4.2 AIR QUALITY

4.2.1 SETTING

REGIONAL METEOROLOGY, TOPOGRAPHY, AIR POLLUTION POTENTIAL

The project is located within the South Central Coast Air Basin (SCCAB), which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The SCCAB has a Mediterranean climate characterized by mild winters, and warm, dry summers. The influence of the Pacific Ocean results in mild temperatures year-round along the coast, with inland areas experiencing a wider range of temperatures. Precipitation generally occurs during the winter months, with occasional rainfall during summer months. Historical annual precipitation in Santa Barbara County varies, primarily due to topographical effects, ranging from 12 to 20 inches along the coast to approximately 30 inches in the mountains. Research by the CalEPA Office of Environmental Health Hazard Assessment (OEHHA) has documented effects of climate change. The primary observed changes in California's climate include increased annual average air temperatures, more-frequent extremely hot days and nights, and increasing severity of droughts (OEHHA, 2018).

Regional winds are normally onshore and generally light. This can contribute to higher levels of pollution, since low wind speeds minimize dispersion of pollutants. During the summer, northwesterly winds are stronger and persist later into the night. When the strong and persistent high-pressure system that lies over the Pacific Ocean weakens, a Santa Ana condition can develop, with air traveling westward into the County from the east. Stagnant air often occurs at the end of a Santa Ana condition, causing a buildup of pollutants offshore. Topography plays a significant role in affecting the direction and speed of winds. Light onshore winds hamper the dispersion of primary pollutants, and the orientation of the inland mountain ranges interrupts air circulation patterns. Pollutants become trapped, facilitating production of secondary pollutants.

AIR POLLUTANTS SUBJECT TO AIR QUALITY MANAGEMENT

Air quality is determined by measuring ambient concentrations of certain air pollutants, which are known to have adverse health effects. Ambient air pollutant concentrations are affected by the rates and distributions of air pollutant emissions, as well as by climactic and topographic influences. The State and Federal Clean Air Acts mandate the control and reduction of certain air pollutants. Under these Acts, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain "criteria" pollutants .In California, air quality management and regulation is the shared responsibility of the California Air Resources Board (ARB) and local air quality management and local air pollution control districts. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are air quality planning standards that define the upper limits for airborne concentrations of "criteria" pollutants. The standards are designed to protect the most sensitive individuals and ensure public health and welfare with a reasonable margin of safety. Many of the California standards are more restrictive than the corresponding federal standards.

Criteria Air Pollutants

The NAAQS and CAAQS are established standards for the "criteria" air pollutants. The "criteria" air pollutants include Ozone, respirable particulate matter (PM10), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead.

Pollutants which are precursors to ozone formation are also regulated: Nitrogen oxides (NOx) and reactive organic compounds (ROC), or reactive organic gases (ROG), including volatile organic compounds (VOC).

A description of these pollutants is included below, followed by Table 4.2-1, which summarizes the current federal and state standards for each of these pollutants.

- **Ozone.** Ozone is formed in the atmosphere through a series of complex photochemical reactions involving nitrogen oxides (NOx), reactive organic compounds (ROC), and sunlight, occurring over a period of several hours. Since ozone is not emitted directly into the atmosphere, but is formed as a result of photochemical reactions, it is classified as a secondary or regional pollutant. Because these ozone-forming reactions take time, peak ozone levels are often found downwind of major source areas..
- **Carbon Monoxide.** CO is formed primarily by the incomplete combustion of organic fuels. High values are generally measured during winter, when dispersion is limited by morning surface inversions. Seasonal and diurnal variations in meteorological conditions lead to lower values in summer and in the afternoon.
- **Nitrogen Dioxide.** NO_2 a brownish gas can be formed from nitric oxide (NO), which is a colorless gas released during combustion and rapidly oxidizes in the atmosphere. The highest nitrogen dioxide values are generally measured in urbanized areas with heavy traffic.
- **Sulfur Dioxide.** SO_2 is a gas produced primarily from combustion of sulfurous fuels by stationary and mobile sources. However, SO_2 can react in the atmosphere to produce acids or particulate sulfates, which can also cause impacts.
- **Sulfate.** SO_4^{2-} is an aerosol that occurs primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. Sulfur is oxidized to sulfur dioxide (SO_2) in the combustion process and is subsequently converted to sulfate compounds which exist in the atmosphere as sulfuric acid and sulfate salts.
- **PM10 and PM2.5.** PM10 is particulate matter that measures 10 micrometers or less in diameter. PM2.5 is particulate matter that measures 2.5 micrometers or less in diameter. The largest quantities of direct PM10 emissions are generally produced by industrial processes such as bulk material handling, combustion and minerals processing as well as from soils via roads, construction, agriculture, and natural, windblown dust. Fine particulate matter (PM2.5) is more likely than PM10 to deeply penetrate respiratory systems. PM2.5 is directly produced during combustion, and ambient levels of nitrogen oxides (NOx) and sulfur oxides (SOx) play an important role by reacting, generally with ambient gas- phase ammonia, in the formation of secondary PM2.5.
- **Lead.** Lead is a heavy metal that in ambient air occurs as a lead oxide aerosol or dust. Since lead is no longer added to gasoline or to paint products, lead emissions have been reduced significantly in recent years.

Table 4.2-1. National and California Ambient Air Quality Standards and Relevant Health Effects

Pollutant	Averaging Time	California Standards	National Standards	Relevant Health Effects
Ozone	1-hour	0.09 ppm	—	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage.
	8-hour	0.070 ppm	0.070 ppm	
Respirable Particulate Matter (PM10)	24-hour	50 µg/m³	150 µg/m³	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children.
	Annual Mean	20 µg/m³	—	
Fine Particulate Matter (PM2.5)	24-hour	—	35 µg/m³	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease, elderly, and children.
	Annual Mean	12 µg/m³	12.0 µg/m³	
Carbon Monoxide (CO)	1-hour	20 ppm	35 ppm	a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses.
	8-hour	9 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm	0.100 ppm	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra- pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration.
	Annual Mean	0.030 ppm	0.053 ppm	
(SO₂)	24-hour	0.04 ppm	0.14 ppm	shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	Annual Mean	—	0.03 ppm	
Lead	30-day Average	1.5 µg/m³	—	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction.
	Calendar Quarter	—	1.5 µg/m³	
Visibility Reducing Particles	8-hour	extinction 0.23/kilometer, except Lake Tahoe	—	Reduction of visibility, aesthetic impact and impacts due to particulates (see above).
Sulfates	24-hour	25 µg/m³	—	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage due to corrosion.
Hydrogen Sulfide	1-hour	0.03 ppm	—	Odor annoyance level.
Vinyl Chloride	24-hour	0.01 ppm	—	Known carcinogen.

Notes: ppm=parts per million; µg/m³= micrograms per cubic meter; "—" = no standard.
Source: ARB, 2016. Ambient Air Quality Standards Chart. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Hazardous Air Pollutants (HAPs)

Another class of air pollutants that are subject to regulatory requirements is hazardous air pollutants (HAPs) or air toxics. HAPs are contaminants that are known or suspected to cause cancer, genetic mutations, birth defects, or other serious illnesses in humans. Impacts from toxic pollutant emissions tend to be site-specific.

LOCAL AMBIENT AIR QUALITY AND ATTAINMENT STATUS

The U.S. EPA, ARB, and local air districts classify local areas with regard to attainment of air quality standards. The classification depends on whether the monitored ambient air quality data show compliance (attainment), insufficient data available (unclassified), or non-compliance (nonattainment) with the ambient air quality standards. As identified in Table 4.2-2 below, the County does not currently meet ozone and PM10 ambient air quality standards.

Table 4.2-2 - Attainment Status for Santa Barbara County

Pollutant	California Designation	Federal Designation
Ozone	Nonattainment-Transitional	Unclassifiable/Attainment
PM10	Nonattainment	Attainment
PM2.5	Attainment	Attainment
CO	Attainment	Attainment
NO2	Attainment	Attainment
SO2	Attainment	Attainment
All Other Pollutants	Attainment/Unclassified	Attainment/Unclassified

When monitoring shows that criteria pollutant level standards are not being met, the SBCAPCD develops strategies to meet the standards. A network of monitoring stations measures air pollutant levels throughout the County. Some pollutants, such as ozone, are measured continuously. Other pollutants are sampled periodically. Particulate matter, for example, is measured over 24 hours every six days. The monitoring stations fall into two main categories:

- State and local air monitoring stations (SLAMS); and
- Prevention of Significant Deterioration (PSD) stations.

The SLAMS measure urban and regional air quality. The PSD stations are used to determine the impacts of specific operations, such as large oil and gas facilities.

Table 4.2-3 summarizes the highest concentrations from recent ambient air quality data from the Santa Maria monitoring station, located at 906 South Broadway. The data from the Santa Maria monitoring station shows that the ozone standard for this particular monitoring station area is in attainment, while the PM10 is in nonattainment (non-attainment data is shown in **bold** text). .

Table 4.2-3 - Summary of Ambient Air Quality Data, Santa Maria Monitoring Station

Pollutant	Most Restrictive Standard	2015	2016	2017
Ozone (1-hour, ppm)	0.09 (CAAQS)	0.066	0.062	0.068
Ozone (8-hour, ppm)	0.070 (CAAQS)	0.055	0.056	0.063
Ozone (days over the 8-hour State standard)	—	—	—	—
PM10 (24-hour, µg/m3)	50 (CAAQS)	**66.4**	**78.6**	**106.9**
PM10 (annual average, µg/m3)	20 (CAAQS)	**23.8**	**25.7**	**26.9**
PM10 (days over the 24-hour State standard)	—	~10	~16	~22
PM2.5 (24-hour, µg/m3)	35 (NAAQS)	19.2	19.4	19.9
PM2.5 (annual average, µg/m3)	12 (CAAQS)	7.8	—	7.3
PM2.5 (days over the 24-hour federal standard)	—	—	—	—
NO2 (1-hour, ppm)	0.100 (NAAQS)	0.046	0.036	0.044
NO2 (annual average, ppm)	0.030 (CAAQS)	0.007	0.006	0.006
SO2 (24-hour, ppm)	0.04 (CAAQS)	0.002 (2012)	—	—

Notes: ppm=parts per million; µg/m3= micrograms per cubic meter; "—" =not applicable or not available.
Source: CARB Air Quality Data Statistics for Santa Maria (906 S. Broadway), except SO2 most-recently (2012) measure in Lompoc.

The Santa Barbara County Air Pollution Control District (SBCAPCD) relies upon an inventory of NOx and ROC emissions for 2012, which forms the baseline for the most-recent ozone attainment planning efforts (SBCAPCD, 2016 Ozone Plan).

4.2.2 REGULATORY SETTING

The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate the emission of airborne pollutants and, as noted above, have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in California. Local control in air quality management is provided by the CARB through county-level or regional (multi-county) air pollution control districts (APCDs). The CARB establishes air quality standards and is responsible for control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The CARB has established 14 air basins statewide.

The SBCAPCD regulates air quality in the portion of the SCCAB that is in Santa Barbara County, and is responsible for attainment planning related to criteria air pollutants, and for district rule development and enforcement. The SBCAPCD air quality attainment plans provide an overview of the County's air quality and sources of air pollution. The air quality plans also identify the pollution-control measures needed to meet clean-air standards. The schedule for development of required updates to the air quality plans is every three years. The type of air quality plan needed is outlined by state and federal requirements. SBAPCD staff develops draft plans and, after a public review process, SBAPCD staff develops a final plan. The SBAPCD Board then adopts the final plan and sends it on to the EPA and/or the CARB for final approval. The 2016 Ozone Plan is the eighth update to the SBCAPCD's 1991 Air Quality Attainment Plan. The 2016 Ozone Plan addresses the California Clean Air Act requirements to plan for attainment and maintenance of the state 1-hour and 8-hour ozone air quality standards.

The following plans, including the current 2016 Ozone Plan, are available on the SBAPCD website (www.ourair.org/planning-clean-air\ ):

- 2001 Clean Air Plan
- 2004 Clean Air Plan
- 2007 Clean Air Plan
- 2010 Clean Air Plan
- 2013 Clean Air Plan
- 2016 Ozone Plan
- 2017 Report on the Nonattainment-Transitional Designation

4.2.3 PREVIOUS ENVIRONMENTAL REVIEW

OCP EIR. The Orcutt Community Plan (OCP) Environmental Impact Report (EIR) Volume I examined the air quality setting of the project region and the potential impacts resulting from OCP buildout. OCP EIR Volume II further examined site-specific impacts of development on the OCP's identified "Key Sites," including a Mini-EIR for KS18 (KS18)/Southpoint. The OASIS property is located within a portion of KS18 identified for open space and public park uses. The OCP EIR identifies the following potentially significant impacts related to: Generation of ozone precursors (Impact AQ-1), Dust and PM_{10} (Impact AQ-2), Consistency with the Clean Air Plans growth rate (Impact AQ-3), and Long-term operational emissions (from new commercial space along Clark Avenue). These impacts are addressed by implementation of SBCAPCD control measures currently applied to construction projects as part of the County's standard regulatory process. These SBCAPCD control measures are consistent with OCP EIR Mitigation Measures AQ-1/AQ-2 (SBCAPCD pollution control measures and Best Available Control Technology to reduce ozone precursors during earth moving/construction activities) and AQ-10 (implementation of fugitive dust mitigation during earth moving activities).

The OCP EIR determined that long-term emissions from OCP buildout would be significant and unavoidable (Class I), as the growth identified in the OCP exceeded the growth assumptions in the Clean Air Plan that was in effect at that time, and that the OCP buildout would contribute to cumulative significant and unavoidable (Class I) air quality impacts.

Partial mitigation for long-term operational impacts include Mitigation Measures AQ-6 and AQ-3. These mitigation measures were incorporated into the OCP as CIRC-O-6, and CIRC-O-6.1 – 6.4, which encourage all feasible forms of alternative transportation, including expanded transit service, bike paths, and pedestrian improvements, as well as park-and-ride facilities, bike lockers, etc.

4.2.4 IMPACT ANALYSIS

METHODOLOGY AND SIGNIFICANCE THRESHOLDS

METHODOLOGY

Air pollutant emissions from construction and operation of the project were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 based on information provided by the project applicant and CalEEMod default values for projects in Santa Barbara County (see Appendix D-2 for CalEEMod estimated emissions data) when project specifics were not known.

The Institute of Traffic Engineers (ITE) Recreational, Health Club land use code was used to estimate project related emissions in CalEEMod. The ITE Recreational Health Club land use code is a default code in CalEEMod. This land use code projects similar, but slightly higher trip generation rates compared to the ITE land use code for Recreational Community Centers, which is the land use code used to estimate OASIS project traffic (see Section 4.13 Transportation/Circulation). ATE (under contract to County of Santa Barbara), Stantec (project traffic engineers), and County of Santa Barbara Public Works Transportation Division staff determined that the ITE Recreational Community Center land use code best reflects the proposed OASIS project uses and project related traffic. Although assumed vehicle trips and related emissions using the default ITE Recreational Health Club land use code are slightly higher than if the Recreational Community Center land use code was used, these emission estimates are acceptable under CEQA for purposes of evaluating a reasonable worst case with regard to air quality impacts.

The Orcutt Community Plan (OCP) identifies the project site for open space and potential public park land uses. The OCP traffic analysis did not, however, assign vehicle trips to the project site in the OCP traffic model, which has been used to estimate emissions associated with vehicle trips in the clean air plans (CAPs). The current CAP, the 2016 Ozone Plan, takes into account estimates for normal growth in projecting emissions, including vehicular emissions.

SIGNIFICANCE THRESHOLDS

The analysis of air quality impacts follows the guidance provided in the Santa Barbara County Environmental Threshold and Guidelines Manual (October 2008). According to the Environmental Thresholds and Guidelines Manual, a significant adverse air quality impact may occur when a project, individually or cumulatively, triggers any one of the following:

- *Interferes with progress toward the attainment of the ozone standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_X and ROC; or*
- *Equals or exceeds the state or federal ambient air quality standards for any criteria pollutant (as determined by modeling).*

Cumulative air quality impacts and consistency with the applicable air quality policies and measures in the Comprehensive Plan should be determined for all projects

Quantitative Emission Thresholds

Short-term/Construction Emission Thresholds 25 tons/year ROG/NO_X. The County of Santa Barbara County utilizes the Santa Barbara County Air Pollution Control District (SBCAPCD) quantitative significance criteria for temporary construction emissions. SBCAPCD recommends quantification of construction-related emissions from construction activities, and uses 25 tons per year for ROG or NO_X as a guideline for determining the significance of construction impacts.

Long-term/Operational Emission Thresholds. Long-term air quality impacts occur during project operation. All long-term operational emissions must be summed in order to determine the significance of the project's long-term impact on air quality. Based on Santa Barbara County's adopted quantitative criteria pollutant thresholds, a proposed project would not have a significant air quality effect on the environment, if operation of the project would:

- *Emit (from all project sources, mobile and stationary), less than the daily trigger for offsets set in the APCD New Source Review Rule, for any pollutant; and*
- *Emit less than 25 pounds per day of oxides of nitrogen (NO_X) or reactive organic compounds (ROC) from motor vehicle trips only; and*
- *Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and*
- *Not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and*
- *Be consistent with the adopted federal and state Air Quality Plans.*

The Santa Barbara County Environmental Thresholds and Guidelines Manual also states that a project will have a significant air quality impact if it causes a carbon monoxide (CO) "hotspot" by adding emissions to existing background CO levels that exceed the California one-hour standard of 20 parts per million, which typically occurs at severely congested intersections. The County provides the following screening criteria for CO impacts:

- If a project contributes less than 800 peak hour trips, then CO modeling is not required.
- Projects contributing more than 800 peak hour trips to an existing congested intersection at level of service (LOS) D or below, or that will cause an intersection to reach LOS D or below, may be required to model for CO impacts. However, projects that will incorporate intersection modifications to ease traffic congestion are not required to perform modeling to determine potential CO impacts.

The Santa Barbara County Environmental Thresholds and Guidelines Manual recommends discussing the following issues if they are applicable to the project:

- Emissions which may affect sensitive receptors (e.g., children, elderly, or acutely ill);
- Toxic or hazardous air pollutants in amounts which may increase cancer risk for the affected population; or
- Odor or another air quality nuisance problem impacting a considerable number of people.

Clean Air Plan Consistency. Analysis of consistency with the current air quality or clean air plan (CAP) is required in the County's Environmental Thresholds Manual for all projects. The 2016 Ozone Plan is the most recent applicable air quality plan. The 2016 Ozone Plan identifies how the SBCAPCD plans to meet the State eight-hour ozone standard. The 2016 Ozone Plan focuses on attainment of the California ozone standards. The 2016 Ozone Plan focuses on reducing ozone precursor emissions through implementation of transportation control measures, which would serve to reduce mobile source emissions, which are the primary source of ROC and NOX emissions in the County. The 2016 Ozone Plan uses SBCAG's Regional Growth Forecast and CARB on-road emissions forecasts to project ozone precursor emissions.

Pursuant to the State CEQA Guidelines, a project's air quality impacts would be significant if the project would:

- *Conflict with or obstruct implementation of the applicable air quality plan;*
- *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
- *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative guidelines for ozone precursors);*
- *Expose sensitive receptors to substantial pollutant concentrations; and/or*
- *Create objectionable odors affecting a substantial number of people (refer to Section*

SHORT-TERM CONSTRUCTION PERIOD IMPACTS

Impact AQ-1: The project would generate short-term air quality impacts during the construction period (Class III).

The project applicant estimates that it would take approximately 11 months to construct the proposed project. The majority of construction-related emissions would result from grading due to the use of heavy-duty construction equipment. Other emissions would result from building construction and the evaporation of ROC from architectural coatings (paint). Emissions of ozone precursors (NO_x and ROC) during the project construction period would result primarily from on-site use of heavy earthmoving equipment.

Project earthwork quantities used for CalEEMod assumed 7,000 cubic yards of cut and 6,500 cubic yards of fill. The 500 net cubic yards of estimated excess fill was assumed to be used (balanced) onsite in landscape areas, thereby reducing vehicle emissions associated with hauling soil (import or export) for grading operations. Project-specific estimates for workdays per task were used based on information provided by the project architect (T. Martinez). Based on the summary of CalEEMod-generated construction emissions in Table 4.2-4, project related construction emissions would be below SBAPCD's guideline of 25 tons per year of ROG or NO_X for determining the significance of construction impacts. (For full CalEEMod results, refer to Appendix D-2).

Subsequent to preparation of the CalEEMod analysis, the applicant submitted a revised grading plan. The current Preliminary Grading Plan (revised April 2019) identifies a reduction in both cut and fill quantities, compared to the assumptions used in the CalEEMod analysis. Although earthwork now includes grading on the steep slope north of the proposed access road and additional retaining walls on the slope to the south, the current project engineer's (B Hain, Stantec)

refined grading calculations conclude that overall grading quantities would be reduced to approximately 4,400 cubic yards (CY) of cut (including for the 4-foot deep retention basin) and approximately 5,202 CY of fill. Earthwork is proposed to be balanced onsite by effectively shallow "mining" for the additional 620 CY of fill onsite, within the development/landscape areas. Because overall grading quantities have been reduced and the estimated construction period is not proposed to change, the included CalEEMod analysis represents a reasonable worst case analysis of projected project emissions.

Table 4.2-4 Construction Emissions Associated with OASIS Project

Land Use	Maximum Emissions (tons/year)			
	ROG	NO_X	CO	PM_{10}
Health/Fitness Club	0.2844	1.4009	0.9000	0.1640

Source: CalEEMod Version: CalEEMod.2016.3.2, Annual emissions report. Full CalEEMod reports contained in Appendix D-2.

Because Santa Barbara County is a nonattainment area for PM_{10} (see Table 4.2-2 - Attainment Status for Santa Barbara County), control measures to reduce construction related fugitive dust emissions are required for all construction projects involving earthmoving activities. Use of standard control measures for construction emissions is also required by OCP Policy AQ-O-2, which states:

> *Policy AQ-O-2: Significant fugitive dust and PM_{10} emissions shall be reduced through implementation of appropriate construction restrictions and control measures, consistent with standards adopted by the Board.*

The *Santa Barbara County Grading, Erosion, and Sediment Control Ordinance* (Santa Barbara County Code, Chapter 14) requires a grading permit and an Erosion and Sediment Control Plan for all new grading that exceeds 50 cubic yards or the cut or fill exceeds three feet in vertical distance to the natural contour of the land. The County of Santa Barbara and the SBCAPCD also require implementation of standard dust control measures for all discretionary projects to reduce PM10 emissions. In accordance with the County's standard regulatory practices, construction emission control measures are required to be shown on grading and building plans and implemented throughout the construction period. Impacts from fugitive dust emissions during the construction period would be considered less than significant with implementation of standard dust control measures based on SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (June 2017 Limited Update). Furthermore, the County of Santa Barbara considers short-term construction emissions of NOX to be less than significant because countywide emissions of NOX from construction equipment is insignificant compared to regional NOX emissions from other sources, such as vehicles (County of Santa Barbara 2018b).

The specific SBCAPCD construction period control measures that would be applied in accordance with the County's standard regulatory requirements, are included in Appendix D-2. These requirements include: use of water, soil binders and/or planting to minimize dust generation, installing gravel pads at access points, designation of a contact person to monitor the dust control program, requirements for diesel vehicles, and minimizing the size of disturbed areas, the number of construction equipment operating simultaneously, the engine size of construction equipment, and the number of construction worker vehicle trips by providing for lunch onsite. Implementation of SBAPCD control measures, which are required as part of the standard

regulatory process for all development projects, would ensure that short-term air quality impacts would be adverse, but less than significant (Class III).

LONG-TERM OPERATIONAL IMPACTS

Impact AQ-2: Project operations would increase long-term emissions (Class III).

The proposed project would not increase the population of Orcutt as the primary focus of the project is to continue to provide existing services to local seniors. Expanded uses to be provided at the proposed new OASIS facility would be associated with 1) serving local seniors whose population continues to grown unrelated to the proposed project, and 2) providing expanded services at a new facility designed to better accommodate more people for OASIS activities and programs and to accommodate and attract increased rentals for non-OASIS activities/events, as the proposed facility would include greatly enhanced indoor and outdoor facilities compared to the existing facility on Soares Avenue. Long-term air quality impacts would occur during project operation. All long-term operational emissions must be summed in order to determine the significance of the project's long-term impact on air quality. A screening table is included in Attachment A of SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents (https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf). An excerpt of this screening table is included below as Table 4.2-5.

Table 4.2-5 - Excerpt of SBCAPCD Screening Table: Projects with Potentially Significant Emissions

LAND USE CATEGORY	PROJECT DESCRIPTION	SIZE OF PROJECTS LIKELY TO GENERATE APPROXIMATELY 22.5 LB/DAY**OF ROG OR NOX
HOUSING		
Single Family House	Detached Housing, 3 houses per acre individual lots	140 houses
Apartments	One or two levels, 16 apartments per acre	200 apartments
Condominiums/ Townhouse	16 condos per acre	200 condos
SCHOOLS		
Elementary School	K-6 grade	110,000 square feet
High School	Grades 9-12	125,000 square feet
Day Care Center	Pre-school age, classrooms, offices, eating areas, playgrounds	25,000 square feet
COMMUNITY		
Place of Worship	Church, synagogue	65,000 square feet

OASIS project – (less than 16,000 square feet)

Table 4.2-5 lists the most common types of land uses, along with estimates of the size of a specific project type that would be expected to generate emissions less than the threshold of significance for long-term ROG and NOx emissions from vehicles (25 lbs/day). The OASIS Center is similar to the "School" and "Community" uses identified in the SBAPCD Screening Table excerpt below.

As identified in Table 4.2-5, the OASIS project square footage (less than 16,000 sf) is below the

screening table's square footage for similar land uses (schools, places of worship), which is estimated to generate emissions that exceed the 25 lb/day long-term threshold for ROG or NOx. For another comparison, the 140 single family houses identified in this screening table would generate approximately 1400 average daily vehicle trips (ADT); whereas OASIS' project-related vehicle trips are projected to be approximately 500 ADT. In addition, some of these vehicle trips are already on the local street network (existing setting), associated with the existing OASIS facility on Soares Avenue in Old Town Orcutt.

SBCAPCD does not recommend that the square footage figures in the Screening Table be considered as absolute thresholds of project significance. Further, SBCAPCD recommends that a more detailed analysis using CalEEMod be prepared for project types that are not included in the Screening Table.

Table 4.2-6 summarizes the CalEEMod projected emissions for the OASIS operational period.

Table 4.2-6 Unmitigated Operational Emissions for OASIS Project

Source	Maximum Emissions (lbs/day)		
	ROG	NO_X	PM_{10}
Area Source	0.4559	7.0000e-005	
Energy	0.0120	0.1086	
Mobile	0.9965	3.1475	1.4211
Total	**1.4644**	**3.2562**	**1.4211**
Threshold (area + energy + mobile)			
Threshold (mobile only)	*25*	*25*	*n/a*

Source: CalEEMod v.2016.3.2, Winter Emissions report. Full CalEEMod results contained in Appendix D-2..

As shown in Table 4.2-6, project emissions would not exceed the County's long-term daily thresholds for ROG and NOx. However, the OCP approval findings identify residual long-term increases in emissions from buildout as significant and unavoidable (Class I). In addition, existing development restrictions on the OASIS part of KS18 limit the project site to open space and potential public park uses. The proposed project would amend the OCP to accommodate the proposed OASIS development and use, which could result in an increase in assumed long-term emissions for the project site. The project's increase in emissions identified in Table 4.2-7 would be less than the threshold, but this increase in emissions would incrementally exacerbate the previously identified significant and unavoidable air quality impact from long-term increases in emissions associated with OCP buildout.

As shown in Table 4.2-6, project operational emissions would generate up to approximately 1.5 pounds per day (lbs/day) of ROG emissions, 3.2 lbs./day of NOX emissions, and 1.4 lbs./day of PM10 emissions. Construction emissions would not exceed the SBCAPCD threshold of 25 lbs/day for ROC, NOX, SO2, PM10, and PM2.5.

Impact AQ-3: The project would potentially conflict with implementation of the 2016 Ozone Plan in reducing ozone precursor emissions and attainment of state and federal air quality standards for ozone (Class II).

The OCP policies and development standards are derived from OCP EIR mitigation measures to reduce impacts from buildout of the OCP. To partially reduce the identified significant and unavoidable long-term air quality impacts from OCP buildout, the adopted OCP includes policies, actions and development standards that encourage transportation and pedestrian oriented developments and alternative modes of transportation (e.g., AQ-O-1, AQ-O-6, CIRC-O-9, PRT-O-4). These OCP strategies are also consistent with the 2016 Ozone Plan goal of reducing ozone precursor emissions and attainment of state and federal air quality standards for ozone. These standards require developments to be sited and designed to provide maximum access to non-motor vehicle forms of transportation including transit, park-and-ride facilities, bike paths and trails, as well as related amenities to facilitate alternative modes of transportation (e.g., bike lockers, bus stop improvements, etc.). Implementation of these standards in Orcutt development projects serves to partially reduce the significant and unavoidable long-term air quality impacts from buildout of the OCP.

Consistent with OCP policies which encourage improved transit service to reduce vehicle trips (reducing traffic and air quality impacts), Santa Maria Area Transit (SMAT) recommends the OASIS project install a bus stop(s) on Clark Avenue (A. O'Dell, phone call January 2019) to facilitate access to the site by area seniors. However, the applicant has indicated that it is infeasible to accommodate a closer bus stop and that most seniors would arrive by either private passenger vehicle or would utilize the SMOOTH Senior Dial-a-Ride service. In addition, it would be difficult for many mobility restricted seniors to navigate both the distance and topographic difference between bus stops on Clark Avenue and the proposed OASIS facility in the stream valley below.

Project related increases in vehicle trips would exacerbate identified long-term air quality impacts from OCP buildout. Mitigation, consistent with OCP standards, to facilitate access to alternative modes of transportation, including trail installation and installation of feasible new bus stops and/or implementation of an OASIS shuttle bus program would reduce project related increases in new vehicle trips, consistent with the 2016 Ozone Plan and the OCP.

Impact AQ-4: The project would result in potentially significant impacts associated with project generated smoke, odors, and dust (PM_{10}) generated by onsite activities, resulting in nuisance complaints and increasing the challenge of meeting SBCAPCD attainment of PM_{10} standards.

PM_{10} (dust/particulate after completion of construction)/Smoke/Odors – The OASIS project is designed to accommodate indoor and outdoor activities including weekday hot lunches for area seniors. The indoor facilities and outdoor barbeque area would be used for OASIS programs and for non-OASIS activities, including rentals (e.g., weddings, celebrations of life, etc.). The project description limits onsite attendance, including catering staff, to 200 people. Depending on the type of barbeque equipment used (wood versus gas), duration and frequency of use, and weather (wind direction, etc.), neighbors may be impacted by smoke and odors from barbeque events, similar to nuisance complaints received from residential properties that are located near fast food restaurants and other stores and restaurants that utilize grilled/open- fire cooking. While this may not be considered a nuisance to attendees enjoying the onsite activities, adjacent neighbors who are exposed to the smoke and smells on a regular basis may consider this a nuisance. The OASIS facility would be a minimum of

250 feet from the closest residence and within 400-600 feet of additional neighbors in the surrounding neighborhood. Similar smoke nuisance complaints could result from a wood fireplace use, if proposed. Given the County's current nonattainment status for PM_{10}, use of wood fired barbeques and fireplaces, particularly those sized to accommodate 200 people for events onsite, would exacerbate SBCAPCD'S challenge of achieving attainment of the PM_{10} standard. This is considered a potentially significant impact. Mitigation requiring use of gas barbeques and fireplaces would substantially reduce the generation of particulate emissions and the potential for nuisance complaints from smoke and odors.
The project would not result in than significant impacts related to Toxic Emissions, Serpentine, and Exposure to Highway Emissions.

- No past or proposed use or release of toxic substances is associated with the project site. (Also see discussion of hazardous materials in Section 5.0).
- The project site does not contain serpentine rock or soils, which contain naturally occurring asbestos.
- Development within 500 feet of Highway 135 would be exposed to potentially significant levels of highway vehicle emissions. The OASIS facility is located over 500 feet from Highway 135.

The OASIS development includes installation of solar panels. The specific size and design of the onsite solar energy system (number of panels, etc.) is not known at this time. However, long-term use of solar panels would reduce overall energy demand and associated emissions.

See Section 4.7 for discussion of Greenhouse Gas Emissions and Climate Change.

CUMULATIVE IMPACTS

New development from buildout of the Orcutt/Santa Maria area contributes to the cumulative degradation of regional air quality and identified significant and unavoidable cumulative air quality impacts identified from OCP buildout. Cumulative impacts may result from development of the proposed project in combination with development contemplated in the Santa Barbara County Comprehensive Plan as well as the General Plans of local municipalities. Based on Santa Barbara County thresholds, a project would have a significant cumulative impact if it were inconsistent with the adopted federal and state air quality plans of Santa Barbara County. As discussed above under project specific impacts, long-term operation of wood fired barbeques and fireplaces would be inconsistent with OCP policies/development standards and SBCAPCD clean air plan goals of attainment status for PM_{10}. In addition, lack of proximate bus stops or other transit options that reduce vehicle trips/vehicle miles travelled to serve the OASIS facility would be inconsistent with air quality standards in the 2016 Ozone Plan and OCP, which address provision of expanded transit opportunities, and other alternative modes of transportation (alternative to single occupant vehicle trips). While a section of bikeway/trail will be included with the project, the segment proposed does not provide an effective connection between Foxenwood Lane and public roads to the west. Therefore, the connections would not facilitate bicycle access to the OASIS site until the connecting segments are added. Incorporation of the mitigation measures below would be consistent with the clean air plan with regard to reducing long-term PM_{10} (from wood burning fireplaces and barbeques) and ozone precursor emissions (by facilitating alternative modes of transportation and reducing single occupancy vehicle emissions). Therefore, with implementation of identified mitigation measures, the project's contribution to identified cumulative significant, unavoidable air quality impacts would not be considerable and would be considered to be less than significant.

Approval of the project requests involving amendments to the Orcutt Community Plan, modifications to the Southpoint Estates subdivision conditions of approval and recorded final maps, as well as OASIS proposed acquisition of the County-held development rights to the property may trigger submittal of similar requests for 1) the other KS18/Southpoint Estates open space parcels and 2) other designated open space parcels in the Orcutt area or elsewhere in the County, which were set aside as part of past land use decisions for the purpose of preserving resources and offsetting various environmental impacts of development projects. The amount and types of increased development that could result from similar requests throughout the County's unincorporated area are not specifically known. However, conversion of such open space areas to development and other uses would generally result in the generation of increased emissions from short-term construction activities and long-term use/operations, subject to the level and types of specific development that would occur. Emissions would be dependent on the project type, size, and location (e.g., rural vs. in proximity to shopping, jobs, schools, entertainment, transit), as well as the extent to which emission reduction features are included in the project (e.g., solar, bike paths, shuttle service, etc.).

4.2.5 MITIGATION

The following mitigation measures are required to reduce potentially significant impacts related to attainment of PM_{10} standards in the SBCAPCD CAP and smoke and odor nuisance complaints.

AQ-1 Special – Gas Fireplace/BBQ: Barbeques, fire pits, fireplaces, etc. shall be gas fired to reduce particulate (PM_{10}) emissions and nuisance complaints from residential neighbors. **Plan Requirements and Timing**: Prior to zoning clearance/issuance of building permits, the applicant shall ensure project plans (building plans, landscape plans, other plans as applicable) identify all barbeques, fire place, fire pits, etc. and include a note on the plans that these amenities shall not be not wood-fired. In addition a note shall be included on the cover page identifying this restriction. **MONITORING**: P&D shall confirm compliance with this measure prior to zoning clearance and prior to stamping building permits. Building and Safety and Permit Compliance shall confirm compliance with approved plans in the field and prior to occupancy.

AQ-2 Special – Transportation Demand Program (TDM): The applicant shall develop a plan to reduce single occupant vehicle trips and related emissions. **Plan Requirements and Timing**: Prior to zoning clearance, the applicant shall submit a plan with the following components:

a. Shuttle service
   i. At a minimum shuttle service shall provide rides to and from the OASIS facility for area seniors attending daily lunches and shall be available for other events involving more than 20 individuals (both OASIS and non-OASIS programs/activities);
   ii. Proposed shuttle program (vehicle occupant size, typical pick-up/drop-off schedule);
   iii. Rental agreement language for events/rentals shall identify required use of shuttle service;
   iv. Proposed method to document use of shuttle program (number of riders, actual schedule, etc.).

b. Assistance to members wishing to carpool – OASIS shall facilitate member carpools by gathering and providing member information (contact information provided by members on a voluntary basis only), OASIS programs regularly attending, etc.
c. Priority parking and/or other opportunities to encourage members to carpool;
d. Installation of bike racks;
e. Other vehicle trip reduction methods acceptable to County (e.g., agreement with Santa Maria Area Transit to provide shuttle services or other assistance to reduce single occupant vehicle trips);

MONITORING: P&D shall review proposed TDM to reduce single occupant vehicle use and related vehicle miles traveled, prior to zoning clearance. Permit compliance shall receive and review annual monitoring reports to confirm implementation. Permit compliance to confirm TDM ready to implement, including shuttle(s) onsite, etc. prior to occupancy.

SIGNIFICANCE AFTER MITIGATION

Impact AQ-1: The project would generate short-term air quality impacts during the construction period. (Class III)

Impact AQ-1 would be less than significant without mitigation, as standard regulatory requirements for implementation of dust and emissions control measures would be effective in controlling emissions to a less than significant level.

Impact AQ-2: Project operations would increase long-term emissions (Class III).

Impact AQ-2 would not exceed thresholds, without mitigation.

Impact AQ-3: The project would potentially conflict with implementation of the 2016 Ozone Plan in reducing ozone precursor emissions and attainment of state and federal air quality standards for ozone. (Class II)

Impact AQ-4: The project would result in potentially significant impacts associated with project generated smoke, odors, and dust (PM_{10}) generated by onsite activities, resulting in nuisance complaints and increasing the challenge of meeting SBCAPCD attainment of PM_{10} standards. (Class II)

Cumulative Air Quality impacts: The project would contribute to Class I air quality impacts identified from OCP buildout by increasing PM10 emissions from wood burning fireplaces/barbeques and by increasing ozone precursors given project's lack of proximate bus stops or alternative modes of transportation. (Class II)

Impacts AQ-3, AQ-4 and Cumulative Air Quality impacts would be mitigated to less than significant levels by incorporation of the mitigation measures AQ-1 and AQ-2, which are consistent with the clean air plan, in reducing long-term PM_{10} and ozone precursor emissions.