

H. AIR QUALITY

The following section describes the existing air quality setting in San Luis Obispo County and the potential short-term and long-term impacts associated with development of the proposed project. Short-term construction emissions would result from grading and construction operations, transport of materials, and construction-related vehicle emissions. Long-term operational emissions would result from vehicle emissions. Because the proposed project consists of a Management Plan and Master Plan, and implementation of individual elements of the plan are contingent on future funding opportunities, specific details regarding construction schedules and quantities of earth moving that may result from the project are not yet determined and could result in the need for subsequent environmental review. A quantitative assessment of potential construction related emissions was recommended by the County of San Luis Obispo Air Pollution Control District (APCD). The air quality analysis is based on information provided by the CCSD, the County of San Luis Obispo, APCD, and Associated Transportation Engineers (ATE), EIR transportation consultants.

1. REGULATORY SETTING

a. FEDERAL POLICIES AND REGULATIONS

Air quality protection at the national level is provided through the Federal Clean Air Act Amendments (CAAA). The current version was signed into law on November 15, 1990. These amendments represent the fifth major effort by the U.S. Congress to improve air quality. The 1990 CAAA are generally less stringent than the California Clean Air Act. However, unlike the California law, the CAAA set statutory deadlines for attaining federal standards. The 1990 CAAA added several new sections to the law, including requirements for the control of toxic air contaminants; reductions in pollutants responsible for acid deposition; development of a national strategy for stratospheric ozone and global climate protection; and requirements for a national permitting system for major pollution sources.

b. STATE POLICIES AND REGULATIONS

The CCAA was signed into law in September of 1988. It requires all areas of the State to achieve and maintain the California ambient air quality standards by the earliest practicable date. These standards are generally more stringent than the Federal standards; thus, emission controls to comply with the State law are more stringent than necessary for attainment of the Federal standards. The CAAA requires that all APCDs adopt and enforce regulations to achieve and maintain the State ambient air quality standards for the area under its jurisdiction. Pursuant to the requirements of the law, the APCD adopted a *Clean Air Plan* (CAP) for their jurisdiction.

c. LOCAL POLICIES AND REGULATIONS

The Final 2001 San Luis Obispo County CAP is used by the APCD to address attainment of national and State fugitive dust (PM₁₀) and ozone standards for the entire County (APCD, 2003). The CAP is a comprehensive planning document intended to provide guidance to the APCD and other local agencies, including the County of San Luis Obispo, on how to attain and maintain the State standard for ozone and PM₁₀. The CAP presents a detailed description of the sources and pollutants which impact the jurisdiction, future air quality impacts to be expected under current

growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality.

2. EXISTING CONDITIONS

a. REGIONAL CONDITIONS – SOUTH CENTRAL COAST AIR BASIN

San Luis Obispo County is part of the South Central Coast Air Basin, which also includes Santa Barbara and Ventura Counties. The climate of the basin area is strongly influenced by its proximity to the Pacific Ocean. Airflow around and within the basin plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High pressure system and other global weather patterns, topographical factors, and circulation patterns that result from temperature differences between the land and the sea.

In the spring and summer months, when the Pacific High attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze. In the fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alteration of land-sea breeze circulation, can sometimes produce a “sloshing” effect. Under these conditions, pollutants may accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, “trapping” pollutants near the surface.

This effect is intensified when the Pacific High weakens or moves inland to the east. This may produce a “Santa Ana” condition in which air, often pollutant-laden, is transported into the air basin from the east and southeast. This can occur over a period of several days until the high-pressure system returns to its normal location, breaking the pattern. The breakup of this condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the “post Santa Ana” condition lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the region.

b. LOCAL CONDITIONS – SAN LUIS OBISPO COUNTY

San Luis Obispo County constitutes a land area of approximately 3,316 square miles with varied vegetation, topography, and climate. From a geographical and meteorological standpoint, the County can be divided into three general regions: the Coastal Plateau, the Upper Salinas River Valley, and the East County Plain. Air quality in each of these regions is characteristically different, although the physical features that divide them provide only limited barriers to the transport of pollutants between regions.

Approximately 75 percent of the County population and a corresponding portion of the commercial and industrial facilities are located within the Coastal Plateau. Due to higher population density and closer spacing of urban areas, emissions of air pollutants per unit area are

generally higher in this region than in other regions of the County. The project location is located within the Coastal Plateau.

c. SAN LUIS OBISPO COUNTY AIR QUALITY MONITORING

The County's air quality is measured by multiple ambient air quality monitoring stations, including four APCD operated permanent stations, two state-operated permanent stations, two special stations, and one station operated by Tosco Oil Refinery for monitoring Sulfur Dioxide (SO₂) emissions. Air quality monitoring is rigorously controlled by Federal and State quality assurance and control procedures to ensure data validity. Gaseous pollutant levels are measured continuously and averaged each hour, 24 hours a day. Particulate pollutants are generally sampled by filter techniques for averaging periods of three to 24 hours. PM₁₀ (inhalable particulate matter ten microns or less in size) and PM_{2.5} (inhalable particulate matter 2.5 microns or less in size) are sampled for 24 hours every sixth day on the same schedule nationwide.

d. SAN LUIS OBISPO COUNTY EXISTING AIR QUALITY

The significance of a given pollutant can be evaluated by comparing its atmospheric concentration to State and Federal air quality standards, which are presented in Table V-23. These standards represent allowable atmospheric contaminant concentrations at which the public health and welfare are protected, and include a factor of safety.

In San Luis Obispo County, ozone and PM₁₀ are the pollutants of main concern, since exceedances of state health-based standards for those are experienced here in most years. For this reason the County has been designated as a non-attainment area for the State PM₁₀ standard.

The County has not had an exceedance of ozone in the last four years, and achieved ozone attainment status granted by the California Air Resources Board (CARB) in January 2004. San Luis Obispo County APCD was one of three air districts in California in 2004 to be re-designated from non-attainment to attainment for the state ozone standard. San Luis Obispo County was the first in California to achieve ozone attainment status through the implementation of community-wide emission reduction measures, making this accomplishment particularly noteworthy. San Luis Obispo County was first designated non-attainment for the state ozone standard in 1989 after adoption of the California Clean Air Act. The law required each non-attainment area to develop a plan to attain the standards expeditiously.

Most populated areas of San Luis Obispo County have enjoyed good overall air quality the last several years. According to the most recent APCD Air Quality Report, none of the District's ambient air monitoring stations recorded an exceedance of either the state or federal standards for ozone in 2004. Low ozone concentrations occur infrequently and are largely the result of special atmospheric conditions over the region (APCD, 2003). Countywide, exceedances of the state 24 hour PM₁₀ standard of 50 ug/m³ occurred on nine out of 61 different sample days. According to the APCD, statistically this is equivalent to 54 exceedance days for 2004 since sampling is only conducted once every six days. An exceedance of the state PM₁₀ standard was recorded twice at the District's Nipomo Regional Park station and nine times at the contractor-operated MESA2 station. There was no exceedance of the national air quality standard for PM₁₀ in 2004. The state ozone and PM₁₀ standards were not exceeded at the Morro Bay monitoring station in 2004 or 2005.

**TABLE V-23
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ¹	National Standards ²	
		Concentration ³	Primary ^{3,4}	Secondary ^{3,5}
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³) ⁶	Same as Primary Standard
	8 Hour	-----	0.08 ppm (157 µg/m ³)	
Fine Particulate Matter (PM _{2.5})	24 Hour	No California Standards	65 µg/m ³	Same as Primary Standard
	Annual arithmetic mean		15 µg/m ³	
Respirable Particulate Matter (PM ₁₀)	Annual geometric mean	30 µg/m ³	-----	
	24 Hour	50 µg/m ³	150 µg/m ³	
	Annual arithmetic mean	-----	50 µg/m ³	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂)	Annual arithmetic mean	-----	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1 Hour	0.25 ppm (470 µg/m ³)	-----	
Lead	30 day average	1.5 µg/m ³	-----	-----
	Calendar quarter	-----	1.5 µg/m ³	
Sulfur Dioxide (SO ₂)	Annual arithmetic mean	-----	0.030 ppm (80 µg/m ³)	-----
	24 Hour	0.04 PPM (105 µg/m ³)	0.14 PPM (365 µg/m ³)	-----
	3 Hour	-----	-----	0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 PPM (655 µg/m ³)	-----	-----
Visibility Reducing Particles	8 Hour (10 am to 6 pm, PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer – visibility of ten miles or more due to particles when the relative humidity is less than 70 percent.	No National Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 PPM (42 µg/m ³)		

NOTES:

- California standards for ozone, carbon monoxide, sulfur dioxide (1- and 24-hour), nitrogen dioxide, respirable particulate matter (PM₁₀), and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.
- National standards, other than ozone, fine particulate matter (PM_{2.5}), and those based on annual averages or annual arithmetic mean, are not to be exceeded more than once a year. The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{2.5} the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national Policies.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar). Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- New national 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. The national 1-hour ozone standard continues to apply in areas that violated the standard. Contact U.S. EPA for further clarification and current national policies.

Source: CARB

e. GLOBAL CLIMATE CHANGE

The issue of global climate change has recently been debated and discussed on the local, state, national, and international level. These changes are caused by the buildup of gases in the atmosphere that trap heat, similar to a greenhouse. These “greenhouse gases” include carbon dioxide, methane, nitrous oxide and others. A portion of them exist naturally and help regulate the temperature of the earth (AEP, 2007). Emissions from human activities, such as burning fossil fuels, have elevated greenhouse gas levels. The effects of global warming are unclear at this time, but there is strong evidence to suggest that it could result in, among other things:

- Increased average temperatures
- Extreme heat and cold waves
- The spread of infectious diseases such as malaria and yellow fever
- Drought

These changes to temperature and rainfall patterns may in turn change the geography of habitats, increasing and/or decreasing habitat types in relatively short period of times. They may also affect the distribution of agricultural regions, making production more difficult in areas that are currently major producers (EPA, 2006).

3. THRESHOLDS OF SIGNIFICANCE

The significance of potential air quality impacts are based on thresholds identified within Appendix G of the California Environmental Quality Act (CEQA) *Guidelines* and standards established within the APCD CEQA Air Quality Handbook. The specifics of these guidelines are defined below.

a. CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

Appendix G of the CEQA *Guidelines* provides the following thresholds for determining significance with respect to air quality. Air quality impacts would be considered significant if the proposed project would:

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

b. APCD CEQA AIR QUALITY HANDBOOK

According to the April 2003 CEQA Air Quality Handbook, project impacts may also be considered significant if one or more of the following special conditions apply:

- If the project has the ability to emit hazardous or toxic air pollutants in the close proximity of sensitive receptors such that an increased cancer risk affects the population.
- If the project has the potential to emit diesel particulate matter in an area of human exposure, even if overall emissions are low.
- Remodeling or demolition operations where asbestos-containing materials will be encountered.
- If naturally occurring asbestos has been identified in the project area.
- If project has the ability to emit hazardous or toxic air pollutants in the close proximity of sensitive receptors such as schools, churches, hospitals, etc.
- If the project results in a nuisance odor problem to sensitive receptors.

The CEQA Air Quality Handbook defines thresholds for long-term operational emissions and short-term construction related emissions. Depending on the level of exceedance of a defined threshold, the APCD has established varying levels of mitigation.

1) Significance of Long-term Operational Emissions

The threshold criteria established by the APCD to determine the significance and appropriate mitigation level for long-term operational emissions (i.e., vehicular and area source emissions) from a project are presented in Table V-24. Emissions with measurable thresholds include: reactive organic gas (ROG); nitrogen oxides (NO_x); sulfur oxides (SO_x); particulate matter (PM₁₀); and, carbon monoxide (CO). Emissions that equal or exceed the designated threshold levels are considered potentially significant and should be mitigated. As shown in the table, the level of analysis and mitigation recommended follows a tiered approach based on the overall amount of emissions generated by the project.

TABLE V-24
APCD Thresholds of Significance for Operational Emissions Impacts

Pollutant	Threshold	Tier I	Tier II	Tier III
ROG, NO _x , SO ₂ , PM ₁₀	<10 lbs/day	10 lbs/day	25 lbs/day	25 tons/yr
CO	<550 lbs/day	---	550 lbs/day	---
Level of Significance	Insignificant	Potentially Significant	Significant	Significant
Environmental Document	Negative Declaration	Mitigated ND	MND or EIR	EIR

Source: County of San Luis Obispo, APCD CEQA Air Quality Handbook, 2003

In general, projects not exceeding the Tier I threshold of 10 lbs per day ROG, NO_x, PM₁₀ or SO₂ or fifty pounds per day of CO emissions do not require mitigation. For projects requiring air quality mitigation, the APCD has developed a list of both standard and discretionary mitigation strategies tailored to the type of project being proposed: residential, commercial, or industrial. The standard mitigation measures should be applied to all projects that exceed the Tier I

threshold. In addition, varying levels of discretionary mitigation measures may also be necessary, depending on the amount of emissions generated by the project. Discretionary mitigation measures identified in the 2003 CEQA Handbook or other suitable alternative measures can be suggested to replace standard measures that are not feasible for the project. Table V-25 provides insight to the number of additional mitigation measures that should be applied based on estimated project emissions.

**TABLE V-25
Mitigation Threshold Guide**

Emissions	Mitigation Measures Recommended		
	Standard Discretionary	Discretionary	Off-Site
< 10 lbs/day	None	None	None
10 - 14 lbs/day	All	3	None
15 - 19 lbs/day	All	6	None
20 - 24 lbs/day	All	10	None
≥ 25 lbs/day	All	All Feasible	Maybe
≥ 25 tons/yr	All	All Feasible	Yes

Source: County of San Luis Obispo, APCD CEQA Air Quality Handbook, 2003

2) Significance of Short-term Construction Emissions

Use of heavy equipment and earth-moving operations during project construction can generate fugitive dust and combustion emissions that may have substantial temporary impacts to local air quality. Fugitive dust emissions would result from land clearing, demolition, ground excavation, cut and fill operations, and equipment traffic over temporary roads at the construction site. Combustion emissions such as NO_x, and diesel particulate matter, are most significant when using large diesel fueled scrapers, loaders, dozers, haul trucks, compressors, generators, and other types of equipment.

By using emission estimates established by the APCD for specific equipment types and gathering information pertaining to each construction activity, an evaluation can be made as to whether or not a significant impact will occur and what level of mitigation is required to lessen the impact to a level of insignificance. Examples of information required to calculate construction emissions are: type and number of equipment to be used, estimated fuel use, emission factors for each piece of equipment, volume of material to be moved, number of hours per day, and the total number of days each piece of equipment will be operated. This type of detailed construction equipment information is often not available during the EIR process, and the APCD has developed an alternative method for calculating construction emissions based on the amount of earthwork involved for a particular project. Table V-26 summarizes the level of emissions requiring mitigation.

TABLE V-26
Level of Construction Activity Requiring Mitigation

Pollutant	Emissions		Amount of Material Moved	
	Tons/Qtr	Lbs/day	Cu. Yds/Qtr	Cu. Yds/Day
ROG	2.5	185	247,000	9,100
	6.0	185	593,000	9,100
NO _x	2.5	185	53,500	2,000
	6.0	185	129,000	2,000
PM ₁₀	2.5		Any project with a grading area greater than 4.0 acres of continuously worked area will exceed the 2.5-ton PM ₁₀ quarterly threshold. Combustion emissions should always be calculated based upon the amount of cut and fill expected.	

Note: All calculations assume working conditions of 8 hours per day, 5 days per week, for a total of 65 days per quarter.

Source: County of San Luis Obispo APCD CEQA Air Quality Handbook, 2003

c. GREENHOUSE GAS EMISSIONS

At the current time there is no regulatory guidance available to assist lead agencies in establishing thresholds of significance for greenhouse gas emissions that result from proposed projects. Given the significant amount of greenhouse gases emitted on a daily basis worldwide, it seems unlikely that an individual project could impact global climate change. At the same time, it seems reasonable to assume that nearly all projects that involve the consumption of fossil fuels, for example, would contribute cumulatively to global warming.

4. IMPACT ASSESSMENT AND METHODOLOGY

The APCD has established four separate categories of evaluation for determining the significance of air quality emissions. Full disclosure of the potential air pollutant and/or toxic air emissions from a project is needed for these evaluations, as required by CEQA. The evaluation categories include:

- Comparison of calculated project emissions to APCD emission thresholds;
- Consistency with the most recent CAP for the County;
- Comparison of predicted ambient pollutant concentrations resulting from the project to State and Federal health standards, when applicable; and
- The evaluation of special conditions that apply to certain projects.

For this Master EIR, the APCD has recommended that the air quality analysis for the proposed *Public Access and Management Plan, Easement, and Community Park Master Plan* include qualitative rather than quantitative assessments of the potential air quality impacts (negating the

need for the first and third bulleted items above). The proposed site and grading plans are preliminary and/or general in nature, and the CCSD has not identified specific construction schedules for implementation of the *Public Access and Management Plan, Easement, and Community Park Master Plan*; therefore, the air quality analysis will not include a calculation of potential short-term and long-term emissions (i.e., quantitative assessment). The impact analysis focuses on the plans' consistency with the CAP, identification of likely air quality emissions, and the potential for project alternatives to reduce potential air quality impacts (i.e., qualitative assessment).

In the CEQA Air Quality Handbook, the APCD recommends evaluating consistency with the CAP by evaluating the following questions:

1. Are the population projections used in the plan or project equal to or less than those used in the most recent CAP for the same area?
2. Is the rate of increase in vehicle trips and miles traveled less than or equal to the rate of population growth for the same area?
3. Have all applicable land use and transportation control measures and strategies from the CAP been included in the plan or project to the maximum extent feasible?

The majority of the impact analysis and the proposed mitigation measures have been organized around these three questions presented by APCD staff. Additional quantitative analysis of other air quality impacts, such as the potential for asbestos exposure has also been included.

5. WEST FRP AND EAST FRP - IMPACTS AND MITIGATION MEASURES

a. PROJECT CONSISTENCY WITH THE CLEAN AIR PLAN

1) Population Projections Used in the Project Versus Clean Air Plan

The CAP was prepared based on information provided by the San Luis Obispo County Planning and Building Department in 1999. At that time, land use categories on the site included Open Space, Residential Single Family, Residential Multi-Family, Recreation, Public Facilities, and Commercial Retail. In addition, the North Coast Area Plan buildout population was estimated to be at least 20,000, although this estimate has been reduced in the recent proposed update to the North Coast Area Plan. The population in 2005 was projected to be 7,394.

The current population is approximately 6,400, less than CAP projections. In addition, a recently adopted Area Plan for the North Coast reduces the proposed buildout population ranging from 7,724 to 10,469 people (*Cambria and San Simeon Acres Community Plans of the North Coast Area Plan, 2006*). This plan has been adopted by the County of San Luis Obispo, but is still undergoing review by the California Coastal Commission (CCC). According to County staff, the CCC is not expected to substantially increase the proposed buildout population. Land use designations at the project site would also change to Open Space and Recreation. Buildout reduction numbers provided by the County Planning Department suggest that the change in land use designation would reduce the number of potential dwelling units by approximately 668 (Neder, 2006). This reduction was not considered in the CAP.

The proposed project (including implementation of the management plan and community park), which is possible because of the proposed changes to the Land Use Element, would appear to have a beneficial impact on air quality because it reduces operational emissions associated with residential development, including vehicle emissions, and those related to use of household products and appliances. This “downzoning” resulting from land use designation changes particularly on the East FRP (which was changed from Multi-Family Residential to Recreation), reduces density in an existing urban area, contrary to CAP policies that promote increased densities in urban areas. This impact may be offset because the project would create recreational opportunities in town for Cambria residents and visitors, potentially reducing the length of trips necessary to reach existing recreational facilities outside of the area. On the East FRP, either type of development, multi-family residential (as designated by the superseded North Coast Area Plan) or active recreation (as designated by the Cambria and San Simeon Acres Community Plans), would have similar, short-term construction related air quality impacts.

The proposed amenities for the West FRP represent a beneficial air quality impact. When the CAP was adopted it included Open Space and Single Family Residential land uses designations. Single family residential development would have resulted in more construction related emissions than the proposed project, and due to its distance from urban services, would have most likely resulted in more vehicle trips than the proposed project.

2) Rate of Increase of in Vehicle Trips Versus Rate of Population Growth

According to the Traffic and Circulation Study prepared for the project (ATE, 2006), implementation of the Community Park Master Plan will eventually generate a maximum of 1,655 trips per day. This maximum trip rate could occur during summer weekends when the park is fully utilized (i.e., all recreational facilities, soccer fields, baseball fields, trails, in use at the same time.). This appears to be a significant number of trips generated when compared to the minimal residential growth resulting from policies in the most recent urban land use plan; however, it is likely that many of the trips generated by the proposed project will not be new, but rather are the same trips that used to be distributed to other recreational facilities at local schools, Shamel Park, and those in neighboring communities.

3) Application of Land Use and Transportation Control Measures in Clean Air Plan

The CAP includes a number of strategies intended to reduce the number of trips and vehicle miles traveled by encouraging “development of compact communities that provide a balance of housing and jobs, while fostering the use of alternatives to the automobile.” These strategies and an analysis of the proposed projects consistency with each is included below.

Planning Compact Communities

Communities that are developed at lower densities usually require residents to travel longer distances between their home, jobsite, school, and retail business. It is generally believed that compact communities result in fewer vehicle trips because it is easier for residents to use alternative forms of transportation such as transit, bicycling or walking, resulting in lower vehicle use and emissions. The proposed project does not include the increase in densities encouraged by the CAP, instead it provides the opposite; open spaces are provided near the

center of an urban area. It could be argued that locating these recreational opportunities in town rather than out on the edge of the urban area will have the same net effect as locating employment centers or shopping opportunities in town – residents will be more likely to access the amenities through the use of alternative transportation, such as the proposed trolley service or by bicycle.

Providing for Mixed Land Use

Mixing land uses, such as ground level commercial use with residential uses above, is also a strategy for achieving compactness in urban development. Conventional zoning typically results in the spatial separation of different land uses, but mixed use recognizes that some land uses are functionally compatible with one another and need not be physically separated. The proposed project is not an appropriate project to mix land uses. The lack of structures and nature of the uses of recreational facilities make it infeasible to mix land uses on the site.

Balancing Jobs and Housing

According to the CAP, cities and unincorporated communities in San Luis Obispo County have imbalances between job availability and housing opportunities. Job-rich communities, such as San Luis Obispo, have more land allocated for jobs than for housing all those who work there. Conversely, housing-rich communities, such as Los Osos, do not have enough land allocated to provide jobs for all residents. Travel distances between home and work may be longer than necessary, resulting in more air pollution from cars. The proposed project will not result in additional housing or decrease existing housing stock in Cambria. There may be a slight increase in employment opportunities associated with the increase in recreational opportunities; however, this project is not expected to significantly affect the jobs and housing balance in Cambria.

Circulation Management Policies and Programs

The primary goal of the recommended *Circulation Management Policies and Programs* is to encourage the design and construction of the county's transportation system in a manner that supports alternative travel modes and decreases reliance on single occupant motor vehicles.

Promoting Accessibility in the Transportation System. The CAP suggests that improving transit service and facilities would attract individuals to use public transit instead of private automobiles. Increased transit ridership could decrease roadway congestion and emissions. The proposed project includes trolley stops at the south end of Windsor Boulevard, at Highway 1 near Cambria Drive, and at the entrance to the East FRP facilities, near Burton Drive (refer to Figure III-6 of the Project Description). These new stops would allow riders to access both sides of the park from throughout downtown Cambria and Moonstone Beach, providing an alternative to the automobile.

Promoting Walking and Bicycling. This measure is intended to increase the percentage of trips (commuter, shopping, etc.) in the County made by bicycle or on foot. The proposed project includes numerous multi-use trails and bicycle facilities (refer to Figure III-5 of the Project Description). The facilities are intended to be used for recreation, but it is possible that the transportation network connections proposed could also function as commuter routes for those

living in local neighborhoods and working downtown. Specifically, some of the trails within the park are also designed to connect to other existing or proposed multi-use trails in Cambria including the Cross Town trail. These trails would also effectively create a connection between the west side and east side neighborhoods that avoids crossing Highway 1 at grade (across the Highway).

Parking Management. The CAP recognizes that parking management is a tool that can make neighborhoods more pedestrian friendly, and encourage the use of transit systems. The Community Park (East FRP) is expected to provide approximately 146 parking spaces. This number of spaces would be adequate during average periods of use (135 spaces necessary). The parking area may be inadequate during peak periods of use, and when all sports fields are in use. The CAP recommends encouraging park users to access the park via the trolley system, bikeways, or sidewalks that will all be components of the project. The traffic section includes mitigation to rotate field use so that no more than four fields are used at once, thereby reducing the need for more spaces (refer to mitigation measure TC/mm-7).

Transportation Demand Management. Transportation Demand Management strategies are designed to reduce single occupant vehicle trips by providing more transportation options, alternative transportation options such as transit and bicycles, in particular. The proposed project includes a variety of alternative transportation improvements including bicycle facilities, multi-use trails, trolley (transit) stops, and sidewalks.

Communication, Coordination, and Monitoring. According to the APCD, implementing the measures described above requires the cooperation of local agencies. In this case those agencies could include the CCSO, San Luis Obispo Council of Governments (SLOCOG), the County Departments of Planning and Building and Public Works, and the APCD. Many of the measures proposed in the CAP are not relevant to this proposed project. Given the number of alternative transportation facilities included in the park design, this project may provide an example of the successes or failures of attempts to encourage alternative forms of transportation.

b. SHORT-TERM CONSTRUCTION EMISSIONS

1) Fugitive Dust Emissions (PM₁₀)

Use of heavy equipment and earth-moving operations during project construction for the community park and any major trail improvements or maintenance activities would generate fugitive dust that would have substantial temporary impacts on local air quality. Although the exact volume of soil movement for the project is not known, potential air quality impacts are assumed, and where applicable, APCD thresholds are identified. Mitigation measures adopted by the APCD are constant, and are presented below. Upon implementation of project components proposed in the *Public Access and Management Plan*, and *Community Park Master Plan*, the CCSO or its designee would determine the quantity of soil movement, and in consultation with the APCD determine which mitigation measures are applicable.

Fugitive dust emissions would result from land clearing, demolition, ground excavation, cut and fill operations, and equipment traffic over temporary dirt roads at construction sites. Fugitive dust emissions in the form of PM₁₀ would occur at a rate of approximately 55 lbs/acre/day of disturbed land (U.S. Environmental Protection Agency, 1996). Impacts from fugitive dust

emissions would be significant because they potentially could cause a public nuisance or would exacerbate the existing PM₁₀ non-attainment status of the APCD.

The APCD has defined air quality thresholds for short-term construction related activities (refer to Table V-26). The proposed project consists of a Management Plan and a Community Park Master Plan; therefore, project specific information regarding the type and number of earth moving equipment that would be used, amount of material disturbed per day, duration of earth disturbing activities (phasing), amount of material hauled off-site, and clean fill hauled on-site are not available at this time. Due to various unknown site disturbance activities associated with construction of individual project elements identified in the *Public Access and Management Plan* and *Community Park Master Plan*, there would potentially be a quantifiable exceedance of construction related PM₁₀ emissions as a result of this project.

Since the County is considered to be in non-attainment for PM₁₀, the APCD requires Best Management Practices (BMPs) for all projects involving earthmoving activities regardless of the project size or duration. All standard APCD dust control mitigation measures shall be incorporated into the construction phases of each of the proposed project components to reduce the potential to generate nuisance dust problems and maintain PM₁₀ emissions below the APCD's mitigation threshold.

AQ Impact 1 PM₁₀ emissions resulting from construction activities would result in direct short and long-term impacts on air quality, further exacerbating the County non-attainment status for PM₁₀.

AQ/mm-1 Upon application for construction permits and prior to site disturbance, a Dust Control Plan shall be prepared and submitted to the APCD for approval prior to commencement of construction activities. The Dust Control Plan shall:

- a. Use APCD approved BMPs and dust mitigation measures;
- b. Provide provisions for monitoring dust and construction debris during construction;
- c. Designate a person or persons to monitor the dust control program and to order increased watering or other measures as necessary to prevent transport of dust off-site. Duties should include holiday and weekend periods when work may not be in progress;
- d. Provide the name and telephone number of such persons to the APCD prior to construction commencement.
- e. Identify compliant handling procedures.
- f. Fill out a daily dust observation log.

AQ/mm-2 Prior to site disturbance, the applicant shall:

- a. Obtain a compliance review with the APCD prior to the initiation of any construction activities;
- b. Provide a list of all heavy-duty construction equipment operating at the site to the APCD. The list shall include the make, model, engine size, and year of each piece of equipment. This compliance review will identify all

equipment and operations requiring permits and will assist in the identification of suitable equipment for the catalyzed diesel particulate filter; and,

- c. Apply for an Authority to Construct from the APCD.

AQ/mm-3

Upon application for construction permits and prior to site disturbance, the following mitigation measures shall be shown on all project plans and implemented during the appropriate grading and construction phases to reduce PM₁₀ emissions during earth moving activities:

- a. Reduce the amount of the disturbed area where possible.
- b. Water trucks or sprinkler systems shall be used in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible.
- c. All dirt stockpile areas shall be sprayed daily as needed.
- d. 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.
- e. All disturbed soil areas not subject to re-vegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
- f. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible after initial site grading. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- g. Vehicle speed for all construction vehicles shall be posted to not exceed 15 mph on any unpaved surface at the construction site.
- h. All trucks hauling dirt, sand, or other loose materials are to be covered or shall maintain at least two feet of free board (minimum vertical distance between top of load and top of trailer) in accordance with CVC § 23114.
- i. Wheel washers shall be installed where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- j. Streets shall be swept at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used when feasible.
- k. Permanent dust control measures shall be implemented as soon as possible following completion of any soil disturbing activities.

AQ/mm-4

During construction, the applicant shall maintain monthly compliance checks throughout the construction phase, verifying that all equipment and operations continue to comply with the APCD requirements.

Residual Impact

Implementation of the above mitigation measures will result in PM₁₀ related air quality impacts considered *less than significant with mitigation, Class II*.

2) Combustion Emissions (RHC, ROG, and NO_x)

Combustion emissions are most significant when using large, diesel-fueled scrapers, loaders, bulldozers, haul trucks, compressors, generators, and other heavy equipment. Emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

ROG and NO_x are the critical pollutants in the evaluation of the significance of construction emissions because of the high output of these pollutants by heavy diesel equipment normally used in grading operations and their role as ozone precursors. The APCD has worked hard in the last few years to realize ozone attainment, and continuing efforts must be made to ensure San Luis Obispo County maintains its compliance status.

In addition to ROG and NO_x, diesel particulate matter is of special concern to the APCD. In July 1999, the ARB listed the particulate fraction of diesel exhaust as a toxic air contaminant, identifying both chronic and carcinogenic public health risks. There is no threshold below which there are no significant health risks. Therefore, mitigation requirements and the need for health risk assessments are evaluated by the APCD on a case-by-case basis, based on emission estimates and the potential risk for human exposure and effects. Development of the East FRP would occur in an urbanized area, and the potential exposure to humans from diesel particulate matter is significant.

AQ Impact 2 Grading activities that include moving more material than 2,000 cubic yards in a day exceed significance thresholds for construction-related emissions, resulting in potentially significant air quality impacts.

AQ/mm-5 Upon application for construction permits and prior to site disturbance, the applicant shall submit grading plans and a construction schedule demonstrating that soil material would not be moved at a rate more than 53,500 cubic yards (cy) in a quarter or 2,000 cy in a day. If material would be moved at this rate (or greater), the applicant shall implement the following standard APCD mitigation measures for the project's construction equipment:

- a. Maintain all construction equipment in proper tune according to manufacturer's specifications.
- b. Fuel all off-road and portable diesel powered equipment, including but not limited to bulldozers, grader, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, with Air Resources Board (ARB) certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- c. Maximize to the extent feasible, the use of diesel construction equipment meeting the ARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.
- d. All on and off-road diesel equipment shall not be allowed to idle for more than 5 minutes. Signs shall be posted in the designated queuing areas to remind drivers and operators of the 5 minute idling limit.
- e. Electrify equipment where feasible.
- f. Substitute gasoline-powered for diesel-powered equipment where feasible.

- g. Use alternatively fueled construction equipment onsite where feasible, such as compressed natural gas (CNG) liquefied natural gas (LNG), propane, or biodiesel.
- h. Best Available Control Technology (BACT - implementation of DOCs or CDPFs) for construction equipment shall be required and the applicant shall provide the grading amounts and schedule to the APCD Planning Division as soon as they are available so that the appropriate level of BACT can be defined.
- i. At least 3 months prior to construction, the construction company awarded the contract shall contact the APCD Planning Division (805-781-5912) to coordinate the implementation of this mitigation measure. This company will also provide the APCD with proof that the Standard (a-h above) and BACT mitigation measures have been implemented prior to the start of construction activity. These measures shall be shown on all grading and construction plans prior to issuance of construction permits.

Residual Impact Implementation of the above mitigation measures will result in combustion emissions related air quality impacts considered *less than significant with mitigation, Class II*.

3) Naturally-Occurring Asbestos Exposure

Serpentine is a common rock type within San Luis Obispo County and has been identified by the APCD as having the potential to contain naturally-occurring asbestos. The project site has been identified by the APCD as an area that has the potential to contain naturally occurring asbestos. Construction and development of the project could result in an exposure of naturally occurring asbestos due to earthwork and the excavation of serpentine rock.

AQ Impact 3 Earth moving activities for development of the proposed project components would result in grading activities that may expose naturally occurring asbestos, resulting in an indirect short-term impact.

AQ/mm-6 Upon application for construction permits and prior to site disturbance, the applicants shall:

- a. Conduct a geologic analysis to ensure the presence/absence of serpentine rock onsite. The geologic analysis shall identify if naturally occurring asbestos is contained within the serpentine rock onsite; and,
- b. If naturally occurring asbestos is found at the project site, the applicant must comply with all requirements outlined in the Asbestos Airborne Toxic Control Measures (ATCM). In addition, the applicants shall work with the APCD to prepare an APCD-approved Asbestos Health and Safety Program and an Asbestos Dust Control Plan prior to development plan approval. The Asbestos Health and Safety Program and Asbestos Dust Control Plan may include, but is not limited to, the following:
 - 1. Equipment operator safety requirements: protective clothing, breathing apparatuses to prevent inhalation of airborne asbestos fibers,

2. Dust mitigation measures: continually water site to prevent airborne dust migration, cover all vehicle that haul materials from the site
3. Identification of APCD-approved disposal areas for all excavated materials.
4. If naturally-occurring asbestos is not present, an exemption request must be filed with the APCD.

Residual Impact Implementation of the above mitigation measure will result in asbestos-related air quality impacts considered *less than significant with mitigation, Class II*.

c. LONG-TERM PROJECT RELATED OPERATIONAL EMISSIONS

Long-term operational emissions would result from increased vehicle traffic emissions. Development of the project components may create substantial emissions to regional air quality due to increased vehicle traffic. It is estimated that in total, the proposed project would result in an average of approximately 973 vehicle trips per day (refer to Table TC-6) during peak periods (summer weekends) Traffic related air quality impacts would potentially be significant because the majority of the traffic associated with the proposed project would be directed to one specific destination, the community park, thus concentrating emissions of ROG and NO_x at that site.

The West FRP would likely generate up to 700 average daily trips, as trails are improved over time (refer to Table TC-5). These trips would not be concentrated, and would be divided among the various proposed parking and staging areas. In addition, based on the proximity to existing residential neighborhoods, many of the trips would likely not be made via automobile.

A case can be made that the East FRP trips attributed to the proposed project are not all new trips. Instead, because Cambria's existing recreation facilities do not meet the needs of the community, trips to the proposed project may already be occurring, as residents travel to local schools, neighboring communities, or regional facilities to access soccer fields, trails, and other facilities. If this is the case, then the project may have some benefits to air quality, because trip lengths would be shorter than they are now due to the central location of the project.

For projects that do exceed long term ROG and NO_x and PM10 thresholds, the APCD recommends mitigation measures that can be incorporated into the project to reduce emissions. These include planting shade trees in parking lots, including bike lanes and sidewalks, and providing transit turnouts. Many of these measures have already been incorporated into the project.

Because the proposed project is located adjacent to the urban core, it would not necessarily generate new vehicle trips, but would likely receive existing trips currently using other facilities. Because the proposed plan incorporates measures that allow residents to access the site via alternative transportation such as the trolley or bicycles, the proposed project is expected to result in *less than significant long-term operational emissions, Class III impact*.

6. CUMULATIVE IMPACTS

Potential construction-related air quality impacts are location-specific to the extent that they may temporarily result in significant impacts on the localized environment; however, based on the size of the project, the impacts are not considered cumulatively significant. No additional significant impacts are anticipated and no additional mitigation measures are warranted.

LIST OF ABBREVIATED TERMS

Abbreviation	Term
APCD	Air Pollution Control District
ARB	Air Resources Board
ATCM	Asbestos Airborne Toxic Control Measures
ATE	Associated Transportation Engineers
BACT	Best Available Control Technology
BMP	Best Management Practices
CAAA	Clean Air Act Amendments
CAP	Clean Air Plan
CARB	California Air Resources Board
CCC	California Coastal Commission
CCSD	Cambria Community Services District
CDPF	Catalyzed Diesel Particulate Filters
CEQA	California Environmental Quality Act
CNG	Compressed Natural Gas
DOC	Diesel Oxidation Catalysts
EIR	Environmental Impact Report
LNG	Liquefied Natural Gas
NO _x	Nitrogen Oxide
PM	Particulate Matter
ROG	Reactive Organic Gases
SLOCOG	San Luis Obispo Council of Governments
SO _x	Sulfur Oxide

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