

4.2 AIR QUALITY

This chapter summarizes the results of the Air Quality Analysis prepared for the Community Plan (Appendix B). Impacts were assessed in accordance with guidance provided by the San Luis Obispo Air Pollution Control District (SLOAPCD). The Community Plan would be consistent with the Clean Air Plan (CAP). Construction emissions associated with projects implemented under the Community Plan would be Class II, significant but mitigable. Impacts associated with sensitive receptors and odors would be Class III, less than significant.

4.2.1 Setting

a. Environmental Setting.

Air Basins. The State of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme non-attainment area for that pollutant (there is also a marginal classification for federal non-attainment areas). Once a non-attainment area has achieved the air quality standards for a particular pollutant, it may be redesignated as an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and prepare a maintenance plan demonstrating the ability of the basin to in continuing to meet and maintain air quality standards, as well as satisfy other requirements of the Clean Air Act (CAA). Areas that are redesignated attainment are called maintenance areas. The project is located in San Luis Obispo County, which is within the South Central Coast Air Basin (Basin), which also includes Santa Barbara and Ventura Counties.

Geographic Setting. The unincorporated community of Los Osos is located along the coast in the central portion of San Luis Obispo County, generally south of and adjacent to Morro Bay and its associated estuary. Los Osos is approximately 4 miles south of the City of Morro Bay, across the bay/estuary, and approximately 10 miles west of the City of San Luis Obispo, at the western end of Los Osos Valley, a broad, relatively flat agricultural area formed by Los Osos Creek. The county can be divided into three general geographic regions including the Coastal Plateau, the Upper Salinas River Valley, and the East County Plain (SLOAPCD 2001). The Community Plan area is located with the Coastal Plateau region.

Climate. The climate of the County can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. The mean annual temperature for the project area is 63 degrees Fahrenheit (°F). The average annual precipitation is

17 inches, falling primarily from November to April. Winter low temperatures in the project area average about 43°F, and summer high temperatures average about 66°F (Western Regional Climate Center 2016).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the county.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Existing Air Quality.

National and California Ambient Air Quality Standards

In order to achieve the purposes of the Federal CAA and the California CAA, the United States Environmental Protection Agency (U.S. EPA) developed primary and secondary national ambient air quality standards (NAAQS) and the State developed California ambient air quality standards (CAAQS). Six criteria pollutants of primary concern have been designated: ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), lead (Pb) and respirable particulate matter (PM₁₀ and PM_{2.5}). The current NAAQS and CAAQS are presented in **Table 4.2-1**.

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM _{2.5})	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m ³)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi- luminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemi- luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂)	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Fluorescence; Spectro- photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas)	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)	–	
Lead	30 Day Average	1.5 µg/m ³	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas)	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m ³		
Visibility Reducing Particles	8 Hour	Instrumental equivalents: -extinction of 0.23 per kilometer statewide -extinction of 0.07 per kilometer for Lake Tahoe Air Basin	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chroma- tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chroma- tography			

Source: State of California 2015.

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; – = not applicable.

Air Quality Measurements

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the California Air Resources Board (CARB) or federal standards set by the U.S. EPA. There are currently ten air quality monitoring stations located in the county. Eight of these stations are maintained and operated as a part of the SLOAPCD network, and two stations are operated by the CARB (SLOAPCD 2015). Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The Morro Bay monitoring station located at 899 Morro Bay Boulevard, approximately 2.5 miles north of Los Osos is the nearest monitoring station to the Community Plan area. The Morro Bay monitoring station measures ozone and NO₂. **Table 4.2-2** provides a summary of measurements collected at the Morro Bay monitoring station for the years 2015 through 2019.

Table 4.2-2. Summary of Air Quality Measurements Recorded at the Morro Bay Monitoring Station					
Pollutant/Standard	2015	2016	2017	2018	2019
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0	0	0
Days State 8-hour Standard Exceeded (0.07 ppm)	0	0	0	0	0
Days Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0	0	0
Max. 1-hr (ppm)	0.064	0.060	0.071	0.057	0.058
Max 8-hr (ppm)	0.057	0.057	0.062	0.055	0.051
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.043	0.036	N/A	N/A	N/A
Annual Average (ppm)	0.011	0.008	N/A	N/A	N/A
Source: CARB 2019.					

Ozone. Nitrogen oxides and hydrocarbons (reactive organic gases [ROG]) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the county. Because sunlight plays such an important role in its formation, ozone pollution—or smog—is mainly a concern during the daytime in summer months. A majority of the county, including the Community Plan area, have experienced relatively low levels of

ozone. However, ozone levels exceeding state and federal levels have been measured in the eastern portion of the county. The eastern portion of the county was designated as a nonattainment area for the federal ozone standard in May 2012.

Carbon Monoxide. CO is an odorless, colorless gas. It is produced as a result of incomplete combustion of carbon containing fuels such as coal, wood, charcoal, natural gas, and fuel oil. The county is classified as a state attainment area and as a federal unclassified area for CO. Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as “CO hot spots” and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

Particulate Matter. Particulate matter is a complex mixture of microscopic solid or liquid particles including chemicals, soot, and dust. Anthropogenic sources of direct particulate emissions include crushing or grinding operations, dust stirred up by vehicle traffic, and combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning, and industrial processes. Additionally, indirect emissions may be formed when aerosols react with compounds found in the atmosphere. Health studies have shown a significant association between exposure to particulate matter and premature death in people with heart or lung diseases. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (U.S. EPA 2016). As its properties vary based on the size of suspended particles, particulate matter is generally categorized as particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) or particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}). PM₁₀, occasionally referred to as “inhalable coarse particles” has an aerodynamic diameter of about one-seventh of the diameter of a human hair. High concentrations of PM₁₀ are often found near roadways, construction, mining, or agricultural operations. PM_{2.5}, occasionally referred to as “inhalable fine particles” has an aerodynamic diameter of about one-thirtieth of the diameter of a human hair. PM_{2.5} is the main cause of haze in many parts of the United States. Federal standards applicable to PM_{2.5} were first adopted in 1997.

Other Criteria Pollutants. The national and state standards for NO₂, oxides of sulfur (SO_x), and the previous standard for lead are being met in the county, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. The county is also in attainment of the state standards for vinyl chloride, H₂S, sulfates, and visibility-reducing particulates.

b. Regulatory Setting. Motor vehicles are leading source of air pollution in the county (SLOAPCD 2016). In addition to these sources, other mobile pollution sources include farming operations, construction equipment, trains, and airplanes. Emission standards for mobile sources are established by state and federal agencies, such as the CARB and the U.S. EPA. Reducing mobile source

emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources, such as those associated with new or modification projects (e.g., retrofitting older vehicles with cleaner emission technologies). The state of California has developed statewide programs to encourage cleaner cars and cleaner fuels. The regulatory framework described below details the federal and state agencies that are in charge of monitoring and controlling mobile source air pollutants and the measures currently being taken to achieve and maintain healthful air quality in the county. In addition to mobile sources, stationary sources also contribute to air pollution in the county. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SLOAPCD.

Federal Regulations. The Federal CAA was enacted in 1970 (and amended several times since) for the purpose of protecting and enhancing the quality of the nation's air resources. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 United States Code 7409], the U.S. EPA developed primary and secondary NAAQS. Six criteria pollutants of primary concern have been designated: O₃, CO, SO₂, NO₂, lead and respirable particulate matter (PM₁₀ and PM_{2.5}). The current NAAQS are presented in **Table 4.2-1** and represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect public health and welfare considering long-term exposure of the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The eastern portion of the county is also currently classified as a federal non-attainment area for ozone, however, the portion of the county containing the Community Plan area is classified as a federal attainment area for ozone.

State Regulations.

Criteria Pollutants

The U.S. EPA allowed states the option to develop different (stricter) air quality standards. Through the California CAA signed into law in 1988, the CARB has generally set more stringent limits on the criteria pollutants as shown in **Table 4.2-1**. The County is currently classified as a state non-attainment area for ozone and PM₁₀.

The California CAA additionally requires that air quality management districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures and:

- Demonstrate the overall effectiveness of the air quality program;
- Reduce non-attainment pollutants at a rate of 5 percent per year, or include all feasible measures and expeditious adoption schedule;
- Implement public education programs;
- Reduce per-capita population exposure to severe non-attainment pollutants according to a prescribed schedule;

- Include any other feasible controls that can be implemented, or for which implementation can begin, within 10 years of adoption of the most recent air quality plan; and
- Rank control measures by cost-effectiveness and implementation priority.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807). Diesel-exhaust particulate matter emissions have been established as TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act (California Senate Bill 25) focuses on children's exposure to air pollutants. The act requires the CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network and develop any additional air toxic control measures needed to protect children's health.

Following the identification of diesel particulate matter (DPM) as a TAC in 1998, the CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020.

In April 2005, the CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible.

As an ongoing process, the CARB will continue to establish new programs and regulations for the control of diesel particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to the CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

Local Regulations. The SLOAPCD is the agency that regulates air quality in the county. The SLOAPCD is responsible for preparing the CAP, which is the attainment plan for the county that addresses how State standards will be met. The Final 2001 CAP provides the framework for application of Best Available Control Technology and Best Available Retrofit Control Technology, implementation of transportation control measures, development of control programs for area sources and indirect sources of emissions, sufficient control strategies to achieve ROG and NO_x emissions reductions required by the CARB, and preparation of annual progress reports for submittal to the CARB.

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds.

Methodology. The analysis of air quality impacts follows the guidance and methodologies recommended in the SLOAPCD's *CEQA Air Quality Handbook*. A program-level analysis was performed for the Community Plan, which, according to the SLOAPCD, does not require a quantitative air emissions analysis. Rather, a qualitative consistency analysis of air quality impacts is required. A qualified analysis of air quality impacts was conducted based on the Community Plan's consistency with the CAP. Additionally, although a quantified analysis is not required, for informational purposes, emissions due to operation of the existing land uses as well as buildout of the adopted Estero Area plan and the Community Plan were calculated using the California Emissions Estimator Model (CalEEMod) (California Air Pollution Control Officers Association 2013). In brief, the model estimates criteria air pollutants and GHG emissions by multiplying emission source intensity factors by estimated quantities of emission sources based on the land use information.

Significance Thresholds. Pursuant to the County’s Initial Study Checklist and Appendix G of the State CEQA Guidelines, impacts would be significant if development under the Community Plan would:

- *Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by the County Air Pollution Control District;*
- *Expose any sensitive receptors to substantial pollutant concentrations;*
- *Create or subject individuals to objectionable odors;*
- *Be inconsistent with the District’s Clean Air Plan; and/or*
- *Result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air quality standards that are due to increased energy use or traffic generation, or intensified land use.*

b. Impacts and Mitigation Measures.

<p>Threshold: <i>Would actions under the Community Plan be inconsistent with the District’s Clean Air Plan?</i></p> <p>Threshold: <i>Would actions under the Community Plan result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air quality standards that are due to increased energy use or traffic generation, or intensified land use</i></p>
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Impact AQ-1 The Community Plan would generally be consistent with the transportation control measures and land use and circulation management programs in the 2001 CAP. Consistency with the Clean Air Plan ensures that long-term operational impacts associated with future buildout under the Community Plan are adequately addressed. This impact would be Class III, less than significant.

As described above, the California CAA requires air basins that are designated non-attainment of State AAQS for criteria pollutants prepare and implement plans to attain the standards by the earliest practicable date. The two pollutants addressed in the CAP are ROGs and NO_x, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions and by extension to maintaining and improving air quality. Operation emissions are long-term and include mobile and area sources. Sources of operational emissions associated with future projects developed under the Community Plan include:

- Traffic generated by the project; and,
- Area source emissions from the use of natural gas, fireplaces, and consumer products.

The SLOAPCD does not require quantified analysis of operational air contaminant emissions impacts for program-level evaluations, such as for the Community Plan. Rather, a qualitative consistency analysis of air quality impacts is required. Significant impacts are identified by determining whether applicable land use management strategies and transportation control measures from the CAP have been included in the Community Plan to the maximum extent feasible. If the Community Plan is consistent with the land use management strategies and transportation control measures, it is considered consistent with the CAP. Although a quantified analysis is not required, for informational purposes, emissions due to operation of the existing land uses as well as buildout of the adopted Estero Area plan and the Community Plan were calculated and are contained in Attachments 1 through 3 of the Air Quality Analysis (Appendix B).

The current residential population of the Community Plan area is 13,906. Buildout of the Community Plan would accommodate 18,000 residents consistent with the San Luis Obispo Council of Governments (SLOCOG) 2035 population estimates for Los Osos, and therefore consistent with the growth assumed in the CAP.

Project trip generation rates were obtained from the Transportation Impact Analysis Report prepared for the Community Plan (Omni Means 2016). The existing land uses generate 74,836 trips and future buildout of the Community Plan would generate 100,648 trips. A comparison of vehicle miles travelled (VMT) with and without implementation of the Community Plan was completed using average trip lengths in County (CARB 2014) and CalEEMod vehicle calculations. Based on data reported by SLOAPCD, the existing year 2016 and year 2035 average regional trip length trip lengths in the County are 5.56 and 5.20 miles, respectively (CARB 2014). Based on CalEEMod calculations, the existing land uses currently generate 105,487,960 annual VMT and future buildout of the Community Plan would generate 125,576,933 annual VMT. This increase in VMT is consistent with the anticipated population growth in Los Osos, and therefore consistent with the growth assumed in the CAP.

The following Transportation Control Measures (TCMs) contained in the CAP would apply to the Community Plan:

- *T-1C Voluntary Commute Options Program*
- *T-2A Local Transit System Improvements*
- *T-3 Bicycling and Bikeway Enhancements*
- *T-6 Traffic Flow Improvements*
- *T-8 Telecommuting, Teleconferencing, and Telelearning*

The Community Plan identifies deficiencies in the circulation network, proposes specific circulation improvements, and proposes a number of transportation and circulation goals and policies. Strategy growth goals and circulation policies include the following:

- *Strategic Growth Goal 4 – Create walkable neighborhoods and towns.*
- *Strategic Growth Goal 5 – Provide a variety of transportation choices.*
- *Policy CIR-1. Maximize public access to and along the coast.*
- *Policy CIR-2. Provide safe, convenient access to multiple transportation modes from shopping areas, schools, residential areas, and recreation facilities.*
- *Policy CIR-3. Responsibly finance and administer the community circulation system in Los Osos.*
- *Policy CIR-4. Design the Los Osos community circulation system to be compatible with the community’s character and responsive to local environmental needs.*

In addition to these transportation and circulation goals and policies, the proposed Community Plan contains the following specific circulation improvements.

Los Osos Valley Road

- *Construct center medians in the downtown corridor intended to slow traffic, encourage pedestrian activity, attract economic activity, and make the area more attractive.*
- *Widen Los Osos Valley Road between Doris Avenue and Palisades Avenue to provide a continuous center left turn lane.*
- *Implement traffic calming measures where feasible to slow traffic and encourage safe pedestrian travel within the central business district, such as bulb- outs, medians and raised crosswalks at intersections and mid- block locations.*
- *Construct a multi- use trail on the northerly side of Los Osos Valley Road between Palisades Avenue and Doris Avenue.*

Los Osos Valley Road Corridor Improvements

- *A Los Osos Valley Road Corridor Study was prepared to define a specific set of guidelines and serve as an overall master plan that will guide future circulation improvements within the Los Osos Valley Road right-of-way between the Los Osos Creek Bridge and Bush Drive. The study includes a number of recommendations including raised medians, dedicated right turn lanes, intersection improvements, pedestrian crossings, new and synchronized signals, and pedestrian improvements.*
- *The Los Osos Valley Road Corridor Study also provides guidelines for amenities in the Central Business District. These amenities include on-site parking off of Los Osos*

Valley Road, street furnishings, sitting walls, benches, trash receptacles, pathways, perpendicular streets, bike racks, tree grates, in-ground planters, container planters, landscaped medians, and street lighting.

These goals, policies, and circulation improvements would be consistent with CAP TCMs. The CAP also identifies land use strategies that reduce VMT by planning compact communities, providing for a mix of land uses, creating a job and housing balance, and implementing circulation management policies. The Community Plan would provide a mixed-use area that would incorporate these land use strategies, the Morro Shores Mixed-Use Area. New development within this area would include efficient pedestrian, bicycle, and vehicular connections to other neighborhoods and important activity centers within the community including open space areas, the Central Business District, and the Baywood Commercial Area. The Community Plan would be consistent with CAP land use strategies.

In summary, because the Community Plan would be consistent with the growth assumed in the CAP and would incorporate TCMs and land use strategies from the CAP, the Community Plan is considered consistent with the CAP. Impacts would be **Class III, less than significant**.

Mitigation Measures. No mitigation is required.

Residual Impacts. Impacts associated with odors would be **Class III, less than significant**.

Threshold: *Would actions under the Community Plan violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by the County Air Pollution Control District?*

Impact AQ-2 Construction activity within the Community Plan area would generate temporary increases in localized air pollutant emissions. These emissions would occur in proximity to existing and future residents within the community. Construction-related impacts would be **Class II, significant but mitigable**.

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and

- Construction-related power consumption.

Air pollutants generated by the construction of projects within the Community Plan area would vary depending upon the number of projects occurring simultaneously and the size of each individual project. The exact number and timing of all development projects that could occur under the Community Plan are unknown. The Community Plan would accommodate 1,861 residential units and 364,000 square feet of commercial space over the existing condition. Construction activities associated with individual projects are not generally considered to have significant air quality impacts because of their short-term and temporary nature. However, because the number, type, and size of construction projects that could occur at any given time is unknown and because the Community Plan would accommodate additional growth over the existing condition, it is reasonable to conclude that some major construction activity could be occurring at any given time over the buildout horizon of the Community Plan. Large construction projects or multiple construction projects occurring simultaneously would have the potential to exceed construction emission thresholds established by the SLOAPCD. In addition, because the SLOAPCD is in non-attainment with the state standard for PM₁₀, the amount of fugitive dust generated from construction activities is potentially significant. Therefore, construction-related impacts associated with development under the Community Plan are **Class II, significant but mitigable**.

Mitigation Measures. Implementation of standard SLOAPCD dust and emissions control measures would minimize construction-related air quality impacts and reduce them to a less than significant level. The specific measures that would be applied in accordance with standard requirements include the following:

AQ-2(a) Community Plan Equipment Emission Reductions. The following language shall be added as a subsection to 7.3 Communitywide Standards of the Community Plan:

Construction Equipment Emissions Reductions. Construction projects shall implement the following emissions control measures so as to reduce diesel particulate matter in accordance with SLOAPCD requirements:

- *Maintain all construction equipment in proper tune according to manufacturer's specifications;*
- *Fuel all off-road and portable diesel powered equipment with a CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);*
- *Use diesel construction equipment meeting the CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;*
- *Use on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;*

- *Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standard identified in the above two measures (e.g., captive or NO_x exempt area fleets) may be eligible by providing alternative compliance;*
- *All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or jobs sites to remind drivers and operators of the 5 minute idling limit;*
- *Diesel idling within 1,000 feet of sensitive receptors is not permitted;*
- *Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;*
- *Electrify equipment when feasible;*
- *Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and*
- *Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.*

Plan Requirements and Timing. The Planning and Building Department shall add the recommended language to the Community Plan prior to adoption.

Monitoring. Planning and Building shall ensure that the above language is included in the Community Plan prior to adoption.

AQ-2(b)

Community Plan Fugitive Dust Control Measures. The following language shall be added as a subsection to 7.3 Communitywide Standards of the Community Plan:

Fugitive Dust Control Measures. Construction projects shall implement the following dust control measures so as to reduce PM₁₀ emissions in accordance with SLOAPCD requirements:

- *Reduce the amount of the disturbed area where possible;*
- *Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Water shall be applied as soon as possible whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible;*
- *All dirt-stock-pile areas shall be sprayed daily as needed;*
- *Permanent dust control measures shall be identified in the approved project revegetation and landscape plans and implemented as soon as possible following completion of any soil disturbing activities;*
- *Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating native grass seed and watered until vegetation is established;*

- *All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD;*
- *All roadways, driveways, sidewalks, etc., to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;*
- *Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;*
- *All trucks hauling dirt, sand, soil or other loose materials shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;*
- *Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; and*
- *Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.*
- *All of these fugitive dust mitigation measures shall be shown on grading and building plans; and*
- *The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and to prevent transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.*

Plan Requirements and Timing. The Planning and Building Department shall add the recommended language to the Community Plan prior to adoption.

Monitoring. Planning and Building shall ensure that the above language is included in the Community Plan prior to adoption.

Residual Impacts. Due to the temporary nature of construction activities and implementation of the above mitigation measures, construction air quality impacts would be reduced to a less than significant level.

Threshold: *Would actions under the Community Plan expose any sensitive receptors to substantial pollutant concentrations?*

Impact AQ-3 Sensitive receptors sited next to roadways in the Community Plan area would not be exposed to a significant source of diesel particulate matter. Additionally, no CO hot spots would occur as a result of the Community Plan. Implementation of the Community Plan would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be Class III, less than significant.

Localized Carbon Monoxide Hot Spots. Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses. Guidance for the evaluation of CO hot spots is provided in the *Transportation Project-level Carbon Monoxide Protocol* (CO protocol) (University of California, Davis 1997) prepared for the Environmental Program of the California Department of Transportation by the Institute of Transportation Studies, University of California Davis. According to the CO Protocol, projects that increase the percentage of vehicles in cold start modes by 2 percent or more significantly increase traffic volumes over existing volumes, worsen traffic flow, or have the potential to result in CO hotspots. The CO Protocol defines a significant increase in traffic as a 5 percent or greater increase in average daily trips (ADT) from all roadways. Worsening traffic flow is defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project. CO hot-spots almost exclusively occur near intersections with LOS E or worse in combination with relatively high traffic volumes on all roadways (Garza et al. 1997). Unsignalized intersections are not considered as potential candidates for CO hot spots, as unsignalized intersections do not experience large traffic volumes and delays, and are typically signalized when significant delays in traffic are identified.

LOS projections were developed in the Transportation Impacts Analysis Report prepared for the project (Appendix E). Based on this analysis, the Community Plan would not result in any signalized intersections with LOS E or worse. Therefore, no CO hot spots would occur as a result of the Community Plan and localized air quality impacts would be **Class III, less than significant**.

Toxic Air Emissions. Diesel-fired particulate matter has been identified as a TAC. The health risks associated with diesel particulate matter are those related to long-term exposures (i.e., cancer and chronic effects). Long-term health risk effects are generally evaluated for an exposure period of 70 years (i.e., lifetime exposure).

CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible. Based on the Transportation Impacts Analysis Report, future traffic volumes on all roadways are projected to be less than 22,000 ADT

at buildout of the Community Plan. Sensitive receptors sited next to roadways in the Community Plan area would not be exposed to a significant source of diesel particulate matter. Impacts would be **Class III, less than significant**.

Mitigation Measures. No mitigation is required.

Residual Impacts. Impacts associated with CO hot spots and TAC would be **Class III, less than significant**.

Threshold: Would actions under the Community Plan create or subject individuals to objectionable odors?

Impact AQ-4 Implementation of the Community Plan would not create operational-related objectionable odors affecting a substantial number of people. Impacts would be Class III, less than significant.

The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. During construction, potential odor sources associated with the project include diesel exhaust associated with construction equipment. Diesel exhaust may be noticeable temporarily; however, construction activities would be temporary. Therefore, the diesel exhaust odors would not result in significant impacts.

The SLOAPCD CEQA Air Quality Handbook identifies multiple odor-causing sources including but not limited to; wastewater treatment plants, landfills, composting facilities, petroleum refineries and chemical manufacturing. The Community Plan proposes single-family residential, multi-family residential, commercial (office and retail), recreational, and open space land uses, and would not introduce land uses that would generate substantial odor. Implementation of the Community Plan would not create operational-related objectionable odors affecting a substantial number of people. Program-level impacts associated with odor would be **Class III, less than significant**.

Mitigation Measures. No mitigation is required.

Residual Impacts. Impacts associated with odors would be **Class III, less than significant**.

c. Cumulative Impacts. A project that does not exceed the SLOAPCD thresholds and is consistent with the CAP would have a less than significant cumulative impact. Conversely, a project that exceeds the SLOAPCD significance thresholds or is found to be inconsistent with the CAP would result in significant cumulative impacts. As discussed, the Community Plan would be consistent with the SLOCOG growth projections. Additionally, the Community Plan would decrease the development potential when

compared to the adopted Estero Area Plan. Because the Community Plan would be consistent with the growth assumed in the CAP and would incorporate TCMs and land use strategies from the CAP, the Community Plan is considered consistent with the CAP. The evaluation of the Community Plan in this EIR accounts for expected population growth and associated development in the Community Plan area. Therefore, cumulative air quality impacts from buildout of the Community Plan have been addressed in this impact analysis. Cumulative impacts on air quality would be *less than significant (Class III)*.

d. Subsequent Environmental Review for Future Development Projects in the Community Plan Area. Pursuant to CEQA Guidelines Section 15183, additional CEQA review is not required for projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site. **Table 4.2-3** describes conditions under which future development in the study area would require additional CEQA review, pursuant to Section 15183.

Table 4.2-3. Conditions Under Which Future Development in the Community Plan Area Would Require Additional CEQA Review	
Condition	Impact to Address
<i>The future project is inconsistent with underlying General Plan and zoning designations.</i>	AQ-1 through AQ-4
<i>The future project is inconsistent with Community Plan policies or design guidelines.</i>	AQ-1 through AQ-4
<i>The future project would result in an air quality impact peculiar to the project or parcel. An effect is not considered peculiar if uniformly applied development policies or standards previously adopted by the County would substantially mitigate the environmental effect.</i>	Impact that is peculiar to the project or parcel
<i>The future project would result in an impact or impacts not analyzed above, including off-site or cumulative effects. This may include if the project would result in operational emissions that exceed project level APCD thresholds and cannot be mitigated to a less than significant level.</i>	Impact other than AQ-1 through AQ-4
<i>The future project would result in an impact or impacts analyzed above, but at a higher level of severity as a result of substantial new information not known at the time the EIR was certified. This may include the following circumstances:</i> <ul style="list-style-type: none"> • <i>If future APCD standards have changed such that the future project would result in a significant effect;</i> • <i>If pollutants other than PM10 and ozone have gained nonattainment status; and/or</i> • <i>If the future project would generate toxic air contaminants</i> 	Worsened AQ-1 through AQ-4, as applicable