

### 3.3 AIR QUALITY

This section describes the following within the existing City boundary:

- environmental setting (existing conditions and regulatory setting) for air quality relating to the proposed project;
- the impacts associated with air quality that would result from the proposed project; and
- mitigation measures that would reduce these impacts.

The setting, impacts, and mitigation measures for the future service areas are described in Chapter 4.0, "Future Service Areas." Chapter 5.0, "Alternatives to the Proposed Project," discusses the impacts of the alternatives to the proposed project.

#### 3.3.1 Existing Conditions

This section provides an overview of air quality regulations, existing air quality, and meteorology for the Goleta area. The City of Goleta planning area lies within the South Central Coast Air Basin (Air Basin), which encompasses all of Santa Barbara and San Luis Obispo Counties. The analysis of existing conditions discusses the environmental setting within the County of Santa Barbara, which also includes the City of Goleta. The majority of the information in this section was obtained from the County of Santa Barbara Air Pollution Control District (SBCAPCD 2006).

##### 3.3.1.1 Climate and Meteorology

The climate in and around the City of Goleta, as well as most of Southern California, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. This high-pressure cell typically produces a Mediterranean climate with warm summers, mild winters, and moderate rainfall. This pattern is periodically interrupted by periods of extremely hot weather brought in by Santa Ana winds. Almost all precipitation occurs between November and April, although during these months, the weather is sunny or partly sunny a majority of the time. Cyclic land and sea breezes are the primary factors affecting the region's mild climate. The daytime winds are normally sea breezes, predominantly from the west, that flow at relatively low velocities.

Santa Barbara County's air quality is influenced by both local topography and meteorological conditions. Surface and upper-level wind flow varies both seasonally and geographically in the County, and inversion conditions common to the area can affect the vertical mixing and dispersion of pollutants. The prevailing wind-flow patterns in the County are not necessarily those that cause high ozone values. In fact, high ozone values are often associated with atypical wind flow patterns. Meteorological and topographical influences that are important to air quality in the County are as follows.

Semi-permanent high pressure that lies off the Pacific Coast leads to limited rainfall (around 18 inches per year), with warm, dry summers and relatively damp winters. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast and in the high 80s to 90s inland. During winter, average minimum temperatures range from the 40s along the coast to the 30s inland. Additionally, cool, humid, marine air causes frequent fog and low clouds along the coast, generally during the night and morning hours in the late spring and early summer. The

fog and low clouds can persist for several days until broken up by a change in the weather pattern.

In the northern portion of the County (north of the ridgeline of the Santa Ynez Mountains), the sea breeze is typically from the southwest. During summer, these winds are stronger and persist later into the night. At night, the sea breeze weakens and is replaced by light land breezes (from land to sea). The alternation of the land-sea breeze cycle can sometimes produce a “sloshing” effect, where pollutants are swept offshore at night and subsequently carried back onshore during the day. This effect is exacerbated during periods when wind speeds are low.

The terrain around Point Conception, combined with the change in orientation of the coastline from the north-south to east-west, can cause counterclockwise-circulation (eddies) to form east of the Point. These eddies fluctuate temporally and spatially, often leading to highly variable winds along the southern coastal strip. Point Conception also marks the change in the prevailing surface winds from northwesterly to southwesterly.

Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend down the slopes of a mountain range. Wind speeds associated with Santa Anas are generally 15 to 20 mph, though they can sometimes reach speeds in excess of 60 mph. During Santa Ana conditions, pollutants emitted in Santa Barbara, Ventura County, and the South Coast Air Basin (the Los Angeles region) are moved out to sea. These pollutants can then be moved back onshore into Santa Barbara County in what is called a *post-Santa Ana condition*. The effects of the post-Santa Ana condition can be experienced throughout the County. Not all post-Santa Ana conditions, however, lead to high pollutant concentrations in Santa Barbara County.

Upper-level winds (measured at Vandenburg Air Force Base once each morning and afternoon) are generally from the north or northwest throughout the year, but occurrences of southerly and easterly winds do occur in winter, especially during the morning. Upper-level winds from the south and east are infrequent during the summer. When they do occur, they are usually associated with periods of high ozone levels. Surface and upper-level winds can move pollutants that originate in other areas into the County.

Surface temperature inversions (0 to 500 feet) are most frequent during the winter, and subsidence inversions (1000 to 2000 feet) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them, and ozone concentrations are often higher directly below the base of elevated inversions than they are at the earth's surface. For this reason, elevated monitoring sites will occasionally record higher ozone concentrations than sites at lower elevations. Generally, the lower the inversion base height and the greater the rate of temperature increase from the base to the top, the more pronounced effect the inversion will have on inhibiting vertical dispersion. The subsidence inversion is very common during the summer along the California coast, and is one of the principal causes of air stagnation.

Poor air quality is usually associated with *air stagnation* (high stability/restricted air movement). Therefore, it is reasonable to expect a higher frequency of pollution events in the southern portion of the County, where light winds are frequently observed, as opposed to the northern part of the County, where the prevailing winds are usually strong and persistent.

### **3.3.1.2 Ambient Air Quality Standards**

Air quality in the project area and surrounding regional environment, and the relevant Federal and State standards regulating this resource, are discussed in this section.

The State of California and the Federal Government have established air quality standards and emergency episode criteria for various pollutants. Generally, State regulations have stricter standards than those at the Federal level. Air quality standards are set at concentrations that provide a sufficient margin of safety to protect public health and welfare. Episode criteria define air pollution concentrations at the level where short-term exposures may begin to affect the health of a portion of the population particularly susceptible to air pollutants. The health effects are progressively more severe and widespread as pollutant concentrations increase.

Air quality at a given location can be described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). The significance of a pollutant concentration is determined by comparing the concentration to an appropriate Federal and/or State ambient air quality standard.

Federal standards, established by the U.S. Environmental Protection Agency (EPA), are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS are defined as the maximum acceptable concentrations that, depending on the pollutant, may not be equaled or exceeded more than once per year, except the annual standards, which may never be exceeded. The State standards, established by the California Air Resources Board (CARB), are termed the California Ambient Air Quality Standards (CAAQS). The CAAQS are defined as the maximum acceptable pollutant concentrations that, depending on the pollutant, are not to be equaled or exceeded. The national and state ambient air quality standards are presented in Table 3.3-1.

### **3.3.1.3 Background Air Quality**

The region generally has good air quality, as it attains or is considered in maintenance status for most ambient air quality standards. The SBCAPCD is required to monitor air pollutant levels to assure that Federal and State air quality standards are being met. Air quality measurements indicate that Santa Barbara County is in attainment area for all other Federal and State air quality standards, with the exception for the State ozone and  $\text{PM}_{10}$  standards.

#### **Ozone**

Ozone has been monitored in the County for more than 25 years. Data collected at monitoring stations, in conjunction with the various air quality studies performed in the region, provide valuable insight into the County's ozone problem.

Ozone is formed in the atmosphere through a series of chemical reactions involving  $\text{NO}_x$  and reactive organic gases (ROGs), and sunlight occurring over a period of several hours. The major source of  $\text{NO}_x$  in the County is combustion of fossil fuels for transportation, energy, and heat. ROG sources include natural seeps of oil and gas, solvents in paints, consumer and industrial products, mobile sources, natural vegetation, and processes in the petroleum industry. Since ozone is not emitted directly into the atmosphere, but is formed as a result of chemical reactions in the atmosphere, it is classified as a *secondary* pollutant and is considered *regional* because it occurs over a wider area than that in which the pollutants are emitted. Because ozone-forming photochemical reactions take time, peak ozone levels are often found several

miles or more downwind of major source areas. This is particularly true when winds are persistent from one direction.

**TABLE 3.3-1  
AMBIENT AIR QUALITY STANDARDS**

Air Pollutant	State Standard	National Standards		Health Effect
		Primary	Secondary	
Ozone (O <sub>3</sub> )	0.09 ppm, 1-hr. avg. 0.07 ppm, 8-hr. avg.	0.12 ppm, 1-hr. avg. 0.08 ppm, 8-hr. avg.	0.12 ppm, 1-hr. avg.	Aggravation of respiratory and cardiovascular diseases; Impairment of cardiopulmonary function
Carbon Monoxide (CO)	9 ppm, 8-hr. avg. 20 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	Aggravation of respiratory diseases (asthma, emphysema)
Nitrogen Dioxide (NO <sub>2</sub> )	0.25 ppm, 1-hr. avg.	0.0534 ppm, annual avg.	0.0534 ppm, annual avg.	Aggravation of respiratory illness
Sulfur Dioxide (SO <sub>2</sub> )	0.25 ppm 1-hr. 0.04 ppm, 24-hr. avg.	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.	Aggravation of respiratory diseases (asthma, emphysema)
Suspended Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup> , 24-hr. avg. 20 µg/m <sup>3</sup> AAM	150 µg/m <sup>3</sup> , 24-hr. avg. 50 µg/m <sup>3</sup> AAM	150 µg/m <sup>3</sup> , 24-hr. avg. 50 µg/m <sup>3</sup> AAM	Increased cough and chest discomfort; Reduced lung function; Aggravation of Respiratory and cardio-respiratory diseases
Fine Particulate Matter (PM <sub>2.5</sub> )	-- 12 µg/m <sup>3</sup> AAM	65µg/m <sup>3</sup> , 24-hr. avg. 15 µg/m <sup>3</sup> AAM	65µg/m <sup>3</sup> , 24-hr. avg. 15 µg/m <sup>3</sup> AAM	Increased cough and chest discomfort; Reduced lung function; Aggravation of Respiratory and cardio-respiratory diseases
Sulfates (SO <sub>4</sub> )	25 µg/m <sup>3</sup> , 24-hr. avg.			Increased morbidity and mortality in conjunction with other pollutants
Lead (Pb)	1.5 µg/m <sup>3</sup> , monthly avg.	1.5 µg/m <sup>3</sup> , calendar quarter	1.5 µg/m <sup>3</sup>	Impairment of blood and nerve function; Behavioral and hearing problems in children
Hydrogen Sulfide (H <sub>2</sub> S)	0.03 ppm, 1-hr. avg.			Toxic at very high concentrations
Vinyl Chloride	0.010 ppm, 24-hr. avg.			Carcinogenic
Visibility-Reducing Particles	In sufficient amount to reduce prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation			
Notes:				
ppm = parts per million by volume		µg/m <sup>3</sup> = micrograms per cubic meter		
AAM = annual arithmetic mean		AGM = annual geometric mean		
For reader's convenience in picking out standards quickly, concentrations appears first; e.g., "0.12 ppm, 1 hr. avg." means 1-hr. avg >0.12 ppm				
New and stricter state standards for PM are proposed and adopted by CARB. They include: PM 10 annual average of 20 µg/m <sup>3</sup> and new PM 2.5 annual average of 12 µg/m <sup>3</sup> .				

Elevated ozone concentrations aggravate asthma, bronchitis, and other respiratory disorders. Eye irritation, nausea, headache, coughing, and dizziness are other symptoms of ozone exposure. Ozone also interferes with photosynthesis, thereby damaging natural and ornamental vegetation and agricultural crops. Ozone concentrations are highest during the warmer months and coincide with the seasons of maximum solar radiation.

Ozone studies prepared by the SBCAPCD have shown that ozone exceedences can occur under a wide variety of meteorological conditions. Additionally, based on analyses of ozone episodes occurring during the past 10 years (1995 to 2005), there is an indication that State exceedences may be related to meteorological conditions that are conducive to high ozone formed locally combined with the transport of pollutants from outside the County.

### **Other Pollutants**

Inert pollutant concentrations (generally, pollutants other than ozone and its precursors) tend to be the greatest during the winter and are a product of light wind conditions and surface-based temperature inversions. Maximum inert pollutant concentrations are usually found near an emission source. For example, the main source of CO emissions is motor vehicles, and the highest ambient CO concentrations are found near congested transportation arteries and intersections.

### **PM<sub>10</sub>**

PM<sub>10</sub> is generated by a wide variety of natural and man-made sources. Particulate matter is a respiratory irritant. Large particles are effectively filtered in the upper respiratory tract, but particles smaller than 10 microns can cause serious health effects. The chemical makeup of the particles is an important factor in determining the health effect.

PM<sub>10</sub> is produced either by direct emissions of particulates from a source (primary PM<sub>10</sub>), or by the formation of aerosols as a result of chemical reactions in the atmosphere involving precursor pollutants (secondary PM<sub>10</sub>). Based on emission data, the largest single source of PM<sub>10</sub> emissions in the County is entrained paved road dust. Other major sources include dust from construction, demolition, agricultural tilling, entrained road dust from unpaved roads, natural dust and sea salt, and particulate matter released during fuel combustion. The County violates both the State PM<sub>10</sub> 24-hour and annual standards. As a result, the County is currently designated nonattainment for the State PM<sub>10</sub> standard. The County does not exceed the Federal PM<sub>10</sub> standards.

To investigate the County's PM<sub>10</sub> problem, the SBCAPCD started a specialized sampling and analysis study in 1989 called the Santa Barbara County Particulate Matter Emission Reduction Study. The study collected and analyzed ambient samples of PM<sub>10</sub> at sites located throughout the County to identify chemical constituents, and it identified potential source characteristics and assessed control strategies for reducing PM<sub>10</sub> concentrations. The major findings of the study include: (1) background sources (primarily sea salt) are a major contributors to PM<sub>10</sub> concentrations; (2) on average, 70 percent of the locally generated primary PM<sub>10</sub> and locally generated geological dust and motor vehicle exhaust are the most significant sources of primary PM<sub>10</sub> in the County; and (3) potential control measures should concentrate on these primary sources of PM<sub>10</sub>.

### **3.3.1.4 Attainment Pollutants**

The Federal Clean Air Act established air quality standards for the following “criteria” air pollutants: ozone, NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub>, and lead. State standards also exist for each of these criteria pollutants. In addition, State standards are in place for visibility-reducing particles, SO<sub>4</sub>, H<sub>2</sub>S, and vinyl chloride. With the exception of ozone and PM<sub>10</sub>, the County complies with all State and Federal air quality standards.

### **3.3.1.5 Pollutants That Violate Standards**

The County currently violates the State ozone and PM<sub>10</sub> standards. As of August 8, 2003, the County has been redesignated as a Federal ozone attainment area for the one-hour ozone standard. The following sections discuss these pollutants.

The SBCAPCD has a network of 17 air quality monitoring stations. The nearest stations to the City of Goleta are the Goleta-Fairview station and the El Capitan monitoring station. Table 3.3-2 presents the maximum pollutant levels monitored at these two monitoring stations during the period from 2001 to 2005. The 2001 smog season was the first in which the County did not exceed the Federal one-hour ozone standard (0.12 ppm) since monitoring began in 1971. However, the State 1-hour ozone standard was exceeded one time in 2003 and was almost exceeded in 2004 at the Goleta station. The Federal 8-hour ozone standard was exceeded one time in 2004. Six percent of samples exceeded the State 24-hour PM<sub>10</sub> standard in 2004.

### **3.3.1.6 Sensitive Receptors**

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. Some people are particularly sensitive to some pollutants. These sensitive individuals include persons with respiratory illnesses or impaired lung function because of other illnesses, the elderly, and children. Facilities and structures where these sensitive people live or spend considerable amounts of time are known as sensitive receptors. SBCAPCD defines land uses considered to be sensitive receptors as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities.

### **3.3.1.7 Pre-Existing Odor Issues in the Area**

There have been a number of historical odor sources in the vicinity of the City, which are summarily listed below.

Offshore seeps are naturally occurring sources of mercaptans and hydrocarbons along the University and Ellwood Mesa coastline. There is nothing practical that can be done to control these odors; however, these odors are not constant and are not overly strong.

Venoco's Platform Holly has been a source of H<sub>2</sub>S emissions in the region. However, according to the SBCAPCD, the frequency of H<sub>2</sub>S releases have been reduced dramatically due to the installation of gas flare stack and an assortment of other system improvements in 1999 through 2000.

**TABLE 3.3-2  
SUMMARY OF AIR QUALITY DATA AT GOLETA MONITORING STATION**

Pollutant Standards	2001	2002	2003	2004	2005
<b>Ozone (O<sub>3</sub>)</b>					
State standard (1-hr. avg. 0.09 ppm)	—	—	—	—	—
National standard (1-hr avg. 0.12 ppm)	—	—	—	—	—
Maximum 1-hr concentration (in ppm)	0.082	0.070	0.097	0.092	0.080
Days state 1-hr standard exceeded	0	0	1	0	0
Days national 1-hr standard exceeded	0	0	0	0	0
National standard (8-hr avg. 0.08 ppm)	—	—	—	—	—
Maximum 8-hr concentration (in ppm)	0.066	0.060	0.071	0.087	0.066
Days national 8-hr standard exceeded	0	0	0	1	0
<b>Suspended Particulates (PM<sub>10</sub>)</b>					
State standard (24-hr. avg. 50 µg/m <sup>3</sup> )	—	—	—	—	—
National standard (24-hr avg. 150 µg/m <sup>3</sup> )	—	—	—	—	—
Maximum 24-hr concentration	41.1	39.4	39.3	51.3	40.7
Percent samples exceeding state standard	0	0	0	6.1	0
Percent samples exceeding national standard	0	0	0	0	0
<b>Suspended Particulates (PM<sub>2.5</sub>)</b>					
National standard (24-hr avg. 65 µg/m <sup>3</sup> )	—	—	—	—	—
Maximum 24-hr concentration	ND	ND	24.0	27.5	28.3
Percent samples exceeding national standard	—	—	0	0	0
Notes: ppm = parts per million µg/m <sup>3</sup> = micrograms per cubic meter NM = Not Monitored ND = No Data Sources: SBCAPCD Air Quality Data, 2001–2005; California Air Resources Board Yearly Air Quality Summaries, 2005.					

Venoco's Ellwood processing plant has been a source of mercaptan release over the years. However, similar to Platform Holly, these odorous emissions have been greatly reduced by the installation of a thermal oxidizer, which replaced a much less efficient control system of carbon canisters.

Water wells on the Ellwood Mesa properties have been a source of odor from sour water emanating from sewer pipes and water released in a gully. According to some sources, this water was stored and released in order for the current landowners to establish a history of water use on this site. Due to numerous complaints, improved piping was established, and water is no longer released in the gully.

Water wells with sour water in Goleta Valley/Winchester Canyon agricultural properties continue to be an issue on an inconsistent basis. The SBCAPCD is working with the agricultural community to reduce these sources of odor.

The Ellwood Marine Terminal at Coal Oil Point has historically been a source of two different sources of odors: (1) fugitive emissions/odors from oil storage tanks, and (2) odors released during the loading of barges (barges now have odor control systems).

With the exception of the natural seeps, the SBCAPCD has previously or is currently addressing the sources of all these odors.

### **3.3.2 Regulatory Framework**

#### **3.3.2.1 Federal and State**

##### ***Federal Regulations***

###### **Clean Air Act**

The EPA designates all areas of the United States as having air quality better than (attainment) or worse than (nonattainment) the NAAQS. The criteria for nonattainment designation vary by pollutant: (1) an area is in nonattainment for ozone if its NAAQS has been exceeded more than three discontinuous times in 3 years, and (2) an area is in nonattainment for any other pollutant if its NAAQS has been exceeded more than once per year. Presently, Santa Barbara County is in attainment of the NAAQS for CO, SO<sub>2</sub>, NO<sub>2</sub>, and PM<sub>10</sub>, and in nonattainment for ozone (SBCAPCD 2006).

The CAA Amendments of 1990 revised the planning provisions for areas that do not meet the NAAQS. The 1990 CAA identified new nonattainment classifications and compliance dates, specific emission reduction goals, requirements to demonstrate reasonable further progress towards attainment, and more stringent sanctions for failure to attain or meet interim milestones. The requirements and compliance dates for reaching attainment are based upon the severity of nonattainment classifications. Because Santa Barbara County was classified by the EPA as a “serious” ozone nonattainment area, the APCD was required to design a plan that would bring the region into attainment of the one-hour ozone standard by November 15, 1999.

In response to the 1990 CAA requirements, the APCD and the Santa Barbara County Association of Governments (SBCAG) prepared the Final 1998 Santa Barbara County Clean Air Plan (1998 CAP) to address attainment of the national ozone standard for the entire county (SBCAPCD 1998). The EPA approved the 1998 Clean Air Plan (CAP) in August 2000. The 1998 CAP also satisfied State attainment planning requirements, as discussed below in the State regulations section. Since approval of the 1998 CAP, the County has attained the national ozone standard. The APCD submitted a plan to CARB in November 2001 that demonstrates how the national ozone standard will be maintained through the year 2015 (SBCAPCD 2001). The EPA approved the 2001 CAP in June 2003. As part of the approval, EPA redesignated the County in attainment for the national 1-hour ozone standard. The region is now considered a maintenance area for ozone and the 2001 CAP is the maintenance plan for this attainment status.

##### ***State Regulations***

The CAA delegated to each state the authority to establish air quality rules and regulations. The adopted rules and regulations must be at least as restrictive as the Federal requirements. In response, the CARB established the CAAQS, which are more restrictive than the NAAQS and include pollutants for which there are no federal standards (i.e., SO<sub>4</sub>, H<sub>2</sub>S, and visibility reducing particles). The NAAQS and CAAQS are presented in Table 3.3-1.

The California Clean Air Act of 1988, as amended in 1992 (CCAA), Health & Safety Code 40918-40920, outlined a program to attain the CAAQS for ozone, NO<sub>2</sub>, SO<sub>2</sub>, and CO by the earliest practical date. However, areas in nonattainment for PM<sub>10</sub>, SO<sub>4</sub>, lead, H<sub>2</sub>S, or visibility

were not expressly required to develop an attainment plan under the CAAQS. Since the CAAQS are more stringent than the NAAQS, attainment of the State standards requires emission reductions beyond what are needed to attain the NAAQS.

The CARB designates areas of the State that are in attainment or nonattainment of the CAAQS. An area is in nonattainment for a pollutant if its CAAQS has been exceeded more than once in three years. Presently, Santa Barbara County is in nonattainment of the CAAQS for ozone and PM<sub>10</sub>, and in attainment for NO<sub>2</sub>, SO<sub>2</sub>, CO, SO<sub>4</sub>, H<sub>2</sub>S, and lead. The County is considered a moderate ozone nonattainment area by CARB (CARB 2006a). Similar to the federal system, the CCAA requirements and compliance dates for reaching attainment are based upon the severity of nonattainment classifications. The 2001 CAP details how the current attainment planning process satisfies the requirements for the state ozone standard, as mandated by the CCAA.

#### California Coastal Act Section 30000 et seq.

The California Coastal Act (CCA) establishes policies that apply to development projects within the City's Coastal Zone, pending certification of the GP/CLUP.

#### CEQA, Public Resources Code Section 21000 et seq.

The basic goal of CEQA is to develop and maintain a high-quality environment now and in the future. The CEQA Guidelines provide a framework for the analysis of impacts to air quality.

#### State of California General Plan Guidelines

Each city and county in California, including charter cities, is required to prepare and adopt a comprehensive long-term general plan for the physical development of the community and any land outside the community's boundaries that may have an impact on the community's ability to plan for its future growth (California Government Code Section 65300). A general plan is the essential planning document: the "charter" or "constitution" for all future development within a community. A general plan must contain seven mandatory elements with discrete elements addressing land use, circulation, conservation, open space, noise, safety, and housing.

#### State Implementation Plan (SIP)

In 1979, the EPA required each state to prepare a State Implementation Plan (SIP), which describes how the state will achieve compliance with the NAAQS. A State Implementation Plan is a compilation of goals, strategies, schedules, and enforcement actions that will lead the State (including the South Central Coast Air Basin) into compliance with all Federal air quality standards. Every change in a compliance schedule or plan must be incorporated into the SIP. The Clean Air Act Amendments of 1990 established new deadlines for achievement of the NAAQS depending on the severity of nonattainment. Santa Barbara County is considered in attainment of the Federal 8-hour ozone standard. The U.S. EPA officially revoked the Federal 1-hour ozone standard on June 15, 2005. There is not yet enough data to determine the attainment status for the federal standard for particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>).

### **3.3.2.2 Local**

#### ***Santa Barbara County Air Pollution Control District Regulations***

The SBCAPCD regulates stationary sources of air pollution and has general air quality regulatory authority in the County. The SBCAPCD Rules and Regulations establish emission

limitations and control requirements for various sources, based upon their source type and magnitude of emissions. The following is a specific SBCAPCD rule that could apply to the any projects.

Santa Barbara County Air Pollution Control District (SBCAPCD) Rule 303—Nuisance states that a person shall not discharge air contaminants from any source that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or that endanger the comfort, repose, health, or safety of any such persons or their business or property. The SBCAPCD considers emissions of air pollution to be a significant nuisance if five or more complaints are received from different individuals/households within 24 hours or 10 such complaints are received within 10 days.

### **Regional Clean Air Plan**

SBCAPCD adopted previous CAPs in 1989 to meet national standards and in 1991 to meet state standards. SBCAPCD revised these CAPs in 2001 and 2004.

The 2001 Clean Air Plan (i.e., SIP Update for Federal Clean Air Act) was adopted by the SBCAPCD Board of Directors and approved by both the USEPA and the CARB. This plan is in effect for Federal standards. This plan shows how the County will maintain attainment with the Federal 1-hour ozone standard through 2015. It also includes a three-year plan revision required by the state to show how the County will work toward meeting the State 1-hour ozone standard.

The 2004 Clean Air Plan (i.e., Three-Year Update for California Clean Air Act) was adopted by the SBCAPCD Board in December of 2004, and has been submitted to the California Air Resources Board. This plan shows how the County will make progress towards meeting the State 1-hour ozone standard (the 2001 Plan remains in effect for federal requirements).

Table 3.3-3 summarizes the estimated stationary, areawide, and mobile source daily air emissions for Santa Barbara County in the year 2004. The County emissions inventory is periodically updated for planning purposes to: (1) forecast future emissions inventories; (2) analyze emission control measures; and (3) use as input data for regional air quality modeling. The 2004 CAP emission inventory represents the most recent estimate of daily emissions for the County. The data in Table 3.3-3 show that the largest contributors to air pollutants are on-road vehicles and other mobile sources such as aircraft, trains, sea vessels, off-road vehicles, and farm equipment. The mobile source category account for approximately 32 percent of ROG, 76 percent of CO, 84 percent of NO<sub>x</sub>, 80 percent of SO<sub>x</sub>, and 12 percent of PM<sub>10</sub> emitted in the region.

### **City of Goleta Ordinances**

Development in the City is subject to the City's Inland Zoning Ordinance for those portions of the City outside of the Coastal Zone (Santa Barbara County 2005) and the Coastal Zoning Ordinance for those portions of the City within the Coastal Zone (Santa Barbara County 2004a). Following the adoption of the GP/CLUP, the existing Inland and Coastal Zoning Ordinances will be replaced by a single, unified zoning code that includes zoning regulations applicable to inland areas and the coastal zone. Existing City ordinances are not applicable in the context of this EIR because they will be replaced upon the adoption of the GP/CLUP.

**TABLE 3.3-3  
ESTIMATE OF AVERAGE DAILY EMISSIONS BY MAJOR SOURCE CATEGORY  
FOR SANTA BARBARA COUNTY—YEAR 2004 (TONS)**

Source Category	ROG	CO	NOx	SOx	PM10
<b>Stationary Sources</b>					
Fuel Combustion	2.14	5.16	8.43	0.29	0.51
Waste Combustion	0.62	0.15	0.04	0.03	0.05
Cleaning and Surface Coating	5.09	—	—	—	—
Petroleum Production & Marketing	4.85	0.45	0.09	0.32	0.03
Industrial Processes	0.14	0.46	0.06	3.33	1.09
Total Stationary Sources	12.85	6.22	8.62	3.97	1.68
<b>Areawide Sources</b>					
Solvent Evaporation	7.17	—	—	—	0.00
Miscellaneous Processes	1.40	17.37	0.93	0.02	16.50
Total Areawide Sources	8.57	17.37	0.93	0.02	16.50
<b>Mobile Sources</b>					
On-road Vehicles	13.42	133.83	21.23	0.15	0.57
Other Mobile Sources	5.54	31.12	35.47	15.94	2.53
Total Mobile Sources	18.96	164.95	56.70	16.09	3.10
<b>Natural Sources</b>					
Total Natural Sources	9.74	28.21	1.32	—	5.55
Santa Barbara County Total	60.10	216.75	67.57	20.07	26.82

Source: Santa Barbara County APCD Clean Air Plan 2004

### 3.3.3 Project Impacts and Mitigation

Impacts on air quality were assessed based on information contained in the SBCAPCD Scope and Content of Air Quality Sections in Environmental Documents (2005). Construction and operation activities could result in direct and indirect impacts on air quality. The thresholds of significance found in the State CEQA Guidelines (discussed below) were used to determine the significance of these impacts.

#### 3.3.3.1 Thresholds of Significance

Thresholds of significance are provided by the City of Goleta's adopted Environmental Thresholds and Guidelines Manual (Thresholds Manual) (City of Goleta 2003) and threshold standards from Appendix G of the CEQA Guidelines. Specific thresholds relating to air quality impacts are discussed below.

#### ***City of Goleta Environmental Thresholds Manual***

This analysis follows the guidance and methodologies recommended in the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (2002), and the City's adopted *Environmental Thresholds and Guidelines Manual*. The EMFAC2002 computer model, developed by CARB, was used to estimate regional vehicle miles traveled emissions associated with each alternative.

Per the City's Environmental Thresholds and Guidelines Manual, a significant adverse air quality impact may occur when a project, individually or cumulatively, triggers either 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<sub>x</sub> and ROG; or
- equals or exceeds the State or Federal ambient air quality standards for any criteria pollutant (as determined by modeling).

The project is deemed to have a significant impact on regional air quality if emissions (specified in pounds of pollution emitted per day) of specific pollutants related to either project construction or operation exceed the significant threshold established by SBCAPCD, currently at a per day threshold of 25 pounds for ROG and NO<sub>x</sub> emissions. Furthermore, per the Manual and due to the fact that Santa Barbara County is in nonattainment for ozone and the regional nature of this pollutant, if a project's (e.g., buildout of the GP/CLUP) total emissions of ozone precursors NO<sub>x</sub> and ROG exceed the long-term threshold of 25 pounds/day, then the project's cumulative impacts would also be considered significant.

Long-term impacts are also considered potentially significant if the growth in traffic accommodated under the GP/CLUP would have the potential to create CO "hot spots" where CO concentrations exceed State or Federal standards. Such hot spots typically occur at severely congested intersections where a level of service (LOS) E or F is projected.

SBCAPCD no longer has quantitative emission significance thresholds for short-term construction activities because construction emissions from land development projects have been accounted for in the 2004 CAP. In any event, construction-related emissions are not relevant at the general plan level because such emissions are dependent on the characteristics of individual development projects. Nevertheless, because the region does not meet the state standards for ozone and PM<sub>10</sub>, the City of Goleta requires implementation of standard emission and dust control techniques for all construction (as outlined under GP/CLUP policy subsection CE 12.3) to ensure that these emissions remain less than significant.

### **CEQA Thresholds**

Per Appendix G of the CEQA Guidelines, a project would pose a significant air quality impact if any of the following were to occur as a result of the project:

- 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 in a state of non-attainment under applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

### **3.3.3.2 Discussion of Relevant GP/CLUP Policies**

The Conservation, Land Use, Public Facilities, Safety, and Transportation Elements of the GP/CLUP contain policies that protect air quality resources or minimize the risk to humans and environmental from toxic air contaminants. The following GP/CLUP policies are relevant to air quality.

#### **Conservation Element**

The Conservation Element of the GP/CLUP identifies policies designed to preserve and protect environmental resources such as air quality to the maximum extent feasible while allowing reasonable development in conformance with the provisions of the Land Use Element. Specific air quality related policies in the Conservation Element include measures to minimize emissions from new developments and transportation sources. These measures protect air quality through activity/use restrictions, emission reduction measures (especially related to new development), and transportation management measures. To prevent degradation of air quality, the Conservation Element mandates that the City will promote clean air initiatives by coordinating with the SBCAPCD and requiring specific emission control measures for new development and City facilities.

- Policy CE 12: Protection of Air Quality
- Policy CE 13: Energy Conservation

#### **Land Use Element**

The Land Use Element contains air quality-related policies that serve to protect environmental resources and public health. These policies require adherence by new development to high environmental standards consistent with the standards in the Conservation Element, adequate infrastructure and services, measures to protect air quality, and management of the amount and timing of nonresidential growth.

- Policy LU 1: Land Use Plan Map and General Policies
- Policy LU 10: Energy-Related On- and Off-Shore Uses
- Policy LU 11: Nonresidential Growth Management

#### **Safety Element**

Policies in the Safety Element focus on protecting humans and structures from potential hazards. Air resource-related hazards include harmful smog, accidental release of harmful gases, inhalation of smoke and other poisonous gases, and other nuisance air emissions. Educational materials regarding emergency air quality episodes and air quality violations will also be provided as part of these policies.

- Policy SE 1: Safety in General
- Policy SE 7: Urban and Wildland Fire Hazards
- Policy SE 8: Oil and Gas Industry Hazards
- Policy SE 9: Airport-Related Hazards
- Policy SE 10: Hazardous Materials and Facilities
- Policy SE 11: Emergency Preparedness

**Public Facilities Element**

The purpose of the Public Facilities Element's air resource-related policy is to ensure that public facilities are designed and located to minimize energy consumption and air emissions to the extent feasible. A key policy in the Public Facilities Element related to air resources includes coordination between the City and the SBCAPCD regarding new development, energy demands, and supplies, and monitoring and evaluation of the potential emission sources.

- Policy PF 8: General Standards for Public Facilities

**Transportation Element**

The Transportation Element, also known in State law as the Circulation Element, guides the continued development and improvement of the transportation system to support land uses planned in the Land Use Element. Adherence to the requirements of the State Implementation Plan and the provisions of the Clean Air Plan along with implementation of the following GP/CLUP policies would reduce air quality impacts resulting from Plan implementation.

- Policy TE 1: Integrated Multi-Modal Transportation System
- Policy TE 2: Transportation Demand Management
- Policy TE 7: Public Transit (Bus Transportation)
- Policy TE 8: Rail Transportation
- Policy TE 10: Pedestrian Circulation
- Policy TE 11: Bikeways Plan
- Policy TE 12: Transportation Systems Management
- Policy TE 13: Mitigating Traffic Impacts of Development
- Policy TE 14: Financing Transportation Improvements
- Policy TE 15: Regional Transportation

**3.3.3.3 Project Impacts*****Class I Impacts*****Short-Term Impacts**

No short-term, significant and unavoidable air quality (Class I) impacts would result from GP/CLUP implementation.

**Long-Term Impacts**

No long-term, significant and unavoidable air quality (Class I) impacts would result from GP/CLUP implementation.

***Class II Impacts*****Short-Term Impacts*****Impact 3.3-1. Construction Emissions***

Construction activity that would be accommodated over the next 20 years under the GP/CLUP land use scenario would cause temporary emissions of criteria pollutants. Criteria pollutants such as NO<sub>x</sub>, CO, VOC (Volatile organic compounds), SO<sub>x</sub>, and PM<sub>10</sub> would be emitted by the

operation of construction equipment, while fugitive dust ( $PM_{10}$ ) would be emitted by activities that disturb the ground, such as grading and excavation, road construction, and building construction. Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity.

Impacts associated with individual construction projects are not generally considered significant because of their temporary, short-term nature. Nevertheless, given the amount of development that the GP/CLUP would accommodate over the next 20 years, it is reasonable to conclude that some major construction activity could be occurring at any given time. Such impacts could also be complicated by the fact that multiple construction projects could occur simultaneously in any portion of the City.

Impacts to air quality from construction are directly associated with the amount of land disturbance and development that will take place. As discussed in Chapter 2.0, "Project Description," the GP/CLUP would accommodate an estimated 3,730 new residential units and 2.081 million square feet of nonresidential development through 2030.

The GP/CLUP could accommodate the demolition of existing older structures that were constructed with asbestos-containing materials. Demolition activity that disturbs friable asbestos could potentially create health hazards for receptors in the vicinity of individual demolition sites. However, demolition activity involving asbestos is required to be conducted in accordance with SBCAPCD Rule 1001, which requires SBCAPCD notification and use of licensed asbestos contractors to remove all asbestos prior to demolition. Compliance with Rule 1001 on all future demolition and construction activity with asbestos-containing materials would reduce impacts to less-than-significant level.

The impact of construction-related emissions upon sensitive receptors such as residences, schools, and hospitals depends upon the location of individual construction projects relative to sensitive receptors. Some new development within the City may occur adjacent to or near sensitive receptors. As mentioned above, the SBCAPCD has not adopted significance thresholds for construction-related emissions since such emissions are short-term and temporary. Nevertheless, the SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents (updated March 2006) recommend various techniques to reduce construction-related emissions associated with individual developments. These include techniques to limit emissions of both ozone precursors ( $NO_x$  and VOC) and fugitive dust ( $PM_{10}$ ) and are identified below.

- Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) should be utilized wherever feasible.
- The engine size of construction equipment operating simultaneously shall be the minimum practical size.
- The amount of construction equipment operating simultaneously shall be minimized through efficient construction management practices to ensure that the smallest practical number is operating at any one time.
- Construction equipment shall be maintained per the manufacturer's specifications.
- Construction equipment operating on site shall be equipped with two or four degree engine timing retard or precombustion chamber engines.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

- All diesel-powered equipment shall use ultra low sulfur diesel fuel.
- Diesel catalytic converters, diesel oxidation catalysts, and diesel particulate filters, as certified and/or verified by EPA or California, shall be installed, if available.
- Diesel-powered equipment should be replaced by electric equipment whenever feasible.
- Idling of heavy-duty diesel trucks during loading and unloading should be limited to five minutes; auxiliary power units should be used whenever possible.
- Construction worker's trips should be minimized by requiring carpooling and by providing for lunch on site.

Prior implementation of all of the following measures, as necessary, is assumed to reduce fugitive dust emissions to a less-than-significant level and is strongly recommended for all discretionary projects involving earthmoving.

- During construction, water trucks or sprinkler systems should be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible.
- Minimize the amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
- Gravel pads must be installed at all access points to prevent tracking of mud on to public roads.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be covered with a tarp from the point of origin.
- After clearing, grading, earthmoving, or excavation is completed, the disturbed area should be treated by watering, revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to land use clearance for map recordation and land use clearance for finish grading for the structure.
- Prior to land clearance, the applicant shall include, as a note on a separate informational sheet to be recorded with map, these dust control requirements. All requirements shall be shown on grading and building plans.

Although construction-related impacts are not considered individually significant, the measures listed above are recommended to reduce construction-related emissions to the maximum degree feasible. These protective measures have been included in the GP/CLUP to address air quality impacts of future construction projects on a case-by-case basis.

#### Long-Term Impacts

There are no long-term Class II Impacts.

### ***Class III Impacts***

#### Short-Term Impacts

There are no short-term Class III Impacts.

#### Long-Term Impacts

*Impact 3.3-2. GP/CLUP Growth Projections Are Not Consistent with the Clean Air Plan* Vehicle use, energy consumption, and associated air pollutant emissions are directly related to households and population growth. The Santa Barbara County CAP relies on the most recent households/population estimates developed by SBCAG, which acts as the Metropolitan Planning Organization (MPO) for Santa Barbara County. The household/population forecasts upon which the Santa Barbara County CAP are based are then used to estimate future emissions and devise appropriate strategies to attain State and Federal air quality standards. When household/population growth exceeds those forecasts, emissions inventories could be surpassed, which could adversely affect attainment of air quality standards.

The emission planning inventory is used to forecast Countywide emissions in order to determine whether the County's 2004 CAP will reduce emissions enough to attain the State 1-hour ozone standard while accounting for the growth that is expected in Santa Barbara County. To forecast future year emissions, estimates of the changes in the level of pollution-producing activities, known as activity indicators, are used. Examples of activity indicators include population, housing, employment, daily vehicle miles traveled, and daily vehicle hours.

SBCAG's 1994 Regional Growth Forecast (RGF), which was used in preparation of the 2004 CAP, projected the number of households at approximately 15,422 for the Goleta region at full buildout. With 15,422 households (at 100% occupancy rate), the population would be at approximately 47,108 in horizon year 2030. The proposed GP/CLUP projects a buildout of household units at approximately 15,361 with an estimated population of 38,097 for the year 2030. Because the GP/CLUP buildout households and population forecast is less than that forecasted by SBCAG, the proposed GP/CLUP plan is considered within the SBCAG regional growth forecasts and therefore consistent with the 2004 CAP.

The proposed GP/CLUP population growth projections are consistent with the 2004 CAP. It is anticipated that the proposed GP/CLUP growth projections would not hinder attainment of State or Federal air quality standards. This impact is considered a Class III, less than significant, impact.

Plans or Policies That Would Further Reduce Impact 3.3-2. Adherence to the requirements of the State Implementation Plan and the provisions under the County's CAP will reduce these impacts. CARB recommends various techniques to reduce land use-related emissions associated with individual developments within the GP/CLUP. These include techniques to limit emissions of toxic air contaminant's exposure to sensitive land uses. Based on the Land Use Siting Recommendations in CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*, CARB's advisory recommendations are identified in Table 3.3-4 below.

**TABLE 3.3-4  
RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES**

<b>Source Category</b>	<b>Advisory Recommendations</b>
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000+ vehicles per day, or rural roads with 50,000+ vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU units operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting new sensitive land uses immediately downwind of ports in the most heavily impact zones. Consult with Santa Barbara County Air Pollution Control District or CARB on the status of pending analysis of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with Santa Barbara County Air Pollution Control District to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operation with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with Santa Barbara County Air Pollution Control District. Do not site new sensitive land uses in the same building with dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

In addition, implementation of the following GP/CLUP policies would further reduce impacts resulting from buildout under the Plan.

- Policy CE 12: Protection of Air Quality
- Policy CE 13: Energy Conservation
- Policy LU 1: Land Use Plan Map and General Policies
- Policy LU 10: Energy-Related On- and Off-Shore Uses
- Policy LU 11: Nonresidential Growth Management
- Policy SE 1: Safety in General
- Policy SE 7: Urban and Wildland Fire Hazards
- Policy SE 8: Oil and Gas Industry Hazards
- Policy SE 9: Airport-Related Hazards
- Policy SE 10: Hazardous Materials and Facilities
- Policy SE 11: Emergency Preparedness
- Policy PF 8: General Standards for Public Facilities

- Policy TE 1: Integrated Multi-Modal Transportation System
- Policy TE 2: Transportation Demand Management
- Policy TE 7: Public Transit (Bus Transportation)
- Policy TE 8: Rail Transportation
- Policy TE 10: Pedestrian Circulation
- Policy TE 11: Bikeways Plan
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- Policy TE 14: Financing Transportation Improvements
- Policy TE 15: Regional Transportation

**Impact 3.3-3. The GP/CLUP Rate of Increase in Vehicle Miles Traveled is Greater Than the Rate of Population Growth for the Same Area**

The Santa Barbara County 2030 Travel Forecast model used the population forecast and other socio-economic inputs (such as employment and households) to generate the regional vehicle miles traveled (VMT). Table 3.3-5 compares the 2030 VMT projections for the GP/CLUP land use scenario to the County forecasts. Because motor vehicles are the largest source of air emissions in the area, consistency can be assessed by reviewing the SBCAG 2030 Travel Forecast VMT data with respect to the VMT data from the proposed GP/CLUP. The General Plan would result in 185,346 vehicle miles traveled (VMT) in the year 2030. Based on a year 2005 VMT of 143,978, this represents an average increase of 1.15 percent per year. The regional VMT forecasts under the 2030 Travel Forecast for Santa Barbara County show an increase of about 1.96 percent per year. The increase of VMT is attributable to an increase in the number of average trips per households, longer average trip length, and the average trip distance (SBCAG 2004). As such, VMT growth projected under the GP/CLUP is less than that forecast under the 2030 Travel Forecast for Santa Barbara County, and the project is therefore consistent.

**TABLE 3.3-5  
COMPARISON OF 2030 VMT PROJECTIONS**

<b>City / County</b>	<b>VMT Baseline (Year)</b>	<b>VMT Forecast (Year)</b>	<b>Increase</b>	<b>Average Annual Increase (%)</b>
City of Goleta	143,978 (2005)	185,346 (2030)	41,368	1.15%
SBCAG Countywide	9,746,100 (2000)	15,468,600 (2030)	5,722,500	1.96%
Sources: City of Goleta General Plan Comprehensive Land Use Plan 2006. Santa Barbara County Association of Governments 2030 Travel Forecast, Section V, pages 22 – 27.				

Although implementation of development consistent with the proposed GP/CLUP will result in an annual average VMT growth rate of 1.15 percent, which is greater than the rate of population growth for the Goleta region, the proposed project is consistent with the 2004 CAP and other regional plan strategies to reduce the number of trips and the length of trips in the region and to improve the balance between jobs and housing at the subregional level. The 2004 CAP recognizes that emissions due to trips and mode choices are not only a function of the

transportation system but also relate to the proximity of housing and job-generating land uses and the proximity of jobs to transportation infrastructure and transit. The proposed GP/CLUP facilitates the development of housing opportunities in close proximity with the regional employment and transportation centers. Therefore, the proposed project is considered consistent with the goals and policies of SBCAG's Regional Transportation Plan and the SBCAPCD's 2004 CAP. This impact is considered a Class III, adverse but less than significant impact.

Plans or Policies That Would Further Reduce Impact 3.3-3. Adherence to the requirements of the State Implementation Plan, the provisions under the CAP, and the air quality elements addressed under the land use and conservation policies in the GP/CLUP would ensure impacts remain less than significant. No additional mitigation is required.

*Impact 3.3-4. Long-term Operational Contributions to Air Pollutant Emissions as a Result of GP/CLUP Buildout*

In addition to vehicle emissions, operational emissions would be created from stationary sources including the use of natural gas, the use of landscape maintenance equipment, the use of consumer products such as aerosol sprays, and other emission processes. Various industrial and commercial processes (e.g., dry cleaning) allowed under the proposed GP/CLUP would also be expected to release emissions; some of which could be of a hazardous nature. These emissions are controlled at the local and regional level through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits. Because the nature of these emissions cannot be determined at this time and these emissions are subject to further regulation and permitting, are not addressed further in this analysis.

Non-vehicular operational emissions resulting from activities associated with new residential and nonresidential development under the GP/CLUP operations would incrementally add to total air emissions. Increased operational emissions would be considered an adverse but less-than-significant impact on air quality.

Such potential adverse stationary operational impacts would be regulated and permitted on a project-by-project basis. No other mitigation is considered feasible to address the stationary operational air quality impacts.

***Class IV Impacts***

No short- or long-term beneficial (Class IV) impacts to air quality would result from GP/CLUP implementation.

**3.3.3.4 Cumulative Impacts**

*Impact 3.3-5. Cumulative ROG and NO<sub>x</sub> Emissions*

Emissions of ROG and NO<sub>x</sub> from Citywide vehicle and nonvehicle operations resulting from buildout under the GP/CLUP would result in a significant contribution to cumulative increases in air emissions within the South Central Coast Air Basin, thereby adversely affecting the ability of all the various local agencies to achieve the goals and objectives of the 2004 County CAP. Santa Barbara County is currently in nonattainment of State standards for ozone emissions, and any project-generated new ozone precursor (ROG and NO<sub>x</sub>) emissions could exacerbate such nonattainment. As such, the project's contribution to cumulative levels of ozone emission would be significant and unavoidable (Class I).

**Impact 3.3-6. Cumulative PM<sub>10</sub> Emissions**

PM<sub>10</sub> emissions from cumulative project construction activities within South Central Coast Air Basin are considered a Class II air quality impact. The City's adopted *Environmental Thresholds and Guidelines Manual* states that a project's contribution to cumulative air quality impacts, either regional or localized, should be evaluated based on existing programs and plans, including the County's Air Quality Attainment Plan (AQAP). Although Santa Barbara County is currently in nonattainment of state standards for PM<sub>10</sub> emissions, and any project-generated PM<sub>10</sub> emissions could exacerbate such nonattainment, implementation of standard City Grading Ordinance and SBCAPCD dust-control measures based on the County's AQAP would ensure that the project's contribution to cumulative levels of PM<sub>10</sub> emission would be adverse but less than significant.

**3.3.3.5 Mitigation*****Modifications to Proposed GP/CLUP Policies***

No modifications are required.

***Other Mitigation***

No additional mitigation is identified.

**3.3.3.6 Residual Impacts**

Implementation of the GP/CLUP policies would reduce all Class II air quality impacts to less-than-significant levels. However, the project's residual contribution to ozone emissions within the South Coast Air Basin and the resulting effect of such a contribution on the ability of the various local government agencies to achieve the goals and objectives of the County's 2004 CAP would remain significant and unavoidable (Class I).

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parts per million (ppm).....	3
micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) .....	3
Environmental Protection Agency (EPA).....	3
National Ambient Air Quality Standards (NAAQS).....	3
California Air Resources Board (CARB).....	3
California Ambient Air Quality Standards (CAAQS).....	3
reactive organic compound (ROG).....	3
Ozone ( $\text{O}_3$ ).....	4
Carbon Monoxide ( $\text{CO}$ ).....	4
Nitrogen Dioxide ( $\text{NO}_2$ ).....	4
Sulfur Dioxide ( $\text{SO}_2$ ).....	4
Suspended Particulate Matter ( $\text{PM}_{10}$ ).....	4
Fine Particulate Matter ( $\text{PM}_{2.5}$ ).....	4
Sulfates ( $\text{SO}_4$ ).....	4
Lead (Pb).....	4
Hydrogen Sulfide ( $\text{H}_2\text{S}$ ).....	4
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