by AERMOD. For purposes of analysis an unmitigated and mitigated model was created.

Figure 3-A: Construction Health Risk Model Setup



3.2 Construction Assumptions

The Project construction dates were estimated based on a construction kickoff starting late 2019 and buildout roughly one year later. The project would include roughly 12,000 SF of demolition activities. Grading operations would include 50,000 CY of cut/fill and would be completely balanced and neither import or export are expected. CalEEMod 2016.3.2 was utilized for all calculations. Also, CalEEMod has been updated to reflect SDAPCD Rule 67 paint VOC limits. Table 3.1 shows the expected timeframes for the construction processes for the Project infrastructure, facilities, improvements and commercial structures at the Project location, as well as the expected number of pieces of equipment.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	12/01/2019	12/18/2019	
Excavators			1
Site Preparation	12/01/2019	12/13/2019	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	12/15/2019	02/14/2020	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			3
Paving	02/15/2020	03/13/2020	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction	03/14/2020	12/29/2020	
Crane			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating	07/01/2020	12/29/2020	
Air Compressor			1
This equipment list is based upon equipment inventory within CalEEMod.			

3.3 Operational Emissions

Once construction is completed the Project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Full operations are expected in 2021. Area Sources include

consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas use. It should be noted that the Project would install 100% LED fixtures for all interior and exterior lighting. Additionally, it was assumed that an average of 10% of the structural surface area will be re-painted each year which is default within CalEEMod. Mobile or transportation related emissions are calculated in CalEEMod through the use of EMFAC2014.

CalEEMod does not have a winery use within the default settings though the Project type and use characteristics are similar to that of a restaurant and a racquet club, since the venues are resort like or park like settings with event-based gatherings etc. Based on this energy and solid waste inputs were selected based on these uses. The Project applicant estimated water consumption for each of the proposed uses as well as the previous golf course and restaurant operations. The water consumption estimates are shown in Table 3.2. The Operational model output is provided as *Attachment A*.

The Project site when operated as a Golf Course with the previous restaurant consumed 175,000,000 gallons of water each year. The MUP will consume 2,550,000 gallons of water or roughly 172,450,000 fewer gallons than the previous use. For purposes of this air quality analysis only the 2,550,000 Gallons of water or the water from the MUP modification is analyzed.

Table 3.2: Water Consumption Previous/Existing/Proposed

Previous Use/Proposed	Use Type	Estimated Outdoor Water (Gallons/Year)	Estimated Indoor Water (Gallons/Year)	Total
Proposed	Wine Tasting/Restaurant	30,000	180,000	210,000
Proposed	Venue 1	200,000	180,000	380,000
Proposed	Venue 2	800,000	180,000	980,000
Proposed	Venue 3	800,000	180,000	980,000
Total Proposed MUP Water Use		1,830,000	720,000	2,550,000
Previous	The Golf Course and Restaurant	100,000,000	75,000,000	175,000,000
Maximum Water Use (Existing Golf Course and Restaurant)		100,000,000	75,000,000	175,000,000
Gross Water Usage (MUP vs Proposed use)		100,000,000 – 1,830,000 = (98,170,000) Reduction	75,000,000 – 720,000 = (74,280,000) Reduction	(172,450,000) Reduction

The Project applicant's traffic engineer estimated that the Project weekend trips would be 1,237 daily trips and weekday trips would be 868 daily trips while the existing golf course would have generated 1,156 daily weekend trips and 1,070 daily weekday trips (Michael Baker International, 2019). CalEEMod was updated to reflect the traffic study. Based on these trip

generations, the Project would generate approximately 2.68 million vehicle miles traveled (VMT) per year compared to 3.70 million VMT from the existing golf course or roughly 27% fewer VMT throughout the year under rural settings within CalEEMod.

3.4 Micro Scale Operational Emissions

Air pollutant emissions related to Project traffic have the potential to create new, or worsen existing localized air quality violations with respect to CO. These increased carbon monoxide "Hot Spots" are determined through the utilization of the ITS Transportation Project-Level Carbon Monoxide Protocol (University of California, Davis for California Department of Transportation, 1997).

In the event the Project traffic adds vehicular trips to either an intersection that operates at Level of Service (LOS) E or F or any intersection where the Project trips re-classify the intersection level of service from an acceptable LOS to LOS E or F and when peak-hour trips exceed 3,000 the Project must quantify CO levels (County of San Diego, 2007). Based on the Project traffic study the Project will not add vehicular trips to intersections already operating at LOS E or F or cumulatively cause existing intersections within the Project study area to operate at LOS E or F and would therefore not require micro-scale CO emission analysis in this report. Furthermore, it should be noted that the Project generates fewer trips on weekdays and a marginal increase during the weekends as compared to the previous development.

3.5 Odor Impacts (Onsite)

Potential onsite odor generators would include short term construction odors from activities such as paving and possibly painting. Odors created during short term construction activities would most likely be from placing asphalt which has a slight odor from the bitumen and solvents used within hot asphalt. Asphalt operations are fairly quick and are not expected to cause significant long-term odor impacts. Therefore, less than significant odor impacts would be expected from construction. Long term impacts could be possible from wine production which includes waste material consisting of mostly grape skins. This material will be placed in the vineyards and disc-ed into the soil immediately after placement which will be used as a natural fertilizer. Additionally, there is a waste water pond which would have up to 32,000 Gallons of water each year from winemaking. The pond would use aerobic breakdown processes which would reduce any potential significant odor impacts and has been approved by the San Diego County Water Authority (See *Attachment E* to this report). Additionally, the project would be required to meet DEH requirements for which potential odor impacts would be reviewed and minimized. Given this, less than significant long term odor impacts would not be expected. Further discussion of onsite odor impacts is not included in this report.

4.0 FINDINGS

4.1 Construction Findings

Construction emissions in pounds per day from the construction operations and equipment identified in Section 3.2 above is shown in Table 4.1 below. Based on these numbers, the Project would not exceed SDAPCD Rule 20.2 standards and would not require mitigation to comply.

Table 4.1: Expected Construction Emissions Summary – Pounds per Day (lb/day)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2019	5.503	75.766	32.202	0.118	19.930	2.625	22.555	10.439	2.419	12.858
2020	6.537	26.434	20.135	0.036	6.808	1.274	8.081	3.435	1.172	4.607
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

4.2 Health Risk

Based upon the individual construction phase outputs from the air quality modeling results attached to this report, worst-case unmitigated PM₁₀ from onsite exhaust emissions would cumulatively produce 0.173 tons over the construction duration of 394-days or an average of 0.0046 grams/second. The average emission rate over the grading area is 9.20x10⁻⁸ g/m²/s, which was calculated as follows:

$$\frac{0.0046 \frac{\text{grams}}{\text{second}}}{12.37 \text{ acres} * 4,046 \frac{\text{meters}^2}{\text{acre}}} = 9.20 * 10^{-8} \frac{\text{grams}}{\text{meters}^2 \text{ second}}$$

Utilizing the AERMOD dispersion model, we find that the worst-case annual concentration at adjacent residential receptors to the east is 0.959 µg/m³ during construction. Utilizing the risk equation identified above in Section 3.1, the inhalation cancer risk for the closest residential receptor was found to exceed the one per one million exposed which would be a significant impact and would require T-BACT diesel equipment.

It was found that these impacts can be reduced to less than significant through the utilization of Tier 4 equipment with Diesel Particulate Filters (DPF). It was found that this equipment would cumulatively produce 0.00095 tons of PM₁₀ over the same construction duration above or 0.000025 grams/second. Based on this the mitigated average emission rate over the grading area is 5.05×10^{-10} g/m²/s. Utilizing the AERMOD dispersion model, we find that the annual concentration is 0.0052 µg/m³ during construction. Given this, the inhalation cancer risk for the closest residential receptor was found to be 1.24 per one million exposed which is below the 10 in one million threshold with the application of T-BACT and would be considered a less than significant impact under CEQA. Tier IV equipment is T-BACT. Additionally, as noted earlier in this report, detailed calculations for both the unmitigated and mitigated scenarios are shown in *Attachments B and -C* to this report.

Finally, there are known chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on methods identified in Section 3.1 of this report. From this we find that the annual concentration of 0.0056 µg/m³ divided by the REL of 5 µg/m³ yields a Health Hazard Index of 0.0011, which is less than one. Therefore, no chronic health risks are expected and all health risks are considered less than significant.

It should be noted that the mitigation measure to utilize Tier 4 or better equipment with DPF would further reduce Air Quality emissions identified in Section 4.1 above. Since unmitigated emissions do not exceed Rule 20.2, by default mitigated emissions would also be considered less than significant. Mitigated construction emissions are shown in Table 4.2 below:

Table 4.2: Mitigated Construction Emissions (lb/day with Tier 4 with DPF)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2019	1.541	31.774	31.335	0.118	19.930	0.242	20.110	10.439	0.227	10.609
2020	4.533	3.441	20.748	0.036	6.808	0.067	6.875	3.435	0.062	3.497
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

4.3 Operational Findings

Project Buildout is expected 2020 with full operations in 2021. The Project traffic generation of 868 daily trips during a typical weekday and 1,237 daily trips during a typical weekend as

was Projected by the traffic engineer (Michael Baker International, 2019) and was used within this analysis along with average rural trip distances and mix ratios as estimated by CalEEMod 2016.3.2. Additionally, the CalEEMod model was run for the winter and summer scenarios to determine operational impacts for the first year of operation.

It should be noted that the proposed MUP modification is necessary for the development of the project and would remove the existing uses allowed including an 18-hole golf course and restaurant per the Project description in Section 1 of this report. CalEEMod calculations were made using the trip generation rates for the winery and venue uses only, based on the traffic study, and the reported emissions do not account for the expected reduction in Project related traffic from the change in use.

The expected daily pollutant generation can be calculated utilizing the product of the average daily vehicle miles traveled and the expected emissions inventory calculated by EMFAC2014; CalEEMod 2016.3.2 performs this calculation. Additionally, the area, water, solid waste and energy sources are estimated within the model which has been updated per Section 3.3 of this report. San Diego Gas and Electric's unit GHG emissions per kilowatt-hour have been used for the 2021 operational year. The daily pollutants calculated for summer and winter are shown in Tables 4.3 and 4.4 below and on the following page.

Based upon these calculations, the Project would not exceed San Diego County operational air quality significance thresholds and would not be required to implement mitigation measures to comply with CEQA or San Diego County thresholds. Given this, a less than significant impact operational impact is expected.

Table 4.3: Expected Summer Daily Pollutant Generation (lb/day)

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	1.342	0.000	0.006	0.000	0.000	0.000
Energy	0.018	0.166	0.139	0.001	0.013	0.013
Mobile	2.157	8.763	25.149	0.086	7.292	1.996
Total (Unmitigated)	3.517	8.929	25.294	0.087	7.305	2.008
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No

Daily pollutant generation assumes trip distances within CalEEMod
The final numbers are all rounded within Excel and are reported as rounded numbers.

Table 4.4: Expected Winter Daily Pollutant Generation

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	1.342	0.000	0.006	0.000	0.000	0.000
Energy	0.018	0.166	0.139	0.001	0.013	0.013
Mobile	2.094	9.014	24.731	0.082	7.293	1.996
Total (Unmitigated)	3.455	9.180	24.875	0.083	7.305	2.009
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod The final numbers are all rounded within Excel and are reported as rounded numbers.						

4.4 Cumulative Impact Findings

The Project would not generate significant construction or operational impacts as demonstrated within this analysis. Furthermore, the Project would not cause any significant traffic impacts or contribute vehicular trips to any intersection with LOS E or F designations.

An AERMOD analysis has been prepared at six sensitive receptors adjacent to the Project site. It was found that using Tier IV construction equipment with DPF attached would reduce cancer risks to 1.24 per one million exposed at the residential receptors. Since significant health risks occur at greater than 10 per one million, a Project of equal size adjacent to the Project would still generate less than significant impacts. Based on conversations with both the County and the Applicant, A potential High School located on Gird Road approximately 1 mile to the south, which is too far away to be cumulatively considerable. Given this, no known projects (cumulative projects) of equal or larger size are near the Project site. Furthermore, since criteria pollutants are significantly lower than screening thresholds under Rule 20.2, the same less than significant outcome would be expected for a cumulative scenario. Beyond an adjacent cumulative construction assumption in terms of distance from the sensitive receptors, emission concentrations would decrease significantly due to the highly dissipative nature of particulate matter. Given this, cumulative construction Projects outside of the adjacent scenario, would generate less than significant impacts.

Finally, the Project is zoned A70 (Limited Agricultural) with an open space (Recreation) General Plan Land Use designation. The Project would be consistent with the A70 zoning. Also, as identified in the Project traffic analysis, the MUP modification would be expected to generate fewer annual VMT compared to the previous golf course development. Finally, since no direct impacts are expected, no significant cumulative operational impacts would be expected. Therefore, all proposed operations would therefore be consistent with both the RAQS and SIP. Therefore, the Project would have a less than significant cumulative impact.

5.0 REFERENCES

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6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed Monserate Winery and Event development. This report was prepared utilizing the latest emission rates and reduction methodologies. This report was prepared by Jeremy Louden; a County approved CEQA Consultant for Air Quality.



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Date November 7, 2019

ATTACHMENT A

CalEEMod

Monserate Winery - San Diego County, Summer

Monserate Winery
San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	56.00	User Defined Unit	12.37	56,040.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	525.68	CH4 Intensity (lb/MWhr)	0.021	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Monserate Winery - San Diego County, Summer

Project Characteristics - rps 2021

Land Use - User defined recreational was modeled after the High Quality Restaurant recreational use

Construction Phase - PS

Off-road Equipment - CE

Off-road Equipment - ce

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - ac

Architectural Coating - Rule 67 paint

Vehicle Trips - Mix ratio assumed to be same as restaurant

Area Coating - rule 67 paint

Energy Use - Energy use similar to racquet club

Water And Wastewater - 32,000 gallons of wastewater generated by winery included and generated from indoor water uses

Solid Waste - Solid Waste Generation similar to Restaurant

Construction Off-road Equipment Mitigation - Tier IV Mitigation

Energy Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

Monserate Winery - San Diego County, Summer

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	3.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	4.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	10.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Monserate Winery - San Diego County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	207.00
tblConstructionPhase	NumDays	20.00	130.00
tblEnergyUse	LightingElect	0.00	2.91
tblEnergyUse	NT24E	0.00	4.27
tblEnergyUse	NT24NG	0.00	7.00
tblEnergyUse	T24E	0.00	1.27
tblEnergyUse	T24NG	0.00	4.00
tblLandUse	LandUseSquareFeet	0.00	56,040.00
tblLandUse	LotAcreage	0.00	12.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	525.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	21.90
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

Monserate Winery - San Diego County, Summer

tblVehicleTrips	CC_TL	6.60	7.30
tblVehicleTrips	CC_TTP	0.00	69.00
tblVehicleTrips	CNW_TL	6.60	7.30
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TL	14.70	9.50
tblVehicleTrips	CW_TTP	0.00	12.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	22.09
tblVehicleTrips	SU_TR	0.00	22.09
tblVehicleTrips	WD_TR	0.00	15.50
tblWater	IndoorWaterUseRate	0.00	720,000.00
tblWater	OutdoorWaterUseRate	0.00	1,830,000.00

2.0 Emissions Summary

Monserate Winery - San Diego County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.5025	75.7664	32.2019	0.1184	19.9300	2.6250	22.5550	10.4391	2.4188	12.8579	0.0000	12,461.50 36	12,461.50 36	2.0615	0.0000	12,513.04 01
2020	6.5372	26.4594	20.1352	0.0359	6.8078	1.2752	8.0830	3.4352	1.1731	4.6084	0.0000	3,455.510 5	3,455.510 5	0.9366	0.0000	3,472.364 8
Maximum	6.5372	75.7664	32.2019	0.1184	19.9300	2.6250	22.5550	10.4391	2.4188	12.8579	0.0000	12,461.50 36	12,461.50 36	2.0615	0.0000	12,513.04 01

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.4358	29.8046	31.6627	0.1184	19.9300	0.1159	20.0459	10.4391	0.1113	10.5504	0.0000	12,461.50 36	12,461.50 36	2.0615	0.0000	12,513.04 01
2020	4.5327	3.4410	20.7480	0.0359	6.8078	0.0137	6.8168	3.4352	0.0133	3.4441	0.0000	3,455.510 5	3,455.510 5	0.9366	0.0000	3,472.364 8
Maximum	4.5327	29.8046	31.6627	0.1184	19.9300	0.1159	20.0459	10.4391	0.1113	10.5504	0.0000	12,461.50 36	12,461.50 36	2.0615	0.0000	12,513.04 01

	ROG	NOx	CO	SO2	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	50.43	67.48	-0.14	0.00	0.00	96.68	12.32	0.00	96.53	19.88	0.00	0.00	0.00	0.00	0.00	0.00

Monserate Winery - San Diego 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	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0123	0.0123	3.0000e-005			0.0131	
Energy	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003		199.8721	
Mobile	2.1568	8.7629	25.1488	0.0861	7.2221	0.0701	7.2922	1.9303	0.0655	1.9958	8,744.245 7	8,744.245 7	0.4495			8,755.483 5	
Total	3.5171	8.9285	25.2936	0.0871	7.2221	0.0827	7.3048	1.9303	0.0781	2.0084	8,942.949 3	8,942.949 3	0.4534	3.6400e-003		8,955.368 7	

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	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0123	0.0123	3.0000e-005			0.0131	
Energy	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003		199.8721	
Mobile	2.1568	8.7629	25.1488	0.0861	7.2221	0.0701	7.2922	1.9303	0.0655	1.9958	8,744.245 7	8,744.245 7	0.4495			8,755.483 5	
Total	3.5171	8.9285	25.2936	0.0871	7.2221	0.0827	7.3048	1.9303	0.0781	2.0084	8,942.949 3	8,942.949 3	0.4534	3.6400e-003		8,955.368 7	

Monserate Winery - San Diego 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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demo Buildings	Demolition	12/1/2019	12/18/2019	5	13	
2	Site Preparation	Site Preparation	12/1/2019	12/13/2019	5	10	
3	Grading	Grading	12/15/2019	2/14/2020	5	45	
4	Paving	Paving	2/15/2020	3/13/2020	5	20	
5	Building Construction	Building Construction	3/14/2020	12/29/2020	5	207	
6	Architectural Coating	Architectural Coating	7/1/2020	12/29/2020	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 84,060; Non-Residential Outdoor: 28,020; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Monserate Winery - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demo Buildings	Excavators	1	8.00	158	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demo Buildings	1	3.00	0.00	1,187.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Monserate Winery - San Diego County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Demo Buildings - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2607	2.6819	3.2632	5.1600e-003		0.1293	0.1293		0.1190	0.1190	511.1256	511.1256	0.1617			515.1684
Total	0.2607	2.6819	3.2632	5.1600e-003		0.1293	0.1293		0.1190	0.1190	511.1256	511.1256	0.1617			515.1684

Monserate Winery - San Diego County, Summer

3.2 Demo Buildings - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.7926	27.4264	5.9204	0.0725	1.5955	0.1035	1.6990	0.4373	0.0990	0.5363			7,902.431	7,902.431	0.6993		7,919.914
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.0163	0.0122	0.1365	4.0000e-004	0.0383	2.6000e-004	0.0386	0.0102	2.4000e-004	0.0104			40.2134	40.2134	1.2500e-003		40.2446
Total	0.8089	27.4386	6.0568	0.0729	1.6338	0.1038	1.7376	0.4474	0.0993	0.5467			7,942.645	7,942.645	0.7006		7,960.159

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.0635	0.2753	3.9180	5.1600e-003		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	511.1256	511.1256	0.1617		515.1684	
Total	0.0635	0.2753	3.9180	5.1600e-003		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	511.1256	511.1256	0.1617		515.1684	

Monserate Winery - San Diego County, Summer

3.2 Demo Buildings - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.7926	27.4264	5.9204	0.0725	1.5955	0.1035	1.6990	0.4373	0.0990	0.5363	7,902.431 6	7,902.431 6	0.6993			7,919.914 9	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0163	0.0122	0.1365	4.0000e-004	0.0383	2.6000e-004	0.0386	0.0102	2.4000e-004	0.0104	40.2134	40.2134	1.2500e-003			40.2446	
Total	0.8089	27.4386	6.0568	0.0729	1.6338	0.1038	1.7376	0.4474	0.0993	0.5467	7,942.645 0	7,942.645 0	0.7006			7,960.159 5	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307		0.0000				0.0000	
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	3,766.452 9	3,766.452 9	1.1917			3,796.244 5	
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298	3,766.452 9	3,766.452 9	1.1917			3,796.244 5	

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0978	0.0732	0.8189	2.4200e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624	241.2801	241.2801	7.5000e-003	241.4677			
Total	0.0978	0.0732	0.8189	2.4200e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624		241.2801	241.2801	7.5000e-003		241.4677	

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307	0.0000	0.0000	3,766.4529	3,766.4529	1.1917	3,796.2445
Off-Road	0.4656	2.0175	20.8690	0.0380		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	0.4656	2.0175	20.8690	0.0380	18.0663	9.3100e-003	18.0756	9.9307	9.3100e-003	9.9400	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0978	0.0732	0.8189	2.4200e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624	241.2801	241.2801	7.5000e-003	241.4677			
Total	0.0978	0.0732	0.8189	2.4200e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624		241.2801	241.2801	7.5000e-003		241.4677	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675	0.0000	0.0000		0.0000		0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	2,936.8068	2,936.8068	0.9292			2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.5523	1.3974	7.9497	3.3675	1.2856	4.6531		2,936.8068	2,936.8068	0.9292		2,960.0361

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1087	0.0814	0.9099	2.6900e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		268.0890	268.0890	8.3400e-003		268.2974	
Total	0.1087	0.0814	0.9099	2.6900e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		268.0890	268.0890	8.3400e-003		268.2974	

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		0.0000				0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	0.3632	1.5737	17.7527	0.0297	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1087	0.0814	0.9099	2.6900e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		268.0890	268.0890	8.3400e-003		268.2974	
Total	0.1087	0.0814	0.9099	2.6900e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		268.0890	268.0890	8.3400e-003		268.2974	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		0.0000				0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.5523	1.2734	7.8258	3.3675	1.1716	4.5390		2,872.4851	2,872.4851	0.9290		2,895.7106

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1017	0.0735	0.8341	2.6000e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		259.6234	259.6234	7.5500e-003		259.8122	
Total	0.1017	0.0735	0.8341	2.6000e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		259.6234	259.6234	7.5500e-003		259.8122	

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		0.0000				0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	0.3632	1.5737	17.7527	0.0297	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1017	0.0735	0.8341	2.6000e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		259.6234	259.6234	7.5500e-003		259.8122	
Total	0.1017	0.0735	0.8341	2.6000e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		259.6234	259.6234	7.5500e-003		259.8122	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1	

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520	194.7176	194.7176	5.6600e-003	194.8592			
Total	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003	5.6100e-003	5.6100e-003	0.0000	2,207.733	2,207.733	0.7140		2,225.584	1	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000		0.7140		0.0000	
Total	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		2,207.733	2,207.733	0.7140		2,225.584	1

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520	194.7176	194.7176	5.6600e-003			194.8592	
Total	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	2,553.063 1	2,553.063 1	0.6229			2,568.634 5	
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	2,553.063 1	2,553.063 1	0.6229			2,568.634 5	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0316	0.9710	0.2459	2.2800e-003	0.0551	4.5200e-003	0.0596	0.0159	4.3200e-003	0.0202	244.5455	244.5455	0.0186	245.0098			
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832	311.5481	311.5481	9.0600e-003	311.7747			
Total	0.1537	1.0592	1.2468	5.4100e-003	0.3617	6.5900e-003	0.3683	0.0972	6.2300e-003	0.1034	556.0935	556.0935	0.0276	556.7844			

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003	6.1200e-003	6.1200e-003	0.0000	2,553.0631	2,553.0631	0.6229			2,568.6345	
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345	

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0316	0.9710	0.2459	2.2800e-003	0.0551	4.5200e-003	0.0596	0.0159	4.3200e-003	0.0202	244.5455	244.5455	0.0186	245.0098			
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832	311.5481	311.5481	9.0600e-003	311.7747			
Total	0.1537	1.0592	1.2468	5.4100e-003	0.3617	6.5900e-003	0.3683	0.0972	6.2300e-003	0.1034	556.0935	556.0935	0.0276	556.7844			

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.9961						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	281.4481	281.4481	0.0218	281.9928		
Total	4.2383	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	281.4481	281.4481	0.0218	281.9928		

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		64.9059	64.9059	1.8900e-003		64.9531	
Total	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		64.9059	64.9059	1.8900e-003		64.9531	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	3.9961						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0218		281.9928	
Total	4.0258	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0218		281.9928	

Monserate Winery - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173	64.9059	64.9059	1.8900e-003			64.9531	
Total	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		64.9059	64.9059	1.8900e-003		64.9531	

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

Monserate Winery - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Mitigated	2.1568	8.7629	25.1488	0.0861	7.2221	0.0701	7.2922	1.9303	0.0655	1.9958	8,744.245 7	8,744.245 7	0.4495			8,755.483 5	
Unmitigated	2.1568	8.7629	25.1488	0.0861	7.2221	0.0701	7.2922	1.9303	0.0655	1.9958	8,744.245 7	8,744.245 7	0.4495			8,755.483 5	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Recreational	868.00	1,237.04	1237.04	2,680,168	2,680,168	2,680,168	2,680,168
Total	868.00	1,237.04	1,237.04	2,680,168	2,680,168	2,680,168	2,680,168

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 Recreational	9.50	7.30	7.30	12.00	69.00	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Monserate Winery - San Diego County, Summer

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
NaturalGas Unmitigated	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	

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					
User Defined Recreational	1688.88	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
Total		0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126		198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721

Monserate Winery - San Diego County, Summer

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	1.68888	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
Total		0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126		198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Unmitigated	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

Monserate Winery - San Diego County, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1423						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	1.1993						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Total	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1423						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	1.1993						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Total	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

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

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

Monserate Winery - San Diego County, Winter

Monserate Winery
San Diego County, Winter

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	56.00	User Defined Unit	12.37	56,040.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	525.68	CH4 Intensity (lb/MWhr)	0.021	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Monserate Winery - San Diego County, Winter

Project Characteristics - rps 2021

Land Use - User defined recreational was modeled after the High Quality Restaurant recreational use

Construction Phase - PS

Off-road Equipment - CE

Off-road Equipment - ce

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - ac

Architectural Coating - Rule 67 paint

Vehicle Trips - Mix ratio assumed to be same as restaurant

Area Coating - rule 67 paint

Energy Use - Energy use similar to racquet club

Water And Wastewater - 32,000 gallons of wastewater generated by winery included and generated from indoor water uses

Solid Waste - Solid Waste Generation similar to Restaurant

Construction Off-road Equipment Mitigation - Tier IV Mitigation

Energy Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

Monserate Winery - San Diego County, Winter

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	3.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	2.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	4.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	10.00
tblConstEquipMitigation	NumberOfWorkingDays	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Monserate Winery - San Diego County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	207.00
tblConstructionPhase	NumDays	20.00	130.00
tblEnergyUse	LightingElect	0.00	2.91
tblEnergyUse	NT24E	0.00	4.27
tblEnergyUse	NT24NG	0.00	7.00
tblEnergyUse	T24E	0.00	1.27
tblEnergyUse	T24NG	0.00	4.00
tblLandUse	LandUseSquareFeet	0.00	56,040.00
tblLandUse	LotAcreage	0.00	12.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	525.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	21.90
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

Monserate Winery - San Diego County, Winter

tblVehicleTrips	CC_TL	6.60	7.30
tblVehicleTrips	CC_TTP	0.00	69.00
tblVehicleTrips	CNW_TL	6.60	7.30
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TL	14.70	9.50
tblVehicleTrips	CW_TTP	0.00	12.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	22.09
tblVehicleTrips	SU_TR	0.00	22.09
tblVehicleTrips	WD_TR	0.00	15.50
tblWater	IndoorWaterUseRate	0.00	720,000.00
tblWater	OutdoorWaterUseRate	0.00	1,830,000.00

2.0 Emissions Summary

Monserate Winery - San Diego County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.5428	76.0579	32.5551	0.1170	19.9300	2.6275	22.5575	10.4391	2.4212	12.8602	0.0000	12,311.17 45	12,311.17 45	2.0863	0.0000	12,363.33 08
2020	6.5624	26.4683	20.0712	0.0356	6.8078	1.2752	8.0830	3.4352	1.1731	4.6084	0.0000	3,425.482 6	3,425.482 6	0.9361	0.0000	3,442.350 4
Maximum	6.5624	76.0579	32.5551	0.1170	19.9300	2.6275	22.5575	10.4391	2.4212	12.8602	0.0000	12,311.17 45	12,311.17 45	2.0863	0.0000	12,363.33 08

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.4761	30.0961	32.0159	0.1170	19.9300	0.1183	20.0483	10.4391	0.1136	10.5527	0.0000	12,311.17 45	12,311.17 45	2.0863	0.0000	12,363.33 08
2020	4.5579	3.4517	20.6840	0.0356	6.8078	0.0138	6.8168	3.4352	0.0134	3.4441	0.0000	3,425.482 6	3,425.482 6	0.9361	0.0000	3,442.350 4
Maximum	4.5579	30.0961	32.0159	0.1170	19.9300	0.1183	20.0483	10.4391	0.1136	10.5527	0.0000	12,311.17 45	12,311.17 45	2.0863	0.0000	12,363.33 08

	ROG	NOx	CO	SO2	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	50.15	67.28	-0.14	0.00	0.00	96.61	12.32	0.00	96.47	19.87	0.00	0.00	0.00	0.00	0.00	0.00

Monserate Winery - San Diego 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	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0123	0.0123	3.0000e-005			0.0131	
Energy	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003		199.8721	
Mobile	2.0943	9.0141	24.7305	0.0816	7.2221	0.0706	7.2927	1.9303	0.0660	1.9963	8,292.732 6	8,292.732 6	0.4512			8,304.013 5	
Total	3.4546	9.1797	24.8753	0.0826	7.2221	0.0832	7.3053	1.9303	0.0786	2.0089	8,491.436 2	8,491.436 2	0.4551	3.6400e-003		8,503.898 7	

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	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0123	0.0123	3.0000e-005			0.0131	
Energy	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003		199.8721	
Mobile	2.0943	9.0141	24.7305	0.0816	7.2221	0.0706	7.2927	1.9303	0.0660	1.9963	8,292.732 6	8,292.732 6	0.4512			8,304.013 5	
Total	3.4546	9.1797	24.8753	0.0826	7.2221	0.0832	7.3053	1.9303	0.0786	2.0089	8,491.436 2	8,491.436 2	0.4551	3.6400e-003		8,503.898 7	

Monserate Winery - San Diego 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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demo Buildings	Demolition	12/1/2019	12/18/2019	5	13	
2	Site Preparation	Site Preparation	12/1/2019	12/13/2019	5	10	
3	Grading	Grading	12/15/2019	2/14/2020	5	45	
4	Paving	Paving	2/15/2020	3/13/2020	5	20	
5	Building Construction	Building Construction	3/14/2020	12/29/2020	5	207	
6	Architectural Coating	Architectural Coating	7/1/2020	12/29/2020	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 84,060; Non-Residential Outdoor: 28,020; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Monserate Winery - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demo Buildings	Excavators	1	8.00	158	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demo Buildings	1	3.00	0.00	1,187.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Monserate Winery - San Diego County, Winter

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Demo Buildings - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2607	2.6819	3.2632	5.1600e-003		0.1293	0.1293		0.1190	0.1190	511.1256	511.1256	0.1617			515.1684
Total	0.2607	2.6819	3.2632	5.1600e-003		0.1293	0.1293		0.1190	0.1190	511.1256	511.1256	0.1617			515.1684

Monserate Winery - San Diego County, Winter

3.2 Demo Buildings - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.8149	27.7074	6.3446	0.0712	1.5955	0.1059	1.7014	0.4373	0.1013	0.5386	7,769.452 3	7,769.452 3	0.7247			7,787.568 4	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0189	0.0137	0.1263	3.8000e-004	0.0383	2.6000e-004	0.0386	0.0102	2.4000e-004	0.0104	37.7348	37.7348	1.1700e-003			37.7642	
Total	0.8338	27.7211	6.4710	0.0716	1.6338	0.1062	1.7400	0.4474	0.1016	0.5490	7,807.187 1	7,807.187 1	0.7258			7,825.332 6	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.0635	0.2753	3.9180	5.1600e-003		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	511.1256	511.1256	0.1617		515.1684	
Total	0.0635	0.2753	3.9180	5.1600e-003		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	511.1256	511.1256	0.1617		515.1684	

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3.2 Demo Buildings - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.8149	27.7074	6.3446	0.0712	1.5955	0.1059	1.7014	0.4373	0.1013	0.5386	7,769.452 3	7,769.452 3	0.7247			7,787.568 4	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0189	0.0137	0.1263	3.8000e-004	0.0383	2.6000e-004	0.0386	0.0102	2.4000e-004	0.0104	37.7348	37.7348	1.1700e-003			37.7642	
Total	0.8338	27.7211	6.4710	0.0716	1.6338	0.1062	1.7400	0.4474	0.1016	0.5490	7,807.187 1	7,807.187 1	0.7258			7,825.332 6	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000	
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	3,766.452 9	3,766.452 9	1.1917			3,796.244 5	
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298	3,766.452 9	3,766.452 9	1.1917			3,796.244 5	

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1132	0.0822	0.7579	2.2700e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624	226.4090	226.4090	7.0500e-003	226.5852			
Total	0.1132	0.0822	0.7579	2.2700e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624		226.4090	226.4090	7.0500e-003		226.5852	

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307	0.0000	0.0000	3,766.4529	3,766.4529	1.1917	3,796.2445
Off-Road	0.4656	2.0175	20.8690	0.0380		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	0.4656	2.0175	20.8690	0.0380	18.0663	9.3100e-003	18.0756	9.9307	9.3100e-003	9.9400	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1132	0.0822	0.7579	2.2700e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624	226.4090	226.4090	7.0500e-003	226.5852			
Total	0.1132	0.0822	0.7579	2.2700e-003	0.2299	1.5800e-003	0.2315	0.0610	1.4500e-003	0.0624		226.4090	226.4090	7.0500e-003		226.5852	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675	0.0000	0.0000		0.0000		0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	2,936.8068	2,936.8068	0.9292			2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.5523	1.3974	7.9497	3.3675	1.2856	4.6531		2,936.8068	2,936.8068	0.9292		2,960.0361

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1258	0.0913	0.8421	2.5200e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694	251.5655	251.5655	7.8300e-003	251.7613			
Total	0.1258	0.0913	0.8421	2.5200e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		251.5655	251.5655	7.8300e-003		251.7613	

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675	0.0000	0.0000	2,936.806	2,936.806	0.9292	2,960.036
Off-Road	0.3632	1.5737	17.7527	0.0297	6.5523	7.2600e-003	7.2600e-003	7.2600e-003	7.2600e-003	0.0000	2,936.806	2,936.806	0.9292			1
Total	0.3632	1.5737	17.7527	0.0297	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,936.806	2,936.806	0.9292		2,960.036

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1258	0.0913	0.8421	2.5200e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		251.5655	251.5655	7.8300e-003		251.7613	
Total	0.1258	0.0913	0.8421	2.5200e-003	0.2555	1.7500e-003	0.2572	0.0678	1.6100e-003	0.0694		251.5655	251.5655	7.8300e-003		251.7613	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		0.0000				0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.5523	1.2734	7.8258	3.3675	1.1716	4.5390		2,872.4851	2,872.4851	0.9290		2,895.7106

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.1180	0.0825	0.7703	2.4400e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		243.6180	243.6180	7.0800e-003		243.7950	
Total	0.1180	0.0825	0.7703	2.4400e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693		243.6180	243.6180	7.0800e-003		243.7950	

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675		0.0000				0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	0.3632	1.5737	17.7527	0.0297	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Worker	0.1180	0.0825	0.7703	2.4400e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693			243.6180	243.6180	7.0800e-003	243.7950	
Total	0.1180	0.0825	0.7703	2.4400e-003	0.2555	1.7200e-003	0.2572	0.0678	1.5900e-003	0.0693			243.6180	243.6180	7.0800e-003	243.7950	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1	

Monserate Winery - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520	182.7135	182.7135	5.3100e-003	182.8463			
Total	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003	5.6100e-003	5.6100e-003	0.0000	2,207.733	2,207.733	0.7140		2,225.584		
Paving	0.0000					0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0000		0.0000	
Total	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003		5.6100e-003	0.0000	2,207.733	2,207.733	0.7140		2,225.584		

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520	182.7135	182.7135	5.3100e-003	182.8463			
Total	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	2,553.063 1	2,553.063 1	0.6229			2,568.634 5	
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	2,553.063 1	2,553.063 1	0.6229			2,568.634 5	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0332	0.9687	0.2745	2.2100e-003	0.0551	4.6100e-003	0.0597	0.0159	4.4100e-003	0.0203	237.7254	237.7254	0.0198	238.2203			
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832	292.3416	292.3416	8.5000e-003	292.5540			
Total	0.1748	1.0676	1.1988	5.1400e-003	0.3617	6.6800e-003	0.3683	0.0972	6.3200e-003	0.1035	530.0670	530.0670	0.0283	530.7744			

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345	
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0332	0.9687	0.2745	2.2100e-003	0.0551	4.6100e-003	0.0597	0.0159	4.4100e-003	0.0203	237.7254	237.7254	0.0198	238.2203			
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832	292.3416	292.3416	8.5000e-003	292.5540			
Total	0.1748	1.0676	1.1988	5.1400e-003	0.3617	6.6800e-003	0.3683	0.0972	6.3200e-003	0.1035	530.0670	530.0670	0.0283	530.7744			

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.9961						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	281.4481	281.4481	0.0218	281.9928		
Total	4.2383	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	281.4481	281.4481	0.0218	281.9928		

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		60.9045	60.9045	1.7700e-003		60.9488	
Total	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		60.9045	60.9045	1.7700e-003		60.9488	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	3.9961						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0218		281.9928	
Total	4.0258	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0218		281.9928	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173	60.9045	60.9045	1.7700e-003			60.9488	
Total	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		60.9045	60.9045	1.7700e-003		60.9488	

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

Monserate Winery - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	2.0943	9.0141	24.7305	0.0816	7.2221	0.0706	7.2927	1.9303	0.0660	1.9963	8,292.732 6	8,292.732 6	0.4512			8,304.013 5	
Unmitigated	2.0943	9.0141	24.7305	0.0816	7.2221	0.0706	7.2927	1.9303	0.0660	1.9963	8,292.732 6	8,292.732 6	0.4512			8,304.013 5	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Recreational	868.00	1,237.04	1237.04	2,680,168	2,680,168	2,680,168	2,680,168
Total	868.00	1,237.04	1,237.04	2,680,168	2,680,168	2,680,168	2,680,168

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 Recreational	9.50	7.30	7.30	12.00	69.00	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Monserate Winery - San Diego County, Winter

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
NaturalGas Unmitigated	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	

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					
User Defined Recreational	1688.88	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
Total		0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126		198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	1.68888	0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126	198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721	
Total		0.0182	0.1656	0.1391	9.9000e-004		0.0126	0.0126		0.0126	0.0126		198.6914	198.6914	3.8100e-003	3.6400e-003	199.8721

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Unmitigated	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1423						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	1.1993						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Total	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1423						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	1.1993						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131
Total	1.3421	5.0000e-005	5.7400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0123	0.0123	3.0000e-005		0.0131

7.0 Water Detail

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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

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 Recreational	56.00	User Defined Unit	12.37	56,040.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	525.68	CH4 Intensity (lb/MWhr)	0.021	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - rps 2021

Land Use - User defined recreational was modeled after the High Quality Restaurant recreational use

Construction Phase - PS

Off-road Equipment - CE

Off-road Equipment - ce

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - ac

Architectural Coating - Rule 67 paint

Vehicle Trips - Mix ratio assumed to be same as restaurant

Area Coating - rule 67 paint

Energy Use - Energy use similar to racquet club

Water And Wastewater - 32,000 gallons of wastewater generated by winery included and generated from indoor water uses

Solid Waste - Solid Waste Generation similar to Restaurant

Construction Off-road Equipment Mitigation - Tier IV Mitigation

Energy Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

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tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	1.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	1.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	2.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	3.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	1.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	1.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	2.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	2.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	4.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	10.00
tblConstEquipMitigation	Number Of Equipment Mitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	207.00
tblConstructionPhase	NumDays	20.00	130.00
tblEnergyUse	LightingElect	0.00	2.91
tblEnergyUse	NT24E	0.00	4.27
tblEnergyUse	NT24NG	0.00	7.00
tblEnergyUse	T24E	0.00	1.27
tblEnergyUse	T24NG	0.00	4.00
tblLandUse	LandUseSquareFeet	0.00	56,040.00
tblLandUse	LotAcreage	0.00	12.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	525.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	21.90
tblTripsAndVMT	WorkerTripNumber	15.00	20.00

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tblVehicleTrips	CC_TL	6.60	7.30
tblVehicleTrips	CC_TTP	0.00	69.00
tblVehicleTrips	CNW_TL	6.60	7.30
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TL	14.70	9.50
tblVehicleTrips	CW_TTP	0.00	12.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	22.09
tblVehicleTrips	SU_TR	0.00	22.09
tblVehicleTrips	WD_TR	0.00	15.50
tblWater	IndoorWaterUseRate	0.00	720,000.00
tblWater	OutdoorWaterUseRate	0.00	1,830,000.00

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0453	0.5983	0.2787	9.0000e-004	0.1514	0.0219	0.1733	0.0744	0.0202	0.0945	0.0000	84.9977	84.9977	0.0157	0.0000	85.3899
2020	0.5689	2.7860	2.4287	4.3300e-003	0.1579	0.1521	0.3100	0.0684	0.1429	0.2113	0.0000	378.7402	378.7402	0.0830	0.0000	380.8156
Maximum	0.5689	2.7860	2.4287	4.3300e-003	0.1579	0.1521	0.3100	0.0744	0.1429	0.2113	0.0000	378.7402	378.7402	0.0830	0.0000	380.8156

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0114	0.2042	0.2857	9.0000e-004	0.1514	8.0000e-004	0.1522	0.0744	7.7000e-004	0.0751	0.0000	84.9977	84.9977	0.0157	0.0000	85.3899
2020	0.3248	0.3926	2.5465	4.3300e-003	0.1579	1.6000e-003	0.1595	0.0684	1.5600e-003	0.0700	0.0000	378.7399	378.7399	0.0830	0.0000	380.8152
Maximum	0.3248	0.3926	2.5465	4.3300e-003	0.1579	1.6000e-003	0.1595	0.0744	1.5600e-003	0.0751	0.0000	378.7399	378.7399	0.0830	0.0000	380.8152

	ROG	NOx	CO	SO2	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	45.27	82.37	-4.61	0.00	0.00	98.62	35.51	0.00	98.57	52.55	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	10-1-2019	12-31-2019	0.6242	0.2113
6	1-1-2020	3-31-2020	0.7670	0.0753
7	4-1-2020	6-30-2020	0.7319	0.1227
8	7-1-2020	9-30-2020	0.9359	0.2620
		Highest	0.9359	0.2620

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	
Energy	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	145.8081	145.8081	5.1400e-003	1.4600e-003	146.3724	
Mobile	0.2926	1.2948	3.5024	0.0118	1.0101	0.0101	1.0201	0.2705	9.4000e-003	0.2799	0.0000	1,087.5553	1,087.5553	0.0580	0.0000	1,089.0056	
Waste						0.0000	0.0000		0.0000	0.0000	4.4455	0.0000	4.4455	0.2627	0.0000	11.0135	
Water						0.0000	0.0000		0.0000	0.0000	0.2284	7.0833	7.3118	0.0237	6.1000e-004	8.0865	
Total	0.5409	1.3251	3.5283	0.0120	1.0101	0.0124	1.0224	0.2705	0.0117	0.2822	4.6739	1,240.4477	1,245.1216	0.3496	2.0700e-003	1,254.4791	

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	
Energy	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	120.5331	120.5331	4.1300e-003	1.2700e-003	121.0148	
Mobile	0.2926	1.2948	3.5024	0.0118	1.0101	0.0101	1.0201	0.2705	9.4000e-003	0.2799	0.0000	1,087.5553	1,087.5553	0.0580	0.0000	1,089.0056	
Waste						0.0000	0.0000		0.0000	0.0000	4.4455	0.0000	4.4455	0.2627	0.0000	11.0135	
Water						0.0000	0.0000		0.0000	0.0000	0.2284	7.0833	7.3118	0.0237	6.1000e-004	8.0865	
Total	0.5409	1.3251	3.5283	0.0120	1.0101	0.0124	1.0224	0.2705	0.0117	0.2822	4.6739	1,215.1727	1,219.8466	0.3486	1.8800e-003	1,229.1215	

	ROG	NOx	CO	SO2	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	2.04	2.03	0.29	9.18	2.02

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demo Buildings	Demolition	12/1/2019	12/18/2019	5	13	
2	Site Preparation	Site Preparation	12/1/2019	12/13/2019	5	10	
3	Grading	Grading	12/15/2019	2/14/2020	5	45	
4	Paving	Paving	2/15/2020	3/13/2020	5	20	
5	Building Construction	Building Construction	3/14/2020	12/29/2020	5	207	
6	Architectural Coating	Architectural Coating	7/1/2020	12/29/2020	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 84,060; Non-Residential Outdoor: 28,020; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demo Buildings	Excavators	1	8.00	158	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demo Buildings	1	3.00	0.00	1,187.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Demo Buildings - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6900e-003	0.0174	0.0212	3.0000e-005		8.4000e-004	8.4000e-004		7.7000e-004	7.7000e-004	0.0000	3.0140	3.0140	9.5000e-004	0.0000	3.0378
Total	1.6900e-003	0.0174	0.0212	3.0000e-005		8.4000e-004	8.4000e-004		7.7000e-004	7.7000e-004	0.0000	3.0140	3.0140	9.5000e-004	0.0000	3.0378

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3.2 Demo Buildings - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	5.2100e-003	0.1819	0.0397	4.7000e-004	0.0102	6.8000e-004	0.0108	2.7900e-003	6.5000e-004	3.4400e-003	0.0000	46.2689	46.2689	4.1900e-003	0.0000	46.3737	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.1000e-004	9.0000e-005	8.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2248	0.2248	1.0000e-005	0.0000	0.2249	
Total	5.3200e-003	0.1820	0.0405	4.7000e-004	0.0104	6.8000e-004	0.0111	2.8500e-003	6.5000e-004	3.5100e-003	0.0000	46.4937	46.4937	4.2000e-003	0.0000	46.5986	

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	4.1000e-004	1.7900e-003	0.0255	3.0000e-005		1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	3.0140	3.0140	9.5000e-004	0.0000	3.0378		
Total	4.1000e-004	1.7900e-003	0.0255	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0140	3.0140	9.5000e-004	0.0000	3.0378	

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3.2 Demo Buildings - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	5.2100e-003	0.1819	0.0397	4.7000e-004	0.0102	6.8000e-004	0.0108	2.7900e-003	6.5000e-004	3.4400e-003	0.0000	46.2689	46.2689	4.1900e-003	0.0000	46.3737	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.1000e-004	9.0000e-005	8.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2248	0.2248	1.0000e-005	0.0000	0.2249	
Total	5.3200e-003	0.1820	0.0405	4.7000e-004	0.0104	6.8000e-004	0.0111	2.8500e-003	6.5000e-004	3.5100e-003	0.0000	46.4937	46.4937	4.2000e-003	0.0000	46.5986	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	0.0217	0.2279	0.1103	1.9000e-004	0.0903	0.0120	0.1023	0.0497	0.0110	0.0607	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.0000e-004	4.0000e-004	3.8100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0373	1.0373	3.0000e-005	0.0000	1.0381	
Total	5.0000e-004	4.0000e-004	3.8100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0373	1.0373	3.0000e-005	0.0000	1.0381	

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	0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004	0.0903	5.0000e-005	5.0000e-005	5.0000e-005	5.0000e-005	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195	
Total	2.3300e-003	0.0101	0.1043	1.9000e-004	0.0903	5.0000e-005	0.0904	0.0497	5.0000e-005	0.0497	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.0000e-004	4.0000e-004	3.8100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0373	1.0373	3.0000e-005	0.0000	1.0381	
Total	5.0000e-004	4.0000e-004	3.8100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0373	1.0373	3.0000e-005	0.0000	1.0381	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0481	0.0000	0.0481	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1701	0.0978	1.8000e-004	0.0481	8.3800e-003	8.3800e-003		7.7100e-003	7.7100e-003	0.0000	15.9854	15.9854	5.0600e-003	0.0000	16.1118
Total	0.0155	0.1701	0.0978	1.8000e-004	0.0481	8.3800e-003	0.0564	0.0212	7.7100e-003	0.0289	0.0000	15.9854	15.9854	5.0600e-003	0.0000	16.1118

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	6.6000e-004	5.4000e-004	5.0800e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3831	1.3831	4.0000e-005	0.0000	1.3842	
Total	6.6000e-004	5.4000e-004	5.0800e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3831	1.3831	4.0000e-005	0.0000	1.3842	

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	0.0000	0.0000	0.0000	0.0000	0.0481	0.0000	0.0481	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.1800e-003	9.4400e-003	0.1065	1.8000e-004	0.0481	4.0000e-005	4.0000e-005	0.0481	0.0212	4.0000e-005	4.0000e-005	0.0000	15.9853	15.9853	5.0600e-003	0.0000	16.1118
Total	2.1800e-003	9.4400e-003	0.1065	1.8000e-004	0.0481	4.0000e-005	0.0481	0.0212	4.0000e-005	0.0212	0.0000	15.9853	15.9853	5.0600e-003	0.0000	16.1118	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	6.6000e-004	5.4000e-004	5.0800e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3831	1.3831	4.0000e-005	0.0000	1.3842	
Total	6.6000e-004	5.4000e-004	5.0800e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3831	1.3831	4.0000e-005	0.0000	1.3842	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1113	0.0000	0.1113	0.0559	0.0000	0.0559	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0401	0.4354	0.2649	4.9000e-004		0.0210	0.0210		0.0193	0.0193	0.0000	42.9969	42.9969	0.0139	0.0000	43.3446
Total	0.0401	0.4354	0.2649	4.9000e-004	0.1113	0.0210	0.1323	0.0559	0.0193	0.0752	0.0000	42.9969	42.9969	0.0139	0.0000	43.3446

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.7100e-003	1.3400e-003	0.0128	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.6833	3.6833	1.1000e-004	0.0000	3.6860	
Total	1.7100e-003	1.3400e-003	0.0128	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.6833	3.6833	1.1000e-004	0.0000	3.6860	

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	0.0000	0.0000	0.0000	0.0000	0.1113	0.0000	0.1113	0.0559	0.0000	0.0559	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	5.9900e-003	0.0260	0.2929	4.9000e-004	0.1113	1.2000e-004	1.2000e-004	0.1114	0.0559	1.2000e-004	0.0000	42.9969	42.9969	0.0139	0.0000	43.3445	
Total	5.9900e-003	0.0260	0.2929	4.9000e-004	0.1113	1.2000e-004	0.1114	0.0559	1.2000e-004	0.0560	0.0000	42.9969	42.9969	0.0139	0.0000	43.3445	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.7100e-003	1.3400e-003	0.0128	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.6833	3.6833	1.1000e-004	0.0000	3.6860	
Total	1.7100e-003	1.3400e-003	0.0128	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.6833	3.6833	1.1000e-004	0.0000	3.6860	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755	
Total	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755	

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	2.8000e-003	0.0122	0.1730	2.3000e-004		6.0000e-005	6.0000e-005	6.0000e-005	6.0000e-005	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901		
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	2.8000e-003	0.0122	0.1730	2.3000e-004		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755	
Total	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Off-Road	0.2194	1.9858	1.7438	2.7900e-003			0.1156	0.1156		0.1087	0.1087	0.0000	239.7163	239.7163	0.0585	0.0000	241.1784
Total	0.2194	1.9858	1.7438	2.7900e-003			0.1156	0.1156		0.1087	0.1087	0.0000	239.7163	239.7163	0.0585	0.0000	241.1784

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	3.3400e-003	0.1015	0.0269	2.3000e-004	5.5900e-003	4.7000e-004	6.0600e-003	1.6100e-003	4.5000e-004	2.0700e-003	0.0000	22.6923	22.6923	1.7900e-003	0.0000	22.7372	
Worker	0.0129	0.0101	0.0963	3.1000e-004	0.0310	2.1000e-004	0.0312	8.2300e-003	2.0000e-004	8.4300e-003	0.0000	27.7253	27.7253	8.1000e-004	0.0000	27.7454	
Total	0.0162	0.1116	0.1232	5.4000e-004	0.0366	6.8000e-004	0.0373	9.8400e-003	6.5000e-004	0.0105	0.0000	50.4176	50.4176	2.6000e-003	0.0000	50.4826	

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	0.0339	0.2313	1.8071	2.7900e-003		6.3000e-004	6.3000e-004	6.3000e-004	6.3000e-004	0.0000	239.7161	239.7161	0.0585	0.0000	241.1781		
Total	0.0339	0.2313	1.8071	2.7900e-003		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	239.7161	239.7161	0.0585	0.0000	241.1781	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	3.3400e-003	0.1015	0.0269	2.3000e-004	5.5900e-003	4.7000e-004	6.0600e-003	1.6100e-003	4.5000e-004	2.0700e-003	0.0000	22.6923	22.6923	1.7900e-003	0.0000	22.7372	
Worker	0.0129	0.0101	0.0963	3.1000e-004	0.0310	2.1000e-004	0.0312	8.2300e-003	2.0000e-004	8.4300e-003	0.0000	27.7253	27.7253	8.1000e-004	0.0000	27.7454	
Total	0.0162	0.1116	0.1232	5.4000e-004	0.0366	6.8000e-004	0.0373	9.8400e-003	6.5000e-004	0.0105	0.0000	50.4176	50.4176	2.6000e-003	0.0000	50.4826	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2598						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1095	0.1190	1.9000e-004		7.2100e-003	7.2100e-003		7.2100e-003	7.2100e-003	0.0000	16.5962	16.5962	1.2800e-003	0.0000	16.6283
Total	0.2755	0.1095	0.1190	1.9000e-004		7.2100e-003	7.2100e-003		7.2100e-003	7.2100e-003	0.0000	16.5962	16.5962	1.2800e-003	0.0000	16.6283

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.6800e-003	1.3200e-003	0.0126	4.0000e-005	4.0500e-003	3.0000e-005	4.0800e-003	1.0800e-003	3.0000e-005	1.1000e-003	0.0000	3.6275	3.6275	1.1000e-004	0.0000	3.6301	
Total	1.6800e-003	1.3200e-003	0.0126	4.0000e-005	4.0500e-003	3.0000e-005	4.0800e-003	1.0800e-003	3.0000e-005	1.1000e-003	0.0000	3.6275	3.6275	1.1000e-004	0.0000	3.6301	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.2598						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.9300e-003	8.3700e-003	0.1191	1.9000e-004		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	16.5961	16.5961	1.2800e-003	0.0000	16.6283	
Total	0.2617	8.3700e-003	0.1191	1.9000e-004		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	16.5961	16.5961	1.2800e-003	0.0000	16.6283	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.6800e-003	1.3200e-003	0.0126	4.0000e-005	4.0500e-003	3.0000e-005	4.0800e-003	1.0800e-003	3.0000e-005	1.1000e-003	0.0000	3.6275	3.6275	1.1000e-004	0.0000	3.6301	
Total	1.6800e-003	1.3200e-003	0.0126	4.0000e-005	4.0500e-003	3.0000e-005	4.0800e-003	1.0800e-003	3.0000e-005	1.1000e-003	0.0000	3.6275	3.6275	1.1000e-004	0.0000	3.6301	

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	0.2926	1.2948	3.5024	0.0118	1.0101	0.0101	1.0201	0.2705	9.4000e-003	0.2799	0.0000	1,087.5553	1,087.5553	0.0580	0.0000	1,089.0056	
Unmitigated	0.2926	1.2948	3.5024	0.0118	1.0101	0.0101	1.0201	0.2705	9.4000e-003	0.2799	0.0000	1,087.5553	1,087.5553	0.0580	0.0000	1,089.0056	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Recreational	868.00	1,237.04	1237.04	2,680,168	2,680,168	2,680,168	2,680,168
Total	868.00	1,237.04	1,237.04	2,680,168	2,680,168	2,680,168	2,680,168

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 Recreational	9.50	7.30	7.30	12.00	69.00	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	87.6375	87.6375	3.5000e-003	6.7000e-004	87.9237
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.9125	112.9125	4.5100e-003	8.6000e-004	113.2813
NaturalGas Mitigated	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003	2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911	
NaturalGas Unmitigated	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003	2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911	

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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					
User Defined Recreational	616440	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911
Total		3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911

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					
User Defined Recreational	616440	3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911
Total		3.3200e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.8956	32.8956	6.3000e-004	6.0000e-004	33.0911

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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			
User Defined Recreational	473538	112.9125	4.5100e-003	8.6000e-004	113.2813
Total		112.9125	4.5100e-003	8.6000e-004	113.2813

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	367538	87.6375	3.5000e-003	6.7000e-004	87.9237
Total		87.6375	3.5000e-003	6.7000e-004	87.9237

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	
Unmitigated	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	0.2189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	
Total	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003	

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003
Total	0.2449	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-003	1.0000e-003	0.0000	0.0000	1.0700e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.3118	0.0237	6.1000e-004	8.0865
Unmitigated	7.3118	0.0237	6.1000e-004	8.0865

7.2 Water by Land Use**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0.72 / 1.83	7.3118	0.0237	6.1000e-004	8.0865
Total		7.3118	0.0237	6.1000e-004	8.0865

Monserate Winery - San Diego County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0.72 / 1.83	7.3118	0.0237	6.1000e-004	8.0865
Total		7.3118	0.0237	6.1000e-004	8.0865

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.4455	0.2627	0.0000	11.0135
Unmitigated	4.4455	0.2627	0.0000	11.0135

Monserate Winery - San Diego County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	21.9	4.4455	0.2627	0.0000	11.0135
Total		4.4455	0.2627	0.0000	11.0135

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	21.9	4.4455	0.2627	0.0000	11.0135
Total		4.4455	0.2627	0.0000	11.0135

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

ATTACHMENT B

AERMOD for Unmitigated PM₁₀

1 AERMOD PRIME - (DATED 18081)

AERMODPrMSPx VERSION
(C) COPYRIGHT 1998-2017, Trinity Consultants

Run Began on 6/19/2019 at 19:49:37

** BREEZE AERMOD
** Trinity Consultants
** VERSION 8.1

CO STARTING
CO TITLEONE Construction DPM Unmitigated
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID PM10
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION OIOMD000 AREAPOLY 482308.5 3689054.1 0
** SRCDESCR grading Area
SO SRCPARAM OIOMD000 9.2E-08 3 68 1
SO AREAVERT OIOMD000 482308.5 3689054.1 482292.4 3689041.7 482278.8 3689056.6 482282.5 3689108.5
SO AREAVERT OIOMD000 482273.8 3689192.6 482267.7 3689331 482242.9 3689332.3 482231.8 3689337.2
SO AREAVERT OIOMD000 482225.6 3689349.6 482229.3 3689380.5 482223.2 3689410.2 482210.8 3689438.6
SO AREAVERT OIOMD000 482181.1 3689459.6 482137.8 3689470.7 482088.4 3689528.8 482123 3689565.9
SO AREAVERT OIOMD000 482123 3689573.3 482062.4 3689599.3 482032.8 3689573.3 482073.6 3689530.1
SO AREAVERT OIOMD000 482043.9 3689520.2 482000.6 3689522.7 481978.4 3689501.6 481954.9 3689486.8
SO AREAVERT OIOMD000 481948.7 3689530.1 481916.6 3689516.5 481926.4 3689486.8 481912.8 3689485.6
SO AREAVERT OIOMD000 481916.6 3689472 481949.9 3689472 481996.9 3689501.6 482001.9 3689511.5
SO AREAVERT OIOMD000 482064.9 3689512.8 482082.2 3689518.9 482123 3689468.3 482171.2 3689450.9
SO AREAVERT OIOMD000 482210.8 3689433.6 482207.1 3689421.3 482193.5 3689417.6 482170 3689428.7
SO AREAVERT OIOMD000 482163.8 3689407.7 482171.2 3689378 482161.3 3689318.7 482161.3 3689298.9
SO AREAVERT OIOMD000 482146.5 3689292.7 482142.8 3689281.6 482177.4 3689282.8 482176.2 3689249.4
SO AREAVERT OIOMD000 482158.9 3689219.8 482153.9 3689200 482132.9 3689200 482111.9 3689187.6
SO AREAVERT OIOMD000 482103.2 3689156.7 482058.7 3689154.2 482060 3689111 482108.2 3689115.9
SO AREAVERT OIOMD000 482113.1 3689145.6 482114.4 3689165.4 482132.9 3689187.6 482191 3689185.1
SO AREAVERT OIOMD000 482174.9 3689143.1 482183.6 3689118.4 482179.9 3689068.9 482200.9 3689046.7
SO AREAVERT OIOMD000 482250.4 3689060.3 482276.3 3689039.3 482314.6 3689033.1 482308.5 3689054.1
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE DISCCART 482306.4 3689197.1 0 0
** SENSITIV
** RCPDESCR R1
RE DISCCART 482297.3 3689358.4 0 0
** SENSITIV
** RCPDESCR R2
RE DISCCART 482252.7 3689510.6 0 0
** SENSITIV
** RCPDESCR R3
RE DISCCART 482111 3689621.9 0 0
** SENSITIV
** RCPDESCR R4
RE DISCCART 481954.8 3689745.8 0 0
** SENSITIV
** RCPDESCR R5
RE DISCCART 481947.2 3688956.6 0 0
** SENSITIV
** RCPDESCR R6
RE FINISHED

ME STARTING
ME SURFFILE "C:\Users\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
** SURFFILE "C:\Users\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"

```

ME PROFILE      "C:\Users\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
** PROFILE      "C:\Users\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA    53120 2012
ME UAIRDATA    3190 2012
ME SITEDATA    00001002 2012
ME PROFBASE    0 METERS
ME FINISHED

OU STARTING
OU FILEFORM   FIX
OU FINISHED

** ****
** It is recommended that the user not edit any data below this line
** ****

** AMPTYPE
** AMPDATUM -1
** AMPZONE -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 11
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE AERMOD_BREEZE_18081_64.EXE
** AERMAPEXE AERMAP_EPA_18081_64.EXE

```

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of	0 Fatal Error Message(s)
A Total of	3 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****

ME W186	76	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.40
MX W403	76	PFLCNV: Turbulence data is being used w/o ADJ_U* option	SigA Data
MX W402	76	PFLCNV: Turbulence data being used with ADJ_U* w/o DEFAULT	Option

*** SETUP Finishes Successfully ***

```
▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Unmitigated      ***
 06/19/19
*** AERMET - VERSION 15181 *** ***
 19:49:37
```

```
PAGE 1
*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data
```

```
*** MODEL SETUP OPTIONS SUMMARY ***
```

```
-- Model Is Setup For Calculation of Average CONCntration Values.
```

```
-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F
```

```
**Model Uses RURAL Dispersion Only.
```

```
**Model Uses Regulatory DEFAULT Options:
```

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

```
**Other Options Specified:
```

```
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions
```

```
**Model Assumes No FLAGPOLE Receptor Heights.
```

```
**The User Specified a Pollutant Type of: PM10
```

```
**Model Calculates ANNUAL Averages Only
```

```
**This Run Includes: 1 Source(s); 1 Source Group(s); and 6 Receptor(s)
```

```
with: 0 POINT(s), including
       0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)
```

```
**Model Set To Continue RUNning After the Setup Testing.
```

```
**The AERMET Input Meteorological Data Version Date: 15181
```

```
**Output Options Selected:
```

```
Model Outputs Tables of ANNUAL Averages by Receptor
```

```
**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                         m for Missing Hours
                                         b for Both Calm and Missing Hours
```

```
**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle
= 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor =
0.10000E+07
Output Units = MICROGRAMS/M**3
```

```
**Approximate Storage Requirements of Model = 3.5 MB of RAM.
```

```
**Input Runstream File: aermod.inp
**Output Print File: aermod.out
```

```
▲ *** AERMOD - VERSION 18081 ***   *** Construction DPM Unmitigated
    06/19/19
*** AERMET - VERSION 15181 ***   ***
19:49:37

PAGE 2
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data
```

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	BASE Y (METERS)	ELEV. (METERS)	RELEASE HEIGHT OF VERTS. (METERS)	NUMBER INIT. (METERS)	URBAN SOURCE SCALAR VARY BY	EMISSION RATE BY
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

```
OIOMD000      0    0.92000E-07  482308.5 3689054.1      0.0    3.00      68      1.00      NO
▲ *** AERMOD - VERSION 18081 ***   *** Construction DPM Unmitigated
    06/19/19
*** AERMET - VERSION 15181 ***   ***
19:49:37
```

```
PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
- - - - -	- - - - -

```
ALL          OIOMD000 ,
▲ *** AERMOD - VERSION 18081 ***   *** Construction DPM Unmitigated
    06/19/19
*** AERMET - VERSION 15181 ***   ***
19:49:37
```

```
PAGE 4
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data
```

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,
▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Unmitigated ***
06/19/19
*** AERMET - VERSION 15181 *** ***
19:49:37

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\XEONRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15 Met Version:
15181

Profile file: C:\Users\XEONRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15
Surface format: FREE

Profile format: FREE

Surface station no.: 53120 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA
10.0	12	01	01	1	01	-0.6	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	51.	10.0	282.5
10.0	12	01	01	1	02	-0.6	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	64.	10.0	281.9
10.0	12	01	01	1	03	-0.6	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	31.	10.0	280.9
10.0	12	01	01	1	04	-2.9	0.056	-9.000	-9.000	-999.	32.		5.5	0.15	1.10	1.00	1.18	130.	10.0	280.4
10.0	12	01	01	1	05	-0.6	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	47.	10.0	280.4
10.0	12	01	01	1	06	-0.6	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	39.	10.0	279.8
10.0	12	01	01	1	07	-0.7	0.029	-9.000	-9.000	-999.	12.		3.3	0.47	1.10	1.00	0.44	60.	10.0	279.2
10.0	12	01	01	1	08	-0.5	0.029	-9.000	-9.000	-999.	12.		4.0	0.47	1.10	0.50	0.44	42.	10.0	280.4
10.0	12	01	01	1	09	33.3	0.106	0.323	0.014	36.	83.		-3.2	0.47	1.10	0.30	0.44	44.	10.0	285.4
10.0	12	01	01	1	10	85.9	0.121	0.634	0.011	106.	101.		-1.8	0.48	1.10	0.23	0.44	232.	10.0	291.4
10.0	12	01	01	1	11	123.6	0.252	0.982	0.005	273.	303.		-11.5	0.48	1.10	0.21	1.34	242.	10.0	297.5
10.0	12	01	01	1	12	141.2	0.255	1.253	0.005	496.	309.		-10.4	0.48	1.10	0.20	1.34	249.	10.0	299.8
10.0	12	01	01	1	13	139.0	0.308	1.399	0.005	700.	410.		-18.6	0.48	1.10	0.20	1.78	244.	10.0	300.4
10.0	12	01	01	1	14	118.4	0.303	1.510	0.005	1033.	401.		-20.9	0.48	1.10	0.21	1.78	241.	10.0	301.4
10.0	12	01	01	1	15	79.3	0.291	1.390	0.005	1204.	377.		-27.6	0.48	1.10	0.24	1.78	260.	10.0	301.4
10.0	12	01	01	1	16	24.5	0.162	0.951	0.005	1244.	167.		-15.4	0.51	1.10	0.34	0.89	292.	10.0	299.8
10.0	12	01	01	1	17	-2.5	0.060	-9.000	-9.000	-999.	45.		7.5	0.51	1.10	0.61	0.89	282.	10.0	296.9
10.0	12	01	01	1	18	-0.6	0.029	-9.000	-9.000	-999.	12.		3.4	0.47	1.10	1.00	0.44	10.	10.0	293.1
10.0	12	01	01	1	19	-4.0	0.066	-9.000	-9.000	-999.	40.		6.3	0.11	1.10	1.00	1.48	329.	10.0	290.4

10.0
 12 01 01 1 20 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 65. 10.0 288.1
 10.0
 12 01 01 1 21 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 61. 10.0 286.4
 10.0
 12 01 01 1 22 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 33. 10.0 285.4
 10.0
 12 01 01 1 23 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 50. 10.0 284.2
 10.0
 12 01 01 1 24 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 42. 10.0 283.1
 10.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	10.0	1	51.	0.44	282.6	30.0	-99.00	0.20

F indicates top of profile (=1) or below (=0)

↗ *** AERMOD - VERSION 18081 *** *** Construction DPM Unmitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** *** ***
 19:49:37

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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): OIOMD000 ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
482306.40	3689197.10	0.95534	482297.30	3689358.40	0.55233
482252.70	3689510.60	0.22696	482111.00	3689621.90	0.19645
481954.80	3689745.80	0.06740	481947.20	3688956.60	0.31029

↗ *** AERMOD - VERSION 18081 *** *** Construction DPM Unmitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** *** ***
 19:49:37

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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
ALL	1ST HIGHEST VALUE IS 0.95534 AT (482306.40, 3689197.10, 0.00, 0.00, 0.00) SR	
	2ND HIGHEST VALUE IS 0.55233 AT (482297.30, 3689358.40, 0.00, 0.00, 0.00) SR	
	3RD HIGHEST VALUE IS 0.31029 AT (481947.20, 3688956.60, 0.00, 0.00, 0.00) SR	

4TH HIGHEST VALUE IS	0.22696 AT (482252.70, 3689510.60,	0.00,	0.00,	0.00)	SR
5TH HIGHEST VALUE IS	0.19645 AT (482111.00, 3689621.90,	0.00,	0.00,	0.00)	SR
6TH HIGHEST VALUE IS	0.06740 AT (481954.80, 3689745.80,	0.00,	0.00,	0.00)	SR
7TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
8TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
9TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
10TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Unmitigated
 06/19/19
 *** AERMET - VERSION 15181 *** ***
 19:49:37

PAGE 8
 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 3 Warning Message(s)
 A Total of 378 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 250 Calm Hours Identified

A Total of 128 Missing Hours Identified (1.46 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 76 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.40
 MX W403 76 PFLCNV: Turbulence data is being used w/o ADJ_U* option SigA Data
 MX W402 76 PFLCNV: Turbulence data being used with ADJ_U* w/o DFAULT Option

 *** AERMOD Finishes Successfully ***

ATTACHMENT C

AERMOD for Mitigated PM₁₀

1 AERMOD PRIME - (DATED 18081)

AERMODPrMSPx VERSION
(C) COPYRIGHT 1998-2017, Trinity Consultants

Run Began on 6/19/2019 at 19:51:39

** BREEZE AERMOD
** Trinity Consultants
** VERSION 8.1

CO STARTING
CO TITLEONE Construction DPM Mitigated
CO MODELOPT DEFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID PM10
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION OIOMD000 AREAPOLY 482308.5 3689054.1 0
** SRCDESCR grading Area
SO SRCPARAM OIOMD000 5.05E-10 3 68 1
SO AREAVERT OIOMD000 482308.5 3689054.1 482292.4 3689041.7 482278.8 3689056.6 482282.5 3689108.5
SO AREAVERT OIOMD000 482273.8 3689192.6 482267.7 3689331 482242.9 3689332.3 482231.8 3689337.2
SO AREAVERT OIOMD000 482225.6 3689349.6 482229.3 3689380.5 482223.2 3689410.2 482210.8 3689438.6
SO AREAVERT OIOMD000 482181.1 3689459.6 482137.8 3689470.7 482088.4 3689528.8 482123 3689565.9
SO AREAVERT OIOMD000 482123 3689573.3 482062.4 3689599.3 482032.8 3689573.3 482073.6 3689530.1
SO AREAVERT OIOMD000 482043.9 3689520.2 482000.6 3689522.7 481978.4 3689501.6 481954.9 3689486.8
SO AREAVERT OIOMD000 481948.7 3689530.1 481916.6 3689516.5 481926.4 3689486.8 481912.8 3689485.6
SO AREAVERT OIOMD000 481916.6 3689472 481949.9 3689472 481996.9 3689501.6 482001.9 3689511.5
SO AREAVERT OIOMD000 482064.9 3689512.8 482082.2 3689518.9 482123 3689468.3 482171.2 3689450.9
SO AREAVERT OIOMD000 482210.8 3689433.6 482207.1 3689421.3 482193.5 3689417.6 482170 3689428.7
SO AREAVERT OIOMD000 482163.8 3689407.7 482171.2 3689378 482161.3 3689318.7 482161.3 3689298.9
SO AREAVERT OIOMD000 482146.5 3689292.7 482142.8 3689281.6 482177.4 3689282.8 482176.2 3689249.4
SO AREAVERT OIOMD000 482158.9 3689219.8 482153.9 3689200 482132.9 3689200 482111.9 3689187.6
SO AREAVERT OIOMD000 482103.2 3689156.7 482058.7 3689154.2 482060 3689111 482108.2 3689115.9
SO AREAVERT OIOMD000 482113.1 3689145.6 482114.4 3689165.4 482132.9 3689187.6 482191 3689185.1
SO AREAVERT OIOMD000 482174.9 3689143.1 482183.6 3689118.4 482179.9 3689068.9 482200.9 3689046.7
SO AREAVERT OIOMD000 482250.4 3689060.3 482276.3 3689039.3 482314.6 3689033.1 482308.5 3689054.1
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE DISCCART 482306.4 3689197.1 0 0
** SENSITIV
** RCPDESCR R1
RE DISCCART 482297.3 3689358.4 0 0
** SENSITIV
** RCPDESCR R2
RE DISCCART 482252.7 3689510.6 0 0
** SENSITIV
** RCPDESCR R3
RE DISCCART 482111 3689621.9 0 0
** SENSITIV
** RCPDESCR R4
RE DISCCART 481954.8 3689745.8 0 0
** SENSITIV
** RCPDESCR R5
RE DISCCART 481947.2 3688956.6 0 0
** SENSITIV
** RCPDESCR R6
RE FINISHED

ME STARTING
ME SURFFILE "C:\USERS\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
** SURFFILE "C:\USERS\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"

```

ME PROFILE      "C:\USERS\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
** PROFILE      "C:\USERS\XEOVRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA    53120 2012
ME UAIRDATA    3190 2012
ME SITEDATA    00001002 2012
ME PROFBASE    0 METERS
ME FINISHED

OU STARTING
OU FILEFORM   FIX
OU FINISHED

** ****
** It is recommended that the user not edit any data below this line
** ****

** AMPTYPE
** AMPDATUM -1
** AMPZONE -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 11
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE AERMOD_BREEZE_18081_64.EXE
** AERMAPEXE AERMAP_EPA_18081_64.EXE

```

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of	0 Fatal Error Message(s)
A Total of	3 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****

ME W186	76	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.40
MX W403	76	PFLCNV: Turbulence data is being used w/o ADJ_U* option	SigA Data
MX W402	76	PFLCNV: Turbulence data being used with ADJ_U* w/o DEFAULT	Option

*** SETUP Finishes Successfully ***

```
▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated           ***
   06/19/19
*** AERMET - VERSION 15181 *** ***
   19:51:39                                         ***
```

```
PAGE 1
*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data
```

```
*** MODEL SETUP OPTIONS SUMMARY ***
```

```
-- Model Is Setup For Calculation of Average CONcentration Values.
```

```
-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F
```

```
**Model Uses RURAL Dispersion Only.
```

```
**Model Uses Regulatory DEFAULT Options:
```

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

```
**Other Options Specified:
```

```
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions
```

```
**Model Assumes No FLAGPOLE Receptor Heights.
```

```
**The User Specified a Pollutant Type of: PM10
```

```
**Model Calculates ANNUAL Averages Only
```

```
**This Run Includes: 1 Source(s); 1 Source Group(s); and 6 Receptor(s)
```

```
with: 0 POINT(s), including
      0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)
```

```
**Model Set To Continue RUNning After the Setup Testing.
```

```
**The AERMET Input Meteorological Data Version Date: 15181
```

```
**Output Options Selected:
```

```
  Model Outputs Tables of ANNUAL Averages by Receptor
```

```
**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                           m for Missing Hours
                           b for Both Calm and Missing Hours
```

```
**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle
= 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor =
0.10000E+07
Output Units = MICROGRAMS/M**3
```

```
**Approximate Storage Requirements of Model = 3.5 MB of RAM.
```

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** ***
 19:51:39

PAGE 2
 *** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	BASE Y (METERS)	ELEV. (METERS)	RELEASE HEIGHT OF VERTS. (METERS)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY	EMISSION RATE
OIOMD000	0	0.50500E-09	482308.5	3689054.1	0.0	3.00	68	1.00	NO

▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** ***
 19:51:39

PAGE 3
 *** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	OIOMD000 ,

▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** ***
 19:51:39

PAGE 4
 *** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
 (1=YES; 0=NO)

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

PAGE 5

*** MODELOPTs: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\USERS\XEONRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15 Met Version: 15181

Profile file: C:\USERS\XEONRT\AMAZON~1\LDN\17-44M~1\3-13-19\AERMOD\ESCOND~1\ESCONDIDO-2012-V15
Surface format: FREE

Profile format: FREE

Surface station no.: 53120 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

10.0
 12 01 01 1 20 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 65. 10.0 288.1
 10.0
 12 01 01 1 21 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 61. 10.0 286.4
 10.0
 12 01 01 1 22 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 33. 10.0 285.4
 10.0
 12 01 01 1 23 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 50. 10.0 284.2
 10.0
 12 01 01 1 24 -0.6 0.029 -9.000 -9.000 -999. 12. 3.3 0.47 1.10 1.00 0.44 42. 10.0 283.1
 10.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	10.0	1	51.		0.44	282.6	30.0	-99.00	0.20

F indicates top of profile (=1) or below (=0)

↗ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** *** ***
 19:51:39

PAGE 6

*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): OIOMD000 ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
482306.40	3689197.10	0.00524	482297.30	3689358.40	0.00303
482252.70	3689510.60	0.00125	482111.00	3689621.90	0.00108
481954.80	3689745.80	0.00037	481947.20	3688956.60	0.00170

↗ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated ***
 06/19/19
 *** AERMET - VERSION 15181 *** *** ***
 19:51:39

PAGE 7

*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
ALL	1ST HIGHEST VALUE IS 0.00524 AT (482306.40, 3689197.10, 0.00, 0.00, 0.00) SR	
	2ND HIGHEST VALUE IS 0.00303 AT (482297.30, 3689358.40, 0.00, 0.00, 0.00) SR	
	3RD HIGHEST VALUE IS 0.00170 AT (481947.20, 3688956.60, 0.00, 0.00, 0.00) SR	

4TH HIGHEST VALUE IS	0.00125 AT (482252.70, 3689510.60,	0.00,	0.00,	0.00)	SR
5TH HIGHEST VALUE IS	0.00108 AT (482111.00, 3689621.90,	0.00,	0.00,	0.00)	SR
6TH HIGHEST VALUE IS	0.00037 AT (481954.80, 3689745.80,	0.00,	0.00,	0.00)	SR
7TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
8TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
9TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	
10TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00,	0.00,	0.00,	0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 18081 *** *** Construction DPM Mitigated
 06/19/19
 *** AERMET - VERSION 15181 *** ***
 19:51:39

PAGE 8
 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 3 Warning Message(s)
 A Total of 378 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 250 Calm Hours Identified

A Total of 128 Missing Hours Identified (1.46 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 76 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.40
 MX W403 76 PFLCNV: Turbulence data is being used w/o ADJ_U* option SigA Data
 MX W402 76 PFLCNV: Turbulence data being used with ADJ_U* w/o DFAULT Option

 *** AERMOD Finishes Successfully ***

ATTACHMENT D

Health Risk Calculations

Air Quality Health Risk Calculations (Worst-Case) Monosorbate Unmitigated							
From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)					0.173	
	Construction Start					12/1/2019	
	Construction Complete					12/29/2020	
	Days					394	
	Construction Emission per day (lb/day)					0.878172589	
	Annual Duration (Days)					365	
	Annualized Emission Rate (Grams/Second)					0.004604308	
	Project Site Size (Acres)					12.37	
	Project Site Size (meters^2)					50059.61395	
	Length of Smalles Side (meters)					223.7400589	
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)					9.20E-08	
From AERMOD	Concentration Annual (ug/M^3)					0.955	
Duration	Days		Days to years				
	458		1.254794521				
Age (Years)	3rd Trimester (0.25)		0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.955		0.955	0.955	0.955	0.955	0.955
Breathing Rate per agegroup BR/BW (Page 5-25)	361		1090	861	745	335	290
A (Default is 1)	1		1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96		0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001		0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00033096		0.00099931	0.00078936	0.00068302	0.00030713	0.00026587
Construction Days	458		1.254794521				
potency factor for Diesel	1.1		1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10		10	3	3	1	1
ED	0.25		1.254794521	1.254794521	1.254794521	1.254794521	1.254794521
AT	70		70	70	70	70	70
FAH	0.85		0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	1.10519E-05		0.000167489	3.36201E-05	2.90905E-05	4.42089E-06	3.82704E-06
Risk per million Exposed	11.05186029		167.4893846	33.62008181	29.09054698	4.420888183	3.827037531
Cancer Risk Per Million 9-years	212.16						
Cancer Risk Per Million 30-years	212.05						
Cancer Risk Per Million 70-years	211.46						

Air Quality Health Risk Calculations (Worst-Case) Monosorbate Mitigated						
From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)					0.00095
	Construction Start					12/1/2019
	Construction Complete					12/29/2020
	Days					394
	Construction Emission per day (lb/day)					0.004822335
	Annual Duration (Days)					365
	Annualized Emission Rate (Grams/Second)					2.52838E-05
	Project Site Size (Acres)					12.37
	Project Site Size (meters^2)					50059.61395
	Length of Smalles Side (meters)					223.7400589
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)					5.05E-10
From AERMOD	Concentration Annual (ug/M^3)					0.0056
Duration	Days		Days to years			
	458		1.254794521			
Age (Years)	3rd Trimester (0.25)		0-2	2-9	2-16	16-30
Cair (annual) - From F15	0.0056		0.0056	0.0056	0.0056	0.0056
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000194	0.00000586	0.00000463	0.00000401	0.00000180	0.00000156
Construction Days	458	1.254794521				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.254794521	1.254794521	1.254794521	1.254794521	1.254794521
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	6.48067E-08	9.82137E-07	1.97144E-07	1.70583E-07	2.59235E-08	2.24413E-08
Risk per million Exposed	0.06480672	0.982136706	0.197143935	0.170583312	0.025923533	0.022441267
Cancer Risk Per Million 9-years	1.24					
Cancer Risk Per Million 30-years	1.24					
Cancer Risk Per Million 70-years	1.24					

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ATTACHMENT E

San Diego Regional Water Quality Control Board – Water Discharge Permit



Water Boards



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Diego Regional Water Quality Control Board

July 15, 2019

Ms. Jade Work
Gird Valley INC
1492 Rainbow Valley Blvd.
Fallbrook, CA 92028
(Send via email to: jwork@integritygolf.us)

In reply refer to / attn:
859357:Ckomeylyan

Subject: Enrollment in Order No. R9-2019-0005, Waiver No. 4 – Discharges of Winery Process Water to Lined Evaporation Ponds at Small Wineries, Monserate Winery, Fallbrook, San Diego

Ms. Work:

This letter is to inform Gird Valley INC (Discharger) that the Monserate Winery¹ (Project) is enrolled in Waiver No. 4 – Discharges of Winery Process Water to Lined Evaporation Ponds at Small Wineries (Winery Pond Waiver). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) reviewed the Notice of Intent (NOI)² to enroll the Project in the Winery Pond Waiver and found the Project meets the enrollment eligibility criteria in Sections B and C of the waiver.

The NOI contains the operation plan for implementing best management practices for the management of solid wastes, storm water, and waste discharges. All solids will be removed from winery wastewater and retilled into site soils. All wastewater generated via the proposed process will be stored in an aerated 30-millimeter Polyvinyl Chloride lined pond.

The Discharger must ensure the discharge complies with the waiver conditions specified in Sections B and C of the Winery Pond Waiver. If for any reason these conditions cannot be met, please inform the San Diego Water Board and submit a Report of Waste Discharge (ROWD).³

¹ Located at 2757 Gird Rd, Fallbrook, CA 92028.

² NOI dated April 9, 2019.

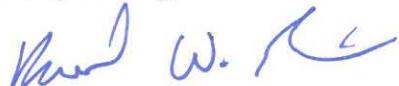
³ http://www.waterboards.ca.gov/sandiego/publications_forms/forms/docs/form200m.pdf

Please submit all future responses required by the Winery Pond Waiver to the San Diego Water Board by email to sandiego@waterboards.ca.gov.⁴ Email submittals must include a signed cover/transmittal letter with the facility name, facility contact information, and reference code **859357:CKomeylyan**. Routine email correspondence may be sent to individual San Diego Water Board staff members.

Documents larger than 50 megabytes must be transferred to a compact disk (CD) and mailed to the San Diego Water Board. Please ensure the files on the CD are not password protected. San Diego Water Board staff may request specific individual items, such as technical report appendices, large drawings, grading places, or maps be provided in paper format. If you have any questions about email submittal procedures, please contact our Mission Support Services staff by phone at (619) 516-1990.

In the subject line of any response, please include the reference code **859357:CKomeylyan**. Please contact Ms. Sherrie Komeylyan by phone at (619) 521-3366 or by email at Chehreh.Komeylyan@waterboards.ca.gov if you have any questions.

Respectfully,



David W. Gibson
Executive Officer

DWG:js:kd:jro:ck

cc (via email only): Ms. Jade Work, Gird Valley INC., jwork@integritygolf.us

Mr. John Odermatt, Regional Water Quality Control Board, San Diego Region, John.Odermatt@waterboards.ca.gov

Tech Staff Info & Use	
Reg. Measure ID	431976
Place ID	859357
Party ID	599407
Order No.	R9-2019-0005W4
PCA Code	12601
FI\$CAL	A32000

⁴ See public notification on electronic reporting on-line at:
http://www.waterboards.ca.gov/sandiego/docs/Electronic_Reportng_Sept2014.pdf