

**5**

**AIR QUALITY**

**5.1 INTRODUCTION**

The Air Quality chapter of the EIR describes the potential impacts of the proposed project on local and regional air quality. The chapter describes existing air quality, direct and indirect emissions associated with the proposed project, and the potential impacts of these emissions on both the local and regional scale. This chapter is based on the Placer County General Plan,<sup>1</sup> the Placer County General Plan EIR,<sup>2</sup> the Placer County Air Pollution Control District (PCAPCD)'s *CEQA Air Quality Handbook*,<sup>3</sup> PCAPCD's *Review of Land Use Projects Under CEQA*,<sup>4</sup> and technical analysis performed by Raney Planning and Management, Inc.

This chapter focuses on the ten existing medium (10- to 20-acre) and large (greater than 20-acre) parcel size wineries and farm breweries that would be allowed greater flexibility with respect to events under the proposed Zoning Text Amendment. These facilities are shown in Figure 3-1, of the Project Description chapter. Such facilities are referred to as *existing study facilities* throughout this EIR. Potential effects on Air Quality associated with future wineries and farm breweries that would be subject to the proposed project are addressed in Chapter 12, Cumulative Impacts and Other CEQA Sections, of this EIR.

**5.2 EXISTING ENVIRONMENTAL SETTING**

The following information provides an overview of the existing air quality setting in the proposed project area. In this section, the climate and topography of the region, ambient air quality standards (AAQS), attainment status for Placer County, current air quality, odors, and sensitive receptors in the vicinity of the proposed project are discussed.

**Air Basin Characteristics**

Placer County includes three separate air basins: the Sacramento Valley Air Basin (SVAB), the Mountain Counties Air Basin, and the Lake Tahoe Air Basin. In general, the portion of the County from the western County line to east of Auburn is located within the SVAB, while the portion of the County surrounding Lake Tahoe and encompassing the depression between the crests of the Sierra Nevada and Carson Mountain Ranges to the Nevada state line is included in the Lake Tahoe Air Basin. The remainder of the County is included in the Mountain Counties Air Basin. Although the proposed Zoning Text Amendment would apply Countywide, the existing study facilities are located in the western portion of the County, within the SVAB. Regardless of air basin, all of

<sup>1</sup> Placer County. *Countywide General Plan Policy Document*. August 1994 (updated May 2013).

<sup>2</sup> Placer County. *Countywide General Plan EIR*. July 1994.

<sup>3</sup> Placer County Air Pollution Control District. *CEQA Air Quality Handbook*. October 11, 2012.

<sup>4</sup> Placer County Air Pollution Control District. *Review of Land Use Projects Under CEQA*. October 13, 2016.

Placer County falls under the jurisdictional boundaries of the PCAPCD. Considering that all of the existing study facilities are located within the SVAB portion of the County, climactic conditions within the SVAB portion of the County are discussed below.

Air flows into the SVAB through the Carquinez Strait, moves across the Delta and carries pollutants from the heavily populated San Francisco Bay Area into the SVAB. The climate is characterized by hot, dry summers and cool, rainy winters. Characteristic of SVAB winter weather are periods of dense and persistent low-level fog, which are most prevalent between storms. From May to October, the region's intense heat and sunlight lead to high ozone concentrations. Prevailing winds are from the south and southwest, and as a result of prevailing winds coming generally from south to southwest, air quality in the area is heavily influenced by mobile and stationary sources of air pollution located upwind in the Sacramento Metropolitan Area.

Most precipitation in the SVAB results from air masses moving in from the Pacific Ocean during the winter months. Storms usually move through the area from the west or northwest. During the winter rainy season (November through February) over half the total annual precipitation falls while the average winter temperature is a moderate 49 degrees Fahrenheit. During the summer, daytime temperatures can exceed 100 degrees Fahrenheit. Dense fog occurs mostly in mid-winter and rarely in the summer. Daytime temperatures from April through October average between 60 and 80 degrees Fahrenheit with low humidity. The inland location and surrounding mountains shelter the valley from much of the ocean breeze that keeps the coastal regions moderate in temperature. The only breach in the mountain barrier is the Carquinez Strait, which exposes the midsection of the valley to the coastal air mass.

Air quality in Placer County is also affected by inversion layers, which occur when a layer of warm air traps a layer of cold air, preventing vertical dispersion of air contaminants. The presence of an inversion layer results in higher concentrations of pollutants near ground level. Summer inversions are strong and frequent, but are less troublesome than those that occur in the fall. Autumn inversions, formed by warm air subsiding in a region of high pressure, have accompanying light winds that do not provide adequate dispersion of air pollutants.

Air quality in the County is influenced by both local and distant emission sources. Air pollutant sources in the vicinity of existing wineries and farm breweries include emissions from vehicle traffic on Interstate 80 (I-80), State Route (SR) 65 and other nearby roadways, emissions from locomotives along railways within the County, and emissions from farm equipment. Other sources of air pollutants in the area include activities associated with commercial, residential, agricultural and industrial land uses.

### **Ambient Air Quality Standards**

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The ambient air quality standards for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which air quality standards have been established are called “criteria” pollutants.

Table 5-1 identifies the major pollutants, characteristics, health effects and typical sources. The federal and California ambient air quality standards (NAAQS and CAAQS, respectively) are summarized in Table 5-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

A description of each criteria pollutant and its potential health effects is provided in the following section.

### Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation. The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment.

Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Due to the numerous variables associated with the formation of ozone, determination of the proportion of the ground level ozone concentration at any given location attributable to any one source of emissions is difficult and requires a high-level of specified knowledge in the field and access to leading-edge technology. An industry standard methodology and/or modeling program for such an analysis does not exist at this time. Typically, health effects associated with ozone are addressed in association with the ambient level of ozone. As such, the AAQS for ozone is the level at which a health effect is expected to occur as a result of ozone in the ambient air. A specific, industry standard ratio numerically correlating specific health effects associated with varying concentrations of ground level ozone is not known at this time.

### *Reactive Organic Gas*

ROG is a reactive chemical gas composed of hydrocarbon compounds typically found in paints and solvents that contributes to the formation of smog and ozone by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

**Table 5-1  
Summary of Criteria Pollutants**

<b>Pollutant</b>	<b>Characteristics</b>	<b>Health Effects</b>	<b>Major Sources</b>
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	<ul style="list-style-type: none"> <li>• Eye irritation</li> <li>• Wheezing, chest pain, dry throat, headache, or nausea</li> <li>• Aggravated respiratory disease such as emphysema, bronchitis, and asthma</li> </ul>	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	<ul style="list-style-type: none"> <li>• Impairment of oxygen transport in the bloodstream</li> <li>• Impaired vision, reduced alertness, chest pain, and headaches</li> <li>• Can be fatal in the case of very high concentrations</li> </ul>	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	<ul style="list-style-type: none"> <li>• Lung irritation and damage</li> <li>• Increased risk of acute and chronic respiratory disease</li> </ul>	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	<ul style="list-style-type: none"> <li>• Aggravation of chronic obstruction lung disease</li> <li>• Increased risk of acute and chronic respiratory disease</li> </ul>	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	<ul style="list-style-type: none"> <li>• Aggravation of chronic respiratory disease</li> <li>• Heart and lung disease</li> <li>• Coughing</li> <li>• Bronchitis</li> <li>• Chronic respiratory disease in children</li> <li>• Irregular heartbeat</li> <li>• Nonfatal heart attacks</li> </ul>	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	<ul style="list-style-type: none"> <li>• Loss of appetite, weakness, apathy, and miscarriage</li> <li>• Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract</li> </ul>	Industrial sources and combustion of leaded aviation gasoline.

*Sources:*

- California Air Resources Board. *California Ambient Air Quality Standards (CAAQS)*. Available at: <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>. Accessed March 2017.
- Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, *Spare the Air website. Air Quality Information for the Sacramento Region*. Available at: <http://www.sparetheair.com/health.cfm?page=healthoverall>. Accessed March 2017.
- California Air Resources Board. *Glossary of Air Pollution Terms*. Available at: <http://www.arb.ca.gov/html/gloss.htm>. Accessed March 2017.

<b>Table 5-2 Ambient Air Quality Standards</b>				
Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Mean	20 ug/m <sup>3</sup>	-	Same as primary
	24 Hour	50 ug/m <sup>3</sup>	150 ug/m <sup>3</sup>	
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Mean	12 ug/m <sup>3</sup>	12 ug/m <sup>3</sup>	15 ug/m <sup>3</sup>
	24 Hour	-	35 ug/m <sup>3</sup>	Same as primary
Lead	30 Day Average	1.5 ug/m <sup>3</sup>	-	-
	Calendar Quarter	-	1.5 ug/m <sup>3</sup>	Same as primary
Sulfates	24 Hour	25 ug/m <sup>3</sup>	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	see note below	-	-

ppm = parts per million  
ppb = parts per billion  
µg/m<sup>3</sup> = micrograms per cubic meter

Note: Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: California Air Resources Board. Ambient Air Quality Standards. May 4, 2016. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed March 2017.

### Oxides of Nitrogen

NO<sub>x</sub> are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO<sub>x</sub>, nitrogen dioxide (NO<sub>2</sub>), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO<sub>x</sub> results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of NO<sub>x</sub>.

NO<sub>x</sub> reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO<sub>x</sub> emissions are a major

component of acid rain. Health effects related to NO<sub>x</sub> include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

### Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

### Sulfur Dioxide

Sulfur Dioxide (SO<sub>2</sub>) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO<sub>2</sub> is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO<sub>x</sub>, suspended sulfur oxide particles contribute to poor visibility. The sulfur oxide particles are also a component of PM<sub>10</sub>.

### Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller (PM<sub>10</sub>) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles (PM<sub>2.5-10</sub>)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. PM<sub>2.5-10</sub> is deposited in the thoracic region of the lungs.
- "Fine particles (PM<sub>2.5</sub>)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. PM<sub>2.5</sub> particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- "Ultrafine particles (UFP)," are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of PM<sub>2.5</sub>, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately, but is analyzed as part of PM<sub>2.5</sub>.

PM<sub>10</sub>, PM<sub>2.5-10</sub>, and UFP include primary pollutants, which are emitted directly to the atmosphere and secondary pollutants, which are formed in the atmosphere by chemical reactions among precursors. Generally speaking, PM<sub>2.5</sub> and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM<sub>10</sub> sources include the same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

### Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, and, thus, essentially persists forever. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) as a result of airborne dispersion and could become re-suspended into the air.

Because lead is only slowly excreted by the human body, exposures to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead above the level of the ambient air quality standard may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

### Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to SO<sub>2</sub> during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO<sub>2</sub> to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by CARB is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease.

Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

### Hydrogen Sulfide

Hydrogen Sulfide (H<sub>2</sub>S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 ppm can cause death).

### Vinyl Chloride

Vinyl Chloride (C<sub>2</sub>H<sub>3</sub>Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloroethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

### Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

### Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Car and truck exhaust contains at least 40 different TACs. In terms of health risks, the most volatile contaminants are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene and acetaldehyde. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Public exposure to TACs can result from emissions from normal operations as well as accidental releases.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

### *Naturally Occurring Asbestos*

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

NOA is typically associated with fault zones, and areas containing serpentinite or contacts between serpentinite and other types of rocks. According to the *Special Report 190: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California* prepared by the Department of Conservation, the majority of areas within the County likely to contain NOA are within the central and eastern portions of the County. All of the existing study facilities, are located in the western portion of the County, the majority of which is not considered likely to contain NOA; however, some existing wineries and farm breweries may be located in areas moderately likely to contain NOA.<sup>5</sup>

### **Attainment Status and Regional Air Quality Plans**

The Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, nonattainment, or unclassified as to their status with regard to the federal and/or State AAQS. The FCAA and CCAA require that the CARB, based on air quality monitoring data, designate portions of the State where the federal or State AAQS are not met as “nonattainment areas.” Because of the differences between the national and State standards, the designation of nonattainment areas is different under the federal and State legislation. The CCAA requires local air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, provide for adoption of “all feasible measures on an expeditious schedule.”

As presented in Table 5-3 under the CCAA, Placer County has been designated nonattainment for the State one-hour ozone, State and federal eight-hour ozone and State PM<sub>10</sub> standards. The County is designated attainment or unclassified for all other AAQS. Due to the nonattainment designations, the PCAPCD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and particulate matter. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would

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<sup>5</sup> Department of Conservation, California Geological Survey. *Special Report 190: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California*. Published 2006.

meet air quality goals. Each of the attainment plans currently in effect are discussed in further detail in the Regulatory Context section of this chapter.

### Local Air Quality Monitoring

Air quality is monitored by CARB at various locations to determine which air quality standards are being violated, and to direct emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. Several air quality monitoring stations are maintained within Placer County.

Pollutant	Averaging Time	California Standards	Federal Standards
<b>Ozone</b>	1 Hour	<b>Nonattainment</b>	Revoked in 2005
	8 Hour	<b>Nonattainment</b>	<b>Nonattainment</b>
<b>Carbon Monoxide</b>	8 Hour	Attainment	Attainment
	1 Hour	Attainment	Attainment
<b>Nitrogen Dioxide</b>	Annual Mean	Attainment	Attainment
	1 Hour	Attainment	Attainment
<b>Sulfur Dioxide</b>	Annual Mean	Attainment	-
	24 Hour	Attainment	-
	3 Hour	Attainment	-
	1 Hour	Attainment	-
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>	Annual Mean	<b>Nonattainment</b>	-
	24 Hour	<b>Nonattainment</b>	-
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>	Annual Mean	Attainment	-
	24 Hour	Attainment	Attainment
<b>Lead</b>	30 Day Average	Attainment	Attainment
	Calendar Quarter	Attainment	Attainment
	Rolling 3-Month Average	Attainment	Attainment
<b>Sulfates</b>	24 Hour	Attainment	-
<b>Hydrogen Sulfide</b>	1 Hour	-	-
<b>Visibility Reducing Particles</b>	8 Hour	-	-

*Source: California Air Resources Board. Area Designations Maps / State and National. Published December 2015.*

Considering the location of existing wineries and farm breweries, the stations considered most representative of the ambient air quality conditions for existing wineries and farm breweries are the Lincoln-1445 1<sup>st</sup> Street Station and the Auburn-11645 Atwood Road Station. Information for the Lincoln-1445 1<sup>st</sup> Street Station is presented in Table 5-4, while information from the Auburn-11645 Atwood Road Station is presented in Table 5-5, below. Both tables present the number of days that the State and federal AAQS were exceeded for the three-year period from 2014 to 2016.

### Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments

and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative or formulaic methodologies to determine the presence of a significant odor impact do not exist. Adverse effects of odors on residential areas and other sensitive receptors warrant the closest scrutiny; but consideration should also be given to other land use types where people congregate, such as recreational facilities, worksites, and commercial areas. The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between a receptor and an odor source, and local meteorological conditions.

Pollutant	Standard	Days Standard Was Exceeded		
		2014	2015	2016
1-Hour Ozone	State	1	2	3
	Federal	0	0	0
8-Hour Ozone	State	4	5	12
	Federal	1	2	8
24-Hour PM <sub>2.5</sub> <sup>1</sup>	Federal	-	-	-
24-Hour PM <sub>10</sub> <sup>2</sup>	State	0	1	0
	Federal	0	0	0
1-Hour Nitrogen Dioxide <sup>2</sup>	State	0	0	0
	Federal	0	0	0

<sup>1</sup> Insufficient data available to determine values  
<sup>2</sup> 24-Hour PM<sub>10</sub> and 1-Hour Nitrogen Dioxide data from Roseville-N Sunrise Boulevard Station

*Source: California Air Resources Board, Aerometric Data Analysis and Management (iADAM) System, <http://www.arb.ca.gov/adam/welcome.html>, accessed March 2018.*

Pollutant	Standard	Days Standard Was Exceeded		
		2014	2015	2016
1-Hour Ozone	State	0	0	0
	Federal	1	4	5
8-Hour Ozone	State	17	16	27
	Federal	6	10	15
24-Hour PM <sub>2.5</sub>	Federal	4	1	0
24-Hour PM <sub>10</sub> <sup>1</sup>	State	-	-	-
	Federal	-	-	-
1-Hour Nitrogen Dioxide <sup>1</sup>	State	-	-	-
	Federal	-	-	-

<sup>1</sup> 24-Hour PM<sub>10</sub> and 1-Hour Nitrogen Dioxide not monitored at Auburn-11645 Station

*Source: California Air Resources Board, Aerometric Data Analysis and Management (iADAM) System, <http://www.arb.ca.gov/adam/welcome.html>, accessed March 2018.*

One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The

greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area. Certain land uses such as wastewater treatment and conveyance facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors.

### **Sensitive Receptors**

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. Residences are located in proximity to all existing study facilities. However, all study facilities are located on parcel sizes greater than 10 acres, and the rural nature of much of the County generally results in separation of nearby residences from property lines of parcels containing existing study facilities. The Casque at Flower Farm winery site is located in proximity to the greatest number of other residences, with low density residential developments located to the east and west of the Casque at Flower Farm winery site.

### **Existing Study Facilities**

The operation of existing study facilities within the County results in the emission of air pollutants from various sources. For instance, during the fermentation process, the sugars in grape juice or wort are converted to alcohol (ethanol), some of which is released to the atmosphere. Ethanol is considered a VOC, and, thus, fermentation is a source of VOC emissions.<sup>6</sup> Additionally, agricultural activities, such as the application of fertilizer or pesticides can result in the emission of VOCs. Land disturbance associated with various agricultural activities, including soil tilling or weed removal, can result in the emission of dust, which, once airborne, is considered PM, while the operation of agricultural machinery, such as diesel-powered tractors, is a source of DPM. Other sources of emissions are less specific to winemaking, brewing, or farming, with sources related to energy consumption, mobile emissions from vehicles traveling to and from existing study facilities, and emissions related to grounds keeping or site maintenance.

## **5.3 REGULATORY CONTEXT**

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Air quality is monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality

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<sup>6</sup> California Air Resources Board. *Food & Agriculture: Wine Fermentation*. Updated March 2005.

through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area are discussed below.

### **Federal Regulations**

The most prominent federal regulation is the FCAA, which is implemented and enforced by the USEPA.

#### FCAA and USEPA

The FCAA requires the USEPA to set NAAQS and designate areas with air quality not meeting NAAQS as nonattainment. The USEPA is responsible for enforcement of NAAQS for atmospheric pollutants and regulates emission sources that are under the exclusive authority of the federal government including emissions of greenhouse gases (GHGs). The USEPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990. The USEPA has adopted policies consistent with FCAA requirements demanding states to prepare SIPs that demonstrate attainment and maintenance of the NAAQS.

### **State Regulations**

California has adopted a variety of regulations aimed at reducing air pollution emissions. Only the most prominent and applicable California air quality-related legislation is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (<http://www.arb.ca.gov/html/lawsregs.htm>).

#### CCAA and CARB

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CCAA requires that air quality plans be prepared for areas of the State that have not met the CAAQS for ozone, CO, NO<sub>x</sub>, and SO<sub>2</sub>. Among other requirements of the CCAA, the plans must include a wide range of implementable control measures, which often include transportation control measures and performance standards. In order to implement the transportation-related provisions of the CCAA, local air pollution control districts have been granted explicit authority to adopt and implement transportation controls. The CARB, California's air quality management agency, regulates and oversees the activities of county air pollution control districts and regional air quality management districts. The CARB regulates local air quality indirectly using State standards and vehicle emission standards, by conducting research activities, and through planning and coordinating activities. In addition, the CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the USEPA. Furthermore, the CARB is charged with developing rules and regulations to cap and reduce GHG emissions.

### *Air Quality and Land Use Handbook*

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.<sup>7</sup> The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (I-405 and I-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day" (CARB 2005).

Importantly, the Introduction section of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[I]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues" (CARB 2005).

### Assembly Bill 1807

Assembly Bill (AB) 1807, enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. CARB is responsible for the identification and control of TACs, except pesticide use, which is regulated by the California Department of Pesticide Regulation.

### AB 2588

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 TACs, including DPM, and is the primary air contaminant legislation in California. Under the act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public.

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<sup>7</sup> California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

### Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations

In 2002, the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Title 17, Section 93105, of the California Code of Regulations) went into effect, which requires each air pollution control and air quality management district to implement and enforce the requirements of Section 93105 and propose their own asbestos ATCM as provided in Health and Safety Code section 39666(d).<sup>8</sup>

### Senate Bill 656

In 2003, the Legislature passed Senate Bill (SB) 656 to reduce public exposure to PM<sub>10</sub> and PM<sub>2.5</sub> above the State CAAQS. The legislation requires the CARB, in consultation with local air pollution control and air quality management districts, to adopt a list of the most readily available, feasible, and cost-effective control measures that could be implemented by air districts to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The CARB list is based on California rules and regulations existing as of January 1, 2004, and was adopted by CARB in November 2004. Categories addressed by SB 656 include measures for reduction of emissions associated with residential wood combustion and outdoor greenwaste burning, fugitive dust sources such as paved and unpaved roads and construction, combustion sources such as boilers, heaters, and charbroiling, solvents and coatings, and product manufacturing. Some of the measures include, but are not limited to, the following:

- Reduce or eliminate wood-burning devices allowed;
- Prohibit residential open burning;
- Permit and provide performance standards for controlled burns;
- Require water or chemical stabilizers/dust suppressants during grading activities;
- Limit visible dust emissions beyond the project boundary during construction;
- Require paving/curbing of roadway shoulder areas; and
- Require street sweeping.

Under SB 656, each air district is required to prioritize the measures identified by CARB, based on the cost effectiveness of the measures and their effect on public health, air quality, and emission reductions. Per SB 656 requirements, the PCAPCD amended their Rule 225 related to wood-burning appliances to include conditions consistent with SB 656, including such conditions as the prohibition of the installation of any new, permanently installed, indoor or outdoor, uncontrolled wood-burning appliances.

### Heavy-Duty Vehicle Idling Emission Reduction Program

On July 22, 2004, CARB initially adopted an Airborne Toxic Control Measure (ATCM) to limit idling of diesel-fueled commercial motor vehicles, which was subsequently amended on October 20,

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<sup>8</sup> California Air Resources Board. *2002-07-29 Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations*. June 3, 2015. Available at: <http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm>. Accessed April 2017.

2005, October 19, 2009, and December 12, 2013.<sup>9</sup> The regulation consists of new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO<sub>x</sub> emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California beginning in 2008. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

### In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO<sub>x</sub> emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.<sup>10</sup> Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the California Code of Regulations.

### **Local**

The most prominent local regulations related to air quality are established by the PCAPCD and the Placer County General Plan.

### PCAPCD

The PCAPCD regulates many sources of pollutants in the ambient air, and is responsible for implementing certain programs and regulations for controlling air pollutant emissions to improve air quality in order to attain federal and State AAQS.

### *Air Quality Attainment Plan*

As a part of the SVAB federal ozone nonattainment area, the PCAPCD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The regional air quality management plan is called the State

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<sup>9</sup> California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. July 7, 2016. Available at: <http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>. Accessed November 2018.

<sup>10</sup> California Air Resources Board. *In-Use Off-Road Diesel-Fueled Fleets Regulation*. October 18, 2018. Available at: <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>. Accessed November 2018.

Implementation Plan (SIP) which describes and demonstrates how Placer County, as well as the Sacramento nonattainment area, would attain the required federal ozone standard by the proposed attainment deadline. In accordance with the requirements of the FCAA, the PCAPCD, along with the other air districts in the region, prepared the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan), adopted by the PCAPCD on February 19, 2009. The CARB determined that the Ozone Attainment Plan met federal Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. Revisions to the Placer County portion of the SIP or Ozone Attainment Plan were made and adopted on August 11, 2011. In addition, an update to the plan, *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2013 Ozone Attainment Plan), has been prepared and was adopted on September 26, 2013, and approved by CARB as a revision to the SIP on November 21, 2013. The 2013 Ozone Attainment Plan was approved by the USEPA on January 9, 2015.

The 2013 Ozone Attainment Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the FCAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area for ozone with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). On April 30, 2018, the USEPA published designations for areas in attainment/unclassifiable for the 2015 ozone standards. The USEPA identified the portions of Placer County within the SVAB as nonattainment for the 2015 ozone standards.<sup>11</sup> Due to the designation of the SVAB as nonattainment for the 2015 standards, the PCAPCD will work with other regional air districts to prepare a new ozone SIP for the revised 2015 standards.

Because the attainment status of the project site for the 2015 ozone standards is currently unknown, but the project site is located within the current nonattainment area for the 2008 ozone standards, the project would be subject to the requirements set forth in the 2013 Ozone Attainment Plan, as enforced by PCAPCD through rules and regulations.

#### *PCAPCD Rules and Regulations*

All projects under the jurisdiction of the PCAPCD are required to comply with all applicable PCAPCD rules and regulations. In addition, PCAPCD permit requirements apply to many commercial activities (e.g., print shops, drycleaners, gasoline stations), and other miscellaneous activities (e.g., demolition of buildings containing asbestos). The proposed project is required to comply with all applicable PCAPCD rules and regulations, which shall be noted on County-approved construction plans. The PCAPCD regulations and rules include, but are not limited to, the following:

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<sup>11</sup> U.S. Environmental Protection Agency. *Nonattainment and Unclassifiable Area Designations for the 2015 Ozone Standards*. April 30, 2018.

## Regulation 2 – Prohibitions

Regulation 2 is comprised of prohibitory rules that are written to achieve emission reductions from specific source categories. The rules are applicable to existing sources as well as new sources. Examples of prohibitory rules include Rule 202 related to visible emissions, Rule 217 related to asphalt paving materials, Rule 218 related to architectural coatings, Rule 228 related to fugitive dust, Rule 205 related to nuisance, and Rule 225 related to wood-burning appliances.

Rule 228 sets forth requirements necessary to comply with the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Title 17, Section 93105, of the California Code of Regulations), as discussed above. Rule 228 requires projects involving earth-disturbing activities to implement various dust control measures, such as minimizing track-out on to paved public roadways, limiting vehicle travel on unpaved surfaces to 15 miles per hour, and stabilization of storage piles and disturbed areas.

## Regulation 5 – Permits

Regulation 5 is intended to provide an orderly procedure for the review of new sources, and modification and operation of existing sources, of air pollution through the issuance of permits. Regulation 5 primarily deals with permitting major emission sources and includes, but is not limited to, rules such as General Permit Requirements (Rule 501), New Source Review (Rule 502), Emission Statement (Rule 503), Emission Reduction Credits (Rule 504), and Toxics New Source Review (Rule 513).

## Placer County General Plan

The following goals and policies related to air quality are from the Placer County General Plan:

### *Air Quality – General*

- Goal 6.F To protect and improve air quality in Placer County.
- Policy 6.F.2 The County shall develop mitigation measures to minimize stationary source and area source emissions.
- Policy 6.F.3 The County shall support the Placer County Air Pollution Control District (PCAPCD) in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.
- Policy 6.F.4 The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.

- Policy 6.F.5 The County shall encourage project proponents to consult early in the planning process with the County regarding the applicability of Countywide indirect and areawide source programs and transportation control measures (TCM) programs. Project review shall also address energy-efficient building and site designs and proper storage, use, and disposal of hazardous materials.
- Policy 6.F.6 The County shall require project-level environment review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.
- Policy 6.F.7 The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.
- Policy 6.F.8 The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.
- Policy 6.F.9 In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.
- Policy 6.F.10 The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 Air Quality Attainment Plan (or updated edition).
- Policy 6.F.11 The County shall apply the buffer standards described in Part I of [the General Plan] Policy Document and meteorological analyses to provide separation between possible emission/nuisance sources (such as industrial and commercial uses) and residential uses.

*Air Quality – Transportation/Circulation*

- Goal 6.G To integrate air quality planning with the land use and transportation planning process.
- Policy 6.G.1 The County shall require new development to be planned to result in smooth flowing traffic conditions for major roadways. This includes traffic signals and traffic signal coordination, parallel roadways, and intra- and inter-neighborhood connections where significant reductions in overall emissions can be achieved.

- Policy 6.G.2 The County shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.
- Policy 6.G.7 The County shall require stationary-source projects that generate significant amounts of air pollutants to incorporate air quality mitigation in their design.

## **5.4 IMPACTS AND MITIGATION MEASURES**

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The standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to air quality are described below. In addition, a discussion of the project's impacts is also presented.

### **Standards of Significance**

Based on the recommendations of PCAPCD and in coordination with the County, consistent with Appendix G of the CEQA Guidelines and the County's Initial Study Checklist, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations (including localized CO concentrations and TAC emissions); or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

### Criteria Pollutant Emissions and TAC Emissions

In order to evaluate air pollutant emissions from development projects, the PCAPCD established significance thresholds for emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub>. The significance thresholds, expressed in pounds per day (lbs/day), serve as air quality standards in the evaluation of air quality impacts associated with proposed development projects. Thus, if a proposed project's emissions exceed the PCAPCD thresholds, the project could have a significant effect on regional air quality and attainment of federal and State AAQS. The significance thresholds, expressed in pounds per day (lbs/day), listed in Table 5-6 are the PCAPCD's recommended thresholds of significance for use in the evaluation of air quality impacts associated with proposed development projects.

<b>Table 5-6 PCAPCD Thresholds of Significance</b>		
<b>Pollutant</b>	<b>Construction Threshold (lbs/day)</b>	<b>Operational/Cumulative Threshold (lbs/day)</b>
ROG	82	55
NO <sub>x</sub>	82	55
PM <sub>10</sub>	82	82
<i>Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.</i>		

As discussed in Chapter 3, Project Description, of this EIR, and in further depth below, the proposed Zoning Text Amendment does not constitute a development project that would lead to the direct physical development of any new wineries or farm breweries, nor would the proposed Zoning Text Amendment be anticipated to result directly in the physical alteration of existing study facilities. Therefore, while the proposed project would not result in emissions related to physical development, the project would have the potential to result in increased emissions from events at existing study facilities. If emissions related to increased event activity exceed the pollutant thresholds presented in Table 5-6, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

In addition to the thresholds presented in Table 5-6, the PCAPCD has developed screening criteria for determining whether a project would cause substantial localized CO emissions at a given intersection. If the project would result in CO emissions from vehicle operations in excess of 550 lbs/day and either of the following conditions are met, the project could potentially result in substantial concentrations of localized CO and further analysis would be required:

- Degrade the peak hour level of service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity from an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F); or
- Substantially worsen (i.e., increase delay by 10 seconds or more when project-generated traffic is included) an already existing unacceptable peak hour LOS on one or more streets or at one or more intersections in the project vicinity.

For TAC emissions, if a project would introduce a new source of TACs or a new sensitive receptor near an existing source of TACs that would not meet the CARB’s minimum recommended setback, a detailed health risk assessment may be required. The PCAPCD considers an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0 to be a significant impact related to TACs.

GHG Emissions

The project’s incremental contribution towards a cumulative increase in criteria pollutants (i.e., the third bullet point in the list above), as well as impacts related to GHG emissions and global climate change, are addressed in Chapter 12, Cumulative Impacts and Other CEQA Sections, of this EIR.

## Method of Analysis

The analysis protocol and guidance provided by the PCAPCD's *CEQA Air Quality Handbook* was used to analyze the proposed project's air quality impacts, including screening criteria and pollutant thresholds of significance.

The proposed Zoning Text Amendment would not lead to the direct physical alteration of the existing study facilities within the County. Rather, the proposed Zoning Text Amendment would redefine "event" to distinguish between Agricultural Promotional Events and Special Events. Agricultural Promotional Events would include events with 50 attendees (excluding staff) or less at one time and would be directly related to the education and marketing of wine and craft beer to consumers. Special Events would include events with greater than 50 attendees (excluding staff) at one time where the agricultural-related component is subordinate to the primary purpose of the event. The proposed Zoning Text Amendment would allow the existing study facilities to hold an unlimited number of Agricultural Promotional Events, whereas the eight existing, medium parcel-sized study facilities could hold up to six Special Events per year, and the two existing, large parcel-sized study facilities could hold up to 12 Special Events per year. Such by-right allowances would not directly result in construction activity within existing wineries and farm breweries. While the proposed Zoning Text Amendment would provide greater flexibility in the number of allowable events at existing study facilities, the proposed Zoning Text Amendment would not alter other aspects of operations at existing study facilities. For instance, the allowance for production volumes of existing study facilities would remain unchanged under the proposed Zoning Text Amendment, and, thus, the proposed Zoning Text Amendment would not allow for increased production activity not already permitted for such facilities. Additionally, the operation of tasting rooms within existing study facilities would not be affected by the proposed project. Considering that production and other operational aspects of existing study facilities would remain unchanged under the proposed Zoning Text Amendment, emission of air pollutants from non-event related operations of existing study facilities is anticipated to remain unchanged following implementation of the proposed Zoning Text Amendment. Therefore, the proposed Zoning Text Amendment is not considered to involve any construction related activity or changes in non-event operational activity that could result in air quality related impacts, and only potential future emissions related to events held under the proposed Zoning Text Amendment are further analyzed below.

Emissions related to events held at existing study facilities would originate primarily from mobile sources, such as the vehicles used by event attendees to access the event locations. To a much lesser degree, events would also include emissions resulting from the consumption of energy, the preparation of food, or other such activities that directly or indirectly release small amounts of emissions. Although events would include emissions originating from non-mobile sources, such emissions during an event would be substantively similar to emissions that would occur during normal tasting room operations. For instance, both normal tasting room operations and events would require the use of lighting for indoor and outdoor spaces, heating or air conditioning, and may include food preparation. As such, whether an event is occurring at an existing study facility or the existing study facility is operating under normal conditions, such operations would result in some non-mobile sourced emissions. Although the proposed project may result in slightly increased amounts of such emissions, for instance the consumption of energy due to the use of amplified speakers for music events where such speakers may not otherwise be used, such activity

would result in relatively small changes in emissions. Consequently, the overall change in non-mobile sources emissions resulting from implementation of the proposed project would not be anticipated to be substantive. However, because the proposed Zoning Text Amendment could result in an increase in vehicle traffic to and from the existing study facilities, the proposed project could result in substantive changes to mobile sourced emissions related to operations of existing study facilities. Considering the potential for such a change in mobile sourced emissions to occur, the potential emissions related to increased event activity have been estimated and further analyzed.

Event-related mobile emissions occurring following implementation of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software - a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model. For instance, the project-specific trip generation rates provided by KD Anderson & Associates, Inc. were applied to the project modeling.<sup>12</sup> In keeping with the methodology used in the analysis of potential impacts related to transportation and circulation, presented in Chapter 10 of this EIR, the overall weighted average trip generation rates associated with Agricultural Promotional Events and Special events enabled by the proposed Zoning Text Amendment was applied to the existing study facilities to identify vehicle trips associated with such events. As shown in Table 10-14 of Chapter 10, Transportation and Circulation, within this EIR, the total daily weighted average trip rate resulting from events at all existing study facilities would be 904 daily trips. Consequently, the CalEEMod inputs were adjusted to produce an emissions estimate representing the sum of potential emissions that would occur across all existing study facilities during an event day.

It should be noted, that consistent with the discussion of non-mobile sourced emissions above, the CalEEMod inputs were not adjusted to reflect emissions from other non-mobile operational sources of emissions, because such sources would remain largely unchanged with implementation of the proposed project. Therefore, the emissions estimates presented and analyzed within this chapter only reflect the potential mobile-sourced emissions resulting from the event-related trip rates discussed above.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix E to this EIR.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

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<sup>12</sup> KD Anderson & Associates, Inc. *Traffic Impact Analysis for Placer County Winery and Farm Brewery Ordinance*. September 11, 2018.

**5-1 Conflict with or obstruct implementation of the applicable air quality plan. Based on the analysis below, the impact is *less than significant*.**

As discussed above, due to the nonattainment designations of the area, the PCAPCD has developed plans to attain the State and federal standards for ozone and particulate matter. The currently applicable air quality plan is the 2013 Ozone Attainment Plan. Adopted PCAPCD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with the applicable air quality plan. Thus, if a project's operational emissions exceed the PCAPCD's mass emission thresholds, a project would be considered to conflict with or obstruct implementation of the PCAPCD's air quality planning efforts, and potentially contribute towards health effects in the region.

The proposed Zoning Text Amendment would not lead to the direct physical alteration of the existing study facilities within the County, nor would the proposed Zoning Text Amendment result in changes to production operations of study facilities in a manner not currently allowable under the existing Winery Ordinance. Rather, as discussed in the Method of Analysis section above and in further depth in Chapter 3, Project Description, of this EIR, the proposed Zoning Text Amendment would result in changes to the regulation of events at existing study facilities. Thus, while the proposed Zoning Text Amendment would not result in physical changes to existing study facilities or changes in production at such facilities, the proposed Zoning Text Amendment is anticipated to result in changes to the number of events held at existing study facilities within the County.

As discussed in the Method of Analysis section above, events at existing study facilities would primarily result in emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> from mobile sources. Although other activities, such as the use of space heaters, and the consumption of energy may result in direct or indirect emissions, similar emissions would occur during normal tasting room operations. Considering that emissions from non-mobile sources would occur during normal operations of existing study facilities, the proposed Zoning Text Amendment would not result in substantive changes to such emissions, and such emissions constitute a relatively small proportion of total emissions related to event and non-event operations of existing study facilities, emissions from non-mobile sources are not quantitatively analyzed in this chapter. However, given the potential for the proposed Zoning Text Amendment to result in increased event-related vehicle traffic, mobile-source emissions for events have been quantitatively analyzed.

Considering the above, mobile source emissions were estimated using CalEEMod based on the methodology discussed in the Method of Analysis section of this chapter. The resultant mobile-sourced emissions estimated for future events under the proposed Zoning Text Amendment are presented in Table 5-7.

<b>Table 5-7</b>		
<b>Maximum Unmitigated Mobile Source Event Emissions (lbs/day)</b>		
<b>Pollutant</b>	<b>Estimated Event-Related Emissions</b>	<b>PCAPCD Significance Threshold</b>
ROG	1.81	55
NO <sub>x</sub>	8.86	55
PM <sub>10</sub>	2.34	82
<i>Source: CalEEMod, October 2018 (see Appendix E).</i>		

As shown in the table, mobile source emissions resulting from event days would be below the PCAPCD thresholds of significance, and, thus, would not be considered to contribute substantially to the region’s nonattainment status of, and health effects associated with, ozone or PM.

Concern regarding the potential for event vehicle traffic to result in increased dust generation has been expressed through public comment. Dust is a form of PM pollution, and would be included in the PM<sub>10</sub> emissions estimation presented in Table 5-7. As shown in Table 5-7, the proposed project would not result in PM<sub>10</sub> emissions in excess of the PCAPCD’s thresholds of significance. The estimation of PM<sub>10</sub> emissions includes factors such as the percentage of roads within the County that are paved and unpaved; thus, considering that the PM<sub>10</sub> emissions would be far below the PCAPCD’s thresholds and County roadway conditions have been considered, implementation of the proposed Zoning Text Amendment would not be anticipated to result in substantial dust emissions.

As discussed in the Method of Analysis section of this chapter, the emissions estimates presented in Table 5-7 are based on the trip generation forecasts presented in Tables 10-12 through 10-14 of the Transportation and Circulation chapter of this EIR. By using the trip generation forecasts presented in the Transportation and Circulation chapter of this EIR, the emissions estimates in Table 5-7 represent the anticipated average emissions during an event day where all existing study facilities are holding two events. As discussed in Chapter 10 of this EIR, the trip generation rates used to generate the emissions estimates in Table 5-7, are considered to represent a conservative scenario for analysis; however, the possibility exists that specific mixes of events held across all existing study facilities could result in a peak daily vehicle trip rate that exceeds the anticipated average event day trip rates. For instance, if all medium-sized existing study facilities held rolling agricultural promotional events and a second regular agricultural promotional event, while both large sized existing study facilities held a special event and a regular agricultural promotional event, the total daily trip rate under that specific scenario may slightly exceed the daily trip rates presented in Table 10-14 of Chapter 10. In the unlikely scenario that such an event day were to occur, the peak daily emissions may slightly exceed the emissions estimation presented in Table 5-7 above. While such a scenario may result in higher peak daily emissions, because the estimated emissions presented in Table 5-7 are far below the PCAPCD’s thresholds of significance, the potential emissions on a peak day would likely fall under the PCAPCD’s thresholds as well. Moreover, the specific mix of events across all existing study facilities to create such a peak day emission scenario would be unlikely to occur and, should such conditions occur at all, would occur on an infrequent basis.

Considering the low likelihood that such peak day event conditions would occur, the infrequency with which such conditions could occur, and that emissions from such peak days would be anticipated to remain below the PCAPCD's thresholds of significance, overall project operations would not be considered to contribute substantially to the region's nonattainment status of ozone or PM.

Therefore, implementation of the proposed Zoning Text Amendment would not conflict with and/or obstruct implementation of the PCAPCD's air quality planning efforts, and impacts related to long-term operational emissions of criteria air pollutants associated with development of the proposed project would be *less than significant*.

Mitigation Measure(s)

*None required.*

**5-2 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, the impact is *less than significant*.**

The major pollutants of concern are localized CO emissions and TAC emissions, which are addressed below. Effects of criteria pollutant emissions on sensitive receptors is also addressed below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed Zoning Text Amendment could lead to increased vehicle volumes on streets near existing study facilities. Concentrations of CO approaching the AAQS are only expected where background levels are high, and traffic volumes and congestion levels are high. The statewide CO Protocol document identifies signalized intersections operating at Level of Service (LOS) E or F, or projects that would result in the worsening of signalized intersections to LOS E or F, as having the potential to result in localized CO concentrations in excess of AAQS, as a result of large numbers of cars idling at stop lights.<sup>13</sup> In accordance with the statewide CO Protocol, the PCAPCD has established screening methodology for localized CO emissions, which are intended to provide a conservative indication of whether project-generated vehicle trips would result in the generation of localized CO emissions that would contribute to an exceedance of AAQS and potentially expose sensitive receptors to substantial CO concentrations. Per the PCAPCD's screening methodology, if adoption of the proposed Zoning Text Amendment would lead to vehicle operations producing more than 550 lbs/day of CO emissions and if either of the following scenarios are true, the project could result in localized CO emissions that would violate CO standards:

- Degrade the peak hour level of service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity from

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<sup>13</sup> University of California, Davis. *Transportation Project-Level Carbon Monoxide Protocol*. December 1997.

- an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F); or
- Substantially worsen an already existing unacceptable peak hour LOS on one or more streets or at one or more intersections in the project vicinity. “Substantially worsen” includes an increase in delay at an intersection by 10 seconds or more when project-generated traffic is included.

According to the Air Quality analysis performed for mobile emissions related to increased event activity, implementation of the proposed Zoning Text Amendment would result in maximum mobile source CO emissions of 13.81 lbs/day on days (see Appendix E). Consequently, CO emissions related to future event activity following implementation of the proposed project would be far below the 550 lbs/day screening threshold used by PCAPCD. Therefore, according to the PCAPCD’s screening methodology for localized CO emissions, implementation of the proposed Zoning Text Amendment would not be expected to generate localized CO emissions that would contribute to an exceedance of AAQS, and implementation of the proposed Zoning Text Amendment would not expose sensitive receptors to substantial concentrations of localized CO.

#### TAC Emissions

As stated above, if a project would introduce a new source of TACs, a detailed health risk assessment may be required. The PCAPCD considers an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0 to be a significant impact related to TACs.

The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer. Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. Such land uses include facilities (distribution centers) associated with 100 or more heavy-duty diesel trucks per day as a source of substantial DPM emissions.

The proposed Zoning Text Amendment would not lead to the direct physical alteration of the existing study facilities, such that any new source of TACs would be installed within existing winery and farm brewery facilities. Rather, as discussed in the Method of Analysis section above and in further depth in Chapter 3, Project Description, of this EIR, the proposed Zoning Text Amendment would result in changes to the regulation of events at existing study facilities. Such changes in the regulation of events may result in changes to operational patterns related to events, but would not be anticipated to result in the installation of permanent sources of TACs, such as stationary generators.

Changes to the frequency of events may result in changes to vehicle travel patterns to and from the existing facilities, primarily related to event attendees. Although events operations may involve some level of heavy-duty diesel truck trips, such as the transportation of grapes, equipment, or other goods, the overall number of heavy-duty truck trips per facility would likely be low, if occurring at all, and would not be substantially altered by the proposed Zoning Text Amendment. Therefore, the proposed project would not result in operations of existing facilities exceeding 100 heavy-duty trucks per day at any of the existing study facilities. Some future patrons of Agricultural Promotional Events or Special Events may own diesel-fueled vehicles and use such vehicles to access events. However, emissions from passenger vehicles are typically less intense than from heavy-duty trucks, and events at study facilities would not be of sufficient size to attract a large enough number of diesel fueled passenger vehicles to equal 100 heavy-duty truck trips. Consequently, the proposed Zoning Text Amendment would not result in any existing study facilities within the County being considered a distribution center.

Events at existing study facilities under the proposed project would not be anticipated to include any other activities that would be considered substantial sources of TACs. Because events at existing study facilities would not result in emissions of substantial concentrations of TACs, including DPM, operation of existing study facilities following implementation of the proposed Zoning Text Amendment would not result in an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0, and existing nearby sensitive receptors would not be exposed to substantial pollutant concentrations from mobile sources.

#### *Naturally Occurring Asbestos*

The majority of existing study facilities are located within portions of the County considered to be least likely to contain NOA. However, some of the existing study facilities located relatively farther east and north within the County may be located in areas identified as moderately likely to contain NOA.<sup>14</sup>

As discussed throughout this chapter, the proposed Zoning Text Amendment is not considered a development project and would not directly result in land disturbance within any existing study facilities. While the proposed Zoning Text Amendment would not directly result in land disturbances, following implementation of the proposed Zoning Text Amendment owners/operators of existing study facilities may choose to expand permanent on-site parking to accommodate future guests. Although such potential future expansions of parking areas are speculative at this time, such activity would include ground-disturbing activity, which, if conducted in areas moderately likely to contain NOA, could result in the disturbance of NOA. However, the PCAPCD requires that any project disturbing more than one acre of land implement standard dust control measures, and projects may be required to implement an Asbestos Dust Mitigation Plan during ground-disturbing activities, when

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<sup>14</sup> Department of Conservation, California Geological Survey. *Special Report 190: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California*. Published 2006.

NOA is suspected to be present.<sup>15</sup> Additionally, for projects less than one acre in size, PCAPCD Rule 228 requires that general fugitive dust standards be met, which include minimization and dust control measures. The compliance with the foregoing PCAPCD Rule and with related PCAPCD guidance would ensure that any potential future grading activity related to parking, although speculative at this time, would not result in the release of NOA and subsequent exposure of sensitive receptors to such material.

### Criteria Pollutants

As noted in Table 5-1, exposure to criteria air pollutants can result in adverse health effects. The AAQS presented in Table 5-2 are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the SVAB is designated as nonattainment for State and federal eight-hour ozone and State PM<sub>10</sub> standards, the PCAPCD, along with other air districts in the SVAB region, has adopted federal and state attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the SVAB are not exposed to excess concentrations of criteria pollutants. The PCAPCD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS.<sup>16</sup> Thus, if a project's criteria pollutant emissions exceed the PCAPCD's mass emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the PCAPCD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQSs are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM<sub>10</sub> standards.

However, as discussed in Impact 5-1, implementation of the proposed Zoning Text Amendment would not result in exceedance of the PCAPCD's thresholds of significance. Consequently, implementation of the proposed Zoning Text Amendment would not conflict with the PCAPCD's adopted attainment plans nor would the proposed Zoning Text Amendment inhibit attainment of regional AAQS. Therefore, implementation of the proposed Zoning Text Amendment would not contribute towards regional health effects associated with the existing nonattainment status of ozone and PM<sub>10</sub> standards.

### Conclusion

In conclusion, implementation of the proposed Zoning Text Amendment would not be anticipated to result in the creation of substantial concentrations of mobile sourced DPM, fugitive NOA, other TACs, criteria pollutants, or localized CO. Therefore, the proposed

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<sup>15</sup> Placer County Air Pollution Control District. *Asbestos Dust Mitigation Plan (ADMP) Guidance For Naturally-Occuring Asbestos*. May 21, 2014.

<sup>16</sup> Placer County Air Pollution Control District. *CEQA Air Quality Handbook* [pg. 20]. November 21, 2017.

project would not result in the exposure of sensitive receptors to substantial pollutant concentrations, and a *less-than-significant* impact would result.

Mitigation Measure(s)

*None required.*

**5-3 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Based on the analysis below, the impact is *less than significant*.**

Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, visible emission (including dust), or emissions considered to constitute air pollutants. Air pollutants have been discussed in Impacts 5-1 through 5-2 above. Therefore, the following discussion focuses on emissions of odors and visible emissions.

Odors

Certain land uses such as wastewater treatment and conveyance facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, chemical plants, quarries, and construction yards have the potential to generate emissions (such as those leading to odors or dust) that could adversely affect nearby receptors. The proposed Zoning Text Amendment would not allow any new land uses within existing study facilities in the County. Rather, the proposed Zoning Text Amendment would allow the existing facilities to hold an unlimited number of Agricultural Promotional Events, and for the two existing facilities on parcels greater than 20 acres, an additional six Special Events per year. Therefore, the proposed Zoning Text Amendment would not result in the introduction of new land uses that would have the potential to create emissions that could adversely affect nearby receptors.

Although the proposed Zoning Text Amendment would not allow for the introduction of new land uses within existing study facilities, Agricultural Promotional Events and Special Events may involve activities such as food preparation, which could result in emissions of odiferous compounds. Section 17.56.330 (E) (6) of the proposed Zoning Text Amendment includes specific regulations related to the preparation of food at existing study facilities. As articulated in Section 17.56.330 (E) (6), if food is prepared on-site as part of the operation of the existing study facility, food may only be prepared in a permitted commercial kitchen. Commercial kitchens must comply with all State and local regulations associated with cooking equipment and controls, such as grease filtration and removal systems, exhaust hood systems, and blowers to move air into the hood systems, through air cleaning equipment, and then outdoors. Such equipment would ensure that pollutants associated with smoke and exhaust from cooking surfaces would be captured and filtered, allowing only filtered air to be released into the atmosphere. Alternatively, the proposed Zoning Text Amendment would allow for other options for the provision of food at existing study facilities, such as self-contained mobile food facilities (food trucks) or off-site preparation of food by a caterer. Both the food truck and caterer would be subject to all

relevant permitting requirements of the County's Environmental Health Division, and would represent infrequent, temporary sources of on-site odors from limited food preparation. Additionally, should a Temporary Outdoor Event (TOE) be held within an existing study facility, food booths may be operated; however, TOE's are subject to regulation under Section 17.56.300 of the Placer County Code, would occur infrequently, and food prepared at such events would be required to comply with all relevant health codes including regulation by the County's Environmental Health Division. Consequently, food preparation at existing study facilities would be strictly regulated, would likely occur infrequently, and, thus, would be unlikely to result in significant impacts related to the emission of odors at existing study facilities.

It should be noted that in addition to the regulations discussed above related to food preparation, the County regulates the disposal of putrescible wastes, such as food waste, under Article 8.16 of Placer County's Code of Ordinances. Article 8.16 prohibits waste storage practices that would create unpleasant odors, and requires putrescible waste to be kept within proper designed and maintained containers that include lids to control odiferous emissions. Consequently, should food be prepared during potential future events at existing study facilities, food waste must be handled in a manner that would avoid the creation and emission of unpleasant odors.

### Visible Emissions

As defined in PCAPCD Rule 202, visible emissions may be smoke, dust, or any other substance that obscures an observer's view based on standardized scales of opacity. Visible emissions may result from the use of internal combustion engines, such as smoke from diesel fueled equipment, the burning of vegetation, or the upset and release of soil as dust.

PCAPCD Rule 202 specifically prohibits any person from discharging visible emissions of any air contaminant for a period or periods aggregating to more than three minutes in any one-hour time. Operators of existing study facilities would be subject to Rule 202, and compliance with Rule 202 would ensure that operations of existing study facilities would not result in substantial visible emissions.

As discussed under Impact 5-1, the potential for event activity at existing study facilities to result in the emission of substantial amounts of dust has been considered. Dust is a form of PM pollution, and would be included in the calculated PM<sub>10</sub> emissions presented in Table 5-7. The PCACPD's thresholds for PM<sub>10</sub> are based on attainment goals for the health-based AAQS. Because implementation of the proposed project would not result in emission of PM<sub>10</sub> in excess of the PCAPCD's thresholds of significance, dust emissions resulting from implementation of the proposed Zoning Text Amendment would not be considered significant and would not be anticipated to conflict with the health-based AAQS. Consequently, implementation of the proposed Zoning Text Amendment would not result in emissions of dust adversely affecting a substantial number of people.

### Conclusion

In addition to the regulations and modeling results discussed above, PCAPCD Rule 205, Nuisance, addresses the exposure of “nuisance or annoyance” air contaminant discharges, which would include odors and visible emissions, and provides enforcement of nuisance control. Rule 205 is complaint-based, where if public complaints are sufficient to cause the emission source to be considered a public nuisance, then the PCAPCD is required to investigate the identified source, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications to correct the nuisance condition. Thus, although not anticipated, if air pollutant complaints are made during future Agricultural Promotional Events or Special Events, the PCAPCD would be required (per PCAPCD Rule 205) to ensure that such complaints are addressed and mitigated, as necessary.

For the aforementioned reasons, the proposed Zoning Text Amendment would not result in other emissions (such as those leading to odors) that could adversely affect a substantial number of people, and impacts would be *less than significant*.

### Mitigation Measure(s)

*None required.*