Section 3.2
Air Quality

Section 3.2
Air Quality

This section describes the regulatory and environmental setting for air quality, the effects on air quality that would result from the proposed project, and the mitigation measures that would reduce these effects. Table 3.2-1 presents a summary of project impacts on air quality and mitigation measures.

The key sources of data and information used in the preparation of this section are:

- California ambient air quality standards (CAAQS) (California Air Resources Board 2010a).
- Air Designation Maps/State and National (California Air Resources Board 2010b).
- iADAM air quality data statistics (California Air Resources Board 2011).
- The Green Book of Nonattainment Areas for Criteria Pollutants (U.S. Environmental Protection Agency 2011).
- CEQA Air Quality Guidelines (Monterey Bay Unified Air Pollution Control District 2008a).
- 2008 Air Quality Management Plan for the Monterey Bay Region (Monterey Bay Unified Air Pollution Control District 2008b).

Table 3.2-1. Summary of Project Impacts on Air Quality

Project Impact	Project Elements									Cumulative
	PBL	SBI	COL-EC	Area M MH	Area M MR	SUB	RD	TRA	INF	
A. Air Quality Plan Consistency										
AQ-A1. The proposed project would be consistent with the 2008 Air Quality Management Plan.	— (Applies to proposed project as a whole)									○
B. Long-Term Emissions										
AQ-B1. The proposed project would result in a long-term increase in ROG, NOx, CO, and PM10 emissions due to vehicular traffic generated by development, but would not exceed air quality standards of daily emissions thresholds.	○ (Applies to proposed project as a whole)									○
C. Construction Emissions										
AQ-C1. The proposed project would result in a short-term increase in PM10 emissions due to grading and construction.	● (Applies to proposed project as a whole)									●
Mitigation Measures:	AQ-C1. Implement measures to control fugitive dust emissions. AQ-C2. Implement measures to control construction-related exhaust emissions.									
D. Sensitive Receptors										
AQ-D1. The proposed project would result in the emission of diesel toxic air contaminants, which pose a risk to human health, from diesel truck and equipment use during construction.	◉	○	◉	○	○	◉	◉	◉	◉	◉
Mitigation Measures:	AQ-D1. Implement after-market emissions control technology on on-road and off-road construction equipment.									
AQ-D2. The proposed project would expose sensitive receptors to less-than-substantial pollutant concentrations of CO from project-related traffic.	○ (Applies to proposed project as a whole)									◉
E. Odors										
AQ-E1. The proposed project would expose new sensitive receptors to objectionable odors from the Equestrian Center.	○	○	◉	○	○	◉	○	○	○	—
Mitigation Measures:	AQ-E1. Prepare and implement a manure management plan.									

Notes:
● = Significant unavoidable impact.
◉ = Significant impact that can be reduced to less than significant.
○ = Less-than-significant impact.
— = No impact or not applicable to the development site.
PBL – The Lodge at Pebble Beach; **SBI** – Inn at Spanish Bay; **COL-EQC** – Collins Field-Equestrian Center-

Project Impact	Project Elements									Cumulative
	PBL	SBI	COL-EC	Area M		SUB	RD	TRA	INF	
				MH	MR					
Special Events Area; **MH** – Area M Spyglass Hill Resort Hotel (Option 1); **MR** – Area M Spyglass Hill Residential Lots (Option 2); **RES SUB** – Residential Subdivisions; **RD** – Roadway Improvements; **TRA** – Trail Improvements; **INF** – Infrastructure Improvements; **Cumulative** – Proposed Project's Contribution to Cumulative Impacts											

Regulatory Setting

The study area and surrounding areas are subject to air quality regulations developed and implemented at the Federal, state, and local levels. At the Federal level, the U.S. Environmental Protection Agency (EPA) is responsible for implementation of the Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source and other requirements) are implemented directly by EPA. Other portions of the CAA (e.g., stationary-source requirements) are implemented by state and local agencies.

Responsibility for attaining and maintaining air quality in California is divided between the California Air Resources Board (ARB) and regional air quality districts. Areas of control for the regional districts are set by ARB, which divides the state into air basins. These air basins are defined by topography that limits air flow access, or by county boundaries. Plans, policies, and regulations relevant to the proposed project are discussed below.

Federal

The following federal regulations related to air quality are likely to apply to the proposed project.

Clean Air Act and National Ambient Air Quality Standards

The Federal CAA, promulgated in 1963 and amended several times thereafter, including the 1990 Clean Air Act amendments (CAAA), establishes the framework for modern air pollution control. The act directs EPA to establish national ambient air quality standards (NAAQS) for six criteria pollutants: ozone, carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and particulate matter (PM), which consists of PM 10 microns or less in diameter (PM10) and PM 2.5 microns or less in diameter (PM2.5). The NAAQS are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety, and the latter are set to protect valued environmental resources, such as plant and animal life. Table 3.2-2 summarizes the NAAQS.

The CAA requires states to submit a state implementation plan for areas in non-attainment for federal standards. The SIP, which is reviewed and approved by EPA, must demonstrate how the federal standards would be achieved. Failing to submit a plan or secure approval could lead to denial of federal funding and permits. In cases where the SIP is submitted by the state, but fails to demonstrate achievement of the standards, EPA is directed to prepare a federal implementation plan.

Federal Tailpipe Emission Standards

To reduce emissions from off-road diesel equipment, on-road diesel trucks, and harbor craft, EPA established a series of increasingly strict emission standards for new engines. New construction equipment used for the proposed project, including heavy-duty trucks, off-road construction equipment, tugboats, and barges, will be required to comply with the emission standards.

State

The following state regulations related to air quality are likely to apply to the proposed project.

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the CAAQS do not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The CAAQS and NAAQS are listed together in Table 3.2-2.

The ARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that would be incorporated into the state implementation plan. In California, EPA has delegated authority to prepare state implementation plans to the ARB, which, in turn, has delegated that authority to individual air districts. The ARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

Table 3.2-2. National and California Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard (parts per million [ppm])		Standard (micrograms per cubic meter [µg/m³])		Violation Criteria	
			California	National	California	National	California	National
Ozone*	O_3	1 hour	0.09	–	180	–	If exceeded	–
		8 hours	0.070	0.075	137	147	If exceeded	If fourth-highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor in an area
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
Nitrogen dioxide	NO_2	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.18	0.100	339	188	If exceeded	–
Sulfur dioxide	SO_2	24 hours	0.04	–	105	–	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.25	0.075	655	196	If exceeded	–
		3 hour	–	0.50*	–	1300*–		
Hydrogen sulfide	H_2S	1 hour	0.03	–	42	–	If equaled or exceeded	–
Vinyl chloride	C_2H_3Cl	24 hours	0.01	–	26	–	If equaled or exceeded	–
Inhalable particulate matter	PM10	Annual arithmetic mean	–	–	20	–	–	–
		24 hours	–	–	50	150	If exceeded	If exceeded on more than 1 day per year
	PM2.5	Annual arithmetic mean	–	–	12	15.0	–	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	–	–	–	35	–	If 3-year average of 98th percentile at each population-oriented monitor in an area is exceeded
Sulfate particles	SO_4	24 hours	–	–	25	–	If equaled or exceeded	–
Lead particles	Pb	Calendar quarter	–	–	–	1.5	–	If exceeded no more than 1 day per year
		30-day average	–	–	1.5	–	If equaled or exceeded	–
		Rolling 3-month average	–	–	–	0.15	If equaled or exceeded	Averaged over a rolling 3-month period

Source:
California Air Resources Board 2010a.
Notes:
* = Secondary standard.

Idling Limit Regulation

On June 15, 2008, the ARB adopted a regulation for off-road diesel vehicles. The regulation is designed to reduce toxic air contaminants (TACs) from diesel-powered construction and mining vehicles operating in California. Fleet owners are subject to retrofit or accelerated replacement/repower requirements for which ARB must obtain authorization from EPA prior to enforcement.

The regulation also imposes idling limitations on owners, operators, and renters or lessees of off-road diesel vehicles. The idling limits became effective on June 15, 2008, and require an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles of 25 horsepower and greater that were not designed for on-road driving) to limit idling to no more than 5 minutes. These requirements are specified in 13 CCR 2449(d)(3).

State Tailpipe Emission Standards

To reduce emissions from off-road diesel equipment, on-road diesel trucks, and harbor craft, the ARB established a series of increasingly strict emission standards for new engines. New construction equipment used for the proposed project, including heavy duty trucks, off-road construction equipment, tugboats, and barges, will be required to comply with the standards.

State NO_X Reduction Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between the ARB and the local air districts throughout the state. Locally, the air districts administer the Carl Moyer program. The purpose of the program is to reduce air pollution emissions from heavy-duty engines.

Local

At the local level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of Federal and state air quality laws and for ensuring that NAAQS and CAAQS are met.

The following local policies related to air quality may apply to implementation of the proposed project.

Monterey Bay Unified Air Pollution Control District

The project construction sites are located in Monterey County, where the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has local air quality jurisdiction over the project components. MBUAPCD has adopted CEQA emission thresholds in their CEQA Air Quality Guidelines (Monterey Bay Unified Air Pollution Control District 2008a) to determine the level of significance of project-related emissions. Emissions that exceed the designated threshold levels are considered potentially significant and should be mitigated.

Under the California CAA, the MBUAPCD is required to develop an air quality plan for nonattainment criteria pollutants in the air district. The most recent air quality plan adopted by the MBUAPCD is the 2008 Air Quality Management Plan for the Monterey Bay Region (Monterey Bay Unified Air Pollution Control District 2008b) (AQMP). This plan outlines strategies to achieve the health-based ozone standard.

All projects located in Monterey County are subject to the MBUAPCD regulations in effect at the time of construction. Specific regulations applicable to the proposed project components may involve diesel construction equipment emissions, fugitive dust, on-road haul truck emissions, and general permit requirements. Listed below are descriptions of MBUAPCD rules that would be applicable to the proposed project.

- Rule 400, Visible Emissions.
- Rule 402, Nuisances.
- Rule 403, Particulate Matter.
- Rule 424, National Emission Standards for Hazardous Air Pollutants.
- Rule 42j, Use of Cutback Asphalt.
- Rule 426, Architectural Coatings.
- Rule 439, Building Removals.

Monterey County General Plan (1982)

The 1982 General Plan includes a goal of providing for the protection and enhancement of Monterey County's air quality. Policies in the 1982 General Plan include integration of land use and development policies, encouraging the use of transit, bicycles and pedestrian alternatives to automobile travel, a roadside tree program and maintenance of forested areas for their air purifying functions, concentrating commercial development in designated centers that can be better served by transit, and the promotion of mixed land uses. Policy 20.2.1 requires the County to condition approval of new commercial development on meeting federal and state ambient air quality standards and the rules and regulations of MBUAPCD. Other policies require the County to support regional air quality plans, support air pollution control strategies of the MBUAPCD, and air quality monitoring.

Monterey County Local Coastal Program

The existing and proposed LUP and CIP do not contain any specific policies relative to air quality.

Environmental Setting

Regional Conditions

The North Central Coast Air Basin (NCCAB) is comprised of Monterey, Santa Cruz, and San Benito Counties. The basin lies along the central coast of California and covers an area of 5,159 square miles. The northwest sector of the basin is dominated by the Santa Cruz Mountains. The Diablo Range marks the northeastern boundary, and together with the southern extent of the Santa Cruz Mountains forms the Santa Clara Valley, which extends into the northeastern tip of the Basin.

Farther south, the Santa Clara Valley evolves into the San Benito Valley which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at its northwestern end to south of King City at its southeastern end. The western side of the Salinas Valley is formed by the Sierra de Salinas, which also forms the eastern side of the smaller Carmel Valley. The coastal Santa Lucia Range defines the western side of the Carmel Valley.

The semi-permanent high-pressure cell in the eastern Pacific, known as the Pacific High, is the basic controlling factor in the climate of the air basin. In the summer, the high pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High, forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air above acts as a lid to inhibit vertical air movement.

The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure that intensifies the onshore air flow during the afternoon and evening.

In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High, which allows pollutants to build up over a period of a few days. It is most often during this season that north or east winds develop and transport pollutants from either the San Francisco Bay area or the Central Valley into the NCCAB.

During the winter, the Pacific High migrates southward and has less influence on the air basin. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. Northwest winds are nevertheless still dominant in winter, but easterly flow is more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring.

According to data recorded by the Monterey station, the project area experiences moderate temperatures and humidity. Temperatures average 58° Fahrenheit (F) annually. Summer afternoon high temperatures average 61° F, decreasing to an average 50° F overnight. Winter temperatures average 56° F during the day and 43° F at night. Temperatures above 70° F, or below 40° F, occur only in unusual weather conditions. Because of the moderating marine influence, which decreases with distance from the ocean, monthly and annual spreads between temperatures are greatest inland and smallest at the coast. Temperature has an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry.

According to data recorded from the Monterey station, precipitation is highly variable seasonally. Rainfall in the Monterey area averages 25.5 inches annually. Summers are often completely dry, with frequent periods of no rain through the early fall. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills, and highest in the mountains.

Background Information on Air Pollutants

Air quality studies generally focus on five pollutants most commonly measured and regulated, and referred to as criteria air pollutants: ozone, CO, inhalable PM (PM10 and PM2.5), NO_2, and SO_2. Because ozone, a photochemical oxidant, is not emitted into the air directly from sources, emissions

of ozone precursors, including NO_X and reactive organic gasses (ROG), are regulated with the aim of reducing ozone formation in the lowermost region of the troposphere.

Ozone and NO_2 are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. NO_2 reacts photochemically with ROG to form ozone, and this reaction occurs at some distance downwind of the source of pollutants. Pollutants such as CO, PM10, and PM2.5 are considered to be local pollutants because they tend to disperse rapidly with distance from the source.

The principal characteristics surrounding these pollutants are discussed below. TACs are also discussed below, although no air quality standards exist for these pollutants.

Ozone (O_3)

Ozone is an oxidant that attacks synthetic rubber, textiles, and other materials and causes extensive damage to plants by leaf discoloration and cell damage. It is also a severe eye, nose, and throat irritant and increases susceptibility to respiratory infections. Ozone is not emitted directly into the air: it forms from a photochemical reaction in the atmosphere. Ozone precursors, including ROG and NO_X, are emitted by mobile sources and stationary combustion equipment and react in the presence of sunlight to form ozone. Because reaction rates depend on the intensity of ultraviolet light and air temperature, ozone conversion occurs primarily in the summertime.

Carbon Monoxide (CO)

CO is essentially inert to most materials and to plants but can significantly affect human health because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. Effects on humans range from slight headaches to nausea to death. Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter, when periods of light wind combine with the formation of ground-level temperature inversions—typically from evening through early morning. These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

Particulate Matter (PM)

PM suspended in the atmosphere can reduce visibility, retard plant growth, corrode materials, and affect human health. Health concerns focus on particles small enough to reach the lungs when inhaled (inhalable PM). NAAQS and CAAQS for PM apply to two classes of inhalable particulates: PM10 and PM2.5.

Nitrogen Dioxide (NO_2)

NO_2 is a brownish gas that contributes to the formation of ground-level ozone pollution. NO_2 increases respiratory disease and irritation and may reduce resistance to certain infections. The majority of ambient NO_2 is not directly emitted but is formed rather quickly from the reaction of nitric oxide (NO) and oxygen (O_2) in the atmosphere. NO and NO_2 are the primary pollutants that make up the group of pollutants referred to as NO_X. In the presence of sunlight, complex reactions of NO_X with ozone and other air pollutants produce the majority of NO_2 in the atmosphere. NO_2 is one of the NO_X emitted from high-temperature combustion processes, such as those occurring in trucks, cars, and power plants. Indoors, home heaters and gas stoves also produce substantial amounts of NO_2.

Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a rotten-egg smell formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives and off-road diesel equipment. SO_2 also is emitted from several industrial processes, such as petroleum refining and metal processing.

Toxic Air Contaminants (TACs)

TACs are pollutants that may result in an increase in mortality or serious illness, or that may pose a present or potential hazard to human health. Health effects of TACs include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. In 1998, following a 10-year scientific assessment process, the ARB identified PM from diesel-fueled engines—commonly called diesel particulate matter (DPM)—as a TAC. Compared to other air toxics the ARB has identified, DPM emissions are estimated to be responsible for about 70% of the total ambient air toxics risk (California Air Resources Board 2000:1).

Site-Specific Conditions

The existing air quality conditions in the project area can be characterized by monitoring data collected in the region. The nearest monitoring stations in Monterey County are selected to present air quality of the project vicinity. Air quality concentrations typically are expressed in terms of ppm or $\mu g/m^3$. The nearest monitoring stations to the study area are the Pearl Street Station in King City, which monitors ozone and PM10 concentrations, and the Salinas station, which monitors CO and PM2.5 concentrations.

Table 3.2-3 summarizes air quality monitoring data from the King City and Salinas monitoring stations for the last 3 years for which complete data are available (2008–2010). The monitoring stations have not recently experienced violations of the NAAQS and CAAQS for any pollutants except PM10. Air quality is generally good in the region and is improving, as indicated by the declining number of measured violations for PM10. Data from these two monitoring stations are used because they are the closest monitoring stations to the project area. However, they are in the Salinas Valley in the inland portion of Monterey County, and the project area is on the coast and would likely have better air quality conditions because of the dominance of onshore breezes and because the project area is not downwind of urban or agricultural areas.

Table 3.2-3. Ambient Air Quality Monitoring Data from the King City and Salinas Stations (2008–2010)

	Monitoring Data		
Pollutant Standards	**2008**	**2009**	**2010**
1-Hour Ozone (ppm) (King City)			
Maximum 1-hour concentration	0.088	0.069	0.078
1-hour California designation value	0.07	0.07	0.07
1-hour expected peak day concentration	0.070	0.069	0.072
Number of days standard exceeded[a]			
CAAQS 1-hour (>0.09 ppm)	*0*	*0*	*0*
8-Hour Ozone (ppm) (King City)			
National maximum 8-hour concentration	0.068	0.059	0.067

Pollutant Standards	Monitoring Data 2008	2009	2010
National second-highest 8-hour concentration	0.063	0.054	0.066
State maximum 8-hour concentration	0.068	0.059	0.068
State second-highest 8-hour concentration	0.063	0.054	0.066
8-hour national designation value	–	0.054	0.058
8-hour California designation value	0.068	0.063	0.066
8-hour expected peak day concentration	–	0.063	0.066
Number of days standard exceeded[a]			
NAAQS 8-hour (>0.075 ppm)	*0*	*0*	*0*
CAAQS 8-hour (>0.070 ppm)	*0*	*0*	*0*
Carbon Monoxide (ppm) (Salinas)			
National[b] maximum 8-hour concentration	0.89	0.90	0.76
National[b] second-highest 8-hour concentration	0.80	0.85	0.76
California[c] maximum 8-hour concentration	0.89	0.90	0.76
California[c] second-highest 8-hour concentration	0.80	0.85	0.76
Maximum 1-hour concentration[g]	2.5	2.0	2.2
Second-highest 1-hour concentration[g]	2.0	1.7	1.6
Number of days standard exceeded[a]			
NAAQS 8-hour (≥9 ppm)	*0*	*0*	*0*
CAAQS 8-hour (≥9.0 ppm)	*0*	*0*	*0*
NAAQS 1-hour (≥35 ppm)	*0*	*0*	*0*
CAAQS 1-hour (≥20 ppm)	*0*	*0*	*0*
Particulate Matter (PM10)[d] (μg/m³) (King City)			
National[b] maximum 24-hour concentration	63.0	43.0	53.0
National[b] second-highest 24-hour concentration	63.0	42.0	51.0
State[c] maximum 24-hour concentration	65.0	44.0	54.0
State[c] second-highest 24-hour concentration	64.0	43.0	51.0
State annual average concentration [e]	27.4	22.1	20.6
National annual average concentration	26.4	21.6	19.9
Number of days standard exceeded [a]			
NAAQS 24-hour (>150 μg/m³) [f]	*0*	*0*	*0*
CAAQS 24-hour (>50 μg/m³) [f]	*5*	*0*	*2*
Particulate Matter (PM2.5) (μg/m³) (King City)			
National[b] maximum 24-hour concentration	17.8	18.7	16.2
National[b] second-highest 24-hour concentration	13.8	13.6	15.9
State[c] maximum 24-hour concentration	17.8	18.7	9.8
State[c] second-highest 24-hour concentration	13.8	13.6	9.8
National annual designation value	7.1	6.7	6.5
National annual average concentration	7.2	5.7	6.6
State annual designation value	7	7	5
State annual average concentration [e]	7.1	5.8	4.5
Number of days standard exceeded [a]			
NAAQS 24-hour (>35 μg/m³) [f]	*0*	*0*	*0*

Pollutant Standards	Monitoring Data 2008	2009	2010

Sources:
California Air Resources Board 2011; U.S. Environmental Protection Agency 2009.
Notes:
CAAQS: California ambient air quality standards.
NAAQS: National ambient air quality standards.
– Insufficient data available to determine the value.
[a] An exceedance is not necessarily a violation.
[b] National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
[c] State statistics are based on local conditions data. In addition, State statistics are based on California approved samplers.
[d] Measurements usually are collected every 6 days.
[e] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[f] Mathematical estimate of how many days that concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.
[g] Data presented is for years 2006–2008, as 2009 and 2010 are unavailable.

Air Quality Attainment Status

Local monitoring data (Table 3.2-3) are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are further defined as follows:

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past, but are no longer in violation of that standard.
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.2-4 summarizes the attainment status of Monterey with regard to the NAAQS and CAAQS.

Table 3.2-4. Federal and State Attainment Status of Monterey County

	Monterey County	
Pollutant	**NAAQS**	**CAAQS**
1-hour O_3	-	Moderate Nonattainment
8-hour O_3	Unclassified/Attainment	Nonattainment
CO	Unclassified/Attainment	Attainment
PM2.5	Unclassified/Attainment	Attainment
PM10	Unclassified/Attainment	Nonattainment

Sources:
California Air Resources Board 2010b; U.S. Environmental Protection Agency 2011.

Notes:
– = No applicable standard.
(P) = Designation applies to a portion of the County.
CAAQS = California ambient air quality standards.
CO = Carbon monoxide.
NAAQS = National ambient air quality standards.
O_3 = Ozone.
PM10 = Particulate matter less than 10 microns in diameter.
PM2.5 = Particulate matter less than 2.5 microns in diameter.

Sensitive Receptors

The MBUAPCD generally defines a sensitive receptor as any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (K-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long-term care hospitals, hospices, prisons, and dormitories or similar live-in housing (Monterey Bay Unified Air Pollution Control District 2008a). Sensitive receptors in the vicinity of the project area are summarized in Table 3.2-5.

Table 3.2-5. Air Quality Sensitive Receptors in the Project Area

Project Development Areas	Distance to Sensitive Receptors (feet)
The Lodge at Pebble Beach	Private residences approximately 100 feet from Fairway One reconstruction, 200 feet from Colton Building construction, and 300 feet from Conference Center reconstruction. Additionally, private residences are approximately 50 feet of the parking facility construction.
The Inn at Spanish Bay	Residences approximately 400 feet to the south, directly across 17-Mile Drive, and 750 feet to the north, across from the resort's main entry road, from golf cottage construction.
Collins Field–Equestrian Center–Special Events Area	Residences approximately 100 feet to the southwest, directly across Sombria Lane/Portola Road
	Residences approximately 100 feet to the southwest, directly across Alva Lane
	Residences approximately 100 feet to the southeast, directly across Ondulado Road
Area M Spyglass Hill	Residences approximately 750 feet southeast of Spyglass Hill Road/Stevenson Drive intersection
Residential Lot Subdivisions	
F-2	Residences approximately 400 feet west and east of golf course
I-2	Residential developments/subdivisions located approximately 100 feet across Viscaino and Ronda Roads
J	Residences located approximately 100 feet across Spyglass Woods Drive
K	Residences located approximately 100 feet to the northeast
L	Residences approximately 100 feet west of the area
U	Residences approximately 450 feet north of Drake Road Residence located along south border on Portola Road
V	Residences located approximately 100 feet across Forest Lake Road
Collins Residence	Residences located approximately 100 feet along south border and across Alva Lane
Corporation Yard	Residences located approximately 650 feet south of Sunridge Road
Roadway Improvements	
SR 1/SR 68/17-Mile Drive	Residences within approximately 200 feet along the south side of SR 68 west of the intersection reconfiguration area between the development site and the Community Hospital of the Monterey Peninsula
17-Mile Drive/Congress Road	Residences located approximately 350 feet to north across golf links and to south/southwest
Lopez Road/Congress Road	Residences located approximately 450 feet north
Lopez Road/Sunridge Road	Residences located to the northwest approximately 250 feet
Portola Road/Stevenson Drive	Residences approximately 500 feet to the northeast and south

Impact Analysis

Methodology

Construction-Related Emissions

Construction of the proposed project would result in the temporary generation of emissions of ROG, NO_X, CO, PM2.5, and PM10 that would result in short-term impacts on ambient air quality in the area. Emissions would originate from mobile and stationary construction equipment exhaust, employee vehicle exhaust, dust from clearing the land, exposed soil eroded by wind, and ROG from architectural coatings and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

Construction emissions of PM10 were estimated with the CalEEMod emissions model (version 2011.1.1, developed by Environ International Corp. in collaboration with the South Coast Air Quality Management District and other California air districts), which analyzes the type of construction equipment used and the duration of the construction period associated with construction of each of the land uses specified. A detailed inventory of construction equipment that will be used for the proposed project was not available, although a detailed estimate of the construction schedule for each project element was provided by the project applicant by activity (i.e., grading/demolition, building construction, paving, and architectural coating), in addition to maximum daily area disturbed and cut-and-fill amounts. This data was input into the CalEEMod model to estimate construction equipment based on model default values.

A screening-level assessment of potential health risks from exposure of existing sensitive receptors to DPM emissions from construction exhaust was performed using methodology developed by ICF consistent with Office of Environmental Health Hazard Assessment (OEHHA) methodology and guidance. The analysis used emission factors for off-road equipment from the URBEMIS and EMFAC2007 models, while emission concentrations at nearby sensitive receptors were calculated with the CALS3QHCR and ISCST3 dispersion models. The screening-level analysis of pollutant concentrations and associated health risks was conducted for the Pebble Beach Driving Range Relocation to Collins Field. Relocation of the Driving Range, as it represents a worst-case scenario for potential health risks from construction-related exhaust emissions due to the proximity of nearby sensitive receptors within 100 feet directly across Ondulado Road and across Alva Lane, as well as the anticipated level of construction activity required (i.e., earthwork would entail approximately 36,500 cubic yards of cut material and 27,800 cubic yards of fill material, representing the greatest amount of earthwork in close proximity to existing sensitive land uses). Health risks at receptors nearby other construction areas were scaled from the health risks calculated at the Driving Range Relocation to Collins Field based on distances of sensitive receptors to the project development areas (Table 3.2-5).

Operation-Related Emissions

Two air pollutant sources—area and mobile—are expected during operation of the proposed project. Area sources can include area-wide, natural, and groups of stationary sources (such as dry cleaners and gas stations). At the proposed project site, area sources include emissions from natural gas combustion for heating requirements (i.e., water heater and furnace), landscaping activities,

consumer products (i.e., automotive products, household cleaners, and personal care products), and periodic paint emissions from facility upkeep. Area emissions associated with the proposed project were estimated using the CalEEMod model based on land use data provided by the applicant.

Mobile sources are sources of emissions associated with vehicle trips and include employees, deliveries, and maintenance activities. The primary operational emissions associated with the proposed project are ozone precursors, CO, PM2.5, and PM10, emitted as vehicle exhaust. Emissions of ROG, NO_X, and PM10 were evaluated using the CalEEMod model using existing-year conditions to represent the worst-case emissions year, while the effects of CO hot spot emissions were evaluated through CO dispersion modeling for 2011, 2015, and 2030 under with-project and without-project conditions[1]. Refer to Appendix E of this Draft EIR for modeling results.

Criteria for Determining Significance

In accordance with CEQA, the State CEQA Guidelines, Monterey County plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:

A. Air Quality Plan Consistency

- Conflict with or obstruct implementation of the AQMP.

B. Long-Term Emissions

- Result in generation of emissions of or in excess of (Monterey Bay Unified Air Pollution Control District 2008):
  - 137 pounds per day for volatile organic compounds (VOC) (direct and indirect).
  - 137 pounds per day for NO_X (direct and indirect).
  - 550 pounds per day of CO (direct).
  - CAAQS violation for CO.
  - 82 pounds per day of PM10.

C. Construction Emissions

- Result in generation of emissions of 82 pounds or more per day of PM10 due to construction.
- Result in a short-term increase in TACs.

D. Sensitive Receptors

- Expose sensitive receptors (e.g., residents, schools, hospitals) to substantial pollutant concentrations (i.e. CO levels in excess of the CAAQS or NAAQS or cancer risks in excess of 10 in one million).
- Result in a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.

[1] This analysis uses the same conditions as the transportation analysis: 2011 which is the existing or baseline conditions, 2015 which is considered the likely timeframe for project, and 2030 which is full buildout of the project (Fehr & Peers 2011).

E. Odors

- Create objectionable odors in substantial concentrations, which could result in injury, nuisance, or annoyance to a considerable number of persons or could endanger the comfort, health, or safety of the public.

Project Impacts and Mitigation Measures

A. Air Quality Plan Consistency

Impact AQ-A1: The proposed project would be consistent with the 2008 Air Quality Management Plan. (No impact)

A review of project consistency with the AQMP was conducted by the MBUAPCD comparing the Monterey Bay Area 2008 Regional Forecast prepared by AMBAG with the Department of Finance's Population Estimates Report for Monterey County (Getchell pers. comm.).

Based on the MBUAPCD's consistency analysis, the proposed project is not anticipated to exceed the AMBAG's 2020 forecast. The Department of Finance estimates the 2011 population of the unincorporated area of Monterey County to be 100,791 and the proposed project's estimated increase of 297 (100 units x 2.967 occupancy factor) would result in a total of 101,088, below AMBAG's 2020 forecast of 113,778 (Getchell pers. comm.). There would be no impact.

B. Long-Term Emissions

Impact AQ-B1: The proposed project would result in a long-term increase in ROG, NO_X, CO, and PM10 emissions due to vehicular traffic generated by development, but would not exceed air quality standards of daily emissions thresholds. (Less than significant)

The primary operational emissions associated with the proposed project are ozone precursors, CO, and PM10 emitted as area sources (i.e., natural gas, fireplace and landscape fuel consumption) and vehicle exhaust. Daily emissions were estimated using traffic data prepared for the proposed project (Fehr & Peers 2011) and the CalEEMod emissions model (Appendix E). The proposed project's land uses would generate motor-vehicle trips that would in turn generate operational air emissions. Emission estimates for with-project conditions are based on the daily trip generation data (Fehr & Peers 2011).

Table 3.2-6 presents area, energy, and mobile source emissions for each project element, as well as total project emissions for both Option 1 (New Resort Hotel) and Option 2 (New Residential Lots) for Area M. The data in Table 3.2-6 indicates that total project-related operational emissions (i.e., all project elements operating concurrently) would not exceed the MBUAPCD's thresholds for project operations at build-out. Therefore, this impact is considered less than significant.

Table 3.2-6. Operational Emissions (lbs/day)

		Pounds/Year									Metric Tons/Year			
Project Element	**Category**	**ROG**	**NO_X**	**CO**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**NBio-CO_2**	**CH_4**	**N2O**	**CO2e**
New Colton Building (PBL)	Area	0.81	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
	Energy	0.04	0.36	0.30		0.00	0.03		0.00	0.03	71.88	0.00	0.00	72.31
	Mobile	1.12	2.43	11.71	1.03	0.08	1.11	0.04	0.08	0.11	173.19	0.01	0.00	173.49
	Total	1.97	2.79	12.01	1.03	0.08	1.14	0.04	0.08	0.14	245.07	0.01	0.00	245.80
Conference Center Expansion (Ballroom) (SBI)	Area	0.04	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
	Energy	0.00	0.01	0.01		0.00	0.00		0.00	0.00	1.29	0.00	0.00	1.30
	Mobile	0.90	2.07	9.88	0.91	0.07	0.98	0.03	0.07	0.10	151.80	0.01	0.00	152.05
	Total	0.94	2.08	9.89	0.91	0.07	0.98	0.03	0.07	0.10	153.09	0.01	0.00	153.35
New Guest Cottages (SBI)	Area	1.61	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
	Energy	0.08	0.72	0.61		0.00	0.05		0.00	0.05	143.75	0.00	0.00	144.62
	Mobile	2.24	4.87	23.42	2.06	0.16	2.22	0.07	0.16	0.23	346.39	0.03	0.00	346.97
	Total	3.93	5.59	24.03	2.06	0.16	2.27	0.07	0.16	0.28	490.14	0.03	0.00	491.60
Conference Center Expansion (Meeting Rooms) (SBI)	Area	0.11	0	0		0	0		0	0	0.00	0.00	0.00	0.00
	Energy	0	0.02	0.02		0	0		0	0	3.64	0.00	0.00	3.66
	Mobile	0.12	0.28	1.35	0.12	0.01	0.13	0.00	0.01	0.01	20.70	0.00	0.00	20.73
	Total	0.23	0.30	1.37	0.12	0.01	0.13	0.00	0.01	0.01	24.34	0.00	0.00	24.39
Residential Lot Subdivision (Area V)	Area	8.18	0.15	12.13		0	1.59		0	1.59	27.34	0.06	0.00	29.23
	Energy	0.02	0.14	0.06		0	0.01		0	0.01	28.83	0.00	0.00	29.00
	Mobile	1.26	2.99	14.16	1.35	0.1	1.45	0.05	0.1	0.15	223.43	0.02	0.00	223.79
	Total	9.46	3.28	26.35	1.35	0.10	3.05	0.05	0.10	1.75	279.60	0.08	0.00	282.02
New Resort Hotel (Area M Spyglass Hill Option 1)	Area	4.03	0	0		0	0		0	0	0.00	0.00	0.00	0.00
	Energy	0.2	1.81	1.52		0	0.14		0	0.14	359.37	0.01	0.01	361.56
	Mobile	6.51	14.14	68.06	5.99	0.46	6.45	0.21	0.46	0.66	1,006.60	0.08	0.00	1,008.30
	Total	10.74	15.95	69.58	5.99	0.46	6.59	0.21	0.46	0.80	1,365.97	0.09	0.01	1,369.86
New Residential Lots (Area M Spyglass Hill Option 2)	Area	5.84	0.1	8.67		0	1.14		0	1.14	19.53	0.04	0.00	20.88
	Energy	0.01	0.1	0.04		0	0.01		0	0.01	20.59	0.00	0.00	20.72
	Mobile	0.9	2.14	10.11	0.96	0.07	1.03	0.03	0.07	0.11	159.59	0.01	0.00	159.85
	Total	6.75	2.34	18.82	0.96	0.07	2.18	0.03	0.07	1.26	199.71	0.05	0.00	201.45
Meeting Facility Expansion (PBL)	Area	0.06	0	0		0	0		0	0	0.00	0.00	0.00	0.00
	Energy	0	0.01	0.01		0	0		0	0	1.93	0.00	0.00	1.94
	Mobile	0.18	0.42	1.99	0.18	0.01	0.2	0.01	0.01	0.02	30.52	0.00	0.00	30.57
	Total	0.24	0.43	2.00	0.18	0.01	0.20	0.01	0.01	0.02	32.45	0.00	0.00	32.51

		Pounds/Year									Metric Tons/Year			
Project Element	**Category**	**ROG**	**NO_X**	**CO**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**NBio-CO_2**	**CH_4**	**N2O**	**CO2e**
Residential Lot Subdivisions (without Area V and Corporation Yard)	Area	37.4	0.67	55.47		0	7.28		0	7.28	125.00	0.27	0.01	133.6
	Energy	0.07	0.62	0.27		0	0.05		0	0.05	131.78	0.00	0.00	132.58
	Mobile	5.74	13.67	64.72	6.15	0.46	6.61	0.21	0.46	0.67	1,021.38	0.08	0.00	1,023.04
	Total	43.21	14.96	120.46	6.15	0.46	13.94	0.21	0.46	8.00	1,278.16	0.36	0.01	1,289.23
Residential Lot Subdivision (Corporation Yard)	Area	5.84	0.1	8.67		0	1.14		0	1.14	19.53	0.04	0.00	20.88
	Energy	0.01	0.1	0.04		0	0.01		0	0.01	20.59	0.00	0.00	20.72
	Mobile	0.9	2.14	10.11	0.96	0.07	1.03	0.03	0.07	0.11	159.59	0.01	0.00	159.85
	Total	6.75	2.34	18.82	0.96	0.07	2.18	0.03	0.07	1.26	199.71	0.05	0.00	201.44
Fairway One Reconstruction (PBL)	Area	1.41	0	0		0	0		0	0	0.00	0.00	0.00	0.00
	Energy	0.07	0.63	0.53		0	0.05		0	0.05	125.78	0.00	0.00	126.55
	Mobile	1.96	4.26	20.49	1.80	0.14	1.94	0.06	0.14	0.2	303.09	0.02	0.00	303.60
	Total	3.44	4.89	21.02	1.80	0.14	1.99	0.06	0.14	0.25	428.87	0.03	0.00	430.15
Total Emissions with Option 1	Area	59.49	0.92	76.27	0.00	0.00	10.01	0.00	0.00	10.01	171.88	0.38	0.01	183.71
	Energy	0.49	4.42	3.37	0.00	0.00	0.34	0.00	0.00	0.34	888.84	0.02	0.01	894.25
	Mobile	20.93	47.27	225.89	20.55	1.56	22.12	0.71	1.56	2.26	3,436.68	0.27	0.00	3,442.39
Total Emissions with Option 1 (lbs./day)	**Total**	**80.91**	**52.61**	**305.53**	**20.55**	**1.56**	**32.47**	**0.71**	**1.56**	**12.61**	**4,497.39**	**0.66**	**0.03**	**4,520.35**
MBUAPCD threshold (lbs./day)		*137*	*137*	*550*	*NA*	*NA*	*82*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Above MBUAPCD threshold?		No	No	No	NA	NA	No	NA	NA	NA	NA	NA	NA	NA
Total Emissions with Option 2	Area	61.30	1.02	84.94	0.00	0.00	11.15	0.00	0.00	11.15	191.41	0.42	0.01	413.57
	Energy	0.30	2.71	1.89	0.00	0.00	0.21	0.00	0.00	0.21	550.06	0.01	0.01	553.40
	Mobile	15.32	35.27	167.94	15.52	1.17	16.70	0.53	1.17	1.71	2,589.67	0.20	0.00	2,593.95
Total Emissions with Option 2 (lbs/day)	**Total**	**76.92**	**39.00**	**254.77**	**15.52**	**1.17**	**28.06**	**0.53**	**1.17**	**13.07**	**3,331.13**	**0.63**	**0.02**	**3,351.94**
MBUAPCD threshold (lbs./day)		*137*	*137*	*550*	*NA*	*NA*	*82*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Above MBUAPCD threshold?		No	No	No	NA	NA	No	NA	NA	NA	NA	NA	NA	NA

Notes:
NA = Not Applicable; PBL = The Lodge at Pebble Beach; SBI = The Inn at Spanish Bay.

C. Construction Emissions

Impact AQ-C1: The proposed project would result in a short-term increase in PM10 emissions due to grading and construction. (Significant and unavoidable)

Construction of the proposed project could result in the temporary generation of PM10 emissions associated with earth moving and site grading, construction worker commute trips, and mobile and stationary construction equipment exhaust. According to the MBUAPCD CEQA guidelines, construction projects that temporarily emit precursors of ozone (i.e., ROG or NO_X) are accommodated in the emission inventories of state and federally required air plans and would not have a significant impact on the attainment and maintenance of state or federal ozone AAQS (Monterey Bay Unified Air Pollution Control District 2008). The MBUAPCD guidelines have an exception if a project uses "non-typical equipment, e.g., grinders, and portable equipment"; the proposed project would use standard construction equipment for residential, commercial, and recreational element construction.

Sources of construction-related PM10 emissions include construction equipment exhaust and fugitive dust entrained into the air from construction activities. The proposed project would involve grading at almost all development sites, and up to approximately 247,000 cubic yards of soil would be disturbed with excavation and grading.[2] Table2-4 in Chapter 2, Project Description, identifies the cut-and-fill amounts by location. Project elements that would result in substantial excavation (> 20,000 cubic yards) at the development site include:

- Pebble Beach Driving Range Relocation from Area V to Collins Field (36,500 cubic yards).
- Area M Spyglass Hill New Resort Hotel (Option 1) (99,800 cubic yards) or New Residential Lots (Option 2) (48,500 cubic yards).
- Residential Lot Subdivision at the Corporation Yard (58,000 cubic yards).

The analysis of the construction-related PM10 emissions for project components is based on CalEEMod modeling and construction data provided by the project applicant. Table 3.2-7 and Table 3.2-8 present project-related construction emissions of PM10 for each project element by construction activity (i.e., grading/demolition, building construction, paving, and architectural coating) in addition to activity period (i.e., month of construction activity). The modeling analysis evaluated maximum daily emissions. It is assumed that construction activities occurring during a specific month would occur over the entire one-month period, thereby assuming that all construction phases scheduled for a specific month would occur concurrently to represent a worst-case scenario of maximum construction activities operating concurrently.

Table 3.2-7 presents unmitigated construction emissions, and Table 3.2-8 presents mitigated construction emissions. The data in Table 3.2-7 indicates that the MBUAPCD's PM10 significance threshold of 82 pounds/day would be exceeded at various times during the anticipated construction schedule, with a maximum PM10 of approximately 570 pounds/day expected to occur the month of March 2014. Consequently, this impact is considered significant. The mitigated emissions presented in Table 3.2-8 indicate that even with mitigation, construction-related emissions are still anticipated

[2] Approximately 247,000 cubic yards would be excavated for the Area M Spyglass Hill New Resort Hotel (Option 1) project element; approximately 196,000 cubic yards would be excavated for the Area M Spyglass Hill New Residential Lots (Option 2) project element.

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-7. Unmitigated Construction PM10 Emissions

CONSTRUCTION PHASE Development Site (Duration)	MONTH-YEAR 11-11	12-11	1-12	2-12	3-12	4-12	5-12	6-12	7-12	8-12	9-12	10-12	11-12	12-12	1-13	2-13	3-13	4-13	5-13	6-13	7-13	8-13	9-13	10-13	11-13	12-13	1-14	2-14	3-14	4-14	5-14	6-14	7-14	8-14	9-14	10-14	11-14	12-14	1-15	2-15	3-15	4-15	5-15	6-15	7-15	8-15	9-15
PHASE I																																															
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)											G	G	G	P	P	P																															
(6 months)											73.01	73.01	73.01	3.33	3.33	3.33																															
Congress Rd/ Lopez Rd Intersection Improvements											G	P																																			
(2 months)											8.00	1.20																																			
SR 1/SR 68/17-Mile Dr Intersection Improvements																	G	G	G	P	P	P	P	P	P																						
(9 months)																	13.30	13.30	13.30	1.30	1.30	1.30	1.30	1.30	1.30																						
Congress Rd /17-Mile Dr Intersection Improvements											G	P																																			
(2 months)											0.20	0.10																																			
New Employee Parking Lot (SBI)											G	G	P	P																																	
(4 months)											52.91	52.91	2.68	2.68																																	
Parking and Circulation Reconstruction (PBL)																	G	G	G	B	B	B	B																								
(9 months)																	2.33	2.33	2.33	3.87	3.87	3.87	3.87																								
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																	G	G	G	P	B	B	B																								
(8 months)																	201.16	201.16	201.16	5.21	2.28	2.28	2.28																								
PHASE II																																															
Meeting Facility Expansion (PBL)																													G	B	B	B	B	B	B	B	B	AC									
(10 months)																													2.14	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	0.31									
New Colton Building (PBL)																													G	G	B	B	B	B	B	B	B	AC									
(10 months)																													18.20	18.20	1.15	1.15	1.15	1.15	1.15	1.15	1.15	0.27									
Portola Rd/ Stevenson Dr Intersection Improvements																													G	P																	
(2 months)																													4.80	1.00																	
Equestrian Center Reconstruction/Special Events Area																													G	G	B	B	B	B	P												
(8 months)																													75.56	75.56	2.02	2.02	2.02	2.02	2.94												
Lopez Rd/Sunridge Rd Intersection Improvements																													G	P																	
(2 months)																													0.20	1.00																	
Residential Lot Subdivisions (10 Lots, Corporate Yard)																													G	G	G	P	P	P													
(6 months)																													401.37	401.37	401.37	2.34	2.34	2.34													
Conference Center Expansion, Meeting Rooms (SBI)																													G	B	B	B	B	B	B	B	B	AC									
(10 months)																													67.67	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	1.36									
PHASE III																																															
Conference Center Expansion, Ballroom (SBI)																																									G	B	B	B	B	B	B
(10 months)																																									67.19	0.80	0.80	0.80	0.80	0.80	0.80
Fairway One Reconstruction (PBL)																																									G	G	B	B	B	B	B
(16 months)																																									34.24	34.24	1.91	1.91	1.91	1.91	1.91
New Guest Cottages (SBI)																																															
(16 months)																																															
PHASE IV																																															
Residential Lot Subdivisions (14 Lots, Area V)																																															
(5 months)																																															
Area M Spyglass Hill, Option 1 New Resort Hotel																																															
(29 months)																																															
Area M Spyglass Hill, New Residential Lots (10 Lots)																																															
Total PM10 Emissions with Option 1 (lbs/day)											134.12	127.22	75.69	6.01	3.33	3.33	216.79	216.79	216.79	10.38	7.45	7.45	7.45	1.30	1.30				569.94	499.37	406.78	7.75	7.75	7.75	6.33	3.39	3.39	1.94			#####	35.04	2.71	2.71	2.71	2.71	2.71
Above MBUAPCD 82 lbs/day threshold?											**Yes**	**Yes**	NO	NO	NO	NO	**Yes**	**Yes**	**Yes**	NO	NO	NO	NO	NO	NO				**Yes**	**Yes**	**Yes**	NO	NO	NO	NO	NO	NO	NO			**Yes**	NO	NO	NO	NO	NO	NO
Total PM10 Emissions with Option 2 (lbs/day)																																															
Above MBUAPCD 82 lbs/day threshold?																																															

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay
G = grading / demo, B = building construction, P = paving, AC = architectural coating (e.g., paint)
Construction

7/18/2011

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-7. Unmitigated Construction PM10 Emissions

CONSTRUCTION PHASE

Development Site (Duration)	10-15	11-15	12-15	1-16	2-16	3-16	4-16	5-16	6-16	7-16	8-16	9-16	10-16	11-16	12-16	1-17	2-17	3-17	4-17	5-17	6-17	7-17	8-17	9-17	10-17	11-17	12-17	1-18	2-18	3-18	4-18	5-18	6-18	7-18	8-18	9-18	10-18	11-18	12-18	1-19	2-19	3-19	4-19	5-19	6-19	7-19	8-19	9-19	10-19
PHASE I																																																	
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)																																																
(6 months)																																																
Congress Rd/ Lopez Rd Intersection Improvements																																																
(2 months)																																																
SR 1/SR 68/17-Mile Dr Intersection Improvements																																															
(9 months)																																																
Congress Rd /17-Mile Dr Intersection Improvements																																																
(2 months)																																																
New Employee Parking Lot (SBI)																																																
(4 months)																																																
Parking and Circulation Reconstruction (PBL)																																																
(9 months)																																																
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																																															
(8 months)																																																
PHASE II																																																
Meeting Facility Expansion (PBL)																																																
(10 months)																																																
New Colton Building (PBL)																																																
(10 months)																																																
Portola Rd/ Stevenson Dr Intersection Improvements																																																
(2 months)																																																
Equestrian Center Reconstruction/Special Events Area																																																
(8 months)																																																
Lopez Rd/Sunridge Rd Intersection Improvements																																																
(2 months)																																																
Residential Lot Subdivisions (10 Lots, Corporate Yard)																																																
(6 months)																																																
Conference Center Expansion, Meeting Rooms (SBI)																																																
(10 months)																																																
PHASE III																																																
Conference Center Expansion, Ballroom (SBI)	B	B	AC																																													
(10 months)	0.80	0.80	0.22																																													
Fairway One Reconstruction (PBL)	B	B	B	B	B	P	P	AC	AC																																							
(16 months)	1.91	1.91	1.91	1.91	1.91	1.97	1.97	0.25	0.25																																							
New Guest Cottages (SBI)																	G	G	P	B	B	B	B	B	B	B	B	B	B	B	B	AC	AC															
(16 months)																	22.28	22.28	1.61	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	0.22	0.22															
PHASE IV																																																
Residential Lot Subdivisions (14 Lots, Area V)																																																
(5 months)																																																
Area M Spyglass Hill, Option 1 New Resort Hotel																																																
(29 months)																																																
Area M Spyglass Hill, New Residential Lots (10 Lots)																																																
Total PM10 Emissions with Option 1 (lbs/day)	2.71	2.71	2.13	1.91	1.91	1.97	1.97	0.25	0.25								22.28	22.28	1.61	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	0.22	0.22															
Above MBUAPCD 82 lbs/day threshold?	NO	NO	NO	NO	NO	NO	NO	NO	NO								NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO															
Total PM10 Emissions with Option 2 (lbs/day)																																																
Above MBUAPCD 82 lbs/day threshold?																																																

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay
G = grading / demo, B = building construction, P = paving, AC = architectural coa
Construction

7/18/2011

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-7. Unmitigated Construction PM10 Emissions

CONSTRUCTION PHASE

Development Site (Duration)	11-19	12-19	1-20	2-20	3-20	4-20	5-20	6-20	7-20	8-20	9-20	10-20	11-20	12-20	1-21	2-21	3-21	4-21	5-21	6-21	7-21	8-21	9-21	10-21	11-21	12-21	1-22	2-22	3-22	4-22	5-22	6-22	7-22
PHASE I																																	
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)																																	
(6 months)																																	
Congress Rd/ Lopez Rd Intersection Improvements																																	
(2 months)																																	
SR 1/SR 68/17-Mile Dr Intersection Improvements																																	
(9 months)																																	
Congress Rd /17-Mile Dr Intersection Improvements																																	
(2 months)																																	
New Employee Parking Lot (SBI)																																	
(4 months)																																	
Parking and Circulation Reconstruction (PBL)																																	
(9 months)																																	
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																																	
(8 months)																																	
PHASE II																																	
Meeting Facility Expansion (PBL)																																	
(10 months)																																	
New Colton Building (PBL)																																	
(10 months)																																	
Portola Rd/ Stevenson Dr Intersection Improvements																																	
(2 months)																																	
Equestrian Center Reconstruction/Special Events Area																																	
(8 months)																																	
Lopez Rd/Sunridge Rd Intersection Improvements																																	
(2 months)																																	
Residential Lot Subdivisions (10 Lots, Corporate Yard)																																	
(6 months)																																	
Conference Center Expansion, Meeting Rooms (SBI)																																	
(10 months)																																	
PHASE III																																	
Conference Center Expansion, Ballroom (SBI)																																	
(10 months)																																	
Fairway One Reconstruction (PBL)																																	
(16 months)																																	
New Guest Cottages (SBI)																																	
(16 months)																																	
PHASE IV																																	
Residential Lot Subdivisions (14 Lots, Area V)					G	G	G	P	P																								
(5 months)					58.22	58.22	58.22	1.46	1.46																								
Area M Spyglass Hill, Option 1 New Resort Hotel					G	G	G	G	G	G	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P	AC	AC	AC
(29 months)					450.60	450.60	450.60	450.60	450.60	450.60	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	2.13	0.24	0.24	0.24
Area M Spyglass Hill, New Residential Lots (10 Lots)					G	G	G	P	P	P																							
					263.46	263.46	263.46	1.46	1.46	1.46																								
Total PM10 Emissions with Option 1 (lbs/day)					508.82	508.82	508.82	452.06	452.06	450.60	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	2.13	0.24	0.24	0.24
Above MBUAPCD 82 lbs/day threshold?					**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total PM10 Emissions with Option 2 (lbs/day)					321.68	321.68	321.68	2.92	2.92	1.46																							
Above MBUAPCD 82 lbs/day threshold?					**Yes**	**Yes**	**Yes**	NO	NO	NO																							

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay

G = grading / demo, B = building construction, P = paving, AC = architectural coa

Construction

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-8. Mitigated Construction PM10 Emissions (lbs/day)

CONSTRUCTION PHASE / Development Site (Duration) — MONTH-YEAR	11-11	12-11	1-12	2-12	3-12	4-12	5-12	6-12	7-12	8-12	9-12	10-12	11-12	12-12	1-13	2-13	3-13	4-13	5-13	6-13	7-13	8-13	9-13	10-13	11-13	12-13	1-14	2-14	3-14	4-14	5-14	6-14	7-14	8-14	9-14	10-14	11-14	12-14	1-15	2-15	3-15	4-15	5-15	6-15	7-15	8-15	9-15	10-15	11-15
PHASE I																																																	
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)											G	G	G	P	P	P																																	
(6 months)											64.10	64.10	64.10	0.20	0.20	0.20																																	
Congress Rd/ Lopez Rd Intersection Improvements											G	P																																					
(2 months)											8.00	1.20																																					
SR 1/SR 68/17-Mile Dr Intersection Improvements																	G	G	G	P	P	P	P	P	P																								
(9 months)																	13.30	13.30	13.30	1.30	1.30	1.30	1.30	1.30	1.30																								
Congress Rd /17-Mile Dr Intersection Improvements											G	P																																					
(2 months)											0.20	0.10																																					
New Employee Parking (SBI)											G	G	P	P																																			
(4 months)											46.04	46.04	0.27	0.27																																			
Parking and Circulation Reconstruction (PBL)																	G	G	G	B	B	B	B																										
(9 months)																	0.39	0.39	0.39	0.20	0.20	0.20	0.20																										
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																	G	G	G	P	B	B	B																										
(8 months)																	2.52	2.52	2.52	0.00	0.00	0.00	0.00																										
PHASE II																																																	
Meeting Facility Expansion (PBL)																													G	B	B	B	B	B	B	B	B	AC											
(10 months)																													0.42	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00											
New Colton Building (PBL)																													G	G	B	B	B	B	B	B	B	AC											
(10 months)																													16.77	16.77	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.03											
Portola Rd/ Stevenson Dr Intersection Improvements																													G	P																			
(2 months)																													4.80	1.00																			
Equestrian Center Reconstruction/Special Events Staging Area																													G	G	B	B	B	B	P														
(8 months)																													67.19	67.19	0.00	0.00	0.00	0.00	0.20														
Lopez Rd/Sunridge Rd Intersection Improvements																													G	P																			
(2 months)																													0.20	1.00																			
Residential Lot Subdivisions (10 Lots, Corporate Yard)																													G	G	G	P	P	P															
(6 months)																													394.81	394.81	394.81	0.27	0.27	0.27															
Conference Center Expansion, Meeting Rooms (SBI)																													G	B	B	B	B	B	B	B	B	AC											
(10 months)																													66.26	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01											
PHASE III																																																	
Conference Center Expansion, Ballroom (SBI)																																									G	B	B	B	B	B	B	B	B
(10 months)																																									65.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fairway One Reconstruction (PBL)																																									G	G	B	B	B	B	B	B	B
(16 months)																																									28.78	28.78	0.40	0.40	0.40	0.40	0.40	0.40	0.40
New Guest Cottages (SBI)																																																	
(16 months)																																																	
PHASE IV																																																	
Residential Lot Subdivisions (14 Lots, Area V)																																																	
(5 months)																																																	
Area M Spyglass Hill, Option 1 New Hotel Resort																																																	
(29 months)																																																	
Area M Spyglass Hill, Option 2 New Residential Lots (10 Lots)																																																	
Total PM10 Emissions with Option 1 (lbs/day)											#####	#####	64.37	0.47	0.20	0.20	16.21	16.21	16.21	1.50	1.50	1.50	1.50	1.30	1.30				550.45	480.80	395.07	0.53	0.53	0.53	0.46	0.26	0.26	0.04			94.66	28.78	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Above MBUAPCD 82 lbs/day threshold?											**Yes**	**Yes**	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO				**Yes**	**Yes**	**Yes**	NO	NO	NO	NO	NO	NO	NO			**Yes**	NO	NO	NO	NO	NO	NO	NO	NO
Total PM10 Emissions with Option 2 (lbs/day)																																																	
Above MBUAPCD 82 lbs/day threshold?																																																	

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay
G = grading / demo, B = building construction, P = paving,

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-8. Mitigated Construction PM10 Emissions (lbs/day)

CONSTRUCTION PHASE

Development Site (Duration)	12-15	1-16	2-16	3-16	4-16	5-16	6-16	7-16	8-16	9-16	10-16	11-16	12-16	1-17	2-17	3-17	4-17	5-17	6-17	7-17	8-17	9-17	10-17	11-17	12-17	1-18	2-18	3-18	4-18	5-18	6-18	7-18	8-18	9-18	10-18	11-18	12-18	1-19	2-19	3-19	4-19	5-19	6-19	7-19	8-19	9-19	10-19	11-19	12-19
PHASE I																																																	
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)																																																	
(6 months)																																																	
Congress Rd/ Lopez Rd Intersection Improvements																																																	
(2 months)																																																	
SR 1/SR 68/17-Mile Dr Intersection Improvements																																																
(9 months)																																																	
Congress Rd /17-Mile Dr Intersection Improvements																																																	
(2 months)																																																	
New Employee Parking (SBI)																																																	
(4 months)																																																	
Parking and Circulation Reconstruction (PBL)																																																	
(9 months)																																																	
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																																																
(8 months)																																																	
PHASE II																																																	
Meeting Facility Expansion (PBL)																																																	
(10 months)																																																	
New Colton Building (PBL)																																																	
(10 months)																																																	
Portola Rd/ Stevenson Dr Intersection Improvements																																																	
(2 months)																																																	
Equestrian Center Reconstruction/Special Events Staging Area																																																	
(8 months)																																																	
Lopez Rd/Sunridge Rd Intersection Improvements																																																	
(2 months)																																																	
Residential Lot Subdivisions (10 Lots, Corporate Yard)																																																	
(6 months)																																																	
Conference Center Expansion, Meeting Rooms (SBI)																																																	
(10 months)																																																	
PHASE III																																																	
Conference Center Expansion, Ballroom (SBI)	AC																																																
(10 months)	0.00																																																
Fairway One Reconstruction (PBL)	B	B	B	P	P	AC	AC																																										
(16 months)	0.40	0.40	0.40	0.05	0.05	0.05	0.05																																										
New Guest Cottages (SBI)																G	G	P	B	B	B	B	B	B	B	B	B	B	B	AC	AC																		
(16 months)																16.65	16.65	0.01	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	0.07	0.07																		
PHASE IV																																																	
Residential Lot Subdivisions (14 Lots, Area V)																																																	
(5 months)																																																	
Area M Spyglass Hill, Option 1 New Hotel Resort																																																	
(29 months)																																																	
Area M Spyglass Hill, Option 2 New Residential Lots (10 Lots)																																																	
Total PM10 Emissions with Option 1 (lbs/day)	0.40	0.40	0.40	0.05	0.05	0.05	0.05									16.65	16.65	0.01	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	0.07	0.07																		
Above MBUAPCD 82 lbs/day threshold?	NO	NO	NO	NO	NO	NO	NO									NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO																		
Total PM10 Emissions with Option 2 (lbs/day)																																																	
Above MBUAPCD 82 lbs/day threshold?																																																	

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay
G = grading / demo, B = building construction, P = paving,

DEL MONTE FOREST PROJECT - PHASE I, II, III, IV
PRELIMINARY CONSTRUCTION DURATION

Table 3.2-8. Mitigated Construction PM10 Emissions (lbs/day)

CONSTRUCTION PHASE

Development Site (Duration)	1-20	2-20	3-20	4-20	5-20	6-20	7-20	8-20	9-20	10-20	11-20	12-20	1-21	2-21	3-21	4-21	5-21	6-21	7-21	8-21	9-21	10-21	11-21	12-21	1-22	2-22	3-22	4-22	5-22	6-22	7-22
PHASE I																															
Residential Lot Subdivisions (66 Lots, all except Area V and Corporate Yard)																															
(6 months)																															
Congress Rd/ Lopez Rd Intersection Improvements																															
(2 months)																															
SR 1/SR 68/17-Mile Dr Intersection Improvements																															
(9 months)																															
Congress Rd /17-Mile Dr Intersection Improvements																															
(2 months)																															
New Employee Parking (SBI)																															
(4 months)																															
Parking and Circulation Reconstruction (PBL)																															
(9 months)																															
Pebble Beach Links Driving Range Relocation from Area V to Collins Field																															
(8 months)																															
PHASE II																															
Meeting Facility Expansion (PBL)																															
(10 months)																															
New Colton Building (PBL)																															
(10 months)																															
Portola Rd/ Stevenson Dr Intersection Improvements																															
(2 months)																															
Equestrian Center Reconstruction/Special Events Staging Area																															
(8 months)																															
Lopez Rd/Sunridge Rd Intersection Improvements																															
(2 months)																															
Lopez Rd/Sunridge Rd Intersection Improvements																															
(2 months)																															
Residential Lot Subdivisions (10 Lots, Corporate Yard)																															
(6 months)																															
Conference Center Expansion, Meeting Rooms (SBI)																															
(10 months)																															
PHASE III																															
Conference Center Expansion, Ballroom (SBI)																															
(10 months)																															
Fairway One Reconstruction (PBL)																															
(16 months)																															
New Guest Cottages (SBI)																															
(16 months)																															
PHASE IV																															
Residential Lot Subdivisions (14 Lots, Area V)			G	G	G	P	P																								
(5 months)			53.13	53.13	53.13	0.27	0.27																								
Area M Spyglass Hill, Option 1 New Hotel Resort			G	G	G	G	G	G	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P	AC	AC	AC	
(29 months)			444.40	444.40	444.40	444.40	444.40	444.40	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	0.71	0.16	0.16	0.16	
Area M Spyglass Hill, Option 2 New Residential Lots (10 Lots)			G	G	G	P	P	P																							
			258.20	258.20	258.20	0.27	0.27	0.27																							
Total PM10 Emissions with Option 1 (lbs/day)			497.53	497.53	497.53	444.67	444.67	444.40	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	0.71	0.16	0.16	0.16	
Above MBUAPCD 82 lbs/day threshold?			**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Total PM10 Emissions with Option 2 (lbs/day)			311.33	311.33	311.33	0.54	0.54	0.27																							
Above MBUAPCD 82 lbs/day threshold?			**Yes**	**Yes**	**Yes**	NO	NO	NO																							

PBL = The Lodge at Pebble Beach, SBI = The Inn at Spanish Bay
G = grading / demo, B = building construction, P = paving,

to exceed the MBUAPCD's PM10 significance threshold of 82 pounds/day, with a maximum PM10 of approximately 550 pounds/day expected to occur the month of March 2014. The CalEEMod modeling indicates that the maximum emissions presented in Table 3.2-7 and Table 3.2-8 during this period, as well as other periods in excess of the MBUAPCD's threshold, are primarily the result of soil transport with on-road vehicles.

Implementation of Mitigation Measures AQ-C1 and AQ-C2 would reduce construction-related emissions, but not to a less-than-significant level. Consequently, this impact is considered significant and unavoidable.

Mitigation Measure AQ-C1. Implement measures to control fugitive dust emissions during construction.

The applicant will ensure the construction specifications include the following measures, recommended by the MBUAPCD, to the extent feasible and practicable, to control PM10 emissions from construction activities:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (more than 15 miles per hour).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut-and-fill operations and hydroseed area.
- Maintain at least 2 feet of freeboard on haul trucks.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land, prior to construction.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites prior to use by construction equipment.
- Sweep streets if visible soil material is carried out from the construction site (to be checked at least once daily and swept as needed).
- Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person will respond to complaints and take corrective action within 48 hours. The phone number of the MBUAPCD will be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the area under construction at any one time.

Mitigation Measure AQ-C2. Implement measures to control construction-related exhaust emissions during construction.

Prior to project construction, the applicant will ensure that construction specifications include the following measures, recommended by the MBUAPCD, to the extent feasible and practicable, to reduce emissions from heavy duty off-road diesel-powered construction equipment:

- Limit use of equipment.
- Replace diesel-powered equipment with gasoline-powered equipment.
- Modify engine with ARB-verified retrofit.
- Repower with current standard diesel technology.
- Repower with compressed natural gas/liquid natural gas technology.

The construction contractor will ensure these measures are implemented during construction.

D. Sensitive Receptors

Impact AQ-D1: The proposed project would result in the emission of diesel toxic air contaminants, which pose a risk to human health, from diesel truck and equipment use during construction. (Less than significant with mitigation)

Construction of some project elements would require substantial amounts of diesel truck and equipment use. Diesel particulate matter in exhaust is considered a TAC. Construction projects typically involve the use of diesel-powered equipment such as trucks, dozers, graders, scrapers, rollers, and tractors. The scale of the proposed project would require a large amount of construction truck and equipment use that would result in localized concentrations of exhaust and possible exposure of sensitive receptors to that exhaust. Some of the development sites (such as Pebble Beach Driving Range Relocation to Collins Field, Fairway One Reconstruction, Residential Lot Subdivisions, and other project elements) are adjacent to residential areas. While some of the development sites (such as the Residential Lot Subdivision at the Corporation Yard) are not located near sensitive receptors, haul routes for development sites pass through residential areas in Del Monte Forest. MBUAPCD does not have a threshold of significance for diesel exhaust, so a threshold of 10 cases of cancer per million is used to determine if the proposed project would result in a significant risk to human health.

As previously indicated, a screening-level (worst-case) analysis of potential health risks developed by ICF consistent with OEHHA was evaluated for construction activities associated with the Pebble Beach Driving Range Relocation from Area V to Collins Field (driving range relocation). The driving range relocation was modeled as it represents a worst-case scenario for potential health risks due to the location of nearby sensitive receptors and the anticipated level of construction activity, representing the greatest amount of earthwork in close proximity to existing sensitive land uses).The results of the screening-level health risk assessment for the driving range relocation are summarized in Table 3.2-9, while Table 3.2-10 presents the estimated scaled potential health risks at the other project development areas based on the calculated risks associated with the driving range relocation. The screening-level assessment assumes worst-case meteorology and, as a result, often overstates the actual likely level of exposure for sensitive receptors.

Table 3.2-9. Potential Health Risks to Air Quality Sensitive Receptors Near the Driving Range Relocation to Collins Field

Distance from Project Fence Line (feet)	Unmitigated Cancer Risk (risk per million)	Unmitigated Acute Non-Cancer HI	Mitigated Cancer Risk (risk per million)	Mitigated Acute Non-Cancer HI
10	**149**	**1.2**	**22**	0.1
20	**133**	**1.3**	**20**	0.1
39	**100**	**1.4**	**15**	0.1
82	**62**	**1.2**	9	0.1
98	**53**	**1.1**	8	0.1
197	**24**	0.7	4	0.1
246	**18**	0.6	3	0.1
295	**13**	0.5	2	0.1
312	**12**	0.5	2	0.1
328	**11**	0.4	2	0.0
410	8	0.3	1	0.0
492	6	0.3	1	0.0
574	5	0.2	1	0.0

Note:
Adverse health risks (exceeding the threshold) are indicated in **bold**. Nearest residences (as identified in Table 3.2-5) are approximately 100 feet from the construction site and would have significant impacts before mitigation but less-than-significant impacts after mitigation.

Table 3.2-10. Scaled Cancer Risks to Air Quality Sensitive Receptors in the Vicinity of Other Project Development Areas

Project Development Areas	Distance to Sensitive Receptors (feet)	Unmitigated Cancer Risk (risk per million)	Unmitigated Acute Non-Cancer HI	Mitigated Cancer Risk (risk per million)	Mitigated Acute Non-Cancer HI
The Lodge at Pebble Beach	100	52	1.1	8	0.1
The Inn at Spanish Bay	400	13	0.3	2	0.0
Collins Field–Equestrian Center–Special Events Area	100	52	1.1	8	0.1
Area M Spyglass Hill	750	7	0.1	1	0.0
Residential Lot Subdivisions					
F-2	400	13	0.3	2	0.0
I-2	100	52	1.1	8	0.1
J	100	52	1.1	8	0.1
K	100	52	1.1	8	0.1
L	100	52	1.1	8	0.1
U	450	12	0.2	2	0.0
V	100	52	1.1	8	0.1
Collins Residence	100	52	1.1	8	0.1
Corporation Yard	650	8	0.2	1	0.0
Roadway Improvements					
SR 1/SR 68/17-Mile Drive	200	26	0.5	4	0.0
17-Mile Drive/Congress Road	350	15	0.3	2	0.0
Lopez Road/Congress Road	450	12	0.2	2	0.0
Lopez Road/Sunridge Road	250	21	0.4	3	0.0
Portola Road/Stevenson Drive	500	10	0.2	2	0.0

The results of the screening-level health risk assessment indicate that the worst-case construction activities associated with the driving range relocation have the potential to result in 53 cases of cancer per million within approximately 100 feet of construction activities at Collins Field and an acute HI of 1.1 (chronic HI is anticipated to be less than acute). However, with mitigation (Table 3.2-9), impacts would be reduced to a less-than-significant level within less than 100 feet of construction (nearest residences are approximately 100 feet from the site). The amount of exposure adjacent to other development sites in the project area (Table 3.2-10) would be less than adjacent to the Collins field location due to the lower level of construction activity.

This impact is considered significant for construction at all project development sites, except Area M Spyglass Hill (New Resort Hotel or New Residential Lots) and the Residential Lot Subdivision at the Corporation Yard, where the impact would be less than significant. Tables 3.2-9 and 3.2-10 indicate that this impact would be reduced to a less-than-significant level (cancer risks below 10 in one million and an HI less than 1.0) relative to the location of sensitive receptors with implementation of Mitigation Measure AQ-C2, which would apply BMPs to reduce construction-related exhaust emissions and potential related health risks, and Mitigation Measure AQ-D1, which would implement emissions control technology to reduce construction-related emissions and potential related health risks.

Mitigation Measure AQ-D1. Implement after-market emissions control technology on on-road and off-road construction equipment.

The applicant will ensure that the construction specifications require construction contractor(s) to retrofit and install diesel particulate filters (DPFs) capable of achieving an 85% reduction in PM10 exhaust emissions (Tier 3) on all off-road construction equipment and diesel oxidation catalysts and Tier 3 DPFs on all on-road soil hauling.

Impact AQ-D2. The proposed project would expose sensitive receptors to less-than-substantial pollutant concentrations of CO from project-related traffic. (Less than significant)

Three conditions[3]—2011, 2015, and 2030—were modeled to evaluate CO concentrations relative to the NAAQS and CAAQS (Table 3.2-11). Emissions of CO concentrations under design-year (2015) and future year (2030) conditions were modeled at five intersections: SR 68/Skyline Forest Drive, SR 68/Carmel Hill Professional Center, SR 68/SR 1 Southbound Off-Ramp, SR 1/Carpenter Street, and Congress Road/SFB Morse Drive. These intersections were modeled because they were identified by the traffic engineers as having the greatest peak-hour traffic volumes and worst delay in the project area (Fehr & Peers 2011).

Table 3.2-11 summarizes the results of the CO modeling and indicates that concentrations are not expected to contribute to any localized violations of the 1- or 8-hour ambient standards. This impact is considered less than significant.

[3] This analysis uses the same conditions as the transportation analysis: 2011, which is the existing or baseline conditions, 2015, which is considered the likely timeframe for the proposed project, and 2030, which is full buildout of the proposed project (Fehr & Peers 2011).

Table 3.2-11. Results of Localized Carbon Monoxide Modeling

Intersection	Receptor[a]	2011		2011 Option 1		2011 Option 2		2015 No Project		2015 Option 1		2015 Option 2		2030 No Project		2030 Option 1		2030 Option 2	
		1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]	1-hour CO[b, c]	8-hour CO[b, c]
SR 68/Skyline Forest Drive	1	5.53	2.83	5.53	2.83	5.53	2.83	3.03	1.33	4.53	2.23	4.53	2.23	3.33	1.51	3.33	1.51	3.33	1.51
	2	5.53	2.83	5.53	2.83	5.53	2.83	3.03	1.33	4.53	2.23	4.53	2.23	3.33	1.51	3.33	1.51	3.33	1.51
	3	5.63	2.89	5.73	2.95	5.73	2.95	3.03	1.33	4.63	2.29	4.63	2.29	3.33	1.51	3.33	1.51	3.33	1.51
	4	5.33	2.71	5.43	2.77	5.43	2.77	3.13	1.39	4.43	2.17	4.43	2.17	3.23	1.45	3.33	1.51	3.33	1.51
SR 68/Carmel Hill Professional Center	5	5.53	2.83	5.63	2.89	5.63	2.89	3.03	1.33	4.53	2.23	4.53	2.23	3.33	1.51	3.33	1.51	3.33	1.51
	6	5.63	2.89	5.73	2.95	5.73	2.95	3.03	1.33	4.63	2.29	4.63	2.29	3.33	1.51	3.33	1.51	3.33	1.51
	7	5.63	2.89	5.73	2.95	5.73	2.95	3.03	1.33	4.63	2.29	4.63	2.29	3.33	1.51	3.33	1.51	3.33	1.51
	8	5.63	2.89	5.73	2.95	5.73	2.95	3.03	1.33	4.63	2.29	4.63	2.29	3.33	1.51	3.33	1.51	3.33	1.51
SR 68/SR 1 Off-Ramp	9	6.13	3.19	5.83	3.01	5.73	2.95	3.03	1.33	4.63	2.29	4.63	2.29	3.33	1.51	3.33	1.51	3.33	1.51
	10	5.63	2.89	5.93	3.07	5.93	3.07	3.03	1.33	4.73	2.35	4.73	2.35	3.33	1.51	3.43	1.57	3.43	1.57
	11	6.53	3.43	6.23	3.25	6.23	3.25	3.13	1.39	5.03	2.53	5.03	2.53	3.53	1.63	3.53	1.63	3.53	1.63
	12	5.93	3.07	6.13	3.19	6.13	3.19	3.23	1.45	4.93	2.47	4.93	2.47	3.53	1.63	3.43	1.57	3.43	1.57
SR 1/Carpenter Street	13	9.33	5.11	9.33	5.11	7.83	4.21	3.93	1.87	7.13	3.79	7.03	3.73	4.03	1.93	4.03	1.93	4.03	1.93
	14	9.33	5.11	9.33	5.11	7.83	4.21	3.93	1.87	7.13	3.79	7.03	3.73	4.03	1.93	4.03	1.93	4.03	1.93
	15	9.03	4.93	9.03	4.93	7.63	4.09	3.83	1.81	6.93	3.67	6.93	3.67	4.03	1.93	4.03	1.93	4.03	1.93
	16	9.93	5.47	9.93	5.47	8.53	4.63	4.03	1.93	7.53	4.03	7.53	4.03	4.23	2.05	4.23	2.05	4.23	2.05
Congress Road/ SFB Morse Drive	17	2.83	1.21	2.93	1.27	2.93	1.27	2.43	0.97	2.73	1.15	2.73	1.15	2.43	0.97	2.43	0.97	2.43	0.97
	18	2.83	1.21	2.83	1.21	2.83	1.21	2.33	0.91	2.63	1.09	2.63	1.09	2.43	0.97	2.43	0.97	2.43	0.97
	19	2.83	1.21	2.83	1.21	2.83	1.21	2.33	0.91	2.63	1.09	2.63	1.09	2.43	0.97	2.43	0.97	2.43	0.97
	20	2.73	1.15	2.83	1.21	2.83	1.21	2.33	0.91	2.63	1.09	2.63	1.09	2.43	0.97	2.43	0.97	2.43	0.97

Notes:

[a] Receptors 1 through 20 are located 100 feet from the center of each intersection diagonal, 71 feet from the roadway centerline, and at the boundary of the mixing zone.

[b] Background concentrations of 2.2 ppm and 0.85 ppm were added to the modeling 1-hour and 8-hour results, respectively.

[c] The federal and state 1-hour standards are 35 and 20 ppm, respectively.

E. Odors

Impact AQ-E1. The proposed project would expose new sensitive receptors to objectionable odors from the Equestrian Center. (Less than significant with mitigation)

Residential Lot Subdivision in Area U would situate seven residences, considered a sensitive receptor, along Drake Road adjacent to the Equestrian Center, which could generate objectionable odors (Figure 2-24). This impact is considered significant. As stated in Chapter 2, Equestrian Center Reconstruction includes preparation of a manure management plan to be approved by the County Health Department. However, the specifics of the plan are not included, and it has not been reviewed and approved by the County Health Department. Mitigation Measure AQ-E1 below identifies the specific measures that would be included in the Plan, and it is anticipated that these measures would reduce odors from animal wastes. The proposed project would not increase operations at or expand the footprint of the Equestrian Center. Because the proposed project would rebuild the Equestrian Center in its current location, odors from the Equestrian Center are part of the current existing conditions and no odor complaints have been lodged by surrounding residences (Stilwell pers. comm.). Therefore, it is not anticipated that odors would result in any significant impact after mitigation. If odors associated with the Equestrian Center were to become an issue, the applicant would be required to eliminate any offensive odors to comply with the MBUAPCD's nuisance rule (Rule 402) and with measures set forth in the manure management plan. Therefore, with implementation of the manure management plan, Mitigation Measure AQ-E1, and Rule 402, this impact would be less than significant.

Mitigation Measure AQ-E1: Prepare and implement a manure management plan.

Prior to issuance of a building permit for the equestrian center reconstruction, the applicant will prepare a manure management plan and submit it to the Monterey County Health Department, Environmental Health Bureau (EHB) for review and approval. The plan will require daily management of liquid and solid wastes, and disposal of these wastes off the site at least twice weekly or as required by EHB. In accordance with EHSP04—Manure Management Plan, the manure management plan will include:

- The volume of waste generated, method and time frame of continual disposal off-site, and necessary controls for vector, odor and waste run-off.
- Detailed timeline to provide evidence to EHB that the plan is being implemented and the methods in place are controlling vectors, odor and waste run-off.
- Appropriate mechanism to allow for public comment of neighbors to assess compliance of the plan.

Additionally, the plan will include the following measures.

- Odor complaint tracking and abatement program. The applicant will design and implement an odor complaint tracking and abatement program to address and respond to odor complaints for the Equestrian Center. The program will require the project applicant to post a telephone number and contact person at the project site where odor complaints may be made. The program will detail how, upon receipt of an odor complaint, the project applicant will evaluate facility operations to ensure that odor complaints are tracked, investigated, and minimized. The program will be developed after the Equestrian Center is reconstructed

and before residential lots in Area U are prepared for development (whichever occurs first), and the program will be developed in coordination with and approved by the County.

- Place manure and waste receptacles as far as possible from sensitive receptors. The applicant will locate manure and waste receptacles as far as possible from sensitive receptors to reduce the potential for exposure of sensitive receptors to odors from animal waste. The location will be included in the final design plans which will be approved by the County.
- Include additives and supplements to feedstock to help reduce manure odors. Various feedstock additives and supplements are available that will help minimize odor-generating microorganisms and compounds. The applicant will make available additives and supplements to animals housed or using the Equestrian Center at cost to help reduce odors from animal waste.

The approved manure management plan will be on file at EHB, File Number APN008-313-001/000/008-991-001-000 and available to the public upon request. The applicant will operate the Equestrian Center in a manner consistent with the plan and any additional requirements set forth by EHB.

Cumulative Impacts and Mitigation Measures

The impact zone for air quality is the Monterey Peninsula and beyond. The methodology for determining cumulative impacts is described under Analysis of Cumulative Impacts at the beginning of Chapter 3.

A. Air Quality Plan Consistency

Impact AQ-A1(C): The proposed project would be consistent with the 2008 AQMP and would not contribute to significant regional air quality impacts due to inconsistency with the AQMP, which considers cumulative impacts on air quality.

Per the MBUAPCD's consistency analysis, discussed above, the proposed project is not anticipated to exceed the AMBAG 2020 forecast, population would be less than what was forecasted, and there would be no impact. Therefore, the proposed project would not contribute to a cumulative impact related to inconsistency with the AQMP.

B. Long-Term Emissions

Impact AQ-B1(C). Cumulative development on the Monterey Peninsula and beyond might result in a substantial adverse long-term increase in criteria pollutant emissions, but the proposed project's contribution would be less than significant.

According to the 2010 General Plan update, cumulative development in Monterey County would result in less than significant impacts for criteria pollutants except for volatile organic compound (VOC) emissions due to winery operations (County of Monterey 2010).

The proposed project's land uses would generate motor-vehicle trips that would in turn generate operational criteria air pollutant emissions. Emission estimates for with-project conditions are based on the daily trip generation data (Fehr & Peers 2011). The results of those calculations are summarized under Project Impacts and Mitigation Measures. Project-related operational emissions

would not exceed the MBUAPCD's thresholds for project operations at buildout and thus would not contribute considerably to regional air quality impacts relative to regional criteria air pollutants.

The proposed project would add traffic volumes on roads and in the project area and would worsen levels of service at nearby intersections. The CO screening analysis included CO concentrations for 2015 (interim) and 2030 (buildout) years. CO emissions were estimated at the intersection of SR 1/Carpenter Street (representing worst case scenarios). Modeled results (at the receptor with the highest concentration) showed no violation of either the 1- or the 8-hour CO state or federal standards (Table 3.2-12). It should be noted that with improvements, LOS will improve at this location and other modeled intersections. The proposed project would not exceed MBUAPCD's thresholds, and the proposed project's contribution would not be considerable relative to CO emissions.

Table 3.2-12. Carbon Monoxide Screening Analysis Emissions (ppm)

Scenario	1-Hour Concentration	8-Hour Concentration
Cumulative Plus Project	4.23	2.05
State Standard	20.0	9.0
Federal Standard	35.0	9.0

Source:
Results of localized carbon monoxide modeling, presented in detail in Table 3.2-11.

C. Construction Emissions

Impact AQ-C1(C). Cumulative development on the Monterey Peninsula and beyond might result in a short-term increase in PM10 emissions due to construction at times, and the proposed project's contribution is considerable even with mitigation.

Earth moving and site grading from cumulative projects, construction worker trips, and mobile and stationary construction equipment exhaust all could contribute to increases in PM10 emissions. Per MBUAPCD CEQA Guidelines, construction projects that temporarily emit precursors of ozone (i.e., ROG or NO_X) are accommodated in the emission inventories of state and federally required air plans and would not have a significant impact on the attainment and maintenance of state or federal ozone AAQS (Monterey Bay Unified Air Pollution Control District 2008).

Similarly, earth moving and site grading, including construction included in the proposed project, would also result in the temporary generation of PM10. No other major developments are planned in Del Monte Forest other than the proposed project, but there could be projects on the Monterey Peninsula and beyond that could occur at the same time as construction of the proposed project. Even with implementation of Mitigation Measures AQ-C1 and C2, the proposed project would exceed MBUAPCD's PM10 significance threshold of 82 pounds/day, with a maximum PM10 of approximately 550 pounds/day expected to occur the month of March 2014. Therefore, cumulative construction impacts are considered to be potentially significant, and the proposed project would make a considerable contribution even with mitigation.

D. Sensitive Receptors

Impact AQ-D1(C) and Impact AQ-D2(C). Cumulative development in Del Monte Forest might result in the limited construction emissions of diesel toxic air contaminants, but the proposed project's contribution to a potentially significant cumulative impact would be reduced to a less-than-significant level with mitigation.

Cumulative development could result in exposure of people to diesel TACs during construction or operations. Potential exposures of sensitive receptors to diesel TACs are localized impacts, and no major developments are planned in Del Monte Forest other than the proposed project. However, there might be smaller-scale TAC emissions associated with construction of single-family development. It is also possible that sensitive residential receptors in Del Monte Forest might also be exposed to TAC emissions at other non-residential locations outside Del Monte Forest during work or trips outside the area. This cumulative impact is considered potentially significant. With implementation of Mitigation Measure AQ-D1, which would implement after-market emissions control technology that would reduce project TAC emissions, the proposed project's contribution would be less than significant.

Impacts related to localized exposure to CO emissions are discussed separately above (see Impact AQ-B1[C]).

E. Odors

Impact AQ-E1(C). The proposed project would expose new sensitive receptors to objectionable odors from the Equestrian Center but there are no other contributors to this impact and thus no cumulative impact is identified.

This would be a localized impact. No other cumulative developments are proposed adjacent to this project location. Therefore, the proposed project would not contribute to a cumulative odor impact. See the discussion under Project Impacts and Mitigation Measures for details of the proposed project's effect on odors at this location.