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# 12 Oaks Winery Resort Project

Greenhouse Gas Emissions Technical Report

November 2018

Prepared for:  
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La Mesa, CA 91942

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## LIST OF ACRONYMS

AB	Assembly Bill
ADT	average daily trip
BAU	business as usual
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emission Estimator Model
CALGreen Code	California Green Building Standards Code
CAP	Climate Action Plan
<del>CAPCOA</del>	<del>California Air Pollution Control Officers Association</del>
CARB	California Air Resources Board
CCAR	California Climate Action Registry
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
CH <sub>4</sub>	methane
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> -equivalent
EO	Executive Order
°F	Fahrenheit
GHG	greenhouse gas
GWP	global warming potential
HFCs	hydrofluorocarbons
HVAC	heating, ventilation, and air conditioning
IPCC	Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
MMT	million metric tons
mpg	miles per gallon
MPOs	Metropolitan Planning Organizations
MT	metric ton
N <sub>2</sub> O	nitrous oxide
NASA	National Aeronautics and Space Administration
NHTSA	National Highway Traffic Safety Administration
NOAA	National Oceanic and Atmospheric Administration

PFCs	perfluorocarbons
ppm	parts per million
RTP	Regional Transportation Plan
SB	Senate Bill
SBCAPCD	Santa Barbara County Air Pollution Control District
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF <sub>6</sub>	sulfur hexaflouride
TIA	Traffic Impact Analysis
USEPA	U.S. Environmental Protection Agency
VMT	vehicle miles traveled

## EXECUTIVE SUMMARY

This report presents an assessment of potential greenhouse gas (GHG) emission impacts associated with the 12 Oaks Winery Resort Project (Project). The Project proposes a winery resort consisting of a hotel, restaurant, winery, and residences on approximately 593 acres within the County of Riverside (County). The evaluation addresses the potential for GHG emission impacts during the construction and operation of the Project. Construction sources of GHG emissions include heavy construction equipment, worker vehicle miles traveled (VMT), and water use. Operational sources of GHG emissions sources include energy, transportation, water use, and solid waste.

The County of Riverside's Climate Action Plan (CAP; 2015) establishes a screening level threshold of 3,000 metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e) per year for mixed use projects. For projects that exceed this screening level, compliance with the CAP Screening Tables ~~or a reduction of 25 percent over the business as usual (BAU) scenario~~ must be demonstrated.

The Project would be required to comply with the 2016 Title 24 Energy Code; Assembly Bill (AB) 341, which requires 75 percent diversion of on-going operational waste through reuse and recycling; and the 2016 California Green Building Standards Code (CALGreen Code; CALGreen 2016), which requires 50 percent diversion of on-site construction waste and reduction of potable water use and wastewater generation by 20 percent. ~~The Project includes multiple land use types that work to minimize vehicle miles traveled (VMT) since trips between land use types are shorter and may be accommodated by non auto modes of transport. As such, mobile source emission estimates included the measure LUT 3, Increased Diversity, as described in the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures.~~

The Project-related construction activities are estimated to generate approximately 4,046 MT CO<sub>2</sub>e. Construction emissions are amortized over 30 years, such that the proposed construction activities would contribute an average of 135 MT per year of CO<sub>2</sub>e emissions. The Project-related operational and amortized construction GHG emissions are estimated to generate approximately 8,1229,481 MT CO<sub>2</sub>e per year. This represents a 30 percent reduction from the Business as Usual (BAU) emissions of 13,480 MT CO<sub>2</sub>e. Project emissions would exceed the GHG screening threshold of 3,000 MT CO<sub>2</sub>e established by the CAP. However, with adherence to the applicable emissions-reducing measures defined in CAP Screening Tables, the project would be consistent with the County CAP and result in a less than significant impact related to GHG emissions.

The Proposed Project is consistent with the goals of AB 32 and Senate Bill (SB) 32 and would not conflict with a statewide GHG plan. Thus, with the statewide and Project design measures identified in this report, cumulative impacts with respect to Project-related GHG emissions would be less than significant.

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## **1.0 INTRODUCTION**

This report presents an assessment of potential greenhouse gas (GHG) emission impacts associated with the proposed 12 Oaks Winery Resort Project (Project) proposed by Standard Portfolio Temecula, LLC (Project Applicant).

### **1.1 PROJECT LOCATION**

The Project consists of 11 parcels containing 1,099.3 acres of land in southwestern Riverside County, northeast of the City of Temecula, including Assessor's Parcel Numbers (APNs) 964-160-001 – 002, 964-160-004, 964-190-001 – 008 (project site). The project site is within the U.S. Geological Survey 7.5-minute Bachelor Mountain quadrangle map within Section 13, Township 7 South, Range 2 West.

The Project site is located approximately 4.5 miles east of the City of Temecula within the Wine Country Community Plan (WCCP) in Riverside County's jurisdiction. The project site is located along Rancho California Road, bound by Buck Road to the south, Warren Road to the east, and Borel Road to the north. Regional access to the Project site is provided via Rancho California Road/Buck Road and from Borel Road to the north of the site. The Project site is surrounded by vacant, undeveloped land, agricultural uses, and sparse single-family residential development. The Project site's location is shown in Figure 1, *Regional Location Map*; Figure 2, *Project Vicinity*; and Figure 3, *Site Plan*.

### **1.2 PROJECT DESCRIPTION**

The Project proposes to develop a winery resort and residences in three construction phases; refer to Figure 3, *Site Plan*. The first phase consists of a full-service hotel and winery. The proposed winery is considered a large-scale winery in terms of the WCCP and would be similar in size to the existing South Coast Winery. The winery would consist of a tasting room, wedding pavilion and event barn, administrative offices, wine production barn, and two barrel storage buildings. The resort hotel would contain 251 rooms in a three-story building. The hotel would also offer additional amenities such as a spa, restaurant, pools, fitness center and an event center for weddings and events.

The second phase would develop the Wine Village Estate, a 224.3-acre site with 21 residential lots. This phase would include a winery and community clubhouse, and would be located directly west of the winery resort. Each lot is approximately 10 acres. The third phase would develop the Wine Country Residential Subdivision, consisting of 76 single-family residences in the 172.4-acre western portion of the site.

Several roadway improvements are proposed as part of project. This includes the realignment and extension of the General Plan Circulation Element road, Rancho California Road, between Buck Road and Warren Road. Off-site road improvements include the realignment of Buck Road and Camino El Vino to accommodate environmental restoration and connection to existing roads adjacent to the site.

The hotel resort would be accessed from the extension of Rancho California Road while the winery access driveway would connect to the reconfigured intersection of Warren Road, Benton Road, and Rancho California Road. The Wine Village Estate Lots at the center of the project would access the site from the east via Warren Road and from the south via Buck Road. The Wine Village Estate Lot at the east end of the project would access from the east via Buck Road and from the west via a driveway off of the realigned Rancho California Road. The single-family homes would have two access points from Buck Road with additional emergency access through the estate lots. The project would also include six internal roadways within the residential portions of the site. These roadways would connect to the realigned and paved Buck Road to the south, and Warren Road to the east.

## **1.3 REGULATORY REQUIREMENTS AND PROJECT DESIGN FEATURES THAT REDUCE GHG EMISSIONS**

### **1.3.1 Regulatory Requirements**

#### **1.3.1.1 *Energy Efficiencies***

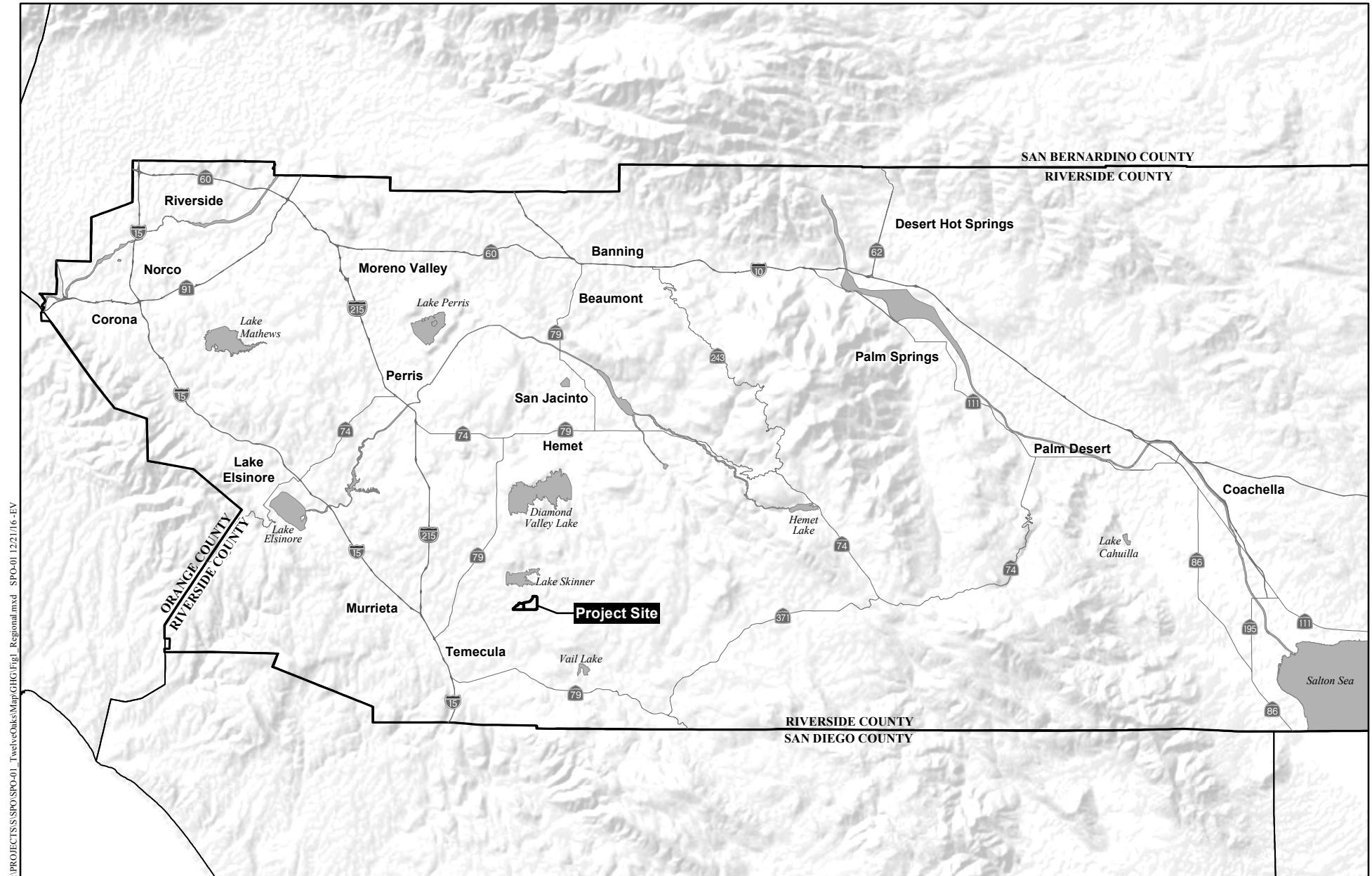
- The Project will be designed to meet current Title 24 energy efficiency standards. In accordance with the requirements of 2016 Title 24, the Project will:
  - Install ceiling, attic, and wall insulation,
  - Install window glazing,
  - Have the installation of all heating, ventilation, and air conditioning (HVAC) units verified by a third party, and
  - Include roof anchors and pre-wiring to allow for the installation of photovoltaic systems.

#### **1.3.1.2 *Water Conservation***

- In accordance with 2016 California Green Building Standards Code (CALGreen Code; 24 California Code of Regulations [CCR], Part 11) mandatory measures the Project will:
  - Reduce potable water use by 20 percent,
  - Install low-flow water fixtures,
  - Reduce wastewater generation by 20 percent,
  - Install low-flow bathroom fixtures, and
  - Install weather-based smart irrigation control systems.

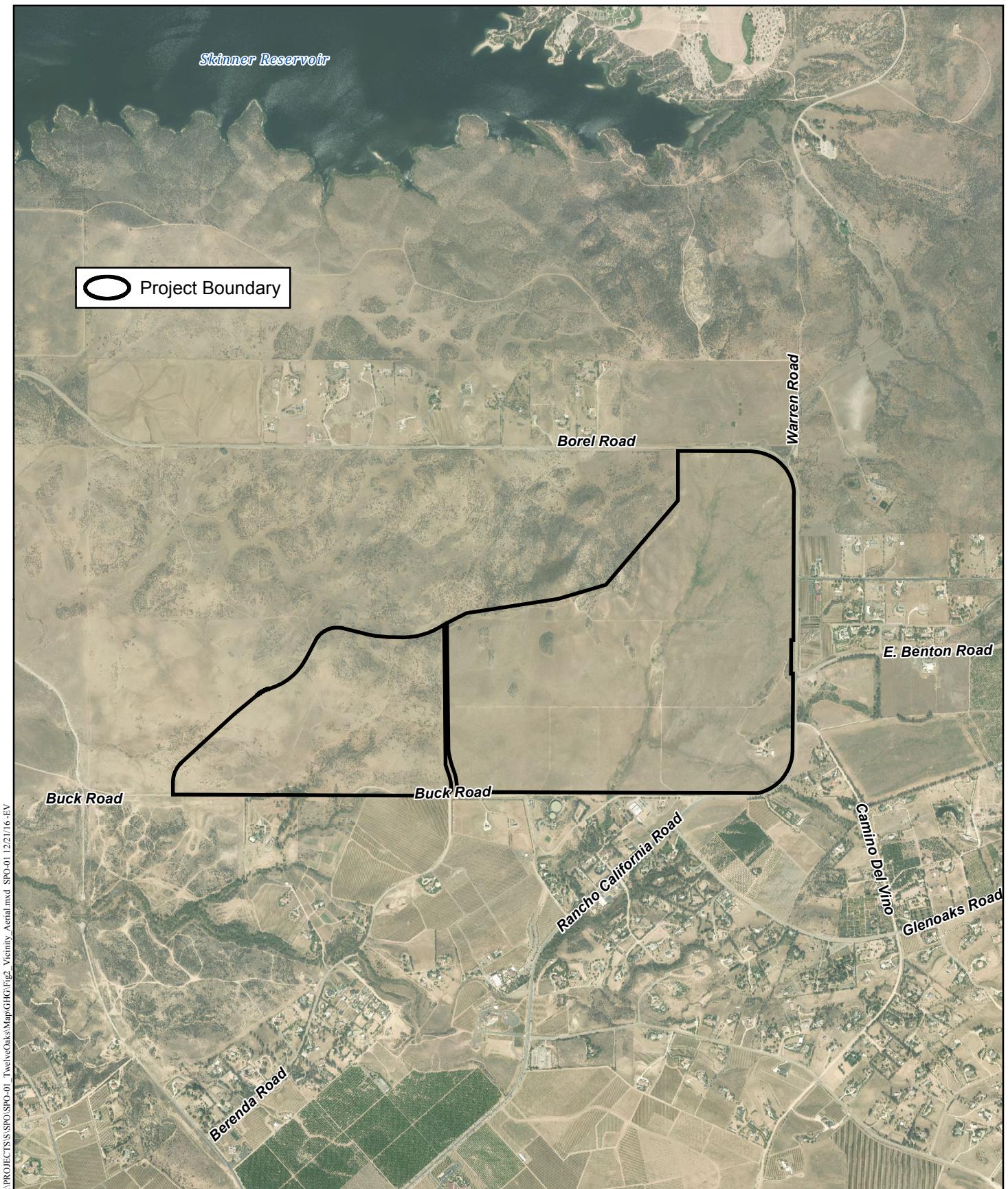
#### **1.3.1.3 *Solid Waste Reduction***

- In accordance with Assembly Bill (AB) 341, at least 75 percent of operational waste would be diverted from landfills through reuse and recycling.
- Provide areas for storage and collection of recyclables and yard waste in accordance with 2016 CALGreen Code.



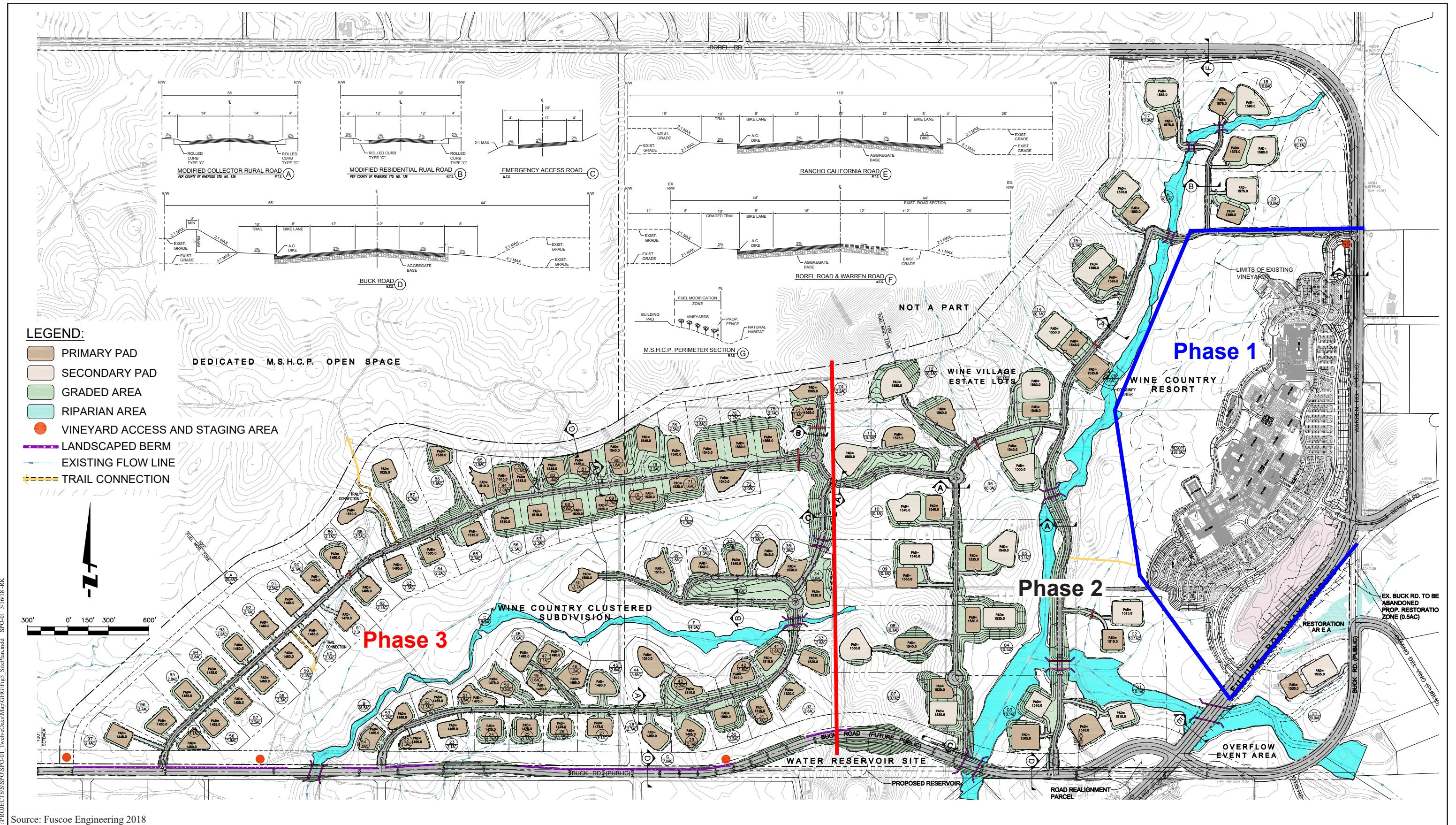
## Regional Location Map

12 OAKS WINERY RESORT



## Project Vicinity

12 OAKS WINERY RESORT



Source: Fuscoe Engineering 2018

## Site Plan

# 12 OAKS WINERY RESORT

### **1.3.2 Project Design FeaturesTrip Reduction**

The design of the Project includes mixed uses, specifically a hotel and a winery, that would result in internalization trip reductions—some hotel guests would also patronize the winery. The location of the project in an area with other wineries would result in pass-by trip reductions—some patrons visiting other area wineries would visit the Project during the same trip. According to the Transportation Impact Analysis for the Project, internalization would reduce hotel trip generation by 20 percent and pass-by would reduce winery trip generation by 33 percent (Fehr and Peers 2017).

#### **1.3.2.1 Vehicle Miles Traveled Reducing Features**

The Project would be built in such a way as to include features that work to minimize vehicle miles traveled (VMT). These include the following measure as described in the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*:

- **LUT-3 Increased Diversity** The Project includes multiple land use types. Having different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non auto modes of transport.

#### **1.3.2.21.3.3 Construction Best Management Practices**

The Project would require the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, and diesel particulate filters, as well as utilize California Air Resources Board (CARB)/U.S. Environmental Protection Agency (USEPA) Engine Certification Tier 3, or equivalent equipment.

## **1.4 CONSTRUCTION ACTIVITIES AND PHASING**

The Project would be completed in three phases, each phase consisting of various construction activities. Operation of Phase 1 is expected to commence by 2020, Phase 2 by 2020, and Phase 3 by 2022. Construction assumptions used in emissions modeling are briefly described below. Detailed assumptions and modeling spreadsheets are provided in Appendix A.

For modeling purposes, it was assumed that construction for Phase 1 would begin in August 2017, and would occur over a 30-month period. Phase 2 was assumed to begin in January 2018, and would occur over a 34-month period. Phase 3 was assumed to begin in May 2019, and would occur over a 42-month period. As discussed further below, some of the construction activities from different Project phases will overlap. All three Project phases consist of the following construction activities: site preparation, grading, underground utilities, building construction, paving, and architectural coating. Project cut and fill is expected to be balanced on site.

## **2.0 ENVIRONMENTAL SETTING**

### **2.1 CLIMATE CHANGE OVERVIEW**

Global climate change refers to changes in average climatic conditions on Earth, as a whole, including temperature, wind patterns, precipitation and storms. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. To measure climate change, scientists look at long-term trends. The temperature trend, including data through 2010, shows the climate has warmed by approximately 0.36 degree Fahrenheit (°F) per decade since the late 1970s (National Aeronautics and Space Administration [NASA] 2011).

Global temperatures are moderated by naturally occurring atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting light in but preventing heat from escaping. These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. The resulting balance between incoming solar radiation and outgoing radiation from both the Earth's surface and the atmosphere maintains the planet's habitability. The Earth's surface temperature averages about 58°F because of the greenhouse effect. Without it, the Earth's average surface temperature would be somewhere around an uninhabitable 0°F.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The statistical models show a “high confidence” that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations are stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (CO<sub>2</sub>e) by the year 2100 (IPCC 2014).

### **2.2 GREENHOUSE GASES**

The GHGs, as defined under California’s AB 32, include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Although water vapor is the most abundant and variable GHG in the atmosphere, it is not considered a pollutant; it maintains a climate necessary for life.

CO<sub>2</sub> is the most important and common anthropogenic GHG. CO<sub>2</sub> is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO<sub>2</sub> include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO<sub>2</sub> concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO<sub>2</sub> concentration in 2010 was 390 ppm, 39 percent above the concentration at the start of the Industrial Revolution (about 280 ppm in 1750). As of

November 2015, the CO<sub>2</sub> concentration exceeded 400 ppm (National Oceanic and Atmospheric Administration [NOAA] 2016).

CH<sub>4</sub> is a gas and is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

N<sub>2</sub>O is produced by both natural and human-related sources. N<sub>2</sub>O is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. Primary human-related sources of N<sub>2</sub>O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). Chlorofluorocarbons were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol.

SF<sub>6</sub> is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHGs to disperse around the globe. Because GHGs vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO<sub>2</sub>. For example, because methane and N<sub>2</sub>O are approximately 25 and 298 times more powerful than CO<sub>2</sub>, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO<sub>2</sub> has a GWP of 1). CO<sub>2</sub>e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO<sub>2</sub>e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 1, *Global Warming Potentials and Atmospheric Lifetimes*. As shown in the table, the GWP for common GHGs ranges from 1 (CO<sub>2</sub>) to 22,800 (SF<sub>6</sub>).

**Table 1**  
**GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO <sub>2</sub> )	50-200	1
Methane (CH <sub>4</sub> )	12	25
Nitrous Oxide (N <sub>2</sub> O)	114	298
HFC-134a	14	1,430
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	7,390
PFC: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000	12,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800

Source: IPCC 2007

HFC: hydrofluorocarbon; PFC: perfluorocarbon

## 2.3 REGULATORY FRAMEWORK

All levels of government have some responsibility for the protection of air quality, and each level (federal, state, and regional/local) has specific responsibilities relating to air quality regulation. GHG emissions and the regulation of GHGs is a relatively new component of air quality.

### 2.3.1 Federal

#### 2.3.1.1 *Federal Clean Air Act*

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* (USEPA) that CO<sub>2</sub> is an air pollutant, as defined under the Clean Air Act (CAA), and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, and SF<sub>6</sub>) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the USEPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the United States Department of Transportation's National Highway Traffic Safety Administration (NHTSA). The standards were established on April 1, 2010 for 2012 through 2016 model year vehicles and on October 15, 2012 for 2017 through 2025 model year vehicles (USEPA 2011; USEPA and NHTSA 2012).

#### 2.3.1.2 *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards*

The USEPA and the Department of Transportation's NHTSA worked together on a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The USEPA developed the first-ever national GHG emissions standards under the CAA, and the NHTSA developed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 250 grams per mile by 2016, decreasing to an

average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon (mpg), and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will be made through improvements in air conditioning leakage and the use of alternative refrigerants that would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined USEPA GHG standards and NHTSA CAFE standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other states that have adopted the California standards (USEPA 2011; USEPA and NHTSA 2012).

## **2.3.2 State**

### ***2.3.2.1 California Code of Regulations, Title 24, Part 6***

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2016 and went into effect on January 1, 2017.

### ***2.3.2.2 California Green Building Standards Code***

The CALGreen Code is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California.

The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

### **2.3.2.3 *Executive Order S-3-05***

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

### **2.3.2.4 *Assembly Bill 32 – Global Warming Solution Act of 2006***

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that the CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

### **2.3.2.5 *Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases***

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California’s enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013). In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2013).

### **2.3.2.6 *Assembly Bill 75***

AB 75 was passed in 1999 and mandates state agencies to develop and implement an integrated waste management plan to reduce GHG emissions related to solid waste disposal and diversion (recycling). In addition, the bill mandates that community service districts providing solid waste services report the disposal and diversion information to the appropriate city, county, or regional jurisdiction. Since 2004, the bill requires diversion of at least 50 percent of the solid waste from landfills and transformation facilities, and submission to the California Integrated Waste Management Board of an annual report describing the diversion rates.

### **2.3.2.7 *Assembly Bill 341***

The state legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the solid waste diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also

required to implement a recycling program. The final regulation was approved by the Office of Administrative Law (OAL) on May 7, 2012, and went into effect on July 1, 2012.

#### **2.3.2.8 *Executive Order S-01-07***

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs the CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

#### **2.3.2.9 *Senate Bill 375***

Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline California Environmental Quality Act (CEQA) processing.

#### **2.3.2.10 *Executive Order B-30-15***

On April 29, 2015, EO B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28-nation European Union. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

#### **2.3.2.11 *Senate Bill 32***

As a follow-up to AB 32 and in response to EO B-30-15, SB 32 was passed by the California legislature in August 2016 and signed by Governor Brown in September 2016 to codify the EO's California GHG reduction target of 40 percent below 1990 levels by 2030.

#### **2.3.2.12 *Assembly Bill 197***

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment of a legislative committee to make recommendations about CARB programs to the legislature.

### **2.3.2.13 California Air Resources Board: Scoping Plan**

On December 11, 2008, CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing VMT and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

The CARB released the First Update to the Climate Change Scoping Plan in May 2014 to provide information on the development of measure-specific regulations and to adjust projections in consideration of the economic recession (CARB 2014a). To determine the amount of GHG emission reductions needed to achieve the goal of AB 32 (i.e., 1990 levels by 2020) CARB developed a forecast of the AB 32 Baseline 2020 emissions, which is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. CARB estimated the AB 32 Baseline 2020 to be 509 million metric tons (MMT) of CO<sub>2</sub>e. The Scoping Plan's current estimate of the necessary GHG emission reductions is 78 MMT CO<sub>2</sub>e (CARB 2014b). This represents an approximately 15.32 percent reduction. The CARB is forecasting that this would be achieved through the following reductions by sector: 25 MMT CO<sub>2</sub>e for energy, 23 MMT CO<sub>2</sub>e for transportation, 5 MMT CO<sub>2</sub>e for high-GWP GHGs, and 2 MMT CO<sub>2</sub>e for waste. The remaining 23 MMT CO<sub>2</sub>e would be achieved through Cap-and-Trade Program reductions. This reduction is flexible—if CARB receives new information and changes the other sectors' reductions to be less than expected, the agency can increase the Cap-and-Trade reduction (and vice versa).

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target and, therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions. CARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2017 Climate Change Scoping Plan Update, Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target, was adopted by CARB in December 2017.

## **2.3.3 Local**

### **2.3.3.1 South Coast Air Quality Management District**

The Project is located in Riverside County, in the South Coast Air Basin (SCAB). Air quality in the non-desert portion of Riverside County is regulated by the South Coast Air Quality Management District (SCAQMD). As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, as well as cooperates actively with all federal and state government

agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. To date, the SCAQMD Governing Board has adopted an interim CEQA significance threshold for GHGs for industrial projects where the SCAQMD is the lead agency; the Board continues to consider screening levels under CEQA for residential, commercial, and mixed-use projects.

Beginning in April 2008, the SCAQMD convened a Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for industrial projects where the SCAQMD is the lead agency (SCAQMD 2008a). The interim screening threshold for industrial projects is 10,000 MT CO<sub>2</sub>e per year.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for a tiered threshold approach wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption; Tier 2 determines consistency with GHG reduction plans; and Tier 3 proposes a numerical screening value as a threshold. At its September 28, 2010, meeting, the Working Group suggested a Tier 3 threshold of 3,000 MT CO<sub>2</sub>e per year for all land use types (SCAQMD 2010).

This screening and mitigation proposal from the SCAQMD remains a work in progress; the Working Group has not convened since Fall 2010. As of January 2017, the proposal has not been considered or approved for use by the SCAQMD Board. In the meantime, no GHG significance thresholds are approved for use in the SCAB.

### **2.3.3.2 Riverside County**

#### **Climate Action Plan**

The County of Riverside has developed a Climate Action Plan (CAP) to address the issues of climate change as it relates to growth in the County, and to protect the environment for visitors and residents alike (Riverside County 2015). The Final CAP was unanimously adopted at the December 8, 2015 Board of Supervisors meeting. The plan will help reduce traffic congestion and solid waste generation, improve air quality, increase safety for pedestrians and cyclists, and encourage more efficient use of energy and water. Additionally, this CAP requires meaningful GHG reductions, in accordance with the guidelines of AB 32, the Governor's EO S-3-05, and CEQA guidelines, which will help improve the quality of life in the County. The implementation of the CAP will also help lead agencies to assess cumulative impacts of a project and provide a means for future projects to address GHG impacts under CEQA in accordance with the 2011 statement by the Attorney General. A lead agency may conclude that a project's GHG impact is not cumulatively significant if the project demonstrates consistency with this CAP (CEQA Guidelines Section 15183.5[h][3]).

Through the CAP, the County of Riverside has established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic

development and open space and natural habitats to further their commitment. Following the state's adopted AB 32 GHG reduction target, Riverside County has set a goal to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15 percent decrease from 2008 levels, as recommended in the AB 32 Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the proposed General Plan Update, are 12,129,497 MT CO<sub>2</sub>e. In order to reach the reduction target, Riverside County must offset this growth in emissions and reduce community-wide emissions to 5,960,998 MT CO<sub>2</sub>e by the year 2020. The development of the CAP coincides with Riverside County's General Plan Update. A community-wide emissions inventory is also calculated for the horizon year of 2035. The socioeconomic growth rates from the General Plan Update were used to estimate the 2035 emissions.

Various state policies have enacted programs that will also contribute to reduced GHG emissions in Riverside County by the year 2020. Some of these policies include updated building codes for energy efficiency, the low carbon fuel standard, Pavley vehicle emissions standards and the Renewables Portfolio Standard for utility companies. By supporting the state in the implementation of these measures, Riverside County will experience substantial GHG emissions reductions.

In order to reach the reduction target, the County of Riverside has included additional local reduction measures in the CAP which encourage energy efficiency and renewable energy in buildings, transit-oriented planning, water conservation and increased waste diversion.

## 3.0 METHODS AND SIGNIFICANCE CRITERIA

### 3.1 SIGNIFICANCE CRITERIA

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG impact is limited to cumulative impacts.

According to Appendix G of the CEQA Guidelines, the following criteria may be considered in evaluating the significance of GHG emissions:

**Threshold 1:** Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

**Threshold 2:** Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The County of Riverside's CAP establishes a screening level threshold of 3,000 MT CO<sub>2</sub>e per year for mixed-use projects. Appendix F, Greenhouse Gas Emissions Screening Tables, provides guidance on how to analyze GHG emissions and determine the significance of those emissions during CEQA review of proposed development projects within the County (Riverside County 2018). For projects that exceed this screening level threshold, compliance with the CAP Screening Tables ~~or a reduction of 25 percent over the business-as-usual (BAU) scenario~~ must be demonstrated. County guidance also recommends including construction emissions (amortized over a typical duration of 30 years) in the comparison to the screening threshold.

## 3.2 MODELING METHODS

GHG emissions from Project construction and operation are assessed using the California Emission Estimator Model (CalEEMod), Version 2016.3.42 (SCAQMD 2016). CalEEMod is a computer model developed by SCAQMD with the input of several air quality management and pollution control districts to estimate emissions from various urban land uses (SCAQMD 2016). CalEEMod has the ability to calculate both mobile (i.e., vehicular) and area source or stationary source emissions. CalEEMod allows land use selections that include project land use types, sizes, and metric specifics.

### 3.2.1 Construction Emission Assumptions

CalEEMod incorporates CARB's EMFAC2014 model for on-road vehicle emissions and the OFFROAD2011 model for off-road vehicle emissions (CARB 2015 and 2011). CalEEMod is designed to model construction emissions for land development projects and allows for the input of project-specific information, such as the number of equipment, hours of operations, duration of construction activities, and selection of emission control measures. The analysis assessed total annual emissions from individual construction activities, including site preparation, grading, building construction, paving, and architectural coating.

Construction would require heavy equipment during site preparation, mass grading, building construction, and paving. Construction equipment estimates are based on default values in CalEEMod and input from the Project Applicant. All off-road construction equipment would meet the minimum application of USEPA Tier 3 engines. Table 2, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

**Table 2**  
**CONSTRUCTION EQUIPMENT ASSUMPTIONS**

<b>Construction Phase</b>	<b>Equipment</b>	<b>Quantity</b>		
		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
Site Preparation	Rubber Tired Dozers	0	3	3
	Tractors/Loaders/Backhoes	4	4	4
Grading	Excavators	2	2	2
	Rubber Tired Dozers	1	1	1
	Graders	1	1	1
	Tractors/Loaders/Backhoes	2	2	2
	Scrapers	2	2	2
	Excavators	1	1	1
Underground Utilities	Tractors/Loaders/Backhoes	2	2	2
	Trenchers	1	1	1
	Cranes	1	1	1
Building Construction	Forklifts	3	3	3
	Generator Sets	1	1	1
	Tractors/Loaders/Backhoes	3	3	3
	Welders	1	1	1
	Pavers	2	2	2
Paving	Paving Equipment	2	2	2
	Rollers	2	2	2
	Architectural Coating	1	1	1

Source: CalEEMod (output data, including equipment horsepower, are provided in Appendix A).

The construction schedule was determined by using CalEEMod defaults, input from the Project Applicant, and standard assumptions for similarly sized projects, taking into consideration the size of the Project in order to estimate necessary construction activities and length of days per construction activity. For example, an underground utilities phase was added to the model to account for necessary Project trenching and utility installation. As shown in Table 3, *Anticipated Construction Schedule*, for modeling purposes, project development was assumed to start in August 2017 and end in December 2022.

The quantity, duration, and the intensity of construction activity have an effect on the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed, emissions could be reduced because of a more modern and cleaner-burning construction equipment fleet mix than incorporated in the CalEEMod. A complete listing of the assumptions used in the analysis and model output are provided in Appendix A of this report.

**Table 3**  
**ANTICIPATED CONSTRUCTION SCHEDULE**

Construction Activity	Construction Period		
	Start	End	Working Days
<b>Phase 1 – Winery and Hotel</b>			
Site Preparation	08/01/2017	08/21/2017	15
Grading	08/22/2017	12/21/2017	88
Underground Utilities	12/22/2017	08/21/2018	173
Building Construction	02/01/2018	11/30/2019	477
Architectural Coating	10/20/2019	05/15/2020	150
Paving	12/01/2019	02/21/2020	60
<b>Phase 2 – Winery Estates</b>			
Site Preparation	01/01/2018	01/12/2018	10
Grading	01/15/2018	04/06/2018	60
Underground Utilities	04/09/2018	09/21/2018	120
Building Construction	09/24/2018	09/25/2020	525
Architectural Coating	11/09/2020	12/18/2020	30
Paving	09/28/2020	11/06/2020	30
<b>Phase 3 – Single Family Residential Ranch Lots</b>			
Site Preparation	05/06/2019	05/24/2019	15
Grading	05/25/2019	11/22/2019	130
Underground Utilities	11/25/2019	09/25/2020	220
Building Construction	09/28/2020	10/07/2022	530
Architectural Coating	11/21/2022	12/30/2022	30
Paving	10/10/2022	11/18/2022	30

Source: CalEEMod (output data, including equipment horsepower, are provided in Appendix A).

### 3.2.2 Operational Emission Assumptions

Operational GHG emissions for the proposed Project are estimated by including purchased electricity; natural gas use for space, and water heating, and fireplaces; the electricity embodied in water consumption; the energy associated with solid waste disposal; and mobile source emissions. CalEEMod incorporates local energy emission factors. Per the SCAQMD Rule 445, no wood-burning devices (e.g., fireplaces and woodstoves) shall be permanently installed into any new development (SCAQMD 2008b). Any fireplaces installed in project buildings are assumed to use natural gas and mitigation measures based on the CAPCOA's publication Quantifying Greenhouse Gas Mitigation Measures (CAPCOA 2010) and the California Climate Action Registry General Reporting Protocol (CCAR 2009).

Operational emissions from mobile source emissions are associated with Project-related vehicle trip generation. Based on the Traffic Impact Analysis (TIA; Fehr and Peers 2017), at full buildout the Project would generate 4,082 average daily trips (ADTs) on the weekdays and 4,847 ADTs on the weekends. The Project would be built in such a way as to include features that work to minimize VMT. Mobile source emissions modeling for the project accounts for the internalization trip reduction of 20 percent for the hotel and the 33 percent pass-by trip reduction for the winery, as identified in the TIA. The Project includes multiple land use types. Having different types of land uses near one another can decrease VMT since trips between land use

~~types are shorter and may be accommodated by non auto modes of transport. As such, mobile source emission estimates included the measure LUT 3, Increased Diversity, as described in the CAPCOA Quantifying Greenhouse Gas Mitigation Measures.~~

CalEEMod default motor vehicle emission rates are based on CARB's EMFAC state-wide emission factors for the Riverside County region which are incorporated into CalEEMod. Default vehicle speeds, trip lengths, trip purpose, and trip type percentages were used. Model output data sheets are included in Appendix A.

Emissions of CO<sub>2</sub> occur during the fermentation and aging/storage step in the wine making process. Emissions associated with wine production were estimated using the Santa Barbara County Air Pollution Control District's *Winery CO<sub>2</sub> Calculations* methodology (SBCAPCD 2007). The methodology provides an emission factor based on annual wine production. It is expected that the Project will produce up to 50,000 cases of wine annually.

### **3.2.3 Business as Usual Assumptions**

A Business as Usual (BAU) scenario is a project's theoretical GHG emissions assuming buildout and operation of the project in a baseline year without accounting for any project-specific GHG reducing design features or mitigations, and without accounting for any regulatory reduction measures (such as building energy requirements or vehicle emissions requirements) that would take effect past the baseline year. A BAU analysis compares the project's BAU scenario GHG emissions with the project's estimated emissions in a future year, accounting for all anticipated GHG reduction mitigation and regulatory measures that would apply to the project. For the project, a baseline year of 2011 was used for the BAU scenario in accordance with the County of Riverside CAP Appendix F (Riverside County 2018). Modeling of the BAU scenario assumes building energy efficiency requirements per the California 2010 Title 24 and vehicle emissions for Riverside County in 2011. The BAU scenario model does not include the internalization and pass-by trip reductions, or water and solid waste reduction programs implemented since 2011.

## **4.0 PROJECT IMPACT ANALYSIS**

This section evaluates potential direct impacts of the proposed Project related to GHG emissions.

### **4.1 DIRECT AND INDIRECT EMISSIONS OF GREENHOUSE GASES**

#### **4.1.1 Construction**

This Project's construction emissions were estimated using the CalEEMod model as described in Section 3.2, *Modeling Methods*. Project-specific input was based on general information provided in Section 1.0, *Introduction*, and default model settings to estimate reasonable worst-case conditions as described in Section 3.2.1, *Construction Emission Assumptions*. Additional details of phasing, selection of construction equipment, areas to be paved, and other input parameters, including CalEEMod data, are included in Appendix A.

GHG emissions would be associated with the construction phases of the Project through use of heavy equipment and vehicle trips by the construction crew commuting to the Project site (see Tables 2 and 3 for construction phases and anticipated equipment). Emissions of GHGs related to the construction of the Project would be temporary. As shown in Table 4, *Estimated Construction Emissions*, based on emission estimates from CalEEMod for heavy construction equipment, total GHG emissions associated with construction are estimated at 4,046 MT CO<sub>2</sub>e for the duration of construction.

<b>Table 4</b> <b>ESTIMATED CONSTRUCTION EMISSIONS</b>	
<b>Year</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
<b>Phase 1 – Winery and Hotel</b>	
2017	278
2018	748
2019	657
2020	67
<b>Phase 1 Total</b>	<b>1,750</b>
<b>Phase 2 – Winery Estates</b>	
2018	372
2019	324
2020	272
<b>Phase 2 Total</b>	<b>968</b>
<b>Phase 3 – Single Family Residential Ranch Lots</b>	
2019	424
2020	231
2021	361
2022	312
<b>Phase 3 Total</b>	<b>1,328</b>
<b>Total Emissions<sup>1</sup></b>	<b>4,046</b>
<b>Amortized Construction Emissions<sup>2</sup></b>	<b>135</b>

Source: CalEEMod (output data is provided in Appendix A).

<sup>1</sup> The total presented is the sum of the unrounded values.

<sup>2</sup> Construction emissions are amortized over 30 years in accordance with County guidance.

Per County guidance, construction emissions are amortized over 30 years, such that the proposed construction activities would contribute an average of 135 MT per year of CO<sub>2</sub>e emissions.

#### 4.1.2 Operation

Evaluation of operational emissions is analyzed based on the increase of emissions from the proposed Project, as discussed in Section 3.1, *Methodology*, and Section 3.2.2, *Operational Emission Assumptions*. As illustrated in Table 5, *Project Buildout Operation Emissions*, the total annual operational emissions related to the Project would be 8,1229,472 MT CO<sub>2</sub>e per year. This value is more than the County CAP's 3,000 MT CO<sub>2</sub>e per year screening threshold.

**Table 5**  
**PROJECT BUILDOUT**  
**OPERATION EMISSIONS**

Source	Emissions (MT CO <sub>2</sub> e)
Area	3223
Energy	3,093
Mobile	<u>3,9475,305</u>
Waste	39
Water	829
Wine Fermentation and Aging	48
<i>Operational Subtotal</i>	<u>7,9879,337</u>
Amortized Construction	135
<b>TOTAL</b>	<b>8,1229.472</b>

Source: CalEEMod (output data are provided in Appendix A).

For projects that exceed the screening threshold, a less than significant impact can be determined through the completion an additional screening table. The purpose of the screening table is to provide guidance in measuring the reduction of GHG emissions attributable to design and construction measures incorporated into the project. The table assigns points for each project design feature or mitigation measure. Projects that garner a total of 100 points or greater would be determined to have a less than significant individual and cumulative impact for GHG emissions. The Project Applicant completed the Screening Table for GHG Implementation Measures, with a total of 162-156 points earned for residential uses and 138 points earned for commercial uses. The measures included as part of project design and their associated point values are shown in Table 6, *Screening Table Project Measures for Residential Development*, and Table 7, *Screening Table Project Measures for Commercial Development*. The full tables can be found in Appendix B. The increase in GHG emissions would therefore not be cumulatively considerable, and the impact would be less than significant.

**Table 6**  
**SCREENING TABLE PROJECT MEASURES**  
**FOR RESIDENTIAL DEVELOPMENT**

Feature	Description	Project Points
Insulation	Modestly Enhanced Insulation (walls R-13; roof/attic R-38)	12
Windows	Modestly Enhanced Window (0.4 U-Factor, 0.32 SHGC)	6
Cool Roofs	Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance)	12
Air Infiltration	Air barrier applied to exterior walls, caulking, and visual inspection such as the HERS Verified Quality Insulation installation (QII or equivalent)	10
Thermal Storage of Building	Modest Thermal Mass (10% of floor area or 10% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	2
Heating/Cooling Distribution System	Modest Duct Insulation (R-6)	7

**Table 6 (cont.)**  
**SCREENING TABLE PROJECT MEASURES**  
**FOR RESIDENTIAL DEVELOPMENT**

<b>Feature</b>	<b>Description</b>	<b>Project Points</b>
Space Heating/Cooling Equipment	High Efficiency HVAC (SEER 15/72% AFUE or 8.5 HSPF)	7
Water Heaters	High Efficiency Water heater (0.72 Energy Factor)	15
Daylighting	All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.)	1
Artificial Lighting	Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15-watt or less fixtures; 50 lumens/watt for 15-40-watt fixtures, 60 lumens/watt for fixtures >40 watts)	8
Appliances	Energy Star refrigerator, dishwasher, and washing machine	3
Shading	At least 90% of south facing glazing will be shaded by vegetation or overhangs on June 21	4
Energy Star Homes	EPA Energy Star for Homes (version 3 or above)	25
Photovoltaic	Solar ready homes (sturdy roof and electric hookups)	2
Water Efficient Landscaping	Only California native plants that require no irrigation or some supplemental irrigation	8
Water Efficient Irrigation Systems	Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	3
Showers	Water efficient showerheads (2.0 gpm)	3
Toilets	Water efficient toilets (1.5 gpm)	3
Faucets	Water efficient faucets (1.28 gpm)	3
Dishwasher	Water efficient dishwasher (6 gallons per cycle or less)	1
Washing Machine	Water efficient washing machine (water factor <5.5)	1
Recycled Water	5% of the total project's water use comes from recycled/reclaimed water	5
Sidewalks	Provide pedestrian linkage between residential and commercial uses within 1 mile	3
Bicycle paths	Provide bicycle path linkages between residential and other land uses	2
Electric vehicle recharging	Install electric vehicle charging stations in the garages of residential units	8
Landscape equipment	Electric lawn equipment is available. Project provides outlets on the exterior of all building walls so that electric landscaping equipment is compatible with all built facilities.	82
<b>TOTAL POINTS</b>		<b>162156</b>

Source: Full screening table is provided in Appendix B

**Table 7**  
**SCREENING TABLE PROJECT MEASURES**  
**FOR COMMERCIAL DEVELOPMENT**

<b>Feature</b>	<b>Description</b>	<b>Project Points</b>
Insulation	Modestly Enhanced Insulation (walls R-13; roof/attic R-38)	15
Windows	Enhanced Window Insulation (15% > title 24)	8
Cool Roofs	Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	12
Air Infiltration	Reduced Building Envelope Leakage (15% > title 24)	8
Heating/Cooling Distribution System	Modest Duct Insulation (R-6)	8
Space Heating/Cooling Equipment	Improved Efficiency HVAC (EER 14/65% AFUE or 8 HSPF)	7
Water Heaters	Improved Efficiency Water heater (0.675 energy factor)	14
Daylighting	All peripheral rooms within building have at least one window or skylight	1
Artificial Lighting	Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15-watt or less fixtures; 50 lumens/watt for 15-40-watt fixtures, 60 lumens/watt for fixtures >40 watts)	9
Appliances	Energy Star refrigerator and dishwasher	8
Shading	At least 90% of south facing glazing will be shaded by vegetation or overhangs on June 21.	6
Photovoltaic	Solar Ready Roofs (sturdy roof and electric hookups)	2
Water Efficient Landscaping	Eliminate turf and only provide drought tolerant plants	4
Water Efficient Irrigation Systems	Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	5
Showers	Water efficient showerheads (2.0 gpm)	3
Toilets	Water efficient toilets (1.5 gpm)	3
Faucets	Water efficient faucets (1.28 gpm)	3
Recycled Water	Graywater (purple pipe) irrigation system on site	5
Employee bicycle/ pedestrian programs	Bike lockers and secure racks; showers and changing facilities	3
Parking	Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles	1
Electric vehicle recharging	Install electric vehicle charging stations in garages/parking areas	8
Recycling	Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up	2
Recycling of Construction/ Demolition Debris	Recycle 10% of debris	3
<b>TOTAL POINTS</b>		138

Source: Full screening table is provided in Appendix B

#### **4.1.3 Business As Usual**

For the Project, the significance of GHG emissions was determined through use of the screening tables, as described in subsection 4.1.2, above. A BAU analysis of the Project's GHG emissions is provided here for informational purposes. As shown in Table 8, *Business as Usual Operation Emissions*, the total annual operational emissions related to the BAU scenario for the baseline year of 2011 would be 13,345 MT CO<sub>2</sub>e per year.

<b><u>Table 8</u></b> <b><u>BUSINESS AS USUAL OPERATION EMISSIONS</u></b>	
<u>Source</u>	<u>Emissions (MT CO<sub>2</sub>e)</u>
Area	<u>23</u>
Energy	<u>3,190</u>
Mobile	<u>8,894</u>
Waste	<u>154</u>
Water	<u>1,036</u>
Wine Fermentation and Aging	<u>48</u>
<b>Total</b>	<b><u>13,345</u></b>

Source: CalEEMod (output data are provided in Appendix A).

Table 9, *Business as Usual Comparison*, compares the BAU scenario GHG emissions with the estimated GHG emissions at project buildout shown in subsection 4.1.2, above. As shown in Table 8, the Project operation emissions at buildout would be 30 percent lower than the 2011 BAU scenario. This exceeds the CAP's 25 percent reduction target.

<b><u>Table 9</u></b> <b><u>BUSINESS AS USUAL COMPARISON</u></b>	
<u>Source</u>	<u>Emissions (MT CO<sub>2</sub>e)</u>
BAU Emissions	<u>13,345</u>
Amortized Construction	<u>135</u>
<b>Total BAU Emissions</b>	<b><u>13,480</u></b>
Project Emissions	<u>9,337</u>
Amortized Construction	<u>135</u>
<b>Total Project Emissions</b>	<b><u>9,472</u></b>
<b>Percent Reduction from BAU</b>	<b><u>30%</u></b>

Source: CalEEMod (output data are provided in Appendix A).

#### **4.2 CONSISTENCY WITH LOCAL PLANS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS**

There are numerous state plans, policies and regulations adopted for the purpose of reducing GHG emissions. The principal overall state plan and policy is AB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. Statewide plans and regulations such as GHG emissions standards for

vehicles (AB 1493), the Low Carbon Fuel Standard, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed Project does not conflict with those plans and regulations.

As previously discussed, the County CAP applies a screening threshold of 3,000 MTCO<sub>2</sub>e per year to comply with the reduction goals of AB 32. The proposed project's increase in GHG emissions would be greater than the County's screening threshold; therefore, the additional GHG screening tables were applied to this analysis. With adherence to the applicable emissions-reducing measures defined in these tables, the project would be consistent with the County CAP. Implementation of the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This would represent a less than significant impact.

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## **6.0 LIST OF PREPARERS**

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## Appendix A

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### CalEEMod Output

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**12 Oaks Phase 1 - Winery and Hotel**  
**Riverside-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	33.40	1000sqft	0.77	33,402.00	0
Arena	54.45	1000sqft	15.25	54,446.00	0
Hotel	251.00	Room	8.37	237,927.00	0
Regional Shopping Center	26.64	1000sqft	0.61	26,641.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

## Project Characteristics -

Land Use - 251 rm hotel, 33k sqft winery, 54k sqft event center, 26k sqft marketplace on 25 acres

Construction Phase - Assumptions provided by Project Applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumptions provided by Project Applicant

Off-road Equipment - Assumptions provided by Project Applicant

Grading -

Vehicle Trips - Fehr&Peers2016

Water And Wastewater - The Maximum Allowable Water Allowance (MAWA) for the site is 153,125,094 gallons/year

Construction Off-road Equipment Mitigation - Rule 403

Energy Mitigation - CalEEMod default is 2008 T24. 2013 is 25% improved over 2008. 2016 is 28% improved over 2013.  $(1-25)*(1-28)=54\% - 46\%$  improvement

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	370.00	477.00
tblConstructionPhase	NumDays	35.00	88.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	15.00
tblFleetMix	FleetMixLandUseSubType	General Light Industry	Arena

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

tblFleetMix	FleetMixLandUseSubType	Arena	General Light Industry
tblLandUse	BuildingSpaceSquareFeet	33,400.00	33,402.00
tblLandUse	BuildingSpaceSquareFeet	54,450.00	54,446.00
tblLandUse	BuildingSpaceSquareFeet	364,452.00	237,927.00
tblLandUse	BuildingSpaceSquareFeet	26,640.00	26,641.00
tblLandUse	LandUseSquareFeet	33,400.00	33,402.00
tblLandUse	LandUseSquareFeet	54,450.00	54,446.00
tblLandUse	LandUseSquareFeet	364,452.00	237,927.00
tblLandUse	LandUseSquareFeet	26,640.00	26,641.00
tblLandUse	LotAcreage	17.50	15.25
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	8.19	6.69
tblVehicleTrips	ST_TR	49.97	57.43
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	5.95	6.69
tblVehicleTrips	SU_TR	25.24	57.43
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	8.17	5.69
tblVehicleTrips	WD_TR	42.70	38.29
tblWater	IndoorWaterUseRate	23,455,432.90	0.00
tblWater	OutdoorWaterUseRate	1,497,155.29	0.00
tblWater	OutdoorWaterUseRate	0.00	153,125,094.00

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

tblWater	OutdoorWaterUseRate	707,451.03	0.00
tblWater	OutdoorWaterUseRate	1,209,437.02	0.00

## 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					
2017	0.2729	3.1291	1.8583	2.9800e-003	0.3925	0.1452	0.5376	0.1611	0.1336	0.2947	0.0000	275.9650	275.9650	0.0818	0.0000	278.0110
2018	0.5493	4.7465	3.9172	8.2000e-003	0.2424	0.2563	0.4987	0.0654	0.2396	0.3050	0.0000	744.6505	744.6505	0.1247	0.0000	747.7689
2019	0.9855	3.6002	3.1118	7.2600e-003	0.2443	0.1738	0.4182	0.0659	0.1635	0.2294	0.0000	655.0035	655.0035	0.0955	0.0000	657.3908
2020	1.1127	0.3553	0.4268	7.5000e-004	0.0188	0.0199	0.0386	4.9800e-003	0.0187	0.0237	0.0000	66.2528	66.2528	0.0137	0.0000	66.5945
Maximum	1.1127	4.7465	3.9172	8.2000e-003	0.3925	0.2563	0.5376	0.1611	0.2396	0.3050	0.0000	744.6505	744.6505	0.1247	0.0000	747.7689

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**2.1 Overall Construction****Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	tons/yr											MT/yr					
2017	0.0763	1.3991	1.7670	2.9800e-003	0.1826	0.0624	0.2449	0.0741	0.0624	0.1365	0.0000	275.9647	275.9647	0.0818	0.0000	278.0107	
2018	0.2345	3.2707	3.9978	8.2000e-003	0.2424	0.1571	0.3995	0.0654	0.1567	0.2221	0.0000	744.6500	744.6500	0.1247	0.0000	747.7684	
2019	0.7686	2.7254	3.2254	7.2600e-003	0.2443	0.1244	0.3688	0.0659	0.1241	0.1900	0.0000	655.0031	655.0031	0.0955	0.0000	657.3905	
2020	1.0886	0.2866	0.4771	7.5000e-004	0.0188	0.0164	0.0351	4.9800e-003	0.0163	0.0213	0.0000	66.2528	66.2528	0.0137	0.0000	66.5945	
Maximum	1.0886	3.2707	3.9978	8.2000e-003	0.2443	0.1571	0.3995	0.0741	0.1567	0.2221	0.0000	744.6500	744.6500	0.1247	0.0000	747.7684	

	ROG	NOx	CO	SO2	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	25.76	35.07	-1.64	0.00	23.37	39.47	29.79	29.27	35.29	33.19	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2017	10-31-2017	1.9758	0.8595
2	11-1-2017	1-31-2018	1.3462	0.5778
3	2-1-2018	4-30-2018	1.1049	0.7499
4	5-1-2018	7-31-2018	1.1421	0.7751
5	8-1-2018	10-31-2018	1.1421	0.7751
6	11-1-2018	1-31-2019	1.1062	0.7684
7	2-1-2019	4-30-2019	1.0019	0.7304
8	5-1-2019	7-31-2019	1.0358	0.7552

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

9	8-1-2019	10-31-2019	1.1392	0.8556
10	11-1-2019	1-31-2020	1.4871	1.2819
11	2-1-2020	4-30-2020	0.8861	0.8430
12	5-1-2020	7-31-2020	0.1283	0.1255
		Highest	1.9758	1.2819

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4373	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-003
Energy	0.0931	0.8463	0.7109	5.0800e-003		0.0643	0.0643		0.0643	0.0643	0.0000	2,731.1859	2,731.1859	0.0924	0.0324	2,743.1356
Mobile	0.8689	6.9554	9.2464	0.0340	2.3296	0.0372	2.3667	0.6243	0.0351	0.6594	0.0000	3,143.1677	3,143.1677	0.2043	0.0000	3,148.2752
Waste						0.0000	0.0000		0.0000	0.0000	42.2851	0.0000	42.2851	2.4990	0.0000	104.7594
Water						0.0000	0.0000		0.0000	0.0000	5.0964	608.6913	613.7877	0.5486	0.0176	632.7348
<b>Total</b>	<b>2.3992</b>	<b>7.8017</b>	<b>9.9620</b>	<b>0.0390</b>	<b>2.3296</b>	<b>0.1015</b>	<b>2.4311</b>	<b>0.6243</b>	<b>0.0994</b>	<b>0.7237</b>	<b>47.3815</b>	<b>6,483.0540</b>	<b>6,530.4355</b>	<b>3.3443</b>	<b>0.0499</b>	<b>6,628.9147</b>

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**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	1.4373	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-003	
Energy	0.0569	0.5172	0.4344	3.1000e-003		0.0393	0.0393		0.0393	0.0393	0.0000	2,087.6467	2,087.6467	0.0737	0.0233	2,096.4469	
Mobile	0.8689	6.9554	9.2464	0.0340	2.3296	0.0372	2.3667	0.6243	0.0351	0.6594	0.0000	3,143.1677	3,143.1677	0.2043	0.0000	3,148.2752	
Waste						0.0000	0.0000		0.0000	0.0000	10.5713	0.0000	10.5713	0.6247	0.0000	26.1899	
Water						0.0000	0.0000		0.0000	0.0000	4.0771	595.3621	599.4392	0.4433	0.0150	614.9847	
<b>Total</b>	<b>2.3630</b>	<b>7.4726</b>	<b>9.6855</b>	<b>0.0371</b>	<b>2.3296</b>	<b>0.0765</b>	<b>2.4061</b>	<b>0.6243</b>	<b>0.0744</b>	<b>0.6987</b>	<b>14.6484</b>	<b>5,826.1856</b>	<b>5,840.8340</b>	<b>1.3461</b>	<b>0.0383</b>	<b>5,885.9063</b>	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.51	4.22	2.78	5.07	0.00	24.64	1.03	0.00	25.15	3.46	69.08	10.13	10.56	59.75	23.24	11.21

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days	Week	Phase Description
1	Site Preparation	Site Preparation	8/1/2017	8/21/2017	5	15	
2	Grading	Grading	8/22/2017	12/21/2017	5	88	
3	Underground Utilities	Trenching	12/22/2017	8/21/2018	5	173	
4	Building Construction	Building Construction	2/1/2018	11/30/2019	5	477	
5	Architectural Coating	Architectural Coating	10/20/2019	5/15/2020	5	150	
6	Paving	Paving	12/1/2019	2/21/2020	5	60	

Acres of Grading (Grading Phase): 220

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 528,624; Non-Residential Outdoor: 176,208; Striped Parking Area: 0  
 Architectural Coating - sqft)

Offroad Equipment

(Architectural Coating - sqft)

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## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Trenchers	1	8.00	78	0.50

Trips and VMT

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	145.00	58.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

**3.2 Site Preparation - 2017****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-003	0.0913	0.0718	9.0000e-005		6.8700e-003	6.8700e-003		6.3200e-003	6.3200e-003	0.0000	8.6618	8.6618	2.6500e-003	0.0000	8.7281
Total	9.5000e-003	0.0913	0.0718	9.0000e-005	0.0000	6.8700e-003	6.8700e-003	0.0000	6.3200e-003	6.3200e-003	0.0000	8.6618	8.6618	2.6500e-003	0.0000	8.7281

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**3.2 Site Preparation - 2017****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	4.5000e-004	3.5000e-004	3.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7562	0.7562	2.0000e-005	0.0000	0.7568	
Total	4.5000e-004	3.5000e-004	3.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7562	0.7562	2.0000e-005	0.0000	0.7568	

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.2800e-003	0.0520	0.0703	9.0000e-005	0.0000	3.6500e-003	3.6500e-003	3.6500e-003	3.6500e-003	0.0000	8.6617	8.6617	2.6500e-003	0.0000	8.7281		
Total	2.2800e-003	0.0520	0.0703	9.0000e-005	0.0000	3.6500e-003	3.6500e-003	0.0000	3.6500e-003	3.6500e-003	0.0000	8.6617	8.6617	2.6500e-003	0.0000	8.7281	

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**3.2 Site Preparation - 2017****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	4.5000e-004	3.5000e-004	3.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7562	0.7562	2.0000e-005	0.0000	0.7568	
Total	4.5000e-004	3.5000e-004	3.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7562	0.7562	2.0000e-005	0.0000	0.7568	

**3.3 Grading - 2017****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					0.3816	0.0000	0.3816	0.1583	0.0000	0.1583	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2529	2.9893	1.7064	2.7300e-003	0.1352	0.1352		0.1244	0.1244	0.0000	253.2633	253.2633	0.0776	0.0000	255.2033	
Total	0.2529	2.9893	1.7064	2.7300e-003	0.3816	0.1352	0.5168	0.1583	0.1244	0.2826	0.0000	253.2633	253.2633	0.0776	0.0000	255.2033

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**3.3 Grading - 2017****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	5.3100e-003	4.1400e-003	0.0424	1.0000e-004	9.6700e-003	6.0000e-005	9.7400e-003	2.5700e-003	6.0000e-005	2.6300e-003	0.0000	8.8726	8.8726	2.9000e-004	0.0000	8.8799	
Total	5.3100e-003	4.1400e-003	0.0424	1.0000e-004	9.6700e-003	6.0000e-005	9.7400e-003	2.5700e-003	6.0000e-005	2.6300e-003	0.0000	8.8726	8.8726	2.9000e-004	0.0000	8.8799	

**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					0.1717	0.0000	0.1717	0.0712	0.0000	0.0712	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0670	1.3190	1.6158	2.7300e-003		0.0572	0.0572		0.0572	0.0572	0.0000	253.2630	253.2630	0.0776	0.0000	255.2030	
Total	0.0670	1.3190	1.6158	2.7300e-003	0.1717	0.0572	0.2289	0.0712	0.0572	0.1284	0.0000	253.2630	253.2630	0.0776	0.0000	255.2030	

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**3.3 Grading - 2017****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	5.3100e-003	4.1400e-003	0.0424	1.0000e-004	9.6700e-003	6.0000e-005	9.7400e-003	2.5700e-003	6.0000e-005	2.6300e-003	0.0000	8.8726	8.8726	2.9000e-004	0.0000	8.8799	
Total	5.3100e-003	4.1400e-003	0.0424	1.0000e-004	9.6700e-003	6.0000e-005	9.7400e-003	2.5700e-003	6.0000e-005	2.6300e-003	0.0000	8.8726	8.8726	2.9000e-004	0.0000	8.8799	

**3.4 Underground Utilities - 2017****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	4.5300e-003	0.0438	0.0326	4.0000e-005		3.0300e-003	3.0300e-003		2.7900e-003	2.7900e-003	0.0000	4.1088	4.1088	1.2600e-003	0.0000	4.1403	
Total	4.5300e-003	0.0438	0.0326	4.0000e-005		3.0300e-003	3.0300e-003		2.7900e-003	2.7900e-003	0.0000	4.1088	4.1088	1.2600e-003	0.0000	4.1403	

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**3.4 Underground Utilities - 2017****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	1.8000e-004	1.4000e-004	1.4500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027	
Total	1.8000e-004	1.4000e-004	1.4500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027	

**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	1.0800e-003	0.0234	0.0334	4.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	4.1088	4.1088	1.2600e-003	0.0000	4.1403	
Total	1.0800e-003	0.0234	0.0334	4.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	4.1088	4.1088	1.2600e-003	0.0000	4.1403	

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**3.4 Underground Utilities - 2017****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	1.8000e-004	1.4000e-004	1.4500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027	
Total	1.8000e-004	1.4000e-004	1.4500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027	

**3.4 Underground Utilities - 2018****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	0.1064	1.0374	0.8852	1.2300e-003		0.0695	0.0695		0.0639	0.0639	0.0000	112.4686	112.4686	0.0350	0.0000	113.3439	
Total	0.1064	1.0374	0.8852	1.2300e-003		0.0695	0.0695		0.0639	0.0639	0.0000	112.4686	112.4686	0.0350	0.0000	113.3439	

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**3.4 Underground Utilities - 2018****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	4.5300e-003	3.4300e-003	0.0354	9.0000e-005	9.1800e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.4900e-003	0.0000	8.1791	8.1791	2.4000e-004	0.0000	8.1852	
Total	4.5300e-003	3.4300e-003	0.0354	9.0000e-005	9.1800e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.4900e-003	0.0000	8.1791	8.1791	2.4000e-004	0.0000	8.1852	

**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	0.0302	0.6522	0.9308	1.2300e-003		0.0412	0.0412		0.0412	0.0412	0.0000	112.4684	112.4684	0.0350	0.0000	113.3438	
Total	0.0302	0.6522	0.9308	1.2300e-003		0.0412	0.0412		0.0412	0.0412	0.0000	112.4684	112.4684	0.0350	0.0000	113.3438	

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**3.4 Underground Utilities - 2018****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	4.5300e-003	3.4300e-003	0.0354	9.0000e-005	9.1800e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.4900e-003	0.0000	8.1791	8.1791	2.4000e-004	0.0000	8.1852	
Total	4.5300e-003	3.4300e-003	0.0354	9.0000e-005	9.1800e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.4900e-003	0.0000	8.1791	8.1791	2.4000e-004	0.0000	8.1852	

**3.5 Building Construction - 2018****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	0.3189	2.7834	2.0921	3.2000e-003		0.1785	0.1785		0.1678	0.1678	0.0000	282.9430	282.9430	0.0693	0.0000	284.6760	
Total	0.3189	2.7834	2.0921	3.2000e-003		0.1785	0.1785		0.1678	0.1678	0.0000	282.9430	282.9430	0.0693	0.0000	284.6760	

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**3.5 Building Construction - 2018****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	0.0259	0.8514	0.1740	1.8000e-003	0.0436	7.0700e-003	0.0507	0.0126	6.7600e-003	0.0193	0.0000	172.0409	172.0409	0.0151	0.0000	172.4190	
Worker	0.0937	0.0708	0.7307	1.8700e-003	0.1897	1.2100e-003	0.1909	0.0504	1.1100e-003	0.0515	0.0000	169.0188	169.0188	5.0400e-003	0.0000	169.1448	
<b>Total</b>	<b>0.1195</b>	<b>0.9222</b>	<b>0.9046</b>	<b>3.6700e-003</b>	<b>0.2333</b>	<b>8.2800e-003</b>	<b>0.2415</b>	<b>0.0629</b>	<b>7.8700e-003</b>	<b>0.0708</b>	<b>0.0000</b>	<b>341.0598</b>	<b>341.0598</b>	<b>0.0202</b>	<b>0.0000</b>	<b>341.5638</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0802	1.6929	2.1270	3.2000e-003		0.1075	0.1075		0.1075	0.1075	0.0000	282.9427	282.9427	0.0693	0.0000	284.6757	
<b>Total</b>	<b>0.0802</b>	<b>1.6929</b>	<b>2.1270</b>	<b>3.2000e-003</b>		<b>0.1075</b>	<b>0.1075</b>		<b>0.1075</b>	<b>0.1075</b>	<b>0.0000</b>	<b>282.9427</b>	<b>282.9427</b>	<b>0.0693</b>	<b>0.0000</b>	<b>284.6757</b>	

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**3.5 Building Construction - 2018****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	0.0259	0.8514	0.1740	1.8000e-003	0.0436	7.0700e-003	0.0507	0.0126	6.7600e-003	0.0193	0.0000	172.0409	172.0409	0.0151	0.0000	172.4190	
Worker	0.0937	0.0708	0.7307	1.8700e-003	0.1897	1.2100e-003	0.1909	0.0504	1.1100e-003	0.0515	0.0000	169.0188	169.0188	5.0400e-003	0.0000	169.1448	
Total	0.1195	0.9222	0.9046	3.6700e-003	0.2333	8.2800e-003	0.2415	0.0629	7.8700e-003	0.0708	0.0000	341.0598	341.0598	0.0202	0.0000	341.5638	

**3.5 Building Construction - 2019****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.2822	2.5189	2.0511	3.2200e-003		0.1541	0.1541		0.1449	0.1449	0.0000	280.9495	280.9495	0.0684	0.0000	282.6606	
Total	0.2822	2.5189	2.0511	3.2200e-003		0.1541	0.1541		0.1449	0.1449	0.0000	280.9495	280.9495	0.0684	0.0000	282.6606	

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**3.5 Building Construction - 2019****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	0.0235	0.7999	0.1592	1.8000e-003	0.0438	6.0200e-003	0.0498	0.0126	5.7600e-003	0.0184	0.0000	171.6226	171.6226	0.0146	0.0000	171.9882	
Worker	0.0861	0.0627	0.6575	1.8200e-003	0.1905	1.2000e-003	0.1917	0.0506	1.1000e-003	0.0517	0.0000	164.5433	164.5433	4.5000e-003	0.0000	164.6559	
<b>Total</b>	<b>0.1096</b>	<b>0.8625</b>	<b>0.8167</b>	<b>3.6200e-003</b>	<b>0.2342</b>	<b>7.2200e-003</b>	<b>0.2415</b>	<b>0.0632</b>	<b>6.8600e-003</b>	<b>0.0701</b>	<b>0.0000</b>	<b>336.1659</b>	<b>336.1659</b>	<b>0.0191</b>	<b>0.0000</b>	<b>336.6441</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0805	1.7000	2.1359	3.2200e-003		0.1080	0.1080		0.1080	0.1080	0.0000	280.9492	280.9492	0.0684	0.0000	282.6602	
<b>Total</b>	<b>0.0805</b>	<b>1.7000</b>	<b>2.1359</b>	<b>3.2200e-003</b>		<b>0.1080</b>	<b>0.1080</b>		<b>0.1080</b>	<b>0.1080</b>	<b>0.0000</b>	<b>280.9492</b>	<b>280.9492</b>	<b>0.0684</b>	<b>0.0000</b>	<b>282.6602</b>	

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**3.5 Building Construction - 2019****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	0.0235	0.7999	0.1592	1.8000e-003	0.0438	6.0200e-003	0.0498	0.0126	5.7600e-003	0.0184	0.0000	171.6226	171.6226	0.0146	0.0000	171.9882	
Worker	0.0861	0.0627	0.6575	1.8200e-003	0.1905	1.2000e-003	0.1917	0.0506	1.1000e-003	0.0517	0.0000	164.5433	164.5433	4.5000e-003	0.0000	164.6559	
Total	0.1096	0.8625	0.8167	3.6200e-003	0.2342	7.2200e-003	0.2415	0.0632	6.8600e-003	0.0701	0.0000	336.1659	336.1659	0.0191	0.0000	336.6441	

**3.6 Architectural Coating - 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					
Archit. Coating	0.5663						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	6.9300e-003	0.0477	0.0479	8.0000e-005		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	6.6385	6.6385	5.6000e-004	0.0000	6.6525	
Total	0.5732	0.0477	0.0479	8.0000e-005		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	6.6385	6.6385	5.6000e-004	0.0000	6.6525	

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**3.6 Architectural Coating - 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	3.7400e-003	2.7300e-003	0.0286	8.0000e-005	8.2900e-003	5.0000e-005	8.3400e-003	2.2000e-003	5.0000e-005	2.2500e-003	0.0000	7.1601	7.1601	2.0000e-004	0.0000	7.1649	
Total	3.7400e-003	2.7300e-003	0.0286	8.0000e-005	8.2900e-003	5.0000e-005	8.3400e-003	2.2000e-003	5.0000e-005	2.2500e-003	0.0000	7.1601	7.1601	2.0000e-004	0.0000	7.1649	

**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	0.5663						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.5500e-003	0.0353	0.0476	8.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	6.6385	6.6385	5.6000e-004	0.0000	6.6525	
Total	0.5678	0.0353	0.0476	8.0000e-005		2.4700e-003	2.4700e-003		2.4700e-003	2.4700e-003	0.0000	6.6385	6.6385	5.6000e-004	0.0000	6.6525	

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**3.6 Architectural Coating - 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	3.7400e-003	2.7300e-003	0.0286	8.0000e-005	8.2900e-003	5.0000e-005	8.3400e-003	2.2000e-003	5.0000e-005	2.2500e-003	0.0000	7.1601	7.1601	2.0000e-004	0.0000	7.1649	
Total	3.7400e-003	2.7300e-003	0.0286	8.0000e-005	8.2900e-003	5.0000e-005	8.3400e-003	2.2000e-003	5.0000e-005	2.2500e-003	0.0000	7.1601	7.1601	2.0000e-004	0.0000	7.1649	

**3.6 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	1.0672						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0119	0.0825	0.0897	1.5000e-004		5.4400e-003	5.4400e-003		5.4400e-003	5.4400e-003	0.0000	12.5109	12.5109	9.7000e-004	0.0000	12.5352	
Total	1.0791	0.0825	0.0897	1.5000e-004		5.4400e-003	5.4400e-003		5.4400e-003	5.4400e-003	0.0000	12.5109	12.5109	9.7000e-004	0.0000	12.5352	

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**3.6 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	6.5300e-003	4.5800e-003	0.0489	1.4000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003	0.0000	13.0674	13.0674	3.3000e-004	0.0000	13.0756	
Total	6.5300e-003	4.5800e-003	0.0489	1.4000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003	0.0000	13.0674	13.0674	3.3000e-004	0.0000	13.0756	

**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	1.0672						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.9100e-003	0.0665	0.0898	1.5000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	12.5109	12.5109	9.7000e-004	0.0000	12.5351	
Total	1.0701	0.0665	0.0898	1.5000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	12.5109	12.5109	9.7000e-004	0.0000	12.5351	

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**3.6 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	6.5300e-003	4.5800e-003	0.0489	1.4000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003	0.0000	13.0674	13.0674	3.3000e-004	0.0000	13.0756	
Total	6.5300e-003	4.5800e-003	0.0489	1.4000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003	0.0000	13.0674	13.0674	3.3000e-004	0.0000	13.0756	

**3.7 Paving - 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	0.0160	0.1677	0.1613	2.5000e-004		9.0700e-003	9.0700e-003		8.3400e-003	8.3400e-003	0.0000	22.5227	22.5227	7.1300e-003	0.0000	22.7009	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0160	0.1677	0.1613	2.5000e-004		9.0700e-003	9.0700e-003		8.3400e-003	8.3400e-003	0.0000	22.5227	22.5227	7.1300e-003	0.0000	22.7009	

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**3.7 Paving - 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	8.2000e-004	6.0000e-004	6.2600e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5669	1.5669	4.0000e-005	0.0000	1.5679	
Total	8.2000e-004	6.0000e-004	6.2600e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5669	1.5669	4.0000e-005	0.0000	1.5679	

**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	6.1700e-003	0.1243	0.1903	2.5000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	22.5227	22.5227	7.1300e-003	0.0000	22.7008	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	6.1700e-003	0.1243	0.1903	2.5000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	22.5227	22.5227	7.1300e-003	0.0000	22.7008	

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**3.7 Paving - 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	8.2000e-004	6.0000e-004	6.2600e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5669	1.5669	4.0000e-005	0.0000	1.5679	
Total	8.2000e-004	6.0000e-004	6.2600e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5669	1.5669	4.0000e-005	0.0000	1.5679	

**3.7 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	0.0258	0.2673	0.2784	4.3000e-004			0.0143	0.0143		0.0132	0.0132	0.0000	38.0536	38.0536	0.0123	0.0000	38.3613
Paving	0.0000						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0258	0.2673	0.2784	4.3000e-004			0.0143	0.0143		0.0132	0.0132	0.0000	38.0536	38.0536	0.0123	0.0000	38.3613

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**3.7 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	1.3100e-003	9.2000e-004	9.8000e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6208	2.6208	7.0000e-005	0.0000	2.6225	
Total	1.3100e-003	9.2000e-004	9.8000e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6208	2.6208	7.0000e-005	0.0000	2.6225	

**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	0.0107	0.2146	0.3286	4.3000e-004			0.0116	0.0116		0.0116	0.0116	0.0000	38.0536	38.0536	0.0123	0.0000	38.3613
Paving	0.0000						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0107	0.2146	0.3286	4.3000e-004			0.0116	0.0116		0.0116	0.0116	0.0000	38.0536	38.0536	0.0123	0.0000	38.3613

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**3.7 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	1.3100e-003	9.2000e-004	9.8000e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6208	2.6208	7.0000e-005	0.0000	2.6225	
Total	1.3100e-003	9.2000e-004	9.8000e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6208	2.6208	7.0000e-005	0.0000	2.6225	

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

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.8689	6.9554	9.2464	0.0340	2.3296	0.0372	2.3667	0.6243	0.0351	0.6594	0.0000	3,143.167	3,143.167	0.2043	0.0000	3,148.275	
Unmitigated	0.8689	6.9554	9.2464	0.0340	2.3296	0.0372	2.3667	0.6243	0.0351	0.6594	0.0000	3,143.167	3,143.167	0.2043	0.0000	3,148.275	

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00				
General Light Industry	0.00	0.00	0.00				
Hotel	1,428.19	1,679.19	1679.19	3,579,028	3,579,028	3,579,028	3,579,028
Regional Shopping Center	1,020.05	1,529.94	1529.94	2,521,289	2,521,289	2,521,289	2,521,289
Total	2,448.24	3,209.13	3,209.13	6,100,317	6,100,317	6,100,317	6,100,317

**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
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

**4.4 Fleet Mix**

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Light Industry	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	1,524.628	1,524.628	0.0629	0.0130	1,530.082	
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	1,809.893	1,809.893	0.0747	0.0155	1,816.368	
NaturalGas Mitigated	0.0569	0.5172	0.4344	3.1000e-003			0.0393	0.0393		0.0393	0.0393	0.0000	563.0183	563.0183	0.0108	0.0103	566.3641
NaturalGas Unmitigated	0.0931	0.8463	0.7109	5.0800e-003			0.0643	0.0643		0.0643	0.0643	0.0000	921.2920	921.2920	0.0177	0.0169	926.7667

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**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					
Arena	1.77276e+006	9.5600e-003	0.0869	0.0730	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	94.6013	94.6013	1.8100e-003	1.7300e-003	95.1635	
General Light Industry	1.08757e+006	5.8600e-003	0.0533	0.0448	3.2000e-004		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	58.0368	58.0368	1.1100e-003	1.0600e-003	58.3817	
Hotel	1.43446e+007	0.0774	0.7032	0.5907	4.2200e-003		0.0534	0.0534		0.0534	0.0534	0.0000	765.4835	765.4835	0.0147	0.0140	770.0324	
Regional Shopping Center	59409.4	3.2000e-004	2.9100e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1703	3.1703	6.0000e-005	6.0000e-005	3.1892	
<b>Total</b>		<b>0.0931</b>	<b>0.8463</b>	<b>0.7109</b>	<b>5.0800e-003</b>		<b>0.0643</b>	<b>0.0643</b>		<b>0.0643</b>	<b>0.0643</b>	<b>0.0000</b>	<b>921.2920</b>	<b>921.2920</b>	<b>0.0177</b>	<b>0.0169</b>	<b>926.7667</b>	

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr											MT/yr					
Arena	1.38631e+006	7.4800e-003	0.0680	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	73.9790	73.9790	1.4200e-003	1.3600e-003	74.4187	
General Light Industry	850488	4.5900e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003	0.0000	45.3853	45.3853	8.7000e-004	8.3000e-004	45.6550	
Hotel	8.278e+006	0.0446	0.4058	0.3409	2.4300e-003		0.0308	0.0308		0.0308	0.0308	0.0000	441.7458	441.7458	8.4700e-003	8.1000e-003	444.3709	
Regional Shopping Center	35757.6	1.9000e-004	1.7500e-003	1.4700e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9082	1.9082	4.0000e-005	3.0000e-005	1.9195	
<b>Total</b>		<b>0.0569</b>	<b>0.5172</b>	<b>0.4344</b>	<b>3.1000e-003</b>		<b>0.0393</b>	<b>0.0393</b>		<b>0.0393</b>	<b>0.0393</b>	<b>0.0000</b>	<b>563.0183</b>	<b>563.0183</b>	<b>0.0108</b>	<b>0.0103</b>	<b>566.3641</b>	

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	562972	179.3748	7.4100e-003	1.5300e-003	180.0165
General Light Industry	345377	110.0444	4.5400e-003	9.4000e-004	110.4381
Hotel	4.42544e+006	1,410.0407	0.0582	0.0120	1,415.0852
Regional Shopping Center	346599	110.4340	4.5600e-003	9.4000e-004	110.8291
<b>Total</b>		<b>1,809.8939</b>	<b>0.0747</b>	<b>0.0155</b>	<b>1,816.3689</b>

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	505117	160.9412	6.6400e-003	1.3700e-003	161.5170
General Light Industry	309884	98.7356	4.0800e-003	8.4000e-004	99.0888
Hotel	3.6823e+006	1,173.260	0.0484	0.0100	1,177.457
Regional Shopping Center	287776	91.6916	3.7900e-003	7.8000e-004	92.0197
<b>Total</b>		<b>1,524.6284</b>	<b>0.0630</b>	<b>0.0130</b>	<b>1,530.0828</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	1.4373	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-003	
Unmitigated	1.4373	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-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	0.1633					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2735					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-003
<b>Total</b>	<b>1.4373</b>	<b>4.0000e-005</b>	<b>4.7100e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.0700e-003</b>	<b>9.0700e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.6900e-003</b>

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**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	0.1633						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2735						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0700e-003	9.0700e-003	2.0000e-005	0.0000	9.6900e-003
<b>Total</b>	<b>1.4373</b>	<b>4.0000e-005</b>	<b>4.7100e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.0700e-003</b>	<b>9.0700e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.6900e-003</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	599.4392	0.4433	0.0150	614.9847
Unmitigated	613.7877	0.5486	0.0176	632.7348

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	7.72375 / 153.125	576.5395	0.2754	0.0109	586.6562
Hotel	6.36706 / 0	28.4354	0.2086	5.1200e-003	35.1766
Regional Shopping Center	1.97329 / 0	8.8128	0.0646	1.5900e-003	10.9020
<b>Total</b>		<b>613.7877</b>	<b>0.5486</b>	<b>0.0176</b>	<b>632.7348</b>

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	6.179 / 153.125	569.6406	0.2248	9.6000e- 003	578.1218
Hotel	5.09365 / 0	22.7484	0.1669	4.1000e- 003	28.1413
Regional Shopping Center	1.57863 / 0	7.0502	0.0517	1.2700e- 003	8.7216
<b>Total</b>		<b>599.4392</b>	<b>0.4433</b>	<b>0.0150</b>	<b>614.9847</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.5713	0.6247	0.0000	26.1899
Unmitigated	42.2851	2.4990	0.0000	104.7594

**8.2 Waste by Land Use**Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	1.5	0.3045	0.0180	0.0000	0.7544
General Light Industry	41.42	8.4079	0.4969	0.0000	20.8302
Hotel	137.42	27.8950	1.6486	0.0000	69.1087
Regional Shopping Center	27.97	5.6777	0.3355	0.0000	14.0662
<b>Total</b>		<b>42.2851</b>	<b>2.4990</b>	<b>0.0000</b>	<b>104.7594</b>

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.375	0.0761	4.5000e-003	0.0000	0.1886
General Light Industry	10.355	2.1020	0.1242	0.0000	5.2076
Hotel	34.355	6.9738	0.4121	0.0000	17.2772
Regional Shopping Center	6.9925	1.4194	0.0839	0.0000	3.5165
<b>Total</b>		<b>10.5713</b>	<b>0.6247</b>	<b>0.0000</b>	<b>26.1899</b>

**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**

## 12 Oaks Phase 1 - Winery and Hotel - Riverside-South Coast County, Annual

Equipment Type	Number
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## 11.0 Vegetation

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## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**12 Oaks Phase 2 - Wine Estate Lots**  
**Riverside-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	20.00	Dwelling Unit	204.00	36,000.00	57

**1.2 Other Project Characteristics**

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

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

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

## Project Characteristics -

Land Use - 20 wine estate lots (10 acre minimum)

Construction Phase - Estimated schedule received from Applicant

Off-road Equipment - Typical equipment

Off-road Equipment - Typical equipment added

Grading - Acres graded received from Applicant.

Vehicle Trips - ADT obtained from Traffic Study (Fehr & Peers 2016)

Construction Off-road Equipment Mitigation - Tier 3 equipment

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	330.00	30.00
tblConstructionPhase	NumDays	4,650.00	525.00
tblConstructionPhase	NumDays	465.00	60.00
tblConstructionPhase	NumDays	330.00	30.00
tblConstructionPhase	NumDays	180.00	10.00
tblGrading	AcresOfGrading	150.00	202.00
tblLandUse	LotAcreage	6.49	204.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	ST_TR	9.91	44.20
tblVehicleTrips	SU_TR	8.62	44.20
tblVehicleTrips	WD_TR	9.52	45.55

12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

## **2.0 Emissions Summary**

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## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**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					
2018	0.3557	3.6175	2.4921	4.0800e-003	0.3955	0.1953	0.5907	0.1652	0.1807	0.3459	0.0000	369.3885	369.3885	0.1048	0.0000	372.0075	
2019	0.3136	2.7842	2.2805	3.6800e-003	0.0117	0.1686	0.1803	3.1400e-003	0.1585	0.1617	0.0000	321.9484	321.9484	0.0755	0.0000	323.8367	
2020	0.3459	2.1107	1.9085	3.1300e-003	0.0113	0.1209	0.1322	3.0200e-003	0.1136	0.1166	0.0000	270.5404	270.5404	0.0651	0.0000	272.1686	
Maximum	0.3557	3.6175	2.4921	4.0800e-003	0.3955	0.1953	0.5907	0.1652	0.1807	0.3459	0.0000	369.3885	369.3885	0.1048	0.0000	372.0075	

**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					
2018	0.1046	1.9834	2.5868	4.0800e-003	0.1875	0.1056	0.2931	0.0769	0.1056	0.1824	0.0000	369.3881	369.3881	0.1048	0.0000	372.0071	
2019	0.0934	1.8899	2.3732	3.6800e-003	0.0117	0.1182	0.1299	3.1400e-003	0.1182	0.1213	0.0000	321.9481	321.9481	0.0755	0.0000	323.8363	
2020	0.1917	1.5856	2.0471	3.1300e-003	0.0113	0.0979	0.1092	3.0200e-003	0.0979	0.1010	0.0000	270.5400	270.5400	0.0651	0.0000	272.1683	
Maximum	0.1917	1.9834	2.5868	4.0800e-003	0.1875	0.1182	0.2931	0.0769	0.1182	0.1824	0.0000	369.3881	369.3881	0.1048	0.0000	372.0071	

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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	N20	CO2e
Percent Reduction	61.62	35.87	-4.88	0.00	49.70	33.64	41.08	51.54	28.96	35.15	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2018	3-31-2018	1.9860	0.9468
2	4-1-2018	6-30-2018	0.1389	0.0679
3	7-1-2018	9-30-2018	0.0660	0.0380
4	10-1-2018	12-31-2018	0.8671	0.5001
5	1-1-2019	3-31-2019	0.7630	0.4885
6	4-1-2019	6-30-2019	0.7714	0.4939
7	7-1-2019	9-30-2019	0.7799	0.4993
8	10-1-2019	12-31-2019	0.7799	0.4993
9	1-1-2020	3-31-2020	0.7011	0.4929
10	4-1-2020	6-30-2020	0.7012	0.4930
11	7-1-2020	9-30-2020	0.6870	0.4841
		Highest	1.9860	0.9468

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**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	0.2132	7.5800e-003	0.3341	3.4000e-004		0.0202	0.0202		0.0202	0.0202	2.1244	4.4192	6.5436	6.6600e-003	1.4000e-004	6.7532
Energy	4.0000e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	99.3148	99.3148	3.2200e-003	1.2400e-003	99.7638
Mobile	0.3071	2.6352	3.8791	0.0159	1.1786	0.0151	1.1937	0.3158	0.0142	0.3301	0.0000	1,475.1537	1,475.1537	0.0772	0.0000	1,477.0844
Waste						0.0000	0.0000		0.0000	0.0000	4.7439	0.0000	4.7439	0.2804	0.0000	11.7528
Water						0.0000	0.0000		0.0000	0.0000	0.4134	8.3142	8.7276	0.0428	1.0700e-003	10.1177
<b>Total</b>	<b>0.5242</b>	<b>2.6770</b>	<b>4.2278</b>	<b>0.0165</b>	<b>1.1786</b>	<b>0.0381</b>	<b>1.2167</b>	<b>0.3158</b>	<b>0.0372</b>	<b>0.3531</b>	<b>7.2817</b>	<b>1,587.2020</b>	<b>1,594.4837</b>	<b>0.4103</b>	<b>2.4500e-003</b>	<b>1,605.4718</b>

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**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	0.2132	7.5800e-003	0.3341	3.4000e-004		0.0202	0.0202		0.0202	0.0202	2.1244	4.4192	6.5436	6.6600e-003	1.4000e-004	6.7532	
Energy	2.4600e-003	0.0210	8.9500e-003	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	80.8888	80.8888	2.8000e-003	9.3000e-004	81.2358	
Mobile	0.3071	2.6352	3.8791	0.0159	1.1786	0.0151	1.1937	0.3158	0.0142	0.3301	0.0000	1,475.1537	1,475.1537	0.0772	0.0000	1,477.0844	
Waste						0.0000	0.0000		0.0000	0.0000	1.1860	0.0000	1.1860	0.0701	0.0000	2.9382	
Water						0.0000	0.0000		0.0000	0.0000	0.3307	6.6514	6.9821	0.0342	8.6000e-004	8.0941	
<b>Total</b>	<b>0.5227</b>	<b>2.6639</b>	<b>4.2222</b>	<b>0.0164</b>	<b>1.1786</b>	<b>0.0370</b>	<b>1.2157</b>	<b>0.3158</b>	<b>0.0362</b>	<b>0.3520</b>	<b>3.6411</b>	<b>1,567.1132</b>	<b>1,570.7542</b>	<b>0.1910</b>	<b>1.9300e-003</b>	<b>1,576.1057</b>	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.29	0.49	0.13	0.55	0.00	2.81	0.09	0.00	2.87	0.30	50.00	1.27	1.49	53.44	21.22	1.83

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days	Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/12/2018	1/12/2018	5	10		
2	Grading	Grading	1/15/2018	4/6/2018	5	60		
3	Underground Infrastructure	Trenching	4/9/2018	9/21/2018	5	120		
4	Building Construction	Building Construction	9/24/2018	9/25/2020	5	525		
5	Paving	Paving	9/28/2020	11/6/2020	5	30		
6	Architectural Coating	Architectural Coating	11/9/2020	12/18/2020	5	30		

Acres of Pavement: 0

Acres of Grading (Grading Phase): 202

Acres of Grading (Site Preparation Phase): 0

(Architectural Coating - sqft)

OffRoad Equipment

Residential Indoor: 72,900; Residential Outdoor: 24,300; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Underground Infrastructure	Excavators	1	8.00	158	0.38
Underground Infrastructure	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Infrastructure	Trenchers	1	8.00	78	0.50

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	7.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation - 2018****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	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152
Total	0.0228	0.2410	0.1124	1.9000e-004	0.0903	0.0129	0.1032	0.0497	0.0119	0.0615	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152

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**3.2 Site Preparation - 2018****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	4.9000e-004	3.7000e-004	3.8100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8816	0.8816	3.0000e-005	0.0000	0.8822	
Total	4.9000e-004	3.7000e-004	3.8100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8816	0.8816	3.0000e-005	0.0000	0.8822	

**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	0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004	0.0407	4.7300e-003	4.7300e-003	0.0223	4.7300e-003	4.7300e-003	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152	
Total	4.6600e-003	0.0953	0.1148	1.9000e-004	0.0407	4.7300e-003	0.0454	0.0223	4.7300e-003	0.0271	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152	

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**3.2 Site Preparation - 2018****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	4.9000e-004	3.7000e-004	3.8100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8816	0.8816	3.0000e-005	0.0000	0.8822	
Total	4.9000e-004	3.7000e-004	3.8100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8816	0.8816	3.0000e-005	0.0000	0.8822	

**3.3 Grading - 2018****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					0.2878	0.0000	0.2878	0.1109	0.0000	0.1109	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1527	1.7857	1.0527	1.8600e-003		0.0790	0.0790		0.0727	0.0727	0.0000	169.9455	169.9455	0.0529	0.0000	171.2682
Total	0.1527	1.7857	1.0527	1.8600e-003	0.2878	0.0790	0.3668	0.1109	0.0727	0.1836	0.0000	169.9455	169.9455	0.0529	0.0000	171.2682

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**3.3 Grading - 2018****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	
Total	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	

**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					0.1295	0.0000	0.1295	0.0499	0.0000	0.0499	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0457	0.8994	1.1017	1.8600e-003		0.0390	0.0390		0.0390	0.0390	0.0000	169.9453	169.9453	0.0529	0.0000	171.2680	
Total	0.0457	0.8994	1.1017	1.8600e-003	0.1295	0.0390	0.1685	0.0499	0.0390	0.0889	0.0000	169.9453	169.9453	0.0529	0.0000	171.2680	

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**3.3 Grading - 2018****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	
Total	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	

**3.4 Underground Infrastructure - 2018****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	0.0764	0.7455	0.6360	8.8000e-004		0.0499	0.0499		0.0459	0.0459	0.0000	80.8157	80.8157	0.0252	0.0000	81.4447	
Total	0.0764	0.7455	0.6360	8.8000e-004		0.0499	0.0499		0.0459	0.0459	0.0000	80.8157	80.8157	0.0252	0.0000	81.4447	

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**3.4 Underground Infrastructure - 2018****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	
Total	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	

**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	0.0217	0.4686	0.6688	8.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	80.8156	80.8156	0.0252	0.0000	81.4446	
Total	0.0217	0.4686	0.6688	8.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	80.8156	80.8156	0.0252	0.0000	81.4446	

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**3.4 Underground Infrastructure - 2018****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	
Total	3.2600e-003	2.4600e-003	0.0254	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8772	5.8772	1.8000e-004	0.0000	5.8816	

**3.5 Building Construction - 2018****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	0.0951	0.8304	0.6241	9.6000e-004		0.0533	0.0533		0.0501	0.0501	0.0000	84.4074	84.4074	0.0207	0.0000	84.9244	
Total	0.0951	0.8304	0.6241	9.6000e-004		0.0533	0.0533		0.0501	0.0501	0.0000	84.4074	84.4074	0.0207	0.0000	84.9244	

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**3.5 Building Construction - 2018****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	2.7000e-004	8.7600e-003	1.7900e-003	2.0000e-005	4.5000e-004	7.0000e-005	5.2000e-004	1.3000e-004	7.0000e-005	2.0000e-004	0.0000	1.7698	1.7698	1.6000e-004	0.0000	1.7737	
Worker	1.3500e-003	1.0200e-003	0.0105	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.4342	2.4342	7.0000e-005	0.0000	2.4360	
Total	1.6200e-003	9.7800e-003	0.0123	5.0000e-005	3.1800e-003	9.0000e-005	3.2700e-003	8.6000e-004	9.0000e-005	9.4000e-004	0.0000	4.2039	4.2039	2.3000e-004	0.0000	4.2096	

**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	0.0239	0.5050	0.6345	9.6000e-004		0.0321	0.0321		0.0321	0.0321	0.0000	84.4073	84.4073	0.0207	0.0000	84.9243	
Total	0.0239	0.5050	0.6345	9.6000e-004		0.0321	0.0321		0.0321	0.0321	0.0000	84.4073	84.4073	0.0207	0.0000	84.9243	

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**3.5 Building Construction - 2018****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	2.7000e-004	8.7600e-003	1.7900e-003	2.0000e-005	4.5000e-004	7.0000e-005	5.2000e-004	1.3000e-004	7.0000e-005	2.0000e-004	0.0000	1.7698	1.7698	1.6000e-004	0.0000	1.7737	
Worker	1.3500e-003	1.0200e-003	0.0105	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.4342	2.4342	7.0000e-005	0.0000	2.4360	
Total	1.6200e-003	9.7800e-003	0.0123	5.0000e-005	3.1800e-003	9.0000e-005	3.2700e-003	8.6000e-004	9.0000e-005	9.4000e-004	0.0000	4.2039	4.2039	2.3000e-004	0.0000	4.2096	

**3.5 Building Construction - 2019****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795	
Total	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795	

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**3.5 Building Construction - 2019****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	8.8000e-004	0.0301	6.0000e-003	7.0000e-005	1.6500e-003	2.3000e-004	1.8800e-003	4.8000e-004	2.2000e-004	6.9000e-004	0.0000	6.4628	6.4628	5.5000e-004	0.0000	6.4765	
Worker	4.5400e-003	3.3000e-003	0.0347	1.0000e-004	0.0100	6.0000e-005	0.0101	2.6700e-003	6.0000e-005	2.7200e-003	0.0000	8.6747	8.6747	2.4000e-004	0.0000	8.6806	
Total	5.4200e-003	0.0334	0.0407	1.7000e-004	0.0117	2.9000e-004	0.0120	3.1500e-003	2.8000e-004	3.4100e-003	0.0000	15.1375	15.1375	7.9000e-004	0.0000	15.1571	

**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	0.0879	1.8565	2.3325	3.5100e-003		0.1179	0.1179		0.1179	0.1179	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792	
Total	0.0879	1.8565	2.3325	3.5100e-003		0.1179	0.1179		0.1179	0.1179	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792	

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**3.5 Building Construction - 2019****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	8.8000e-004	0.0301	6.0000e-003	7.0000e-005	1.6500e-005	2.3000e-004	1.8800e-003	4.8000e-004	2.2000e-004	6.9000e-004	0.0000	6.4628	6.4628	5.5000e-004	0.0000	6.4765	
Worker	4.5400e-003	3.3000e-003	0.0347	1.0000e-004	0.0100	6.0000e-005	0.0101	2.6700e-003	6.0000e-005	2.7200e-003	0.0000	8.6747	8.6747	2.4000e-004	0.0000	8.6806	
Total	5.4200e-003	0.0334	0.0407	1.7000e-004	0.0117	2.9000e-004	0.0120	3.1500e-003	2.8000e-004	3.4100e-003	0.0000	15.1375	15.1375	7.9000e-004	0.0000	15.1571	

**3.5 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	0.2046	1.8515	1.6259	2.6000e-003		0.1078	0.1078		0.1014	0.1014	0.0000	223.5036	223.5036	0.0545	0.0000	224.8668	
Total	0.2046	1.8515	1.6259	2.6000e-003		0.1078	0.1078		0.1014	0.1014	0.0000	223.5036	223.5036	0.0545	0.0000	224.8668	

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**3.5 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	5.5000e-004	0.0201	3.9300e-003	5.0000e-005	1.2200e-005	1.1000e-004	1.3300e-003	3.5000e-004	1.1000e-004	4.6000e-004	0.0000	4.7456	4.7456	3.8000e-004	0.0000	4.7551	
Worker	3.1000e-003	2.1800e-003	0.0232	7.0000e-005	7.4200e-003	5.0000e-005	7.4700e-003	1.9700e-003	4.0000e-005	2.0100e-003	0.0000	6.2119	6.2119	1.6000e-004	0.0000	6.2157	
Total	3.6500e-003	0.0223	0.0272	1.2000e-004	8.6400e-003	1.6000e-004	8.8000e-003	2.3200e-003	1.5000e-004	2.4700e-003	0.0000	10.9575	10.9575	5.4000e-004	0.0000	10.9709	

**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	0.0650	1.3728	1.7248	2.6000e-003		0.0872	0.0872		0.0872	0.0872	0.0000	223.5034	223.5034	0.0545	0.0000	224.8665	
Total	0.0650	1.3728	1.7248	2.6000e-003		0.0872	0.0872		0.0872	0.0872	0.0000	223.5034	223.5034	0.0545	0.0000	224.8665	

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**3.5 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	5.5000e-004	0.0201	3.9300e-003	5.0000e-005	1.2200e-005	1.1000e-004	1.3300e-003	3.5000e-004	1.1000e-004	4.6000e-004	0.0000	4.7456	4.7456	3.8000e-004	0.0000	4.7551	
Worker	3.1000e-003	2.1800e-003	0.0232	7.0000e-005	7.4200e-003	5.0000e-005	7.4700e-003	1.9700e-003	4.0000e-005	2.0100e-003	0.0000	6.2119	6.2119	1.6000e-004	0.0000	6.2157	
Total	3.6500e-003	0.0223	0.0272	1.2000e-004	8.6400e-003	1.6000e-004	8.8000e-003	2.3200e-003	1.5000e-004	2.4700e-003	0.0000	10.9575	10.9575	5.4000e-004	0.0000	10.9709	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0204	0.2110	0.2198	3.4000e-004		0.0113	0.0113		0.0104	0.0104	0.0000	30.0423	30.0423	9.7200e-003	0.0000	30.2852	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0204	0.2110	0.2198	3.4000e-004		0.0113	0.0113		0.0104	0.0104	0.0000	30.0423	30.0423	9.7200e-003	0.0000	30.2852	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	1.0300e-003	7.2000e-004	7.7400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0691	2.0691	5.0000e-005	0.0000	2.0704	
Total	1.0300e-003	7.2000e-004	7.7400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0691	2.0691	5.0000e-005	0.0000	2.0704	

**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	8.4100e-003	0.1694	0.2594	3.4000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	0.0000	30.0423	30.0423	9.7200e-003	0.0000	30.2852	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	8.4100e-003	0.1694	0.2594	3.4000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	0.0000	30.0423	30.0423	9.7200e-003	0.0000	30.2852	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	1.0300e-003	7.2000e-004	7.7400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0691	2.0691	5.0000e-005	0.0000	2.0704	
Total	1.0300e-003	7.2000e-004	7.7400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.0691	2.0691	5.0000e-005	0.0000	2.0704	

**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	0.1126						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	3.6300e-003	0.0253	0.0275	4.0000e-005		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	3.8299	3.8299	3.0000e-004	0.0000	3.8373	
Total	0.1163	0.0253	0.0275	4.0000e-005		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	3.8299	3.8299	3.0000e-004	0.0000	3.8373	

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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	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1379	0.1379	0.0000	0.0000	0.1380	
Total	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1379	0.1379	0.0000	0.0000	0.1380	

**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	0.1126						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	8.9000e-004	0.0204	0.0275	4.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	3.8299	3.8299	3.0000e-004	0.0000	3.8373	
Total	0.1135	0.0204	0.0275	4.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	3.8299	3.8299	3.0000e-004	0.0000	3.8373	

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**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	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1379	0.1379	0.0000	0.0000	0.1380	
Total	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1379	0.1379	0.0000	0.0000	0.1380	

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

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.3071	2.6352	3.8791	0.0159	1.1786	0.0151	1.1937	0.3158	0.0142	0.3301	0.0000	1,475.153 7	1,475.153 7	0.0772	0.0000	1,477.084 4	
Unmitigated	0.3071	2.6352	3.8791	0.0159	1.1786	0.0151	1.1937	0.3158	0.0142	0.3301	0.0000	1,475.153 7	1,475.153 7	0.0772	0.0000	1,477.084 4	

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Single Family Housing	911.00	884.00	884.00	3,086,665	3,086,665	3,086,665	3,086,665
Total	911.00	884.00	884.00	3,086,665	3,086,665	3,086,665	3,086,665

**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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

**5.0 Energy Detail**

Historical Energy Use: N

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	56.5314	56.5314	2.3300e-003	4.8000e-004	56.7336
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	59.6907	59.6907	2.4600e-003	5.1000e-004	59.9042
NaturalGas Mitigated	2.4600e-003	0.0210	8.9500e-003	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3574	24.3574	4.7000e-004	4.5000e-004	24.5022
NaturalGas Unmitigated	4.0000e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6241	39.6241	7.6000e-004	7.3000e-004	39.8596

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**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					
Single Family Housing	742528	4.0000e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6241	39.6241	7.6000e-004	7.3000e-004	39.8596
<b>Total</b>		<b>4.0000e-003</b>	<b>0.0342</b>	<b>0.0146</b>	<b>2.2000e-004</b>		<b>2.7700e-003</b>	<b>2.7700e-003</b>		<b>2.7700e-003</b>	<b>2.7700e-003</b>	<b>0.0000</b>	<b>39.6241</b>	<b>39.6241</b>	<b>7.6000e-004</b>	<b>7.3000e-004</b>	<b>39.8596</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	456441	2.4600e-003	0.0210	8.9500e-003	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3574	24.3574	4.7000e-004	4.5000e-004	24.5022
<b>Total</b>		<b>2.4600e-003</b>	<b>0.0210</b>	<b>8.9500e-003</b>	<b>1.3000e-004</b>		<b>1.7000e-003</b>	<b>1.7000e-003</b>		<b>1.7000e-003</b>	<b>1.7000e-003</b>	<b>0.0000</b>	<b>24.3574</b>	<b>24.3574</b>	<b>4.7000e-004</b>	<b>4.5000e-004</b>	<b>24.5022</b>

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	187340	59.6907	2.4600e-003	5.1000e-004	59.9042
<b>Total</b>		<b>59.6907</b>	<b>2.4600e-003</b>	<b>5.1000e-004</b>	<b>59.9042</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	177425	56.5314	2.3300e-003	4.8000e-004	56.7336
<b>Total</b>		<b>56.5314</b>	<b>2.3300e-003</b>	<b>4.8000e-004</b>	<b>56.7336</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.2132	7.5800e-003	0.3341	3.4000e-004		0.0202	0.0202		0.0202	0.0202	2.1244	4.4192	6.5436	6.6600e-003	1.4000e-004	6.7532	
Unmitigated	0.2132	7.5800e-003	0.3341	3.4000e-004		0.0202	0.0202		0.0202	0.0202	2.1244	4.4192	6.5436	6.6600e-003	1.4000e-004	6.7532	

**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	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	0.1301					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.0655	5.1900e-003	0.1271	3.2000e-004		0.0191	0.0191		0.0191	0.0191	2.1244	4.0823	6.2067	6.3400e-003	1.4000e-004	6.4081	
Landscaping	6.3000e-003	2.3900e-003	0.2069	1.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	0.3369	0.3369	3.3000e-004	0.0000	0.3451	
<b>Total</b>	<b>0.2132</b>	<b>7.5800e-003</b>	<b>0.3341</b>	<b>3.3000e-004</b>		<b>0.0202</b>	<b>0.0202</b>		<b>0.0202</b>	<b>0.0202</b>	<b>2.1244</b>	<b>4.4192</b>	<b>6.5436</b>	<b>6.6700e-003</b>	<b>1.4000e-004</b>	<b>6.7532</b>	

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**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	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1301					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0655	5.1900e-003	0.1271	3.2000e-004		0.0191	0.0191		0.0191	0.0191	2.1244	4.0823	6.2067	6.3400e-003	1.4000e-004	6.4081
Landscaping	6.3000e-003	2.3900e-003	0.2069	1.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	0.3369	0.3369	3.3000e-004	0.0000	0.3451
<b>Total</b>	<b>0.2132</b>	<b>7.5800e-003</b>	<b>0.3341</b>	<b>3.3000e-004</b>		<b>0.0202</b>	<b>0.0202</b>		<b>0.0202</b>	<b>0.0202</b>	<b>2.1244</b>	<b>4.4192</b>	<b>6.5436</b>	<b>6.6700e-003</b>	<b>1.4000e-004</b>	<b>6.7532</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9821	0.0342	8.6000e-004	8.0941
Unmitigated	8.7276	0.0428	1.0700e-003	10.1177

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.30308 / 0.821507	8.7276	0.0428	1.0700e-003	10.1177
<b>Total</b>		<b>8.7276</b>	<b>0.0428</b>	<b>1.0700e-003</b>	<b>10.1177</b>

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.04246 / 0.657206	6.9821	0.0342	8.6000e- 004	8.0941
<b>Total</b>		<b>6.9821</b>	<b>0.0342</b>	<b>8.6000e- 004</b>	<b>8.0941</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1860	0.0701	0.0000	2.9382
Unmitigated	4.7439	0.2804	0.0000	11.7528

**8.2 Waste by Land Use**Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	23.37	4.7439	0.2804	0.0000	11.7528
<b>Total</b>		<b>4.7439</b>	<b>0.2804</b>	<b>0.0000</b>	<b>11.7528</b>

## 12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	5.8425	1.1860	0.0701	0.0000	2.9382
<b>Total</b>		<b>1.1860</b>	<b>0.0701</b>	<b>0.0000</b>	<b>2.9382</b>

**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**

12 Oaks Phase 2 - Wine Estate Lots - Riverside-South Coast County, Annual

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## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**12 Oaks Phase 3 - SFR Ranch Lots**  
**Riverside-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	76.00	Dwelling Unit	263.00	136,800.00	217

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

## Project Characteristics -

Land Use - 76 SFR Ranch Lots (1 acre minimum)

Construction Phase - Estimated schedule received from Applicant

Off-road Equipment -

Off-road Equipment - Typical equipment added

Off-road Equipment - Typical equipment added

Grading -

Vehicle Trips - ADT obtained from Traffic Study (Fehr & Peers 2016)

Construction Off-road Equipment Mitigation - Tier 2 equipment

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	330.00	30.00
tblConstructionPhase	NumDays	4,650.00	530.00
tblConstructionPhase	NumDays	465.00	130.00
tblConstructionPhase	NumDays	330.00	30.00
tblConstructionPhase	NumDays	180.00	15.00
tblGrading	AcresOfGrading	325.00	337.50
tblLandUse	LotAcreage	24.68	263.00

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

tblProjectCharacteristics	OperationalYear	2018		2023	
		SU_TR	WD_TR	8.62	9.91
tblVehicleTrips				9.52	9.53
tblVehicleTrips					

## 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	0.3640	4.0435	2.5364	4.6800e-003	0.7232	0.1829	0.9060	0.3136	0.1682	0.4818	0.0000	420.4753	420.4753	0.1287	0.0000	423.6934	
2020	0.1872	1.7022	1.6618	2.6200e-003	0.0226	0.1032	0.1258	6.0400e-003	0.0958	0.1018	0.0000	229.1848	229.1848	0.0609	0.0000	230.7078	
2021	0.2657	2.3824	2.2927	4.1300e-003	0.0453	0.1255	0.1708	0.0122	0.1180	0.1302	0.0000	359.0760	359.0760	0.0756	0.0000	360.9660	
2022	0.6321	1.8276	1.9826	3.5700e-003	0.0380	0.0910	0.1290	0.0102	0.0855	0.0957	0.0000	310.6388	310.6388	0.0675	0.0000	312.3250	
Maximum	0.6321	4.0435	2.5364	4.6800e-003	0.7232	0.1829	0.9060	0.3136	0.1682	0.4818	0.0000	420.4753	420.4753	0.1287	0.0000	423.6934	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**2.1 Overall Construction****Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2019	0.1187	2.2027	2.7692	4.6800e-003	0.3349	0.0983	0.4332	0.1436	0.0983	0.2419	0.0000	420.4748	420.4748	0.1287	0.0000	423.6930
2020	0.0676	1.2793	1.7632	2.6200e-003	0.0226	0.0791	0.1017	6.0400e-003	0.0791	0.0851	0.0000	229.1846	229.1846	0.0609	0.0000	230.7075
2021	0.1055	1.9640	2.4622	4.1300e-003	0.0453	0.1183	0.1637	0.0122	0.1183	0.1305	0.0000	359.0756	359.0756	0.0756	0.0000	360.9656
2022	0.5185	1.6905	2.1747	3.5700e-003	0.0380	0.1012	0.1393	0.0102	0.1012	0.1114	0.0000	310.6384	310.6384	0.0675	0.0000	312.3247
Maximum	0.5185	2.2027	2.7692	4.6800e-003	0.3349	0.1183	0.4332	0.1436	0.1183	0.2419	0.0000	420.4748	420.4748	0.1287	0.0000	423.6930

	ROG	NOx	CO	SO2	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	44.07	28.32	-8.21	0.00	46.83	21.01	37.08	49.69	15.09	29.71	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-6-2019	8-5-2019	1.8893	0.9627
2	8-6-2019	11-5-2019	1.9529	1.0409
3	11-6-2019	2-5-2020	0.3609	0.1923
6	8-6-2020	11-5-2020	0.3115	0.2223
7	11-6-2020	2-5-2021	0.7082	0.5231
8	2-6-2021	5-5-2021	0.6449	0.5040
9	5-6-2021	8-5-2021	0.6668	0.5211
10	8-6-2021	11-5-2021	0.6667	0.5210

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

11	11-6-2021	2-5-2022	0.6400	0.5202
12	2-6-2022	5-5-2022	0.5791	0.5021
13	5-6-2022	8-5-2022	0.5988	0.5192
14	8-6-2022	9-30-2022	0.3645	0.3160
		Highest	1.9529	1.0409

**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	0.8097	0.0288	1.2671	1.2700e-003		0.0769	0.0769		0.0769	0.0769	8.0727	16.7931	24.8658	0.0253	5.5000e-004	25.6617
Energy	0.0152	0.1300	0.0553	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	377.3962	377.3962	0.0123	4.7000e-003	379.1024
Mobile	0.1913	1.3703	2.4604	0.0119	0.9556	6.7600e-003	0.9624	0.2560	6.3000e-003	0.2623	0.0000	1,100.9685	1,100.9685	0.0471	0.0000	1,102.1455
Waste						0.0000	0.0000		0.0000	0.0000	18.0601	0.0000	18.0601	1.0673	0.0000	44.7432
Water						0.0000	0.0000		0.0000	0.0000	1.5710	31.5940	33.1650	0.1627	4.0800e-003	38.4471
<b>Total</b>	<b>1.0162</b>	<b>1.5291</b>	<b>3.7828</b>	<b>0.0140</b>	<b>0.9556</b>	<b>0.0942</b>	<b>1.0498</b>	<b>0.2560</b>	<b>0.0937</b>	<b>0.3497</b>	<b>27.7037</b>	<b>1,526.7519</b>	<b>1,554.4556</b>	<b>1.3146</b>	<b>9.3300e-003</b>	<b>1,590.0999</b>

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**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.8097	0.0288	1.2671	1.2700e-003		0.0769	0.0769		0.0769	0.0769	8.0727	16.7931	24.8658	0.0253	5.5000e-004	25.6617	
Energy	9.3500e-003	0.0799	0.0340	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	307.3775	307.3775	0.0106	3.5300e-003	308.6961	
Mobile	0.1913	1.3703	2.4604	0.0119	0.9556	6.7600e-003	0.9624	0.2560	6.3000e-003	0.2623	0.0000	1,100.9685	1,100.9685	0.0471	0.0000	1,102.1455	
Waste						0.0000	0.0000		0.0000	0.0000	4.5150	0.0000	4.5150	0.2668	0.0000	11.1858	
Water						0.0000	0.0000		0.0000	0.0000	1.2568	25.2752	26.5320	0.1301	3.2600e-003	30.7577	
<b>Total</b>	<b>1.0103</b>	<b>1.4790</b>	<b>3.7615</b>	<b>0.0137</b>	<b>0.9556</b>	<b>0.0901</b>	<b>1.0457</b>	<b>0.2560</b>	<b>0.0897</b>	<b>0.3457</b>	<b>13.8444</b>	<b>1,450.4144</b>	<b>1,464.2588</b>	<b>0.4800</b>	<b>7.3400e-003</b>	<b>1,478.4467</b>	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.58	3.28	0.56	2.29	0.00	4.30	0.39	0.00	4.32	1.16	50.03	5.00	5.80	63.49	21.33	7.02

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days	Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/6/2019	5/24/2019	5	15		
2	Grading	Grading	5/25/2019	11/22/2019	5	130		
3	Underground Infrastructure	Trenching	11/25/2019	9/25/2020	5	220		
4	Building Construction	Building Construction	9/28/2020	10/7/2022	5	530		
5	Paving	Paving	10/10/2022	11/18/2022	5	30		
6	Architectural Coating	Architectural Coating	11/21/2022	12/30/2022	5	30		

Acres of Pavement: 0

Acres of Grading (Grading Phase): 337.5

Acres of Grading (Site Preparation Phase): 0

(Architectural Coating - sqft)

Residential Indoor: 277,020; Residential Outdoor: 92,340; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

Offroad Equipment

Residential Indoor: 277,020; Residential Outdoor: 92,340; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Infrastructure	Excavators	1	8.00	158	0.38
Underground Infrastructure	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Infrastructure	Trenchers	1	8.00	78	0.50
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	27.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0325	0.3418	0.1655	2.8000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	25.6265	25.6265	8.1100e-003	0.0000	25.8292
Total	0.0325	0.3418	0.1655	2.8000e-004	0.1355	0.0179	0.1534	0.0745	0.0165	0.0910	0.0000	25.6265	25.6265	8.1100e-003	0.0000	25.8292

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	
Total	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	

**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	0.0610	0.0000	0.0610	0.0335	0.0000	0.0335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	6.9800e-003	0.1430	0.1722	2.8000e-004	0.0610	7.1000e-003	7.1000e-003	0.0335	7.1000e-003	0.0406	25.6265	25.6265	8.1100e-003	0.0000	25.8292		
Total	6.9800e-003	0.1430	0.1722	2.8000e-004	0.0610	7.1000e-003	0.0681	0.0335	7.1000e-003	0.0406	0.0000	25.6265	25.6265	8.1100e-003	0.0000	25.8292	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	
Total	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.5704	0.0000	0.5704	0.2345	0.0000	0.2345	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.3080	3.5438	2.1695	4.0300e-003	0.5704	0.1549	0.1549	0.1425	0.1425	0.0000	362.0586	362.0586	0.1146	0.0000	0.0000	364.9224	
Total	0.3080	3.5438	2.1695	4.0300e-003	0.5704	0.1549	0.7253	0.2345	0.1425	0.3770	0.0000	362.0586	362.0586	0.1146	0.0000	364.9224	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	6.4600e-003	4.7000e-003	0.0493	1.4000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8800e-003	0.0000	12.3449	12.3449	3.4000e-004	0.0000	12.3534	
Total	6.4600e-003	4.7000e-003	0.0493	1.4000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8800e-003	0.0000	12.3449	12.3449	3.4000e-004	0.0000	12.3534	

**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					0.2567	0.0000	0.2567	0.1055	0.0000	0.1055	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0990	1.9486	2.3870	4.0300e-003		0.0845	0.0845		0.0845	0.0845	0.0000	362.0582	362.0582	0.1146	0.0000	364.9219	
Total	0.0990	1.9486	2.3870	4.0300e-003	0.2567	0.0845	0.3411	0.1055	0.0845	0.1900	0.0000	362.0582	362.0582	0.1146	0.0000	364.9219	

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	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	6.4600e-003	4.7000e-003	0.0493	1.4000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8800e-003	0.0000	12.3449	12.3449	3.4000e-004	0.0000	12.3534	
Total	6.4600e-003	4.7000e-003	0.0493	1.4000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8800e-003	0.0000	12.3449	12.3449	3.4000e-004	0.0000	12.3534	

**3.4 Underground Infrastructure - 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	0.0157	0.1522	0.1419	2.0000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	17.8814	17.8814	5.6600e-003	0.0000	18.0228	
Total	0.0157	0.1522	0.1419	2.0000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	17.8814	17.8814	5.6600e-003	0.0000	18.0228	

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**3.4 Underground Infrastructure - 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	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	
Total	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	

**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	4.8800e-003	0.1054	0.1505	2.0000e-004		6.6700e-003	6.6700e-003		6.6700e-003	6.6700e-003	0.0000	17.8814	17.8814	5.6600e-003	0.0000	18.0228	
Total	4.8800e-003	0.1054	0.1505	2.0000e-004		6.6700e-003	6.6700e-003		6.6700e-003	6.6700e-003	0.0000	17.8814	17.8814	5.6600e-003	0.0000	18.0228	

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**3.4 Underground Infrastructure - 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	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	
Total	6.7000e-004	4.9000e-004	5.1200e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2820	1.2820	4.0000e-005	0.0000	1.2829	

**3.4 Underground Infrastructure - 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	0.1046	1.0055	1.0097	1.4200e-003		0.0644	0.0644		0.0593	0.0593	0.0000	125.0528	125.0528	0.0404	0.0000	126.0639	
Total	0.1046	1.0055	1.0097	1.4200e-003		0.0644	0.0644		0.0593	0.0593	0.0000	125.0528	125.0528	0.0404	0.0000	126.0639	

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**3.4 Underground Infrastructure - 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	4.4400e-003	3.1100e-003	0.0332	1.0000e-004	0.0106	7.0000e-005	0.0107	2.8200e-003	6.0000e-005	2.8800e-003	0.0000	8.8741	8.8741	2.2000e-004	0.0000	8.8796	
Total	4.4400e-003	3.1100e-003	0.0332	1.0000e-004	0.0106	7.0000e-005	0.0107	2.8200e-003	6.0000e-005	2.8800e-003	0.0000	8.8741	8.8741	2.2000e-004	0.0000	8.8796	

**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	0.0349	0.7537	1.0757	1.4200e-003		0.0477	0.0477		0.0477	0.0477	0.0000	125.0527	125.0527	0.0404	0.0000	126.0638	
Total	0.0349	0.7537	1.0757	1.4200e-003		0.0477	0.0477		0.0477	0.0477	0.0000	125.0527	125.0527	0.0404	0.0000	126.0638	

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**3.4 Underground Infrastructure - 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	4.4400e-003	3.1100e-003	0.0332	1.0000e-004	0.0106	7.0000e-005	0.0107	2.8200e-003	6.0000e-005	2.8800e-003	0.0000	8.8741	8.8741	2.2000e-004	0.0000	8.8796	
Total	4.4400e-003	3.1100e-003	0.0332	1.0000e-004	0.0106	7.0000e-005	0.0107	2.8200e-003	6.0000e-005	2.8800e-003	0.0000	8.8741	8.8741	2.2000e-004	0.0000	8.8796	

**3.5 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	0.0731	0.6619	0.5813	9.3000e-004		0.0385	0.0385		0.0362	0.0362	0.0000	79.9054	79.9054	0.0195	0.0000	80.3928	
Total	0.0731	0.6619	0.5813	9.3000e-004		0.0385	0.0385		0.0362	0.0362	0.0000	79.9054	79.9054	0.0195	0.0000	80.3928	

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**3.5 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	7.8000e-004	0.0287	5.6200e-003	7.0000e-005	1.7400e-003	1.6000e-004	1.9100e-003	5.0000e-004	1.6000e-004	6.6000e-004	0.0000	6.7865	6.7865	5.4000e-004	0.0000	6.8001	
Worker	4.2800e-003	3.0000e-003	0.0320	9.0000e-005	0.0102	6.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.5660	8.5660	2.1000e-004	0.0000	8.5714	
Total	5.0600e-003	0.0317	0.0377	1.6000e-004	0.0120	2.2000e-004	0.0122	3.2200e-003	2.2000e-004	3.4400e-003	0.0000	15.3525	15.3525	7.5000e-004	0.0000	15.3714	

**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	0.0233	0.4908	0.6166	9.3000e-004		0.0312	0.0312		0.0312	0.0312	0.0000	79.9054	79.9054	0.0195	0.0000	80.3927	
Total	0.0233	0.4908	0.6166	9.3000e-004		0.0312	0.0312		0.0312	0.0312	0.0000	79.9054	79.9054	0.0195	0.0000	80.3927	

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**3.5 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	7.8000e-004	0.0287	5.6200e-003	7.0000e-005	1.7400e-005	1.6000e-004	1.9100e-003	5.0000e-004	1.6000e-004	6.6000e-004	0.0000	6.7865	6.7865	5.4000e-004	0.0000	6.8001	
Worker	4.2800e-003	3.0000e-003	0.0320	9.0000e-005	0.0102	6.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.5660	8.5660	2.1000e-004	0.0000	8.5714	
Total	5.0600e-003	0.0317	0.0377	1.6000e-004	0.0120	2.2000e-004	0.0122	3.2200e-003	2.2000e-004	3.4400e-003	0.0000	15.3525	15.3525	7.5000e-004	0.0000	15.3714	

**3.5 Building Construction - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099	
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**3.5 Building Construction - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	2.4900e-003	0.0974	0.0187	2.7000e-004	6.5900e-003	1.9000e-004	6.7800e-003	1.9000e-003	1.8000e-004	2.0800e-003	0.0000	25.4708	25.4708	1.9400e-003	0.0000	25.5194	
Worker	0.0151	0.0102	0.1109	3.5000e-004	0.0387	2.3000e-004	0.0390	0.0103	2.1000e-004	0.0105	0.0000	31.3185	31.3185	7.3000e-004	0.0000	31.3367	
Total	<b>0.0176</b>	<b>0.1075</b>	<b>0.1297</b>	<b>6.2000e-004</b>	<b>0.0453</b>	<b>4.2000e-004</b>	<b>0.0457</b>	<b>0.0122</b>	<b>3.9000e-004</b>	<b>0.0126</b>	<b>0.0000</b>	<b>56.7893</b>	<b>56.7893</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>56.8561</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0879	1.8565	2.3325	3.5100e-003		0.1179	0.1179		0.1179	0.1179	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095	
Total	<b>0.0879</b>	<b>1.8565</b>	<b>2.3325</b>	<b>3.5100e-003</b>		<b>0.1179</b>	<b>0.1179</b>		<b>0.1179</b>	<b>0.1179</b>	<b>0.0000</b>	<b>302.2863</b>	<b>302.2863</b>	<b>0.0729</b>	<b>0.0000</b>	<b>304.1095</b>	

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**3.5 Building Construction - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	2.4900e-003	0.0974	0.0187	2.7000e-004	6.5900e-003	1.9000e-004	6.7800e-003	1.9000e-003	1.8000e-004	2.0800e-003	0.0000	25.4708	25.4708	1.9400e-003	0.0000	25.5194	
Worker	0.0151	0.0102	0.1109	3.5000e-004	0.0387	2.3000e-004	0.0390	0.0103	2.1000e-004	0.0105	0.0000	31.3185	31.3185	7.3000e-004	0.0000	31.3367	
Total	0.0176	0.1075	0.1297	6.2000e-004	0.0453	4.2000e-004	0.0457	0.0122	3.9000e-004	0.0126	0.0000	56.7893	56.7893	2.6700e-003	0.0000	56.8561	

**3.5 Building Construction - 2022****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	0.1706	1.5616	1.6363	2.6900e-003		0.0809	0.0809		0.0761	0.0761	0.0000	231.7252	231.7252	0.0555	0.0000	233.1131	
Total	0.1706	1.5616	1.6363	2.6900e-003		0.0809	0.0809		0.0761	0.0761	0.0000	231.7252	231.7252	0.0555	0.0000	233.1131	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.7800e-003	0.0703	0.0134	2.0000e-004	5.0500e-003	1.2000e-004	5.1700e-003	1.4600e-003	1.1000e-004	1.5700e-003	0.0000	19.3500	19.3500	1.4100e-003	0.0000	19.3852	
Worker	0.0109	7.0200e-003	0.0783	2.6000e-004	0.0297	1.7000e-004	0.0299	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	23.1231	23.1231	5.0000e-004	0.0000	23.1357	
Total	<b>0.0126</b>	<b>0.0773</b>	<b>0.0917</b>	<b>4.6000e-004</b>	<b>0.0347</b>	<b>2.9000e-004</b>	<b>0.0350</b>	<b>9.3400e-003</b>	<b>2.7000e-004</b>	<b>9.6100e-003</b>	<b>0.0000</b>	<b>42.4731</b>	<b>42.4731</b>	<b>1.9100e-003</b>	<b>0.0000</b>	<b>42.5209</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0674	1.4226	1.7874	2.6900e-003		0.0904	0.0904		0.0904	0.0904	0.0000	231.7250	231.7250	0.0555	0.0000	233.1128	
Total	<b>0.0674</b>	<b>1.4226</b>	<b>1.7874</b>	<b>2.6900e-003</b>		<b>0.0904</b>	<b>0.0904</b>		<b>0.0904</b>	<b>0.0904</b>	<b>0.0000</b>	<b>231.7250</b>	<b>231.7250</b>	<b>0.0555</b>	<b>0.0000</b>	<b>233.1128</b>	

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**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.7800e-003	0.0703	0.0134	2.0000e-004	5.0500e-003	1.2000e-004	5.1700e-003	1.4600e-003	1.1000e-004	1.5700e-003	0.0000	19.3500	19.3500	1.4100e-003	0.0000	19.3852	
Worker	0.0109	7.0200e-003	0.0783	2.6000e-004	0.0297	1.7000e-004	0.0299	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	23.1231	23.1231	5.0000e-004	0.0000	23.1357	
Total	0.0126	0.0773	0.0917	4.6000e-004	0.0347	2.9000e-004	0.0350	9.3400e-003	2.7000e-004	9.6100e-003	0.0000	42.4731	42.4731	1.9100e-003	0.0000	42.5209	

**3.6 Paving - 2022****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	0.0165	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0165	0.1669	0.2187	3.4000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	

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**3.6 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	9.0000e-004	5.8000e-004	6.5200e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9269	1.9269	4.0000e-005	0.0000	1.9280	
Total	9.0000e-004	5.8000e-004	6.5200e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9269	1.9269	4.0000e-005	0.0000	1.9280	

**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	8.4100e-003	0.1694	0.2594	3.4000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	8.4100e-003	0.1694	0.2594	3.4000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	0.0000	30.0413	30.0413	9.7200e-003	0.0000	30.2842	

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**3.6 Paving - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	9.0000e-004	5.8000e-004	6.5200e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9269	1.9269	4.0000e-005	0.0000	1.9280	
Total	9.0000e-004	5.8000e-004	6.5200e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9269	1.9269	4.0000e-005	0.0000	1.9280	

**3.7 Architectural Coating - 2022****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	0.4280						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	3.0700e-003	0.0211	0.0272	4.0000e-005		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	3.8299	3.8299	2.5000e-004	0.0000	3.8361	
Total	0.4311	0.0211	0.0272	4.0000e-005		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	3.8299	3.8299	2.5000e-004	0.0000	3.8361	

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**3.7 Architectural Coating - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.0000e-004	1.9000e-004	2.1700e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6423	0.6423	1.0000e-005	0.0000	0.6427	
Total	3.0000e-004	1.9000e-004	2.1700e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6423	0.6423	1.0000e-005	0.0000	0.6427	

**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	0.4280						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	8.9000e-004	0.0204	0.0275	4.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	3.8299	3.8299	2.5000e-004	0.0000	3.8361	
Total	0.4289	0.0204	0.0275	4.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	3.8299	3.8299	2.5000e-004	0.0000	3.8361	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**3.7 Architectural Coating - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.0000e-004	1.9000e-004	2.1700e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6423	0.6423	1.0000e-005	0.0000	0.6427	
Total	3.0000e-004	1.9000e-004	2.1700e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6423	0.6423	1.0000e-005	0.0000	0.6427	

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

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.1913	1.3703	2.4604	0.0119	0.9556	6.7600e-003	0.9624	0.2560	6.3000e-003	0.2623	0.0000	1,100.9685	1,100.9685	0.0471	0.0000	1,102.1455	
Unmitigated	0.1913	1.3703	2.4604	0.0119	0.9556	6.7600e-003	0.9624	0.2560	6.3000e-003	0.2623	0.0000	1,100.9685	1,100.9685	0.0471	0.0000	1,102.1455	

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Single Family Housing	724.28	753.16	753.16	2,503,171	2,503,171	2,503,171	2,503,171
Total	724.28	753.16	753.16	2,503,171	2,503,171	2,503,171	2,503,171

**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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

**5.0 Energy Detail**

Historical Energy Use: N

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	214.8192	214.8192	8.8700e-003	1.8300e-003	215.5878
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	226.8245	226.8245	9.3600e-003	1.9400e-003	227.6360
NaturalGas Mitigated	9.3500e-003	0.0799	0.0340	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	92.5583	92.5583	1.7700e-003	1.7000e-003	93.1083
NaturalGas Unmitigated	0.0152	0.1300	0.0553	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.5717	150.5717	2.8900e-003	2.7600e-003	151.4664

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**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					
Single Family Housing	2.82161e+006	0.0152	0.1300	0.0553	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.5717	150.5717	2.8900e-003	2.7600e-003	151.4664
<b>Total</b>		<b>0.0152</b>	<b>0.1300</b>	<b>0.0553</b>	<b>8.3000e-004</b>		<b>0.0105</b>	<b>0.0105</b>		<b>0.0105</b>	<b>0.0105</b>	<b>0.0000</b>	<b>150.5717</b>	<b>150.5717</b>	<b>2.8900e-003</b>	<b>2.7600e-003</b>	<b>151.4664</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.73448e+006	9.3500e-003	0.0799	0.0340	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	92.5583	92.5583	1.7700e-003	1.7000e-003	93.1083
<b>Total</b>		<b>9.3500e-003</b>	<b>0.0799</b>	<b>0.0340</b>	<b>5.1000e-004</b>		<b>6.4600e-003</b>	<b>6.4600e-003</b>		<b>6.4600e-003</b>	<b>6.4600e-003</b>	<b>0.0000</b>	<b>92.5583</b>	<b>92.5583</b>	<b>1.7700e-003</b>	<b>1.7000e-003</b>	<b>93.1083</b>

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	711894	226.8245	9.3600e-003	1.9400e-003	227.6360
<b>Total</b>		<b>226.8245</b>	<b>9.3600e-003</b>	<b>1.9400e-003</b>	<b>227.6360</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	674215	214.8192	8.8700e-003	1.8300e-003	215.5878
<b>Total</b>		<b>214.8192</b>	<b>8.8700e-003</b>	<b>1.8300e-003</b>	<b>215.5878</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.8097	0.0288	1.2671	1.2700e-003		0.0769	0.0769		0.0769	0.0769	8.0727	16.7931	24.8658	0.0253	5.5000e-004	25.6617	
Unmitigated	0.8097	0.0288	1.2671	1.2700e-003		0.0769	0.0769		0.0769	0.0769	8.0727	16.7931	24.8658	0.0253	5.5000e-004	25.6617	

**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	0.0428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	0.4943					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.2489	0.0197	0.4831	1.2300e-003		0.0726	0.0726		0.0726	0.0726	8.0727	15.5129	23.5855	0.0241	5.5000e-004	24.3506	
Landscaping	0.0236	9.0400e-003	0.7839	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2803	1.2803	1.2300e-003	0.0000	1.3110	
<b>Total</b>	<b>0.8097</b>	<b>0.0288</b>	<b>1.2671</b>	<b>1.2700e-003</b>		<b>0.0769</b>	<b>0.0769</b>		<b>0.0769</b>	<b>0.0769</b>	<b>8.0727</b>	<b>16.7931</b>	<b>24.8658</b>	<b>0.0253</b>	<b>5.5000e-004</b>	<b>25.6617</b>	

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**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	0.0428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4943					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2489	0.0197	0.4831	1.2300e-003		0.0726	0.0726		0.0726	0.0726	8.0727	15.5129	23.5855	0.0241	5.5000e-004	24.3506
Landscaping	0.0236	9.0400e-003	0.7839	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2803	1.2803	1.2300e-003	0.0000	1.3110
<b>Total</b>	<b>0.8097</b>	<b>0.0288</b>	<b>1.2671</b>	<b>1.2700e-003</b>		<b>0.0769</b>	<b>0.0769</b>		<b>0.0769</b>	<b>0.0769</b>	<b>8.0727</b>	<b>16.7931</b>	<b>24.8658</b>	<b>0.0253</b>	<b>5.5000e-004</b>	<b>25.6617</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.5320	0.1301	3.2600e-003	30.7577
Unmitigated	33.1650	0.1627	4.0800e-003	38.4471

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.95171 / 3.12173	33.1650	0.1627	4.0800e-003	38.4471
<b>Total</b>		<b>33.1650</b>	<b>0.1627</b>	<b>4.0800e-003</b>	<b>38.4471</b>

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	3.96136 / 2.49738	26.5320	0.1301	3.2600e- 003	30.7577
<b>Total</b>		<b>26.5320</b>	<b>0.1301</b>	<b>3.2600e- 003</b>	<b>30.7577</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.5150	0.2668	0.0000	11.1858
Unmitigated	18.0601	1.0673	0.0000	44.7432

**8.2 Waste by Land Use**Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	88.97	18.0601	1.0673	0.0000	44.7432
<b>Total</b>		<b>18.0601</b>	<b>1.0673</b>	<b>0.0000</b>	<b>44.7432</b>

## 12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	22.2425	4.5150	0.2668	0.0000	11.1858
<b>Total</b>		<b>4.5150</b>	<b>0.2668</b>	<b>0.0000</b>	<b>11.1858</b>

**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**

12 Oaks Phase 3 - SFR Ranch Lots - Riverside-South Coast County, Annual

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## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**12 Oaks Winery Resort - Buildout**  
**Riverside-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	33.40	1000sqft	0.77	33,400.00	0
Arena	54.45	1000sqft	17.50	54,450.00	0
Hotel	251.00	Room	8.37	237,927.00	0
Condo/Townhouse	20.00	Dwelling Unit	1.25	20,000.00	57
Single Family Housing	76.00	Dwelling Unit	24.68	136,800.00	217
Regional Shopping Center	26.64	1000sqft	0.61	26,640.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

Project Characteristics - Model is for operation emissions only, no construction

Land Use - Hotel sqft adjusted based on data provided by applicant.

Construction Phase - Model is for operations emissions only, no construction.

Off-road Equipment - Model is for operation emissions only, no construction.

Trips and VMT - Model is for operation emissions only, no construction

Vehicle Trips - Fehr&Peers2016

Energy Use -

Water And Wastewater - Winery&Hotel MAWA is 253,014,715 gal/yr

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Area Mitigation - No wood burning devices in new construction per SCAQMD Rule 455.

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	75.00	1.00
tblLandUse	LandUseSquareFeet	364,452.00	237,927.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	37.00	0.00
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	5.67	44.20
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	8.19	6.69
tblVehicleTrips	ST_TR	49.97	57.43
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	4.84	44.20
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	5.95	6.69
tblVehicleTrips	SU_TR	25.24	57.43
tblVehicleTrips	SU_TR	8.62	9.91
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	5.81	45.55
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	8.17	5.68
tblVehicleTrips	WD_TR	42.70	38.29
tblVehicleTrips	WD_TR	9.52	9.53
tblWater	IndoorWaterUseRate	23,455,432.90	0.00
tblWater	OutdoorWaterUseRate	1,497,155.29	0.00
tblWater	OutdoorWaterUseRate	0.00	253,014,715.00
tblWater	OutdoorWaterUseRate	707,451.03	0.00
tblWater	OutdoorWaterUseRate	1,209,437.02	0.00

12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

## 2.0 Emissions Summary

## 2.1 Overall Construction

## **Unmitigated Construction**

## **Mitigated Construction**

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-25-2021	4-24-2021	1.5172	1.5172
		Highest	1.5172	1.5172

**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	2.3972	0.0364	1.6052	1.6100e-003		0.0972	0.0972		0.0972	0.0972	10.1970	21.2214	31.4185	0.0320	6.9000e-004	32.4244
Energy	0.1077	0.9708	0.7624	5.8700e-003		0.0744	0.0744		0.0744	0.0744	0.0000	3,079.1792	3,079.1792	0.1036	0.0367	3,092.7153
Mobile	1.0388	7.4528	12.0589	0.0571	4.4611	0.0324	4.4936	1.1951	0.0302	1.2253	0.0000	5,298.4075	5,298.4075	0.2460	0.0000	5,304.5571
Waste						0.0000	0.0000		0.0000	0.0000	62.2127	0.0000	62.2127	3.6767	0.0000	154.1293
Water						0.0000	0.0000		0.0000	0.0000	7.0808	1,002.1973	1,009.2780	0.7686	0.0257	1,036.1623
Total	3.5437	8.4599	14.4264	0.0646	4.4611	0.2040	4.6651	1.1951	0.2018	1.3969	79.4905	9,401.0054	9,480.4958	4.8268	0.0632	9,619.9884

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**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	2.0848	0.0294	1.0025	1.7000e-004		6.9500e-003	6.9500e-003		6.9500e-003	6.9500e-003	0.0000	22.3741	22.3741	1.9800e-003	3.8000e-004	22.5369
Energy	0.1077	0.9708	0.7624	5.8700e-003		0.0744	0.0744		0.0744	0.0744	0.0000	3,079.179 2	3,079.179 2	0.1036	0.0367	3,092.715 3
Mobile	1.0388	7.4528	12.0589	0.0571	4.4611	0.0324	4.4936	1.1951	0.0302	1.2253	0.0000	5,298.407 5	5,298.407 5	0.2460	0.0000	5,304.557 1
Waste						0.0000	0.0000		0.0000	0.0000	15.5532	0.0000	15.5532	0.9192	0.0000	38.5323
Water						0.0000	0.0000		0.0000	0.0000	5.6646	801.7578	807.4224	0.6149	0.0206	828.9298
<b>Total</b>	<b>3.2313</b>	<b>8.4529</b>	<b>13.8238</b>	<b>0.0631</b>	<b>4.4611</b>	<b>0.1138</b>	<b>4.5749</b>	<b>1.1951</b>	<b>0.1116</b>	<b>1.3067</b>	<b>21.2178</b>	<b>9,201.718 6</b>	<b>9,222.936 4</b>	<b>1.8856</b>	<b>0.0577</b>	<b>9,287.271 4</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	8.81	0.08	4.18	2.23	0.00	44.22	1.93	0.00	44.71	6.46	73.31	2.12	2.72	60.94	8.63	3.46

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/25/2021	1/25/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

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**Acres of Grading (Grading Phase): 0****Acres of Paving: 0**

**Residential Indoor: 317,520; Residential Outdoor: 105,840; Non-Residential Indoor: 528,626; Non-Residential Outdoor: 176,209; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	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
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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## **3.2 Architectural Coating - 2021**

## **Unmitigated Construction On-Site**

### **Unmitigated Construction Off-Site**

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**3.2 Architectural Coating - 2021****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.1240						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.1240</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>						

**Mitigated Construction Off-Site**

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

**4.0 Operational Detail - Mobile**

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0388	7.4528	12.0589	0.0571	4.4611	0.0324	4.4936	1.1951	0.0302	1.2253	0.0000	5,298.407	5,298.407	0.2460	0.0000	5,304.557
Unmitigated	1.0388	7.4528	12.0589	0.0571	4.4611	0.0324	4.4936	1.1951	0.0302	1.2253	0.0000	5,298.407	5,298.407	0.2460	0.0000	5,304.557

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
Condo/Townhouse	911.00	884.00	884.00	3,086,665	3,086,665
General Light Industry	0.00	0.00	0.00		
Hotel	1,425.68	1,679.19	1679.19	3,574,750	3,574,750
Regional Shopping Center	1,020.05	1,529.94	1529.94	2,521,289	2,521,289
Single Family Housing	724.28	753.16	753.16	2,503,171	2,503,171
Total	4,081.01	4,846.29	4,846.29	11,685,874	11,685,874

#### 4.3 Trip Type Information

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

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
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Condo/Townhouse	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
General Light Industry	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Hotel	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Regional Shopping Center	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Single Family Housing	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	2,013.505	2,013.505	0.0831	0.0172	2,020.709
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,013.505	2,013.505	0.0831	0.0172	2,020.709
NaturalGas Mitigated	0.1077	0.9708	0.7624	5.8700e-003		0.0744	0.0744		0.0744	0.0744	0.0000	1,065.673	1,065.673	0.0204	0.0195	1,072.006
NaturalGas Unmitigated	0.1077	0.9708	0.7624	5.8700e-003		0.0744	0.0744		0.0744	0.0744	0.0000	1,065.673	1,065.673	0.0204	0.0195	1,072.006

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**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					
Arena	1.76908e+006	9.5400e-003	0.0867	0.0728	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.4049	94.4049	1.8100e-003	1.7300e-003	94.9659	
Condo/Townhouse	453271	2.4400e-003	0.0209	8.8900e-003	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1883	24.1883	4.6000e-004	4.4000e-004	24.3320	
General Light Industry	1.08517e+006	5.8500e-003	0.0532	0.0447	3.2000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	57.9086	57.9086	1.1100e-003	1.0600e-003	58.2527	
Hotel	1.4278e+007	0.0770	0.6999	0.5879	4.2000e-003		0.0532	0.0532		0.0532	0.0532	0.0000	761.9284	761.9284	0.0146	0.0140	766.4562	
Regional Shopping Center	59140.8	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1560	3.1560	6.0000e-005	6.0000e-005	3.1747	
Single Family Housing	2.32531e+006	0.0125	0.1072	0.0456	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0873	124.0873	2.3800e-003	2.2700e-003	124.8247	
<b>Total</b>		<b>0.1077</b>	<b>0.9708</b>	<b>0.7624</b>	<b>5.8700e-003</b>		<b>0.0744</b>	<b>0.0744</b>		<b>0.0744</b>	<b>0.0744</b>	<b>0.0000</b>	<b>1,065.6734</b>	<b>1,065.6734</b>	<b>0.0204</b>	<b>0.0195</b>	<b>1,072.0061</b>	

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr											MT/yr					
Arena	1.76908e+006	9.5400e-003	0.0867	0.0728	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.4049	94.4049	1.8100e-003	1.7300e-003	94.9659	
Condo/Townhouse	453271	2.4400e-003	0.0209	8.8900e-003	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1883	24.1883	4.6000e-004	4.4000e-004	24.3320	
General Light Industry	1.08517e+006	5.8500e-003	0.0532	0.0447	3.2000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	57.9086	57.9086	1.1100e-003	1.0600e-003	58.2527	
Hotel	1.4278e+007	0.0770	0.6999	0.5879	4.2000e-003		0.0532	0.0532		0.0532	0.0532	0.0000	761.9284	761.9284	0.0146	0.0140	766.4562	
Regional Shopping Center	59140.8	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1560	3.1560	6.0000e-005	6.0000e-005	3.1747	
Single Family Housing	2.32531e+006	0.0125	0.1072	0.0456	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0873	124.0873	2.3800e-003	2.2700e-003	124.8247	
<b>Total</b>		<b>0.1077</b>	<b>0.9708</b>	<b>0.7624</b>	<b>5.8700e-003</b>		<b>0.0744</b>	<b>0.0744</b>		<b>0.0744</b>	<b>0.0744</b>	<b>0.0000</b>	<b>1,065.6734</b>	<b>1,065.6734</b>	<b>0.0204</b>	<b>0.0195</b>	<b>1,072.0061</b>	

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	552668	176.0917	7.2700e-003	1.5000e-003	176.7217
Condo/Townhouse	112841	35.9536	1.4800e-003	3.1000e-004	36.0823
General Light Industry	339010	108.0159	4.4600e-003	9.2000e-004	108.4023
Hotel	4.316e+006	1,375.1687	0.0568	0.0118	1,380.0884
Regional Shopping Center	336463	107.2044	4.4300e-003	9.2000e-004	107.5879
Single Family Housing	662452	211.0716	8.7100e-003	1.8000e-003	211.8267
<b>Total</b>		<b>2,013.5058</b>	<b>0.0831</b>	<b>0.0172</b>	<b>2,020.7092</b>

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	552668	176.0917	7.2700e-003	1.5000e-003	176.7217
Condo/Townhouse	112841	35.9536	1.4800e-003	3.1000e-004	36.0823
General Light Industry	339010	108.0159	4.4600e-003	9.2000e-004	108.4023
Hotel	4.316e+006	1,375.1687	0.0568	0.0118	1,380.0884
Regional Shopping Center	336463	107.2044	4.4300e-003	9.2000e-004	107.5879
Single Family Housing	662452	211.0716	8.7100e-003	1.8000e-003	211.8267
<b>Total</b>		<b>2,013.5058</b>	<b>0.0831</b>	<b>0.0172</b>	<b>2,020.7092</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	2.0848	0.0294	1.0025	1.7000e-004		6.9500e-003	6.9500e-003		6.9500e-003	6.9500e-003	0.0000	22.3741	22.3741	1.9800e-003	3.8000e-004	22.5369
Unmitigated	2.3972	0.0364	1.6052	1.6100e-003		0.0972	0.0972		0.0972	0.0972	10.1970	21.2214	31.4185	0.0320	6.9000e-004	32.4244

## 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	0.2124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8401					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3144	0.0249	0.6103	1.5600e-003		0.0917	0.0917		0.0917	0.0917	10.1970	19.5952	29.7922	0.0304	6.9000e-004	30.7587
Landscaping	0.0303	0.0115	0.9949	5.0000e-005		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	1.6262	1.6262	1.5800e-003	0.0000	1.6657
<b>Total</b>	<b>2.3972</b>	<b>0.0364</b>	<b>1.6052</b>	<b>1.6100e-003</b>		<b>0.0972</b>	<b>0.0972</b>		<b>0.0972</b>	<b>0.0972</b>	<b>10.1970</b>	<b>21.2214</b>	<b>31.4185</b>	<b>0.0320</b>	<b>6.9000e-004</b>	<b>32.4244</b>

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**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8401					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.1000e-003	0.0179	7.6200e-003	1.1000e-004		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	20.7479	20.7479	4.0000e-004	3.8000e-004	20.8711
Landscaping	0.0303	0.0115	0.9949	5.0000e-005		5.5000e-003	5.5000e-003		5.5000e-003	5.5000e-003	0.0000	1.6262	1.6262	1.5800e-003	0.0000	1.6657
<b>Total</b>	<b>2.0848</b>	<b>0.0294</b>	<b>1.0025</b>	<b>1.6000e-004</b>		<b>6.9500e-003</b>	<b>6.9500e-003</b>		<b>6.9500e-003</b>	<b>6.9500e-003</b>	<b>0.0000</b>	<b>22.3741</b>	<b>22.3741</b>	<b>1.9800e-003</b>	<b>3.8000e-004</b>	<b>22.5369</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	807.4224	0.6149	0.0206	828.9298
Unmitigated	1,009.278	0.7686	0.0257	1,036.162

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e	1.30308 / 0.821507	8.7276	0.0428	1.0700e- 003	10.1177
General Light Industry	7.72375 / 253.015	930.1372	0.2900	0.0139	941.5189
Hotel	6.36706 / 0	28.4354	0.2086	5.1200e- 003	35.1766
Regional Shopping Center	1.97329 / 0	8.8128	0.0646	1.5900e- 003	10.9020
Single Family Housing	4.95171 / 3.12173	33.1650	0.1627	4.0800e- 003	38.4471
<b>Total</b>		<b>1,009.278 0</b>	<b>0.7686</b>	<b>0.0257</b>	<b>1,036.162 3</b>

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e	1.04246 / 0.657206	6.9821	0.0342	8.6000e- 004	8.0941
General Light Industry	6.179 / 202.412	744.1098	0.2320	0.0111	753.2151
Hotel	5.09365 / 0	22.7484	0.1669	4.1000e- 003	28.1413
Regional Shopping Center	1.57863 / 0	7.0502	0.0517	1.2700e- 003	8.7216
Single Family Housing	3.96136 / 2.49738	26.5320	0.1301	3.2600e- 003	30.7577
<b>Total</b>		<b>807.4224</b>	<b>0.6149</b>	<b>0.0206</b>	<b>828.9298</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
MT/yr				
Mitigated	15.5532	0.9192	0.0000	38.5323
Unmitigated	62.2127	3.6767	0.0000	154.1293

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	1.5	0.3045	0.0180	0.0000	0.7544
Condo/Townhouse	9.2	1.8675	0.1104	0.0000	4.6267
General Light Industry	41.42	8.4079	0.4969	0.0000	20.8302
Hotel	137.42	27.8950	1.6486	0.0000	69.1087
Regional Shopping Center	27.97	5.6777	0.3355	0.0000	14.0662
Single Family Housing	88.97	18.0601	1.0673	0.0000	44.7432
<b>Total</b>		<b>62.2127</b>	<b>3.6767</b>	<b>0.0000</b>	<b>154.1293</b>

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.375	0.0761	4.5000e-003	0.0000	0.1886
Condo/Townhouse	2.3	0.4669	0.0276	0.0000	1.1567
General Light Industry	10.355	2.1020	0.1242	0.0000	5.2076
Hotel	34.355	6.9738	0.4121	0.0000	17.2772
Regional Shopping Center	6.9925	1.4194	0.0839	0.0000	3.5165
Single Family Housing	22.2425	4.5150	0.2668	0.0000	11.1858
<b>Total</b>		<b>15.5532</b>	<b>0.9192</b>	<b>0.0000</b>	<b>38.5323</b>

**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**

## 12 Oaks Winery Resort - Buildout - Riverside-South Coast County, Annual

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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## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**12 Oaks Winery Resort - BAU**  
**Riverside-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	33.40	1000sqft	0.77	33,402.00	0
Arena	54.45	1000sqft	17.50	54,450.00	0
Hotel	251.00	Room	8.37	237,927.00	0
Condo/Townhouse	20.00	Dwelling Unit	1.25	20,000.00	57
Single Family Housing	76.00	Dwelling Unit	24.68	136,800.00	217
Regional Shopping Center	26.64	1000sqft	0.61	26,640.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2011
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

## Project Characteristics -

Land Use - Hotel sqft adjusted based on data provided by applicant.

Construction Phase - This model is operation emissions only, no construction.

Off-road Equipment - This model is operation emissions only, no construction.

Trips and VMT - This model is operation emissions only, no construction.

Vehicle Trips - Fehr&Peers2016

Water And Wastewater - Winery&Hotel MAWA is 253,014,715 gal/yr

Area Mitigation - No wood burning devices in new construction per SCAQMD Rule 455.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	176,210.00	176,208.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	528,629.00	528,624.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	100	50
tblAreaCoating	Area_Nonresidential_Exterior	176210	176208
tblAreaCoating	Area_Nonresidential_Interior	528629	528624
tblConstructionPhase	NumDays	75.00	1.00
tblEnergyUse	LightingElect	2.93	3.01
tblEnergyUse	LightingElect	2.93	3.01
tblEnergyUse	LightingElect	5.44	5.58
tblEnergyUse	LightingElect	5.61	5.77
tblEnergyUse	NT24E	3,795.01	4,109.59
tblEnergyUse	NT24E	6,155.97	6,680.41
tblEnergyUse	T24E	2.20	2.31

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

tblEnergyUse	T24E	845.95	958.04
tblEnergyUse	T24E	2.20	2.31
tblEnergyUse	T24E	6.47	6.79
tblEnergyUse	T24E	4.58	4.80
tblEnergyUse	T24E	951.67	1,077.77
tblEnergyUse	T24NG	15.36	15.43
tblEnergyUse	T24NG	16,633.53	21,055.10
tblEnergyUse	T24NG	15.36	15.43
tblEnergyUse	T24NG	55.15	55.43
tblEnergyUse	T24NG	1.92	1.93
tblEnergyUse	T24NG	24,566.15	31,096.40
tblLandUse	LandUseSquareFeet	33,400.00	33,402.00
tblLandUse	LandUseSquareFeet	364,452.00	237,927.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	37.00	0.00
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tblVehicleEF	HHD	15.71	20.32

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tblVehicleEF	HHD	0.70	0.03
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tblVehicleEF	HHD	1.0730e-003	7.4000e-005
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tblVehicleEF	HHD	3.0730e-003	2.8400e-004
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tblVehicleEF	HHD	8.7100e-004	1.4100e-004
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tblVehicleEF	LDA	0.07	0.02
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tblVehicleEF	LDA	0.08	0.02
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tblVehicleEF	LDA	0.29	0.15
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tblVehicleEF	LDT1	0.05	0.03
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tblVehicleEF	LDT1	383.85	341.74
tblVehicleEF	LDT1	83.71	76.98

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tblVehicleEF	LDT1	0.45	0.20
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tblVehicleEF	LDT1	0.04	0.02
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tblVehicleEF	LDT1	0.49	0.29

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tblVehicleEF	LDT1	5.4950e-003	3.0030e-003
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tblVehicleEF	LDT2	0.02	7.6070e-003
tblVehicleEF	LDT2	0.03	0.01
tblVehicleEF	LDT2	2.20	0.99
tblVehicleEF	LDT2	4.79	2.20
tblVehicleEF	LDT2	459.62	388.69
tblVehicleEF	LDT2	99.72	88.32
tblVehicleEF	LDT2	0.29	0.11
tblVehicleEF	LDT2	0.50	0.21
tblVehicleEF	LDT2	2.0880e-003	1.5500e-003

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tblVehicleEF	LDT2	3.4180e-003	2.2800e-003
tblVehicleEF	LDT2	1.9280e-003	1.4260e-003
tblVehicleEF	LDT2	3.1580e-003	2.0980e-003
tblVehicleEF	LDT2	0.14	0.09
tblVehicleEF	LDT2	0.22	0.15
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.06	0.02
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.38	0.15
tblVehicleEF	LDT2	4.6250e-003	3.8960e-003
tblVehicleEF	LDT2	1.0830e-003	9.2100e-004
tblVehicleEF	LDT2	0.14	0.09
tblVehicleEF	LDT2	0.22	0.15
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.08	0.03
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.41	0.16
tblVehicleEF	LDT2	0.02	8.6130e-003
tblVehicleEF	LDT2	0.02	9.6790e-003
tblVehicleEF	LDT2	2.64	1.21
tblVehicleEF	LDT2	4.27	1.95
tblVehicleEF	LDT2	499.57	422.92
tblVehicleEF	LDT2	99.72	88.32
tblVehicleEF	LDT2	0.27	0.11
tblVehicleEF	LDT2	0.48	0.20
tblVehicleEF	LDT2	2.0880e-003	1.5500e-003
tblVehicleEF	LDT2	3.4180e-003	2.2800e-003

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tblVehicleEF	LDT2	1.9280e-003	1.4260e-003
tblVehicleEF	LDT2	3.1580e-003	2.0980e-003
tblVehicleEF	LDT2	0.27	0.17
tblVehicleEF	LDT2	0.29	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.07	0.02
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.33	0.13
tblVehicleEF	LDT2	5.0300e-003	4.2410e-003
tblVehicleEF	LDT2	1.0730e-003	9.1600e-004
tblVehicleEF	LDT2	0.27	0.17
tblVehicleEF	LDT2	0.29	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.09	0.03
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.36	0.14
tblVehicleEF	LDT2	0.02	7.3180e-003
tblVehicleEF	LDT2	0.03	0.01
tblVehicleEF	LDT2	2.07	0.93
tblVehicleEF	LDT2	4.87	2.24
tblVehicleEF	LDT2	447.93	378.51
tblVehicleEF	LDT2	99.72	88.32
tblVehicleEF	LDT2	0.28	0.11
tblVehicleEF	LDT2	0.50	0.21
tblVehicleEF	LDT2	2.0880e-003	1.5500e-003
tblVehicleEF	LDT2	3.4180e-003	2.2800e-003
tblVehicleEF	LDT2	1.9280e-003	1.4260e-003

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tblVehicleEF	LDT2	3.1580e-003	2.0980e-003
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.26	0.17
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.06	0.02
tblVehicleEF	LDT2	0.13	0.09
tblVehicleEF	LDT2	0.39	0.15
tblVehicleEF	LDT2	4.5060e-003	3.7930e-003
tblVehicleEF	LDT2	1.0850e-003	9.2200e-004
tblVehicleEF	LDT2	0.12	0.07
tblVehicleEF	LDT2	0.26	0.17
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.08	0.03
tblVehicleEF	LDT2	0.13	0.09
tblVehicleEF	LDT2	0.42	0.17
tblVehicleEF	LHD1	6.7240e-003	5.9270e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.16	0.15
tblVehicleEF	LHD1	1.93	1.20
tblVehicleEF	LHD1	4.29	2.83
tblVehicleEF	LHD1	9.12	9.27
tblVehicleEF	LHD1	647.89	624.02
tblVehicleEF	LHD1	35.09	31.99
tblVehicleEF	LHD1	0.08	0.09
tblVehicleEF	LHD1	3.31	2.62
tblVehicleEF	LHD1	1.12	1.06

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tblVehicleEF	LHD1	8.6500e-004	9.5000e-004
tblVehicleEF	LHD1	9.7760e-003	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6150e-003	1.0580e-003
tblVehicleEF	LHD1	8.2700e-004	9.0900e-004
tblVehicleEF	LHD1	2.4440e-003	2.5090e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	1.4910e-003	9.7500e-004
tblVehicleEF	LHD1	4.5700e-003	4.0820e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8870e-003	1.9240e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.25	0.30
tblVehicleEF	LHD1	0.38	0.30
tblVehicleEF	LHD1	9.2000e-005	9.3000e-005
tblVehicleEF	LHD1	6.3930e-003	6.1300e-003
tblVehicleEF	LHD1	4.3000e-004	3.7400e-004
tblVehicleEF	LHD1	4.5700e-003	4.0820e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.8870e-003	1.9240e-003
tblVehicleEF	LHD1	0.15	0.11
tblVehicleEF	LHD1	0.25	0.30
tblVehicleEF	LHD1	0.42	0.33
tblVehicleEF	LHD1	6.7240e-003	5.9270e-003
tblVehicleEF	LHD1	0.02	0.01

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tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.16	0.15
tblVehicleEF	LHD1	1.97	1.22
tblVehicleEF	LHD1	4.10	2.70
tblVehicleEF	LHD1	9.12	9.27
tblVehicleEF	LHD1	647.89	624.02
tblVehicleEF	LHD1	35.09	31.99
tblVehicleEF	LHD1	0.08	0.09
tblVehicleEF	LHD1	3.11	2.46
tblVehicleEF	LHD1	1.08	1.02
tblVehicleEF	LHD1	8.6500e-004	9.5000e-004
tblVehicleEF	LHD1	9.7760e-003	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6150e-003	1.0580e-003
tblVehicleEF	LHD1	8.2700e-004	9.0900e-004
tblVehicleEF	LHD1	2.4440e-003	2.5090e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	1.4910e-003	9.7500e-004
tblVehicleEF	LHD1	8.7270e-003	7.6790e-003
tblVehicleEF	LHD1	0.13	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.0470e-003	3.7760e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.25	0.31
tblVehicleEF	LHD1	0.37	0.29
tblVehicleEF	LHD1	9.2000e-005	9.3000e-005
tblVehicleEF	LHD1	6.3940e-003	6.1300e-003

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tblVehicleEF	LHD1	4.2700e-004	3.7100e-004
tblVehicleEF	LHD1	8.7270e-003	7.6790e-003
tblVehicleEF	LHD1	0.13	0.12
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	4.0470e-003	3.7760e-003
tblVehicleEF	LHD1	0.15	0.11
tblVehicleEF	LHD1	0.25	0.31
tblVehicleEF	LHD1	0.40	0.32
tblVehicleEF	LHD1	6.7240e-003	5.9270e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.16	0.15
tblVehicleEF	LHD1	1.92	1.20
tblVehicleEF	LHD1	4.27	2.82
tblVehicleEF	LHD1	9.12	9.27
tblVehicleEF	LHD1	647.89	624.02
tblVehicleEF	LHD1	35.09	31.99
tblVehicleEF	LHD1	0.08	0.09
tblVehicleEF	LHD1	3.27	2.59
tblVehicleEF	LHD1	1.12	1.05
tblVehicleEF	LHD1	8.6500e-004	9.5000e-004
tblVehicleEF	LHD1	9.7760e-003	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6150e-003	1.0580e-003
tblVehicleEF	LHD1	8.2700e-004	9.0900e-004
tblVehicleEF	LHD1	2.4440e-003	2.5090e-003
tblVehicleEF	LHD1	0.02	0.01

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tblVehicleEF	LHD1	1.4910e-003	9.7500e-004
tblVehicleEF	LHD1	4.5590e-003	3.7460e-003
tblVehicleEF	LHD1	0.13	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7520e-003	1.7610e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.32
tblVehicleEF	LHD1	0.38	0.30
tblVehicleEF	LHD1	9.2000e-005	9.3000e-005
tblVehicleEF	LHD1	6.3930e-003	6.1300e-003
tblVehicleEF	LHD1	4.3000e-004	3.7400e-004
tblVehicleEF	LHD1	4.5590e-003	3.7460e-003
tblVehicleEF	LHD1	0.13	0.12
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.7520e-003	1.7610e-003
tblVehicleEF	LHD1	0.15	0.11
tblVehicleEF	LHD1	0.27	0.32
tblVehicleEF	LHD1	0.42	0.33
tblVehicleEF	LHD2	4.6250e-003	4.0760e-003
tblVehicleEF	LHD2	0.01	6.4900e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.26	0.70
tblVehicleEF	LHD2	2.34	1.42
tblVehicleEF	LHD2	14.35	14.62
tblVehicleEF	LHD2	644.34	622.86
tblVehicleEF	LHD2	26.96	24.67

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tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	4.22	2.43
tblVehicleEF	LHD2	0.72	0.61
tblVehicleEF	LHD2	1.3170e-003	1.3580e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.0400e-004	4.7900e-004
tblVehicleEF	LHD2	1.2600e-003	1.3000e-003
tblVehicleEF	LHD2	2.6510e-003	2.6850e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.4100e-004	4.4100e-004
tblVehicleEF	LHD2	2.4140e-003	1.8390e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.0090e-003	8.9600e-004
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.22	0.15
tblVehicleEF	LHD2	1.4100e-004	1.4300e-004
tblVehicleEF	LHD2	6.2850e-003	6.0600e-003
tblVehicleEF	LHD2	3.1300e-004	2.7400e-004
tblVehicleEF	LHD2	2.4140e-003	1.8390e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0090e-003	8.9600e-004
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.11	0.11

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tblVehicleEF	LHD2	0.24	0.16
tblVehicleEF	LHD2	4.6250e-003	4.0760e-003
tblVehicleEF	LHD2	0.01	6.5730e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.27	0.71
tblVehicleEF	LHD2	2.24	1.36
tblVehicleEF	LHD2	14.35	14.62
tblVehicleEF	LHD2	644.34	622.86
tblVehicleEF	LHD2	26.96	24.67
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	3.98	2.29
tblVehicleEF	LHD2	0.69	0.59
tblVehicleEF	LHD2	1.3170e-003	1.3580e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.0400e-004	4.7900e-004
tblVehicleEF	LHD2	1.2600e-003	1.3000e-003
tblVehicleEF	LHD2	2.6510e-003	2.6850e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.4100e-004	4.4100e-004
tblVehicleEF	LHD2	4.6430e-003	3.4930e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	2.1660e-003	1.7440e-003
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.11	0.11

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tblVehicleEF	LHD2	0.21	0.14
tblVehicleEF	LHD2	1.4100e-004	1.4300e-004
tblVehicleEF	LHD2	6.2850e-003	6.0600e-003
tblVehicleEF	LHD2	3.1100e-004	2.7200e-004
tblVehicleEF	LHD2	4.6430e-003	3.4930e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.1660e-003	1.7440e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.23	0.16
tblVehicleEF	LHD2	4.6250e-003	4.0760e-003
tblVehicleEF	LHD2	0.01	6.4710e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.25	0.70
tblVehicleEF	LHD2	2.35	1.43
tblVehicleEF	LHD2	14.35	14.62
tblVehicleEF	LHD2	644.34	622.86
tblVehicleEF	LHD2	26.96	24.67
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	4.17	2.41
tblVehicleEF	LHD2	0.72	0.61
tblVehicleEF	LHD2	1.3170e-003	1.3580e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.0400e-004	4.7900e-004

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tblVehicleEF	LHD2	1.2600e-003	1.3000e-003
tblVehicleEF	LHD2	2.6510e-003	2.6850e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.4100e-004	4.4100e-004
tblVehicleEF	LHD2	2.2160e-003	1.5180e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	8.6100e-004	7.5800e-004
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.22	0.15
tblVehicleEF	LHD2	1.4100e-004	1.4300e-004
tblVehicleEF	LHD2	6.2850e-003	6.0600e-003
tblVehicleEF	LHD2	3.1300e-004	2.7400e-004
tblVehicleEF	LHD2	2.2160e-003	1.5180e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.6100e-004	7.5800e-004
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.24	0.16
tblVehicleEF	MCY	0.34	0.40
tblVehicleEF	MCY	0.17	0.16
tblVehicleEF	MCY	27.22	21.06
tblVehicleEF	MCY	9.50	9.63
tblVehicleEF	MCY	156.71	163.43
tblVehicleEF	MCY	52.05	47.74

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tblVehicleEF	MCY	1.21	1.14
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	1.5740e-003	1.5880e-003
tblVehicleEF	MCY	4.4720e-003	3.6000e-003
tblVehicleEF	MCY	1.4930e-003	1.4910e-003
tblVehicleEF	MCY	4.2540e-003	3.4060e-003
tblVehicleEF	MCY	1.54	1.67
tblVehicleEF	MCY	0.79	0.87
tblVehicleEF	MCY	0.84	0.92
tblVehicleEF	MCY	2.60	2.23
tblVehicleEF	MCY	0.67	0.61
tblVehicleEF	MCY	2.28	2.12
tblVehicleEF	MCY	2.0800e-003	2.0410e-003
tblVehicleEF	MCY	7.4300e-004	6.9700e-004
tblVehicleEF	MCY	1.54	1.67
tblVehicleEF	MCY	0.79	0.87
tblVehicleEF	MCY	0.84	0.92
tblVehicleEF	MCY	3.02	2.71
tblVehicleEF	MCY	0.67	0.61
tblVehicleEF	MCY	2.47	2.31
tblVehicleEF	MCY	0.33	0.40
tblVehicleEF	MCY	0.15	0.14
tblVehicleEF	MCY	28.14	21.81
tblVehicleEF	MCY	9.21	9.13
tblVehicleEF	MCY	156.71	163.43
tblVehicleEF	MCY	52.05	47.74
tblVehicleEF	MCY	1.04	0.99

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tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	1.5740e-003	1.5880e-003
tblVehicleEF	MCY	4.4720e-003	3.6000e-003
tblVehicleEF	MCY	1.4930e-003	1.4910e-003
tblVehicleEF	MCY	4.2540e-003	3.4060e-003
tblVehicleEF	MCY	3.08	3.33
tblVehicleEF	MCY	1.10	1.24
tblVehicleEF	MCY	1.97	2.10
tblVehicleEF	MCY	2.53	2.20
tblVehicleEF	MCY	0.66	0.61
tblVehicleEF	MCY	2.02	1.89
tblVehicleEF	MCY	2.0920e-003	2.0520e-003
tblVehicleEF	MCY	7.3000e-004	6.8200e-004
tblVehicleEF	MCY	3.08	3.33
tblVehicleEF	MCY	1.10	1.24
tblVehicleEF	MCY	1.97	2.10
tblVehicleEF	MCY	2.95	2.68
tblVehicleEF	MCY	0.66	0.61
tblVehicleEF	MCY	2.19	2.06
tblVehicleEF	MCY	0.34	0.40
tblVehicleEF	MCY	0.17	0.16
tblVehicleEF	MCY	26.40	20.51
tblVehicleEF	MCY	9.32	9.54
tblVehicleEF	MCY	156.71	163.43
tblVehicleEF	MCY	52.05	47.74
tblVehicleEF	MCY	1.20	1.14
tblVehicleEF	MCY	0.31	0.31

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tblVehicleEF	MCY	1.5740e-003	1.5880e-003
tblVehicleEF	MCY	4.4720e-003	3.6000e-003
tblVehicleEF	MCY	1.4930e-003	1.4910e-003
tblVehicleEF	MCY	4.2540e-003	3.4060e-003
tblVehicleEF	MCY	1.54	1.61
tblVehicleEF	MCY	1.02	1.08
tblVehicleEF	MCY	0.70	0.75
tblVehicleEF	MCY	2.59	2.23
tblVehicleEF	MCY	0.75	0.69
tblVehicleEF	MCY	2.27	2.12
tblVehicleEF	MCY	2.0670e-003	2.0330e-003
tblVehicleEF	MCY	7.4000e-004	6.9600e-004
tblVehicleEF	MCY	1.54	1.61
tblVehicleEF	MCY	1.02	1.08
tblVehicleEF	MCY	0.70	0.75
tblVehicleEF	MCY	3.01	2.71
tblVehicleEF	MCY	0.75	0.69
tblVehicleEF	MCY	2.46	2.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	2.66	1.85
tblVehicleEF	MDV	5.90	4.07
tblVehicleEF	MDV	581.35	525.00
tblVehicleEF	MDV	125.32	117.09
tblVehicleEF	MDV	0.39	0.23
tblVehicleEF	MDV	0.62	0.41
tblVehicleEF	MDV	2.0380e-003	1.7340e-003

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tblVehicleEF	MDV	3.3670e-003	2.5860e-003
tblVehicleEF	MDV	1.8820e-003	1.6010e-003
tblVehicleEF	MDV	3.1040e-003	2.3820e-003
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.18	0.22
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.10	0.12
tblVehicleEF	MDV	0.51	0.33
tblVehicleEF	MDV	5.8470e-003	5.2690e-003
tblVehicleEF	MDV	1.3600e-003	1.2440e-003
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.18	0.22
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.10	0.07
tblVehicleEF	MDV	0.10	0.12
tblVehicleEF	MDV	0.56	0.36
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	3.19	2.23
tblVehicleEF	MDV	5.25	3.62
tblVehicleEF	MDV	631.38	569.85
tblVehicleEF	MDV	125.32	117.09
tblVehicleEF	MDV	0.36	0.22
tblVehicleEF	MDV	0.60	0.40
tblVehicleEF	MDV	2.0380e-003	1.7340e-003
tblVehicleEF	MDV	3.3670e-003	2.5860e-003

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tblVehicleEF	MDV	1.8820e-003	1.6010e-003
tblVehicleEF	MDV	3.1040e-003	2.3820e-003
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.24	0.25
tblVehicleEF	MDV	0.16	0.18
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.10	0.12
tblVehicleEF	MDV	0.44	0.29
tblVehicleEF	MDV	6.3550e-003	5.7230e-003
tblVehicleEF	MDV	1.3480e-003	1.2350e-003
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.24	0.25
tblVehicleEF	MDV	0.16	0.18
tblVehicleEF	MDV	0.11	0.07
tblVehicleEF	MDV	0.10	0.12
tblVehicleEF	MDV	0.49	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	2.50	1.73
tblVehicleEF	MDV	6.02	4.15
tblVehicleEF	MDV	566.86	511.77
tblVehicleEF	MDV	125.32	117.09
tblVehicleEF	MDV	0.38	0.22
tblVehicleEF	MDV	0.62	0.41
tblVehicleEF	MDV	2.0380e-003	1.7340e-003
tblVehicleEF	MDV	3.3670e-003	2.5860e-003
tblVehicleEF	MDV	1.8820e-003	1.6010e-003

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tblVehicleEF	MDV	3.1040e-003	2.3820e-003
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.21	0.23
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.52	0.34
tblVehicleEF	MDV	5.7000e-003	5.1350e-003
tblVehicleEF	MDV	1.3630e-003	1.2450e-003
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.21	0.23
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.10	0.06
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.57	0.37
tblVehicleEF	MH	0.06	0.04
tblVehicleEF	MH	0.06	0.03
tblVehicleEF	MH	9.50	4.15
tblVehicleEF	MH	11.43	7.25
tblVehicleEF	MH	1,020.19	1,011.25
tblVehicleEF	MH	73.88	61.50
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tblVehicleEF	MH	1.21	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	3.5330e-003	1.6320e-003
tblVehicleEF	MH	3.2290e-003	3.2430e-003

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tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	3.3160e-003	1.5160e-003
tblVehicleEF	MH	2.32	1.81
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	0.73	0.61
tblVehicleEF	MH	0.28	0.14
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.80	0.46
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.4300e-004	7.4300e-004
tblVehicleEF	MH	2.32	1.81
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	0.73	0.61
tblVehicleEF	MH	0.35	0.18
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.87	0.50
tblVehicleEF	MH	0.07	0.04
tblVehicleEF	MH	0.06	0.03
tblVehicleEF	MH	9.87	4.31
tblVehicleEF	MH	11.06	6.84
tblVehicleEF	MH	1,020.19	1,011.25
tblVehicleEF	MH	73.88	61.50
tblVehicleEF	MH	2.23	1.79
tblVehicleEF	MH	1.16	0.92
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	3.5330e-003	1.6320e-003

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tblVehicleEF	MH	3.2290e-003	3.2430e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	3.3160e-003	1.5160e-003
tblVehicleEF	MH	4.34	3.34
tblVehicleEF	MH	0.14	0.11
tblVehicleEF	MH	1.54	1.21
tblVehicleEF	MH	0.28	0.14
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.77	0.44
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.3600e-004	7.3600e-004
tblVehicleEF	MH	4.34	3.34
tblVehicleEF	MH	0.14	0.11
tblVehicleEF	MH	1.54	1.21
tblVehicleEF	MH	0.36	0.19
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.84	0.48
tblVehicleEF	MH	0.06	0.04
tblVehicleEF	MH	0.06	0.03
tblVehicleEF	MH	9.30	4.11
tblVehicleEF	MH	11.31	7.25
tblVehicleEF	MH	1,020.19	1,011.25
tblVehicleEF	MH	73.88	61.50
tblVehicleEF	MH	2.40	1.91
tblVehicleEF	MH	1.20	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05

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tblVehicleEF	MH	3.5330e-003	1.6320e-003
tblVehicleEF	MH	3.2290e-003	3.2430e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	3.3160e-003	1.5160e-003
tblVehicleEF	MH	2.53	1.86
tblVehicleEF	MH	0.16	0.12
tblVehicleEF	MH	0.75	0.60
tblVehicleEF	MH	0.27	0.14
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.79	0.46
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.4100e-004	7.4300e-004
tblVehicleEF	MH	2.53	1.86
tblVehicleEF	MH	0.16	0.12
tblVehicleEF	MH	0.75	0.60
tblVehicleEF	MH	0.35	0.18
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.86	0.50
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.17	0.07
tblVehicleEF	MHD	0.92	0.52
tblVehicleEF	MHD	2.62	0.77
tblVehicleEF	MHD	16.42	7.84
tblVehicleEF	MHD	141.56	158.21
tblVehicleEF	MHD	1,059.46	1,072.89
tblVehicleEF	MHD	89.18	57.13

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tblVehicleEF	MHD	2.10	1.45
tblVehicleEF	MHD	7.73	2.99
tblVehicleEF	MHD	8.97	11.71
tblVehicleEF	MHD	0.03	7.1090e-003
tblVehicleEF	MHD	0.31	0.11
tblVehicleEF	MHD	5.3180e-003	1.0490e-003
tblVehicleEF	MHD	0.02	6.8010e-003
tblVehicleEF	MHD	0.30	0.10
tblVehicleEF	MHD	5.0240e-003	9.6900e-004
tblVehicleEF	MHD	5.8870e-003	2.2710e-003
tblVehicleEF	MHD	0.20	0.06
tblVehicleEF	MHD	0.10	0.04
tblVehicleEF	MHD	2.5260e-003	1.0630e-003
tblVehicleEF	MHD	0.43	0.14
tblVehicleEF	MHD	0.08	0.02
tblVehicleEF	MHD	1.29	0.48
tblVehicleEF	MHD	1.3630e-003	1.5210e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.1900e-003	7.0900e-004
tblVehicleEF	MHD	5.8870e-003	2.2710e-003
tblVehicleEF	MHD	0.20	0.06
tblVehicleEF	MHD	0.12	0.06
tblVehicleEF	MHD	2.5260e-003	1.0630e-003
tblVehicleEF	MHD	0.50	0.16
tblVehicleEF	MHD	0.08	0.02
tblVehicleEF	MHD	1.40	0.53
tblVehicleEF	MHD	0.02	0.02

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tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.17	0.07
tblVehicleEF	MHD	0.67	0.38
tblVehicleEF	MHD	2.69	0.78
tblVehicleEF	MHD	16.49	7.51
tblVehicleEF	MHD	149.93	167.58
tblVehicleEF	MHD	1,059.46	1,072.89
tblVehicleEF	MHD	89.18	57.13
tblVehicleEF	MHD	2.16	1.50
tblVehicleEF	MHD	7.28	2.82
tblVehicleEF	MHD	8.91	11.68
tblVehicleEF	MHD	0.02	5.9930e-003
tblVehicleEF	MHD	0.31	0.11
tblVehicleEF	MHD	5.3180e-003	1.0490e-003
tblVehicleEF	MHD	0.02	5.7330e-003
tblVehicleEF	MHD	0.30	0.10
tblVehicleEF	MHD	5.0240e-003	9.6900e-004
tblVehicleEF	MHD	0.01	4.4250e-003
tblVehicleEF	MHD	0.24	0.07
tblVehicleEF	MHD	0.09	0.04
tblVehicleEF	MHD	5.4690e-003	2.1530e-003
tblVehicleEF	MHD	0.43	0.14
tblVehicleEF	MHD	0.08	0.03
tblVehicleEF	MHD	1.27	0.47
tblVehicleEF	MHD	1.4420e-003	1.6090e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.1910e-003	7.0400e-004

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tblVehicleEF	MHD	0.01	4.4250e-003
tblVehicleEF	MHD	0.24	0.07
tblVehicleEF	MHD	0.11	0.05
tblVehicleEF	MHD	5.4690e-003	2.1530e-003
tblVehicleEF	MHD	0.50	0.16
tblVehicleEF	MHD	0.08	0.03
tblVehicleEF	MHD	1.38	0.51
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.17	0.07
tblVehicleEF	MHD	1.27	0.72
tblVehicleEF	MHD	2.59	0.76
tblVehicleEF	MHD	16.17	7.92
tblVehicleEF	MHD	129.98	145.26
tblVehicleEF	MHD	1,059.46	1,072.89
tblVehicleEF	MHD	89.18	57.13
tblVehicleEF	MHD	2.00	1.39
tblVehicleEF	MHD	7.65	2.96
tblVehicleEF	MHD	8.97	11.72
tblVehicleEF	MHD	0.03	8.6500e-003
tblVehicleEF	MHD	0.31	0.11
tblVehicleEF	MHD	5.3180e-003	1.0490e-003
tblVehicleEF	MHD	0.03	8.2760e-003
tblVehicleEF	MHD	0.30	0.10
tblVehicleEF	MHD	5.0240e-003	9.6900e-004
tblVehicleEF	MHD	5.5280e-003	1.8580e-003
tblVehicleEF	MHD	0.25	0.07

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tblVehicleEF	MHD	0.11	0.05
tblVehicleEF	MHD	2.2820e-003	8.7100e-004
tblVehicleEF	MHD	0.43	0.14
tblVehicleEF	MHD	0.08	0.03
tblVehicleEF	MHD	1.27	0.49
tblVehicleEF	MHD	1.2540e-003	1.3990e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.1860e-003	7.1100e-004
tblVehicleEF	MHD	5.5280e-003	1.8580e-003
tblVehicleEF	MHD	0.25	0.07
tblVehicleEF	MHD	0.13	0.06
tblVehicleEF	MHD	2.2820e-003	8.7100e-004
tblVehicleEF	MHD	0.50	0.16
tblVehicleEF	MHD	0.08	0.03
tblVehicleEF	MHD	1.39	0.53
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.04	0.01
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	0.55	0.28
tblVehicleEF	OBUS	3.22	0.90
tblVehicleEF	OBUS	12.18	7.60
tblVehicleEF	OBUS	73.51	72.97
tblVehicleEF	OBUS	1,118.39	1,113.93
tblVehicleEF	OBUS	80.43	72.82
tblVehicleEF	OBUS	0.81	0.43
tblVehicleEF	OBUS	4.35	1.69
tblVehicleEF	OBUS	2.62	2.28

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tblVehicleEF	OBUS	0.01	2.5100e-004
tblVehicleEF	OBUS	0.12	8.3380e-003
tblVehicleEF	OBUS	1.9430e-003	9.2800e-004
tblVehicleEF	OBUS	0.01	2.4000e-004
tblVehicleEF	OBUS	0.12	7.9630e-003
tblVehicleEF	OBUS	1.8240e-003	8.6000e-004
tblVehicleEF	OBUS	3.4140e-003	2.4290e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.10	0.04
tblVehicleEF	OBUS	1.2530e-003	1.0100e-003
tblVehicleEF	OBUS	0.28	0.05
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	0.82	0.48
tblVehicleEF	OBUS	7.1400e-004	7.0900e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.0210e-003	8.6200e-004
tblVehicleEF	OBUS	3.4140e-003	2.4290e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.12	0.05
tblVehicleEF	OBUS	1.2530e-003	1.0100e-003
tblVehicleEF	OBUS	0.35	0.07
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	0.89	0.53
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.04	0.01
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	0.47	0.27

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tblVehicleEF	OBUS	3.29	0.92
tblVehicleEF	OBUS	11.64	7.13
tblVehicleEF	OBUS	76.81	76.26
tblVehicleEF	OBUS	1,118.39	1,113.93
tblVehicleEF	OBUS	80.43	72.82
tblVehicleEF	OBUS	0.83	0.45
tblVehicleEF	OBUS	4.06	1.58
tblVehicleEF	OBUS	2.55	2.23
tblVehicleEF	OBUS	9.2980e-003	2.1200e-004
tblVehicleEF	OBUS	0.12	8.3380e-003
tblVehicleEF	OBUS	1.9430e-003	9.2800e-004
tblVehicleEF	OBUS	8.8960e-003	2.0300e-004
tblVehicleEF	OBUS	0.12	7.9630e-003
tblVehicleEF	OBUS	1.8240e-003	8.6000e-004
tblVehicleEF	OBUS	6.6000e-003	4.5470e-003
tblVehicleEF	OBUS	0.04	0.03
tblVehicleEF	OBUS	0.09	0.04
tblVehicleEF	OBUS	2.6730e-003	1.9840e-003
tblVehicleEF	OBUS	0.29	0.06
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	0.79	0.46
tblVehicleEF	OBUS	7.4600e-004	7.4000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.0110e-003	8.5400e-004
tblVehicleEF	OBUS	6.6000e-003	4.5470e-003
tblVehicleEF	OBUS	0.04	0.03
tblVehicleEF	OBUS	0.11	0.05

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tblVehicleEF	OBUS	2.6730e-003	1.9840e-003
tblVehicleEF	OBUS	0.35	0.07
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	0.86	0.51
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.04	0.01
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	0.67	0.29
tblVehicleEF	OBUS	3.18	0.90
tblVehicleEF	OBUS	12.17	7.64
tblVehicleEF	OBUS	68.95	68.42
tblVehicleEF	OBUS	1,118.39	1,113.93
tblVehicleEF	OBUS	80.43	72.82
tblVehicleEF	OBUS	0.77	0.41
tblVehicleEF	OBUS	4.33	1.68
tblVehicleEF	OBUS	2.61	2.28
tblVehicleEF	OBUS	0.01	3.0600e-004
tblVehicleEF	OBUS	0.12	8.3380e-003
tblVehicleEF	OBUS	1.9430e-003	9.2800e-004
tblVehicleEF	OBUS	0.01	2.9200e-004
tblVehicleEF	OBUS	0.12	7.9630e-003
tblVehicleEF	OBUS	1.8240e-003	8.6000e-004
tblVehicleEF	OBUS	3.4440e-003	2.2020e-003
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.10	0.04
tblVehicleEF	OBUS	1.2370e-003	9.5000e-004
tblVehicleEF	OBUS	0.28	0.05

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tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	0.82	0.49
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.0210e-003	8.6300e-004
tblVehicleEF	OBUS	3.4440e-003	2.2020e-003
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.12	0.05
tblVehicleEF	OBUS	1.2370e-003	9.5000e-004
tblVehicleEF	OBUS	0.35	0.07
tblVehicleEF	OBUS	0.07	0.06
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tblVehicleEF	SBUS	0.95	0.86
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	0.18	0.07
tblVehicleEF	SBUS	12.49	7.70
tblVehicleEF	SBUS	8.93	0.76
tblVehicleEF	SBUS	13.33	6.96
tblVehicleEF	SBUS	1,125.68	1,170.88
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tblVehicleEF	SBUS	60.29	51.87
tblVehicleEF	SBUS	13.79	11.72
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tblVehicleEF	SBUS	10.02	12.87
tblVehicleEF	SBUS	0.21	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.03

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tblVehicleEF	SBUS	3.8120e-003	4.3600e-004
tblVehicleEF	SBUS	0.20	0.01
tblVehicleEF	SBUS	2.6640e-003	2.7080e-003
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	3.6130e-003	4.0100e-004
tblVehicleEF	SBUS	0.02	4.4800e-003
tblVehicleEF	SBUS	0.12	0.03
tblVehicleEF	SBUS	1.65	0.93
tblVehicleEF	SBUS	5.3850e-003	1.8880e-003
tblVehicleEF	SBUS	0.98	0.12
tblVehicleEF	SBUS	0.08	0.02
tblVehicleEF	SBUS	1.05	0.38
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4600e-004	6.3900e-004
tblVehicleEF	SBUS	0.02	4.4800e-003
tblVehicleEF	SBUS	0.12	0.03
tblVehicleEF	SBUS	2.16	1.33
tblVehicleEF	SBUS	5.3850e-003	1.8880e-003
tblVehicleEF	SBUS	1.12	0.15
tblVehicleEF	SBUS	0.08	0.02
tblVehicleEF	SBUS	1.15	0.41
tblVehicleEF	SBUS	0.94	0.86
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	0.15	0.06
tblVehicleEF	SBUS	11.27	7.55
tblVehicleEF	SBUS	9.18	0.78

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tblVehicleEF	SBUS	10.83	5.04
tblVehicleEF	SBUS	1,176.52	1,225.24
tblVehicleEF	SBUS	1,092.79	1,120.69
tblVehicleEF	SBUS	60.29	51.87
tblVehicleEF	SBUS	14.23	12.10
tblVehicleEF	SBUS	7.31	5.37
tblVehicleEF	SBUS	9.98	12.84
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.03
tblVehicleEF	SBUS	3.8120e-003	4.3600e-004
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	2.6640e-003	2.7080e-003
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	3.6130e-003	4.0100e-004
tblVehicleEF	SBUS	0.03	8.1480e-003
tblVehicleEF	SBUS	0.14	0.03
tblVehicleEF	SBUS	1.61	0.92
tblVehicleEF	SBUS	0.01	3.6550e-003
tblVehicleEF	SBUS	0.97	0.12
tblVehicleEF	SBUS	0.08	0.02
tblVehicleEF	SBUS	0.87	0.32
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.0000e-004	6.0700e-004
tblVehicleEF	SBUS	0.03	8.1480e-003
tblVehicleEF	SBUS	0.14	0.03

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tblVehicleEF	SBUS	2.12	1.33
tblVehicleEF	SBUS	0.01	3.6550e-003
tblVehicleEF	SBUS	1.11	0.15
tblVehicleEF	SBUS	0.08	0.02
tblVehicleEF	SBUS	0.95	0.35
tblVehicleEF	SBUS	0.95	0.86
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	0.19	0.07
tblVehicleEF	SBUS	14.18	7.90
tblVehicleEF	SBUS	8.93	0.76
tblVehicleEF	SBUS	13.59	7.31
tblVehicleEF	SBUS	1,055.46	1,095.80
tblVehicleEF	SBUS	1,092.79	1,120.69
tblVehicleEF	SBUS	60.29	51.87
tblVehicleEF	SBUS	13.18	11.21
tblVehicleEF	SBUS	7.71	5.65
tblVehicleEF	SBUS	10.03	12.88
tblVehicleEF	SBUS	0.25	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.03
tblVehicleEF	SBUS	3.8120e-003	4.3600e-004
tblVehicleEF	SBUS	0.24	0.02
tblVehicleEF	SBUS	2.6640e-003	2.7080e-003
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	3.6130e-003	4.0100e-004
tblVehicleEF	SBUS	0.02	4.3780e-003
tblVehicleEF	SBUS	0.15	0.03

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tblVehicleEF	SBUS	1.70	0.93
tblVehicleEF	SBUS	5.4110e-003	1.8680e-003
tblVehicleEF	SBUS	0.98	0.12
tblVehicleEF	SBUS	0.10	0.02
tblVehicleEF	SBUS	1.10	0.39
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.5100e-004	6.4500e-004
tblVehicleEF	SBUS	0.02	4.3780e-003
tblVehicleEF	SBUS	0.15	0.03
tblVehicleEF	SBUS	2.22	1.34
tblVehicleEF	SBUS	5.4110e-003	1.8680e-003
tblVehicleEF	SBUS	1.13	0.15
tblVehicleEF	SBUS	0.10	0.02
tblVehicleEF	SBUS	1.20	0.43
tblVehicleEF	UBUS	2.56	1.77
tblVehicleEF	UBUS	0.13	0.10
tblVehicleEF	UBUS	18.09	11.76
tblVehicleEF	UBUS	25.51	18.06
tblVehicleEF	UBUS	2,010.06	1,887.42
tblVehicleEF	UBUS	148.52	154.62
tblVehicleEF	UBUS	13.42	7.33
tblVehicleEF	UBUS	11.72	12.90
tblVehicleEF	UBUS	0.53	0.51
tblVehicleEF	UBUS	0.17	0.09
tblVehicleEF	UBUS	2.1080e-003	1.6310e-003
tblVehicleEF	UBUS	0.23	0.22

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tblVehicleEF	UBUS	0.16	0.09
tblVehicleEF	UBUS	1.9600e-003	1.5110e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.20	0.15
tblVehicleEF	UBUS	7.6790e-003	5.8180e-003
tblVehicleEF	UBUS	1.36	0.78
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.75	1.36
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.9410e-003	1.8720e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.20	0.15
tblVehicleEF	UBUS	7.6790e-003	5.8180e-003
tblVehicleEF	UBUS	4.05	2.63
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.92	1.49
tblVehicleEF	UBUS	2.57	1.78
tblVehicleEF	UBUS	0.12	0.09
tblVehicleEF	UBUS	18.62	12.09
tblVehicleEF	UBUS	22.07	15.59
tblVehicleEF	UBUS	2,010.06	1,887.42
tblVehicleEF	UBUS	148.52	154.62
tblVehicleEF	UBUS	12.56	6.85
tblVehicleEF	UBUS	11.59	12.79
tblVehicleEF	UBUS	0.53	0.51
tblVehicleEF	UBUS	0.17	0.09
tblVehicleEF	UBUS	2.1080e-003	1.6310e-003

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tblVehicleEF	UBUS	0.23	0.22
tblVehicleEF	UBUS	0.16	0.09
tblVehicleEF	UBUS	1.9600e-003	1.5110e-003
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	0.26	0.18
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.38	0.79
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.60	1.24
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.8820e-003	1.8290e-003
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	0.26	0.18
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.07	2.64
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.75	1.36
tblVehicleEF	UBUS	2.56	1.77
tblVehicleEF	UBUS	0.13	0.10
tblVehicleEF	UBUS	18.08	11.77
tblVehicleEF	UBUS	25.91	18.26
tblVehicleEF	UBUS	2,010.06	1,887.42
tblVehicleEF	UBUS	148.52	154.62
tblVehicleEF	UBUS	13.38	7.29
tblVehicleEF	UBUS	11.74	12.91
tblVehicleEF	UBUS	0.53	0.51
tblVehicleEF	UBUS	0.17	0.09

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tblVehicleEF	UBUS	2.1080e-003	1.6310e-003
tblVehicleEF	UBUS	0.23	0.22
tblVehicleEF	UBUS	0.16	0.09
tblVehicleEF	UBUS	1.9600e-003	1.5110e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.24	0.17
tblVehicleEF	UBUS	6.5370e-003	5.0340e-003
tblVehicleEF	UBUS	1.37	0.79
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.78	1.38
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.9480e-003	1.8750e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.24	0.17
tblVehicleEF	UBUS	6.5370e-003	5.0340e-003
tblVehicleEF	UBUS	4.05	2.63
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	1.95	1.51
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	5.67	44.20
tblVehicleTrips	ST_TR	1.32	68.38
tblVehicleTrips	ST_TR	8.19	8.37
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	4.84	44.20
tblVehicleTrips	SU_TR	0.68	68.38
tblVehicleTrips	SU_TR	5.95	8.37

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tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	9.91
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	5.81	45.55
tblVehicleTrips	WD_TR	6.97	45.57
tblVehicleTrips	WD_TR	8.17	7.11
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	9.53
tblWater	IndoorWaterUseRate	23,455,432.90	0.00
tblWater	OutdoorWaterUseRate	1,497,155.29	0.00
tblWater	OutdoorWaterUseRate	0.00	253,014,715.00
tblWater	OutdoorWaterUseRate	707,451.03	0.00
tblWater	OutdoorWaterUseRate	1,209,437.02	0.00

## 2.0 Emissions Summary

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## 2.1 Overall Construction

## Unmitigated Construction

### **Mitigated Construction**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**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											10.1970	21.2214	31.4185	0.0323	6.9000e-004	32.4331
Energy											0.0000	3,176.1778	3,176.1778	0.1068	0.0379	3,190.1439
Mobile											0.0000	8,881.3628	8,881.3628	0.4989	0.0000	8,893.8362
Waste											62.2127	0.0000	62.2127	3.6767	0.0000	154.1293
Water											7.0808	1,002.1973	1,009.2780	0.7686	0.0257	1,036.1623
<b>Total</b>											<b>79.4905</b>	<b>13,080.9593</b>	<b>13,160.4498</b>	<b>5.0834</b>	<b>0.0643</b>	<b>13,306.7048</b>

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**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	22.3741	22.3741	2.3200e-003	3.8000e-004	22.5456
Energy											0.0000	3,176.1778	3,176.1778	0.1068	0.0379	3,190.1439
Mobile											0.0000	8,881.3628	8,881.3628	0.4989	0.0000	8,893.8362
Waste											62.2127	0.0000	62.2127	3.6767	0.0000	154.1293
Water											7.0808	1,002.1973	1,009.2780	0.7686	0.0257	1,036.1623
<b>Total</b>											<b>69.2934</b>	<b>13,082.1120</b>	<b>13,151.4054</b>	<b>5.0533</b>	<b>0.0640</b>	<b>13,296.8172</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.83	-0.01	0.07	0.59	0.48	0.07

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	12/16/2016	12/16/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

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**Acres of Grading (Grading Phase): 0****Acres of Paving: 0**

**Residential Indoor: 317,520; Residential Outdoor: 105,840; Non-Residential Indoor: 528,624; Non-Residential Outdoor: 176,208; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	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
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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### **3.2 Architectural Coating - 2016**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

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**3.2 Architectural Coating - 2016****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>											<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>											<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	8,881.362	8,881.362	0.4989	0.0000	8,893.836
Unmitigated											0.0000	8,881.362	8,881.362	0.4989	0.0000	8,893.836

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
Condo/Townhouse	911.00	884.00	884.00	3,086,665	3,086,665
General Light Industry	1,522.04	2,283.89	2283.89	7,703,921	7,703,921
Hotel	1,784.61	2,100.87	2100.87	4,473,999	4,473,999
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	724.28	753.16	753.16	2,503,171	2,503,171
Total	4,941.93	6,021.92	6,021.92	17,767,756	17,767,756

**4.3 Trip Type Information**

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238
Condo/Townhouse	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238
General Light Industry	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238
Hotel	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238
Regional Shopping Center	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238
Single Family Housing	0.472550	0.055624	0.172835	0.171036	0.034885	0.008126	0.015579	0.057883	0.001238	0.001495	0.005527	0.000985	0.002238

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	2,075.400	2,075.400	0.0857	0.0177	2,082.824
Electricity Unmitigated											0.0000	2,075.400	2,075.400	0.0857	0.0177	2,082.824
NaturalGas Mitigated											0.0000	1,100.777	1,100.777	0.0211	0.0202	1,107.319
NaturalGas Unmitigated											0.0000	1,100.777	1,100.777	0.0211	0.0202	1,107.319

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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					
Arena	1.77289e+006											0.0000	94.6083	94.6083	1.8100e-003	1.7300e-003	95.1705
Condo/Townhouse	541702											0.0000	28.9073	28.9073	5.5000e-004	5.3000e-004	29.0791
General Light Industry	1.08757e+006											0.0000	58.0368	58.0368	1.1100e-003	1.0600e-003	58.3817
Hotel	1.43446e+007											0.0000	765.4835	765.4835	0.0147	0.0140	770.0324
Regional Shopping Center	59407.2											0.0000	3.1702	3.1702	6.0000e-005	6.0000e-005	3.1890
Single Family Housing	2.82161e+006											0.0000	150.5717	150.5717	2.8900e-003	2.7600e-003	151.4664
<b>Total</b>												<b>0.0000</b>	<b>1,100.777</b>	<b>1,100.777</b>	<b>0.0211</b>	<b>0.0202</b>	<b>1,107.319</b>

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## 5.2 Energy by Land Use - NaturalGas

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	1.77289e+006											0.0000	94.6083	94.6083	1.8100e-003	1.7300e-003	95.1705
Condo/Townhouse	541702											0.0000	28.9073	28.9073	5.5000e-004	5.3000e-004	29.0791
General Light Industry	1.08757e+006											0.0000	58.0368	58.0368	1.1100e-003	1.0600e-003	58.3817
Hotel	1.43446e+007											0.0000	765.4835	765.4835	0.0147	0.0140	770.0324
Regional Shopping Center	59407.2											0.0000	3.1702	3.1702	6.0000e-005	6.0000e-005	3.1890
Single Family Housing	2.82161e+006											0.0000	150.5717	150.5717	2.8900e-003	2.7600e-003	151.4664
<b>Total</b>												<b>0.0000</b>	<b>1,100.7777</b>	<b>1,100.7777</b>	<b>0.0211</b>	<b>0.0202</b>	<b>1,107.3191</b>

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	563013	179.3880	7.4100e-003	1.5300e-003	180.0298
Condo/Townhouse	121375	38.6726	1.6000e-003	3.3000e-004	38.8109
General Light Industry	345377	110.0444	4.5400e-003	9.4000e-004	110.4381
Hotel	4.42544e+006	1,410.0407	0.0582	0.0120	1,415.0852
Regional Shopping Center	346586	110.4299	4.5600e-003	9.4000e-004	110.8249
Single Family Housing	711894	226.8245	9.3600e-003	1.9400e-003	227.6360
<b>Total</b>		<b>2,075.4000</b>	<b>0.0857</b>	<b>0.0177</b>	<b>2,082.8249</b>

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	563013	179.3880	7.4100e-003	1.5300e-003	180.0298
Condo/Townhouse	121375	38.6726	1.6000e-003	3.3000e-004	38.8109
General Light Industry	345377	110.0444	4.5400e-003	9.4000e-004	110.4381
Hotel	4.42544e+006	1,410.0407	0.0582	0.0120	1,415.0852
Regional Shopping Center	346586	110.4299	4.5600e-003	9.4000e-004	110.8249
Single Family Housing	711894	226.8245	9.3600e-003	1.9400e-003	227.6360
<b>Total</b>		<b>2,075.4000</b>	<b>0.0857</b>	<b>0.0177</b>	<b>2,082.8249</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	22.3741	22.3741	2.3200e-003	3.8000e-004	22.5456
Unmitigated											10.1970	21.2214	31.4185	0.0323	6.9000e-004	32.4331

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											10.1970	19.5952	29.7922	0.0304	6.9000e-004	30.7587
Landscaping											0.0000	1.6262	1.6262	1.9300e-003	0.0000	1.6744
<b>Total</b>											<b>10.1970</b>	<b>21.2214</b>	<b>31.4185</b>	<b>0.0323</b>	<b>6.9000e-004</b>	<b>32.4331</b>

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	20.7479	20.7479	4.0000e-004	3.8000e-004	20.8711
Landscaping											0.0000	1.6262	1.6262	1.9300e-003	0.0000	1.6744
<b>Total</b>											<b>0.0000</b>	<b>22.3741</b>	<b>22.3741</b>	<b>2.3300e-003</b>	<b>3.8000e-004</b>	<b>22.5455</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,009.278 0	0.7686	0.0257	1,036.162 3
Unmitigated	1,009.278 0	0.7686	0.0257	1,036.162 3

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e	1.30308 / 0.821507	8.7276	0.0428	1.0700e- 003	10.1177
General Light Industry	7.72375 / 253.015	930.1372	0.2900	0.0139	941.5189
Hotel	6.36706 / 0	28.4354	0.2086	5.1200e- 003	35.1766
Regional Shopping Center	1.97329 / 0	8.8128	0.0646	1.5900e- 003	10.9020
Single Family Housing	4.95171 / 3.12173	33.1650	0.1627	4.0800e- 003	38.4471
<b>Total</b>		<b>1,009.278 0</b>	<b>0.7686</b>	<b>0.0257</b>	<b>1,036.162 3</b>

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e	1.30308 / 0.821507	8.7276	0.0428	1.0700e- 003	10.1177
General Light Industry	7.72375 / 253.015	930.1372	0.2900	0.0139	941.5189
Hotel	6.36706 / 0	28.4354	0.2086	5.1200e- 003	35.1766
Regional Shopping Center	1.97329 / 0	8.8128	0.0646	1.5900e- 003	10.9020
Single Family Housing	4.95171 / 3.12173	33.1650	0.1627	4.0800e- 003	38.4471
<b>Total</b>		<b>1,009.278 0</b>	<b>0.7686</b>	<b>0.0257</b>	<b>1,036.162 3</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
MT/yr				
Mitigated	62.2127	3.6767	0.0000	154.1293
Unmitigated	62.2127	3.6767	0.0000	154.1293

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	1.5	0.3045	0.0180	0.0000	0.7544
Condo/Townhouse	9.2	1.8675	0.1104	0.0000	4.6267
General Light Industry	41.42	8.4079	0.4969	0.0000	20.8302
Hotel	137.42	27.8950	1.6486	0.0000	69.1087
Regional Shopping Center	27.97	5.6777	0.3355	0.0000	14.0662
Single Family Housing	88.97	18.0601	1.0673	0.0000	44.7432
<b>Total</b>		<b>62.2127</b>	<b>3.6767</b>	<b>0.0000</b>	<b>154.1293</b>

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	1.5	0.3045	0.0180	0.0000	0.7544
Condo/Townhouse	9.2	1.8675	0.1104	0.0000	4.6267
General Light Industry	41.42	8.4079	0.4969	0.0000	20.8302
Hotel	137.42	27.8950	1.6486	0.0000	69.1087
Regional Shopping Center	27.97	5.6777	0.3355	0.0000	14.0662
Single Family Housing	88.97	18.0601	1.0673	0.0000	44.7432
<b>Total</b>		<b>62.2127</b>	<b>3.6767</b>	<b>0.0000</b>	<b>154.1293</b>

**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**

## 12 Oaks Winery Resort - BAU - Riverside-South Coast County, Annual

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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## SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT WINERY CO<sub>2</sub> CALCULATION

### Emission Factor

$$EF(\text{lbCO}_2/_{1,000 \text{ gal wine}}) = 6,303 \times VF_{\text{EtOH}}$$

Where  $VF_{\text{EtOH}}$  is the volume fraction of Ethanol in the produced wine (gal ethanol/gal wine).

Typical  $VF_{\text{EtOH}}$ :

Red = 0.14

White = 0.13

### Calculation

Red Wine --> Volume % = 14% which equates to a Volume Fraction  $VF_{\text{EtOH}}$  of 0.14

$$EF(\text{lbCO}_2/_{1,000 \text{ gal wine}}) = 6303 \times 0.14 = 882 \text{ lbCO}_2/_{1,000 \text{ gal wine}}$$

Annual wine production is 50,000 cases per year:

$$50,000 \text{ cases/year} \times 2.378 \text{ gal/case} = 118,900 \text{ gal/year}$$

Then,

$$\text{CO}_2(\text{lb/yr}) = 882 \text{ lbCO}_2/_{1,000 \text{ gal wine}} \times 118,900 \text{ gal/year} = 104,920 \text{ lbCO}_2/\text{yr}$$

Convert to Metric Ton:

$$104,920 \text{ lbCO}_2/\text{yr} \times \frac{1}{2,204.62} \text{ MT/lb} = \boxed{48 \text{ MTCO}_2/\text{yr}}$$

## Appendix B

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### CEQA Thresholds and Screening Tables

**Table 1: Screening Table for GHG Implementation Measures for Residential Development**

Feature	Description	Assigned Point Values	Project Points
<b>Implementation Measure IM RE1: Energy Efficiency for New Residential</b>			
<b>E1.A Building Envelope</b>			
E1.A.1 Insulation	<p><i>Baseline standard (walls R-13; roof/attic: R-30)</i></p> <p>Modestly Enhanced Insulation (<i>walls R-13; roof/attic: R-38</i>)</p> <p>Enhanced Insulation (<i>rigid wall insulation R-13, roof/attic: R-38</i>)</p> <p>Greatly Enhanced Insulation (<i>spray foam wall insulated walls R-15 or higher, roof/attic R-38 or higher</i>)</p>	0 points <b>12 point</b> 15 points 18 points	12
E1.A.2 Windows	<p><i>Baseline standard (0.57 U-factor, 0.4 solar heat gain coefficient (SHGC))</i></p> <p>Modestly Enhanced Window (<i>0.4 U-Factor, 0.32 SHGC</i>)</p> <p>Enhanced Window (<i>0.32 U-Factor, 0.25 SHGC</i>)</p> <p>Greatly Enhanced Window (<i>0.28 or less U-Factor, 0.22 or less SHGC</i>)</p>	0 points <b>6 points</b> 7 points 9 points	6
E1.A.3 Cool Roofs	<p><i>Modest Cool Roof (CRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)</i></p> <p><i>Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance)</i></p> <p><i>Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)</i></p>	10 points <b>12 points</b> 14 points	12
E1.A.4 Air Infiltration	<p>Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.</p> <p><i>Air barrier applied to exterior walls, caulking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent)</i></p> <p><i>Blower Door HERS Verified Envelope Leakage or equivalent</i></p>	<b>10 points</b> 8 points	10
E1.A.5 Thermal Storage of Building	<p>Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.</p> <p><i>Modest Thermal Mass (10% of floor or 10% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)</i></p> <p><i>Enhanced Thermal Mass (20% of floor or 20% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)</i></p>	<b>2 points</b> 6 points	2

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
<b>E1.B Indoor Space Efficiencies</b>			
E1.B.1 Heating/ Cooling Distribution System	<i>Minimum Duct Insulation (R-4.2 required)</i> <i>Modest Duct insulation (R-6)</i> <i>Enhanced Duct Insulation (R-8)</i> <i>Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)</i>	<i>0 points</i> <i>7 points</i> <i>8 points</i> <i>12 points</i>	7
E1.B.2 Space Heating/ Cooling Equipment	<i>Baseline VAC Efficiency (SEER 13/60% AFUE or 7.7 HSPF)</i> <i>Improved Efficiency HVAC (SEER 14/65% AFUE or 8 HSPF)</i> <i>High Efficiency HVAC (SEER 15/72% AFUE or 8.5 HSPF)</i> <i>Very High Efficiency HVAC (SEER 16/80% AFUE or 9 HSPF)</i>	<i>0 points</i> <i>4 points</i> <i>7 points</i> <i>9 points</i>	7
E1.B.3 Water Heaters	<i>Baseline Efficiency (0.57 Energy Factor)</i>  <i>Improved Efficiency Water Heater (0.675 Energy Factor)</i>  <i>High Efficiency Water Heater (0.72 Energy Factor)</i>  <i>Very High Efficiency Water Heater ( 0.92 Energy Factor)</i>  <i>Solar Pre-heat System (0.2 Net Solar Fraction)</i> <i>Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)</i>	<i>0 points</i>  <i>12 points</i>  <i>15 points</i>  <i>18 points</i>  <i>4 points</i> <i>8 points</i>	15
E1.B.4 Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.  All peripheral rooms within the living space have at least one window (required)  <i>All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.)</i>  All rooms daylighted	<i>0 points</i>  <i>1 points</i>  <i>2 points</i>	1
E1.B.5 Artificial Lighting	Baseline standard (required)  <i>Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures &gt;40watt)</i>  <i>High Efficiency Lights (50% of in-unit fixtures are high efficacy)</i> <i>Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)</i>	<i>0 points</i> <i>8 points</i>  <i>10 points</i> <i>12 points</i>	8
E1.B.6 Appliances	<i>Energy Star Refrigerator (new)</i> <i>Energy Star Dish Washer (new)</i> <i>Energy Star Washing Machine (new)</i>	<i>1 point</i> <i>1 point</i> <i>1 point</i>	3
<b>E1.C Miscellaneous Residential Building Efficiencies</b>			
E1.C.1 Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	5 points	

## CEQA THRESHOLDS AND SCREENING TABLES

Feature	Description	Assigned Point Values	Project Points
E1.C2 Shading	<i>At least 90% OF south facing glazing will be shaded by vegetation or overhangs on June 21st.</i>	4 Points	4
E1.C3 Energy Star Homes	<i>EPA Energy Star for Homes (version 3 or above)</i>	25 points	25
E1.C.4 Independent Energy Efficiency Calculations	Provide point values based upon energy efficiency modeling of the Project. Note that engineering data will be required documenting the energy efficiency and point values based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
E1.C.5 Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
E1.C.6 Existing Residential Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing residential dwelling units within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Riverside County Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated based upon, but not limited to the following;  Will the energy efficiency retrofit project benefit low income or disadvantaged residents?  Does the energy efficiency retrofit project provide co-benefits important to the County?  Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	
<b>Implementation Measure IM E2: New Home Renewable Energy</b>			
E2.A.1 Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power <sup>1</sup> provided augments:  Solar Ready Homes (sturdy roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project	2 points 10 points 15 points 20 points 28 points 35 points	2

<sup>1</sup> The term total power refers to the actual, expected output from the facility implemented and not the potential capacity of facility.

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
	60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	38 points 42 points 46 points 52 points 58 points	
E2.A.2 Wind turbines	Some areas of the County lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Individual wind turbines at homes or collective neighborhood arrangements of wind turbines such that the total power <sup>2</sup> provided augments:  10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	10 points 15 points 20 points 28 points 35 points 38 points 42 points 46 points 52 points 58 points	
E2.A.3 Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing homes. These off-site renewable energy retrofit project proposals will be determined on a case by case basis and must be accompanied by a detailed plan that documents the quantity of renewable energy the proposal will generate. Point values will be determined based upon the energy generated by the proposal.	TBD	
E2.A.4 Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
<b>Implementation Measure IM W1: Water Use Reduction Initiative</b>			
<b>W1.A Residential Irrigation and Landscaping</b>			
W1.A.1 Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required) Eliminate conventional turf from landscaping <i>No conventional turf (warm season turf to &lt; 50% of required landscape area and/or low water using plants are allowed)</i>	0 points 3 points 3 points	

<sup>2</sup> Ibid.

## CEQA THRESHOLDS AND SCREENING TABLES

Feature	Description	Assigned Point Values	Project Points
	<i>Only California Native Plants that requires no irrigation or some supplemental irrigation</i>	8 points	8
W1.A.2 Water Efficient irrigation systems	<i>Low precipitation spray heads &lt; .75"/hr or drip irrigation Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)</i>	2 points 3 points	3
W1.A.3 Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
<b>W1.B Residential Potable Water</b>			
W1.B.1 Showers	<i>Water Efficient Showerheads (2.0 gpm)</i>	3 points	3
W1.B.2 Toilets	<i>Water Efficient Toilets (1.5 gpm)</i>	3 points	3
W1.B.3 Faucets	<i>Water Efficient faucets (1.28 gpm)</i>	3 points	3
W1.B.4 Dishwasher	<i>Water Efficient Dishwasher (6 gallons per cycle or less)</i>	1 point	1
W1.B.5 Washing Machine	<i>Water Efficient Washing Machine (Water factor &lt;5.5)</i>	1 point	1
W1.B.6 WaterSense	EPA WaterSense Certification	12 points	
W1.B.7 Potable Water Other	This allows innovation by the applicant to provide design features that reduce potable water use of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
<b>Implementation Measure IM W2: Increase Reclaimed Water Use</b>			
W2.A.1 Recycled Water	5% of the total project's water use comes from recycled/reclaimed water	5 points	5
<b>Implementation Measure IM T2: Increase Residential Density</b>			
T2.A.1 Residential Density	Designing the Project with increased densities, where allowed by the General Plan and/or Zoning Ordinance reduces GHG emissions associated with traffic in several ways. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. This strategy also provides a foundation for implementation of many other strategies which would benefit from increased densities.	1-50 points	

## CEQA THRESHOLDS AND SCREENING TABLES

Feature	Description	Assigned Point Values	Project Points
	1 point is allowed for each 10% increase in density beyond 7 units/acre, up to 500% (50 points)		
<b>Implementation Measure IM T3: Mixed Use Development</b>			
T3.A.1 Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon a Transportation Impact Analysis (TIA) demonstrating trip reductions and/or reductions in vehicle miles traveled. Suggested ranges:  Diversity of land uses complementing each other (2-28 points) Increased destination accessibility other than transit (1-18 points) Infill location that reduces vehicle trips or VMT beyond the measures described above (points TBD based on traffic data).	TBD	
T3.A.2 Residential Near Local Retail (Residential only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled.  The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled (VMT)  The suburban project will have at least three of the following on site and/or offsite within ¼-mile: Residential Development, Retail Development, Park, Open Space, or Office.  The mixed-use development should encourage walking and other non-auto modes of transport from residential to office/commercial locations (and vice versa). The project should minimize the need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.	1-16 points	
<b>Implementation Measure IM T5: Traffic Flow Management Improvements</b>			
T5.A.1 Signal Synchronization	Techniques for improving traffic flow include: traffic signal coordination to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds.  Signal synchronization  Traffic signals connected to existing ITS	1 point/signal  3 points/signal	
<b>Implementation Measure IM T6: Bicycle/Pedestrian Infrastructure</b>			
T6.A.1 Sidewalks	Provide sidewalks on one side of the street (required)  Provide sidewalks on both sides of the street  Provide pedestrian linkage between residential and commercial uses within 1 mile	0 points  1 point  <b>3 points</b>	3
T6.A.2 Bicycle paths	Provide bicycle paths within project boundaries  Provide bicycle path linkages between residential and other land uses	TBD  <b>2 points</b>  5 points	2

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
	Provide bicycle path linkages between residential and transit		
<b>Implementation Measure IM T7: Electric Vehicle Use</b>			
T7.A.1 Electric Vehicle Recharging	Provide circuit and capacity in garages of residential units for installation of electric vehicle charging stations  Install electric vehicle charging stations for each residential unit included in the project. Projects that include charging stations for fewer than all units shall receive points on a proportional basis.	1 point  8 points	8
<b>Implementation Measure IM T9: Increase Public Transit</b>			
T9.A.1 Public Transit Access	The point value of a projects ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) demonstrating decreased use of private vehicles and increased use of public transportation.  Increased transit accessibility (1-15 points)	TBD	
<b>Implementation Measure IM L2: Prohibit Gas-Powered Equipment</b>			
L2.A.1 Landscape Equipment	Electric lawn equipment including lawn mowers, leaf blowers and vacuums, shredders, trimmers, and chain saws are available. When electric landscape equipment is used in place of conventional gas-powered equipment, direct GHG emissions from natural gas combustion are replaced with indirect GHG emissions associated with the electricity used to power the equipment.  Project provides electrical outlets on the exterior of all building walls so that electric landscaping equipment is compatible with all built facilities.	2 points	2
<b>Implementation Measure IM SW1: 80 Percent Solid Waste Diversion Program</b>			
SW1.A.1 Recycling	County initiated recycling program diverting 80% of waste requires coordination in neighborhoods to realize this goal. The following recycling features will help the County fulfill this goal:  Provide green waste composing bins at each residential unit Multi-family residential projects that provide dedicated recycling bins separated by types of recyclables combined with instructions/education program explaining how to use the bins and the importance of recycling.	4 points  3 points	
<b>Implementation Measure IM SW2: Construction and Demolition Debris Diversion Program</b>			
SW2.A.1 Recycling of Construction/Demolition Debris	50% of construction waste recycled (required)  Recycle 55% of debris  Recycle 60% of debris  Recycle 65% of debris  Recycle 70% of debris  Recycle 75% of debris	0 points  2 points  3 points  4 points  5 points  6 points	
<b>Implementation Measure IM O1: Other GHG Reduction Feature Implementation</b>			
O1.A1 Other GHG Emissions	This allows innovation by the applicant to provide residential design features that the GHG emissions from construction and/or operation	TBD	

## CEQA THRESHOLDS AND SCREENING TABLES

Feature	Description	Assigned Point Values	Project Points
Reduction Features	of the project not provided in the table. Note that engineering data will be required documenting the GHG reduction amount and point values given based upon emission reductions calculations using approved models, methods and protocols.		
<b>Total Points Earned by Residential Project:</b>			<b>156</b>

**Table 2: Screening Table for GHG Implementation Measures for Commercial Development and Public Facilities**

Feature	Description	Assigned Point Values	Project Points
<b>Implementation Measure IM E5: Energy Efficiency for Commercial/Public Development</b>			
<b>E5.A Building Envelope</b>			
E5.A.1 Insulation	<i>Baseline standard(walls R-13; roof/attic R-30)</i> <i>Modestly Enhanced Insulation (walls R-13, roof/attic R-38)</i> <i>Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38)</i> <i>Greatly Enhanced Insulation (spray foam insulated walls R-15 or higher, roof/attic R-38 or higher)</i>	0 points 15 points 18 points 20 points	15
E5.A.2 Windows	Baseline standard (required) Modestly Enhanced Window Insulation (5% > Title 24) Enhanced Window Insulation (15% > Title 24) Greatly Enhanced Window Insulation (20% > Title 24)	0 points 7 points 8 points 12 points	8
E5.A.3 Cool Roofs	<i>Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)</i> <i>Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance)</i> <i>Greatly Enhanced Cool Roof ( CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)</i>	12 points 14 points 16 points	12
E5.A.4 Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.  <i>Air barrier applied to exterior walls, caulking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent)</i> <i>Blower Door HERS Verified Envelope Leakage or equivalent</i> <i>Title 24 standard (required)</i> <i>Modest Building Envelope Leakage (5% &gt; Title 24)</i> <i>Reduced Building Envelope Leakage (15% &gt; Title 24)</i> <i>Minimum Building Envelope Leakage (20% &gt; Title 24)</i>	12 points 10 points 0 points 4 points 8 points 12 points	8
E5.A.5 Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.  <i>Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)</i>  <i>Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed</i>	4 points 6 points	

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Feature	Description	Assigned Point Values	Project Points
	<i>floor covering such as carpet, linoleum, wood or other insulating materials)</i>		
<b>E5.B Indoor Space Efficiencies</b>			
E5.B.1 Heating/ Cooling Distribution System	<i>Minimum Duct Insulation (R-4.2 required) Modest Duct insulation (R-6) Enhanced Duct Insulation (R-8) Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)</i>	0 points <b>8 points</b> 10 points 14 points	8
E5.B.2 Space Heating/ Cooling Equipment	<i>Baseline HVAC Efficiency (EER 13/60% AFUE or 7.7 HSPF) Improved Efficiency HVAC (EER 14/65% AFUE or 8 HSPF) High Efficiency HVAC (EER 15/72% AFUE or 8.5 HSPF) Very High Efficiency HVAC (EER 16/80% AFUE or 9 HSPF)</i>	0 points <b>7 points</b> 8 points 12 points	7
E5.B.3 Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
E5.B.4 Water Heaters	<i>2008 Minimum Efficiency (0.57 Energy Factor) Improved Efficiency Water Heater (0.675 Energy Factor) High Efficiency Water Heater (0.72 Energy Factor) Very High Efficiency Water Heater (0.92 Energy Factor) Solar Pre-heat System (0.2 Net Solar Fraction) Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)</i>	0 points <b>14 points</b> 16 points 19 points 4 points 8 points	14
E5.B.5 Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.  All peripheral rooms within building have at least one window or skylight  All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.)  All rooms daylighted	<b>1 point</b> 5 points 7 points	1
E5.B.6 Artificial Lighting	Baseline standard (required)  <i>Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures &gt;40watt) High Efficiency Lights (50% of in-unit fixtures are high efficacy)</i>	0 points <b>9 points</b> 12 points 14 points	9

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Feature	Description	Assigned Point Values	Project Points
	<i>Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)</i>		
E5.B.7 Appliances	<i>Star Commercial Refrigerator (new)</i> <i>Energy Star Commercial Dish Washer (new)</i> <i>Energy Star Commercial Cloths Washing</i>	<b>4 points</b> <b>4 points</b> <b>4 points</b>	8
<b>E5.C Miscellaneous Commercial Building Efficiencies</b>			
E5.C.1 Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	6 points	
Shading	<i>At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on Jun 21st.</i>	<b>6 Points</b>	6
E5.C.2 Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
E5.C.3 Existing Commercial building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing commercial buildings within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Riverside County Planning Department. The decision to allow applicants to participate in this program will be evaluated based upon, but not limited to the following:  Will the energy efficiency retrofit project benefit low income or disadvantaged communities?  Does the energy efficiency retrofit project provide co-benefits important to the County?  Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	
<b>Implementation Measure IM E6: New Commercial/Industrial Renewable Energy</b>			
E6.A.1 Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power <sup>3</sup> provided augments:  Solar Ready Roofs (sturdy roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project	<b>2 points</b> <b>8 points</b> <b>14 points</b> <b>20 points</b>	2

<sup>3</sup> Ibid.

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
	40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	26 points 32 points 38 points 44 points 50 points 56 points 62 points	
E6.A.2 Wind turbines	Some areas of the County lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature.  Wind turbines as part of the commercial development such that the total power <sup>4</sup> provided augments:  10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	8 points 14 points 20 points 26 points 32 points 38 points 44 points 50 points 56 points 62 points	
E6.A.3 Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing residential or existing commercial/industrial. These off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	
E6.A.4 Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
<b>Implementation Measure IM W1: Water Use Reduction Initiative</b>			
<b>W1.C Irrigation and Landscaping</b>			
W1.C.1 Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required) Eliminate conventional turf from landscaping Eliminate turf and only provide drought tolerant plants	0 points 3 points 4 points	4

<sup>4</sup> Ibid.

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
	<i>Only California Native landscape that requires no or only supplemental irrigation</i>	8 points	
W1.C.2 Water Efficient irrigation systems	<i>Low precipitation spray heads&lt; .75"/hr or drip irrigation Weather based irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)</i>	1 point <b>5 points</b>	5
W1.C.3 Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
<b>W1.D Potable Water</b>			
W1.D.1 Showers	<i>Water Efficient Showerheads (2.0 gpm)Title 24 standard (required)</i>	<b>3 points</b>	3
W1.D.2 Toilets	<i>Water Efficient Toilets/Urinals (1.5gpm) Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)</i>	<b>3 points</b> 4 points	3
W1.D.3 Faucets	<i>Water Efficient faucets (1.28gpm)</i>	<b>3 points</b>	3
W1.D.4 Commercial Dishwashers	<i>Water Efficient dishwashers (20% water savings)</i>	4 points	
W1.D.5 Commercial Laundry Washers	<i>Water Efficient laundry (15% water savings) High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)</i>	<b>3 points</b> 6 points	
W1.D.6 Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
<b>Implementation Measure IM W2: Increase Reclaimed Water Use</b>			
W2.A.1 Recycled Water	Graywater (purple pipe) irrigation system on site	<b>5 points</b>	5

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Feature	Description	Assigned Point Values	Project Points
<b>Implementation Measure IM T1: Employment Based Trip and VMT Reduction Policy</b>			
T1.A.1 Alternative Scheduling	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered starting times, flexible schedules, or compressed work weeks.  Provide flexibility in scheduling such that at least 30% of employees participate in 9/80 work week, 4-day/40-hour work week, or telecommuting 1.5 days/week.	5 points	
T1.A.2 Car/Vanpools	Car/vanpool program Car/vanpool program with preferred parking Car/vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program Combination of all the above	1 point 2 points 3 points 5 points 6 points	
T1.A.3 Employee Bicycle/Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks Showers and changing facilities Subsidized employee walk/bike program Note: combine all applicable points for total value	1 point 1 point 1 point 2 points 3 points	3
T1.A.4 Shuttle/Transit Programs	Local transit within ¼ mile Light rail transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized Transit passes Note: combine all applicable points for total value	1 point 3 points 5 points 1 points 2 points	
T1.A.5 CTR	Employer based Commute Trip Reduction (CTR). CTRs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a TIA that demonstrates the trip/VMT reductions. Suggested point ranges:  Incentive based CTR Programs (1-8 points) Mandatory CTR programs (5-20 points)	TBD	
T1.A.6 Other Trip Reduction Measures	Point values for other trip or VMT reduction measures not listed above may be calculated based on a TIA and/or other traffic data supporting the trip and/or VMT reductions.	TBD	
<b>Implementation Measure IM T3: Mixed Use Development</b>			
T3.B.1 Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be	TBD	

## CEQA THRESHOLDS AND SCREENING TABLES

Feature	Description	Assigned Point Values	Project Points
	determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled		
T3.B.2 Local Retail Near Residential (Commercial only Projects)	<p>Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled.</p> <p>The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.</p>	TBD	
<b>Implementation Measure IM T4: Preferential Parking</b>			
T4.A.1 Parking	<p>Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles.</p> <p>Provide larger parking spaces that can accommodate vans used for ride-sharing programs and reserve them for vanpools and include adequate passenger waiting/loading areas.</p>	<b>1 point</b> 1 point	1
<b>Implementation Measure IM T5: Signal Synchronization and Intelligent Traffic Systems</b>			
T5.B.1 Signal improvements	<p>Techniques for improving traffic flow include: traffic signal coordination to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds.</p> <p>Synchronize signals along arterials used by project.</p> <p>Connect signals along arterials to existing ITS.</p>	1 point/signal 3 points/signal	
<b>Implementation Measure IM T6: Bicycle and Pedestrian Infrastructure</b>			
T6.B.1 Sidewalks	<p>Provide sidewalks on one side of the street (required)</p> <p>Provide sidewalks on both sides of the street</p> <p>Provide pedestrian linkage between commercial and residential land uses within 1 mile</p>	0 points 1 point 3 points	
T6.B.2 Bicycle paths	<p>Provide bicycle paths within project boundaries</p> <p>Provide bicycle path linkages between commercial and other land uses</p> <p>Provide bicycle path linkages between commercial and transit</p>	TBD 2 points 5 points	
<b>Implementation Measure IM T7: Electric Vehicle Use</b>			
T7.B.1 Electric Vehicle Recharging	<p>Provide circuit and capacity in garages/parking areas for installation of electric vehicle charging stations.</p> <p>Install electric vehicle charging stations in garages/parking areas</p>	2 points/area <b>8 pts/station</b>	8
<b>Implementation Measure IM T8: Anti-Idling Enforcement</b>			
T8.A.1 Commercial	All commercial vehicles are restricted to 5-minutes or less per trip on site and at loading docks.	2 points Required of	

**CEQA THRESHOLDS AND SCREENING TABLES**

Feature	Description	Assigned Point Values	Project Points
Vehicle Idling Restriction		all Commercial	
<b>Implementation Measure IM T9: Increase Public Transit</b>			
T9.B.1 Public Transit	The point value of a project's ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) demonstrating decreased use of private vehicles and increased use of public transportation.  Increased transit accessibility (1-15 points)	TBD	
<b>Implementation Measure IM L2: Prohibit Gas-Powered Landscaping Equipment</b>			
L2.B.1 Landscaping Equipment	Electric lawn equipment including lawn mowers, leaf blowers and vacuums, shredders, trimmers, and chain saws are available. When electric landscape equipment is used in place of conventional gas-powered equipment, direct GHG emissions from natural gas combustion are replaced with indirect GHG emissions associated with the electricity used to power the equipment.  Project provides electrical outlets on the exterior of all buildings so that electric landscaping equipment is compatible with all built facilities.	2 points	
<b>Implementation Measure IM SW1: 80 Percent Solid Waste Diversion Program</b>			
SW1.B.1 Recycling	County initiated recycling program diverting 80% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the County fulfill this goal:  Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up  Provide commercial/industrial recycling programs that fulfills an on-site goal of 80% diversion of solid waste	2 points  5 points	2  5 points
<b>Implementation Measure IM SW2: Construction and Demolition Debris Diversion Program</b>			
SW2.B.1 Recycling of Construction/ Demolition Debris	Recycle 2% of debris (required)  Recycle 5% of debris  Recycle 8 % of debris  Recycle 10% of debris  Recycle 12% of debris  Recycle 15% of debris  Recycle 20% of debris	0 points  1 point  2 points  3 points  4 points  5 points  6 points	3
<b>Implementation Measure IM O1: Other GHG Reduction Feature Implementation</b>			
O1.A1 Other GHG Emissions Reduction Features	This allows innovation by the applicant to provide commercial design features that reduce GHG emissions from construction and/or operation of the project not provided in the table. Note that engineering data will be required documenting the GHG reduction amount and point values given based upon emission reductions calculations using approved models, methods and protocols.	TBD	
<b>Total Points Earned by Commercial/Industrial Project:</b>			<b>138</b>