4.2 Air Quality

This section evaluates the potential for impacts on air quality resulting from implementation of the proposed French Hotel Project (Project). This section is partially based on the following technical report:

- Air Quality Analysis for French Hotel Project. MIG, November 24, 2025 (Appendix B).

A Notice of Preparation for the Project was released for public review on March 19, 2026, and an EIR Scoping meeting was held on April 6, 2026. No comments were made during the public scoping period that pertain to air quality. Additionally, no comments related to air quality were received during the public scoping meeting.

4.2.1 Environmental Setting

The following sections describe the environmental setting for the Project as it relates to air quality.

4.2.2 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address air quality.

4.2.2.1 Federal

Federal Clean Air Act (U.S. Code, Title 42, Section 7401 et seq.)

The Clean Air Act (CAA) of 1970 is the comprehensive federal law that regulates air emissions from stationary and mobile sources. The CAA authorizes the U.S. Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. Current NAAQS are listed in Table 4.2-1, National and California Ambient Air Quality Standards. The primary standards listed in Table 4.2-1 have been set at levels intended to protect public health. The USEPA has classified air basins (or portions thereof) as being in "attainment," "non-attainment," or "unclassified" for each criteria air pollutant based on if the NAAQS have been achieved. Non-attainment areas are air basins that do not meet one or more of the California Ambient Air Quality Standards (CAAQS) and are subject to additional restrictions as required by the USEPA. If an area is designated unclassified, it is because inadequate air quality data was available as a basis for a non-attainment or attainment designation. The USEPA classifies the South Coast Air Basin (SCAB) as in attainment for the federal carbon monoxide (CO), nitrogen dioxide (NO_2), lead, respirable particulate matter (PM_{10}), and sulfur dioxide (SO_2) standards. The SCAB is classified as extreme non-attainment for the federal ozone (O_3) standard and serious non-attainment for the fine particulate matter ($PM_{2.5}$) standard (SCAQMD 2016). Table 4.2-2, South Coast Air Basin Attainment Status, lists the attainment status of the SCAB for criteria air pollutants.

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

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c, d]	Secondary[c, e]
Ozone (O_3)[f]	1-Hour	0.09 ppm (180 µg/m^3)	—	Same as Primary Standards
	8-Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Respirable Particulate Matter (PM_{10})[g]	24-Hour	50 µg/m^3	150 µg/m^3	Same as Primary Standards
	Annual Arithmetic Mean	20 µg/m^3	—	
Fine Particulate Matter ($PM_{2.5}$)[g]	24-Hour	—	35 µg/m^3	Same as Primary Standards
	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3	15 µg/m^3
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
	1-Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
Nitrogen Dioxide (NO_2)[h]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary Standard
	1-Hour	0.18 ppm (470 mg/m^3)	100 ppb (188 µg/m^3)	
Sulfur Dioxide (SO_2)[i]	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
	24-Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)	—
	3-Hour	—	—	0.5 ppm (1,300 µg/m^3)
	1-Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Lead [j, k]	30-Day Average	1.5 µg/m^3	—	—
	Calendar Quarter	—	1.5 µg/m^3 (for certain areas)	Same as Primary Standard
	Rolling 3-Month Average[7]	—	0.15 µg/m^3	
Visibility Reducing Particles[L]	8-Hour	Refer to Footnote l	No National Standards	
Sulfates	24-Hour	25 µg/m^3	No National Standards	
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	No National Standards	
Vinyl Chloride [j]	24-Hour	0.01 ppm (26 µg/m^3)	No National Standards	

Source: CARB 2025a.

Notes: ppb = parts per billion; ppm = parts per million; µg/m^3 = micrograms per cubic meter

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded. The CAAQS are listed in the Table of Standards in California Code of Regulations, Title 17, Section 70200.

[b] National standards (other than O_3, PM, and those based on annual averages) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in 1 year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] On February 7, 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12.0 µg/m^3 to 9.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15.0 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 were also retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[h] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[i] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[j] The California Air Resources Board (CARB) had identified lead and vinyl chloride as toxic air contaminants (TACs) with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[l] In 1989, CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the Statewide and Lake Tahoe Air Basin standards, respectively.

Table 4.2-2. South Coast Air Basin Attainment Status

Pollutant	Attainment Status[a]	
	NAAQS	CAAQS
Ozone (O_3) (1-Hour)	**Non-attainment**	**Non-attainment**
Ozone (O_3) (8-Hour)	**Non-attainment**	**Non-attainment**
Respirable Particulate Matter (PM_{10}) (24-hr and Annual)	Attainment	**Non-attainment**
Fine Particulate Matter ($PM_{2.5}$) (24-hr)	**Non-attainment**	**--**
Fine Particulate Matter ($PM_{2.5}$) (Annual)[b]	**Non-attainment**	**Non-attainment**
Carbon Monoxide (CO)	Attainment (Maintenance)	Attainment
Nitrogen Dioxide (NO_2) (1-hr)	Attainment	Attainment
Nitrogen Dioxide (NO_2) (Annual)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	**Partial non-attainment**	Attainment
Visibility Reducing Particles	**--**	Unclassified
Sulfate (SO_4)	**--**	Attainment
Hydrogen Sulfide (H_2S)	**--**	Attainment

Source: SCAQMD 2018.

Note:

[a] This table summarizes the Basin’s attainments status for the NAAQS and CAAQS (as of September 2018). This table does not prevent comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Refer to the table source for detailed information on the NAAQS and CAAQS.

[b] Non-attainment status for the annual $PM_{2.5}$ NAAQS is based on the 2012 annual standard of 12 µg/m^3. On February 7, 2024, the U.S. Environmental Protection Agency (USEPA) lowered the primary annual average health-based standard for $PM_{2.5}$ from 12 µg/m^3 to 9 µg/m^3. The Basin has not been designated attainment or non-attainment of this standard yet. The USEPA generally makes initial attainment/non-attainment designations within 2 years of the issuance of a new standard.

The CAA requires states to develop a plan to attain and maintain the NAAQS in all areas of the country and a specific plan to attain the standards for each area designated non-attainment for the NAAQS. These plans, known as State Implementation Plans (SIPs), are developed by state and local air quality management agencies and submitted to the USEPA for approval. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them.

4.2.2.2 State

Air Quality and Land Use Handbook: A Community Health Perspective

The California Air Resources Board (CARB) developed the Air Quality and Land Use Handbook: A Community Health Perspective to provide guidance on land use compatibility with sources of toxic air contaminants (TACs) (CARB 2005). These sources include freeways and high-traffic roads, commercial distribution centers, rail yards, refineries, dry cleaners, gasoline stations, and industrial facilities. The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs. The handbook indicates that land use agencies must balance other considerations, including housing and transportation needs, economic development priorities, and other quality-of-life issues.

California Ambient Air Quality Standards

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of air pollution control programs in California. The CAA allows states to adopt ambient air quality standards and other regulations if they are at least as stringent as federal standards. California has adopted the CAAQS that are equal to or stricter than the federal standards for six criteria air pollutants. The CAAQS are listed in the Table of Standards in California Code of Regulations, Title 17, Section 70200, and provided in Table 4.2-1. Similar to the NAAQS, areas have been designated as attainment, non-attainment, or unclassified with respect to the CAAQS. As shown in Table 4.2-2, the SCAB is in non-attainment with the CAAQS for O_3, PM_{10}, and $PM_{2.5}$, and is designated as an attainment area for the State of California for CO, NO_2, SO_2, SO_4, H_2S, and lead.

Toxic Air Contaminant Regulations

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Hot Spots Act). The act sets forth a formal procedure for CARB to designate substances as TACs. This

includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. To date, CARB has designated nearly 200 compounds as TACs. The majority of estimated health risks from TACs can be attributed to a relatively small number of compounds, the most important being PM from diesel-fueled engines (i.e., diesel particulate matter).

California Green Building Standards Code (California Code of Regulations, Title 24, Part 11)

The California Green Building Standards Code (CALGreen) contains mandatory requirements for new residential and non-residential buildings throughout California. CALGreen is Part 11 of the California Building Standards Code (Title 24 of the California Code of Regulations). The 2022 Standards applied to new construction as well as additions and alterations to residential and non-residential buildings through December 31, 2025. The 2025 CALGreen standards went into effect on January 1, 2026, and currently govern new construction and applicable additions and alterations. CALGreen outlines volatile organic compound (VOC) limits for architectural applications, sealants, adhesives, and coatings. It also references and incorporates limits established by other agencies, including SCAQMD and California Department of Public Health requirements.

4.2.2.3 Regional

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). The most recent of these AQMPs was adopted by the SCAQMD Governing Board on December 2, 2022.

The 2022 AQMP is focused on attaining the 2015 8-hour ozone standard for the SCAB and Coachella Valley. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero-emission technologies, when cost-effective and feasible, and low NO_X technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP strategy includes the following:

- Wide adoption of zero emissions technologies anywhere available.
- Low NOX technologies where zero emissions are not feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.

- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

During construction and operation, the development under the proposed General Plan must comply with applicable rules and regulations adopted by the SCAQMD. The following are SCAQMD rules that the Project may be required to comply with, either directly or indirectly:

- **Rule 402:** Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403:** Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through the application of standard Best Management Practices.
- **Rule 445:** Prohibits permanently installed wood burning devices into any new development.
- **Rule 1108:** Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule regulates the VOC content of asphalt used during construction.
- **Rule 1113:** Serves to limit the VOC content of architectural coatings used on projects in the South Coast Air Basin. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast Air Basin must comply with the current VOC standards set in this rule.
- **Rule 1303:** Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.
- **Rule 1401:** New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.
- **Rule 2305:** The Warehouse Indirect Source Rule requires owners and operators associated with warehouses 100,000 square feet or larger to directly reduce NO_X and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.

Air Quality Guidance Documents

South Coast AQMD CEQA Air Quality Handbook

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the SCAB. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). To assist local jurisdictions with air quality compliance issues, the SCAQMD first published the CEQA Air Quality Handbook in 1993. Sections of the Air Quality Handbook are now obsolete; however, SCAQMD continues to issue guidance to assist with air quality analysis until a new handbook is prepared. The purpose of the CEQA Air Quality Handbook and subsequent guidance is to assist lead agencies, as well as consultants, project proponents, and other interested parties in evaluating a project's potential air quality impacts. Relevant thresholds are incorporated into the impact analysis in Section 4.2.7, Environmental Impacts.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated metropolitan planning organization for the majority of the Southern California region and is the largest metropolitan planning organization in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan, which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are used in the preparation of air quality forecasts and in the consistency, analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating in the City and County General Plans.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal, the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, Tribal governments, non-profit organizations, businesses and local stakeholders in the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Most recently, in April 2024, SCAG approved Connect SoCal 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies and strategies for achieving the region's shared goals through 2050. Goals of the plan include more efficient development patterns, reduced congestion, expanded multimodal travel options, and reduced GHG emission from passenger vehicles. Priority Development Areas are a key focus of the plan to increase development in locations where people can access alternative modes of transportation or make short trips for day-to-day tasks.

4.2.2.4 Local

City of San Juan Capistrano General Plan

A complete rewrite of the City's General Plan was last adopted in December 1999. In May 2002, the City Council approved a variety of changes to several of elements of the General Plan. In February 2022, a new Environmental Justice Element was added to the General Plan. The General Plan's Housing Element is updated every eight years with the latest update adopted in August 2022. The City's General Plan is the principal land use document guiding development in the City. The City's General Plan is a comprehensive plan that establishes goals, objectives, and policies intended to guide growth and development in the City. The General Plan also serves as a blueprint for development throughout the community and is the vehicle through which the community needs, desires, and aspirations are balanced. The San Juan Capistrano General Plan is the fundamental tool for influencing the quality of life in the City.

Conservation and Open Space Element

The Conservation and Open Space Element addresses the conservation and enhancement of the visual quality of the City. The goals and policies in the Community Design Element aim to protect natural hillsides and features in the City (e.g., creeks and floodplains), preserve and enhance the historic character of the community, incorporate new development into existing developed neighborhoods, and maintain the community's "small-village" and "rural atmosphere."

The following policies applicable to the Project and related to energy are presented in the Conservation and Open Space Element:

- **Goal COS-6:** Improve air quality.
  - **Policy COS-6.1:** Cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in their efforts to implement the regional Air Quality Management Plan.
  - **Policy COS-6.2:** Cooperate and participate in regional air quality management planning, programs, and enforcement measures.
  - **Policy COS-6.4:** Achieve a greater balance between jobs and housing in San Juan Capistrano.

  - **Policy COS-6.5:** Integrate air quality planning with land use and transportation planning.

Environmental Justice Element

The Environmental Justice Element of the City of San Juan Capistrano General Plan was adopted in 2022 and addresses the equitable distribution of environmental benefits and burdens throughout the community. The element identifies goals and policies intended to improve public health, reduce exposure to pollution, increase access to parks and active transportation facilities, promote safe and healthy neighborhoods, support sustainable land use and transportation planning, and encourage meaningful community engagement in planning and decision-making processes. The element also promotes equitable access to public services, infrastructure, housing, and environmental resources while supporting long-term community resilience and quality of life.

- **Goal EJ-1:** Promote land use and development patterns that reduce air pollution exposure and improve respiratory health for residents of the Community of Focus.
  - **Policy EJ-1.1:** Partner with the South Coast Air Quality Management District to monitor local air quality and identify main pollution sources.

4.2.3 Existing Conditions

4.2.3.1 Climate

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality. The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity in the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los

Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14.5 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over Southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

4.2.3.2 Air Basin

The Project is located in the SCAB, where efforts to attain state and federal air quality standards are governed by the SCAQMD. The SCAB encompasses a 6,745-square-mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the San Diego Air Basin to the south.

4.2.3.3 Air Pollutants and Effects

Criteria air pollutants are pollutants that are regulated by federal and state laws through the development of human-health-based and environmentally-based criteria for setting permissible levels. Criteria air pollutants, their typical sources, and health effects are identified below:

- **Carbon Monoxide (CO).** CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin. Therefore, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency.
- **Sulfur Dioxide (SO_2).** SO_2 is a colorless gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). SO_2 is a respiratory irritant to people afflicted with asthma. After acute exposure to SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties even after exposure to higher concentrations to SO_2, animal studies

suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

- **Nitrogen Oxides (NO_X).** NO_X consists of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels higher than ambient levels in Southern California. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals.
- **Ozone (O_3).** O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and reside in communities with high ozone levels.
- **Particulate Matter less than 10 microns (PM_{10}).** PM_{10} is an air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. PM_{10} also causes reduced visibility. The size of the particles (10 microns or smaller, about

0.0004 inches or less) allows them to enter the lungs where they may be deposited, resulting in the adverse health effects discussed below for $PM_{2.5}$.

- **Particulate Matter less than 2.5 microns ($PM_{2.5}$).** $PM_{2.5}$ is a similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been correlated with an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. Older adults, people with pre-existing respiratory or cardiovascular disease, and children, appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
- **Volatile Organic Compounds (VOCs) and Reactive Organic Gases (ROGs).** VOCs and ROGs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Breathing VOCs can irritate the eye, nose, and throat, which can cause difficulty breathing. In addition, studies have shown that some VOCs can cause damage to the central nervous system.
- **Lead (Pb).** Lead is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. Currently, emissions of lead are largely limited to stationary sources such as lead smelters, battery manufacturers, and waste incinerators. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient in children. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses,

infants, and children are more sensitive than others to the adverse effects of lead exposure.

4.2.3.4 Existing Air Quality

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect public health and welfare. NAAQS and CAAQS currently in effect are shown in Table 4.2-1 previously presented.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of the Air Quality Impact Analysis was performed for this Project, the most recent state and federal standards were updated by the CARB on May 4, 2016, and are presented in Table 4.2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO, SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not exceeded. All other pollutants are not to be equaled or exceeded. Attainment status for a pollutant means that the SCAQMD meets the standards set by the USEPA or the California EPA (CalEPA). Conversely, non-attainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. To improve air quality in non-attainment areas, a SIP is drafted by CARB. The SIP outlines the measures that the state will take to improve air quality. Once non-attainment areas meet the standards and additional redesignation requirements, the USEPA will designate the area as a maintenance area.

4.2.3.5 Regional Air Quality

Air pollution contributes to a wide variety of adverse health effects. The USEPA has established NAAQS for six of the most common air pollutants: CO, Pb, O_3, particulate matter ($PM_{10}$and $PM_{2.5}$), NO_2, and SO_2 which are known as criteria air pollutants. The SCAQMD monitors levels of various criteria air pollutants at 37 permanent monitoring stations and five single-pollutant source Pb air monitoring sites throughout the air district. On December 28, 2021, CARB posted the 2021 amendments to the state and national area designations. The attainment status for criteria air pollutants in the SCAB was previously summarized in Table 4.2-2.

4.2.3.6 Local Air Quality

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district to provide Southern California residents about the air quality conditions. The Project Site is located in SRA 21 (Capistrano Valley). It should be noted that there are no monitoring stations in SRA 21. As such, the next nearest monitoring stations will be used. Data for O_3, CO, PM_{10}, and $PM_{2.5}$ (years 2020 and 2021) was

obtained from the Saddleback Valley monitoring station, located in SRA 19, approximately 11 miles northeast of the Project Site. Data for NO_2 and $PM_{2.5}$ (year 2022) was obtained from the Elsinore Valley monitoring station, located in SRA 22 approximately 23 miles northeast.

The most recent 3 years of data available is shown in Table 4.2-3, Ambient Air Quality, and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project Site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2020 through 2022 was obtained from the SCAQMD Air Quality Data Tables. Additionally, data for SO_2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations.

Table 4.2-3. Ambient Air Quality

Pollutant	Standard	2020	2021	2022
O_3				
Maximum 1-Hour Concentration (ppm)		0.171	0.105	0.110
Maximum 8-Hour Concentration (ppm)		0.12	0.081	0.088
Number of Days Exceeding State 1-Hour Standard	>0.09 ppm	20	2	1
Number of Days Exceeding State/Federal 8-Hour Standard	>0.070 ppm	32	8	6
CO				
Maximum Federal 1-Hour Concentration	>35 ppm	1.7	1.0	1.2
Maximum Federal 8-Hour Concentration	>20 ppm	0.8	0.8	1.0
NO_2				
Maximum Federal 1-Hour Concentration	>0.100 ppm	0.044	0.044	0.037
Annual Federal Standard Design Value		0.007	0.007	0.007
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	53	35	31
Annual Federal Arithmetic Mean (µg/m^3)		16.8	15.6	15.3
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3	1	0	0
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	35.00	28.70	32.10
Annual Federal Arithmetic Mean (µg/m^3)	> 12 µg/m^3	8.81	8.27	11.49
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	0	0	0

Source: CARB 2025

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million

4.2.3.7 Sensitive Air Quality Receptors/Health Risks

In addition to criteria air pollutants, the USEPA and CARB have classified pollutants as hazardous air pollutants (by USEPA) or TACs (by CARB), respectively. These pollutants can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer). People exposed to hazardous air pollutants/TACs at sufficient concentrations and durations may have an increased chance of getting cancer or

experiencing non-carcinogenic health effects such as damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, or other health problems. The SCAQMD identifies sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors. The potential sensitive air quality receptors adjacent or in proximity to the perimeter of the Project Site (i.e., within 1,000 feet)[1]include:

- Veterans Park, approximately 68 feet east of the site
- Single-family residences along Los Rios Street, approximately 75 feet west and southwest of the site
- Historic Town Center Park, approximately 280 feet east of the site
- Farm School OC, approximately 300 feet northwest of the site
- Los Rios Park, approximately 440 feet northwest of the site
- Good Neighbors Park, approximately 920 feet southwest of the site
- San Juan Elementary School, approximately 930 feet northeast of the site
- Single-family residences along Calle Lucana, approximately 970 feet west of the Project Site

4.2.3.8 Odor

Odors are considered an air quality issue both at the local level (e.g., odor from wastewater treatment) and at the regional level (e.g., smoke from wildfires). Odors are generally regarded as an annoyance rather than a health hazard. However, reactions to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Sensitivity to odors varies considerably among the population and is subjective. Several examples of common land use types that generate substantial odors include wastewater treatment plants, landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, autobody shops, and food packaging plants (CARB 2005). Existing odors associated with the area include those associated with major roadways, the Amtrak/Metrolink corridor, and existing restaurants.

[1] Measurement is based on the distance between the nearest property lines of the Project Site and receptors.

4.2.4 Method of Analysis

In May 2023 the California Air Pollution Control Officers Association in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod version 2022.1.1.33. The purpose of this model is to calculate construction-source and operational-source criteria air pollutant (VOCs, NOx, SOx, CO, PM_{10}, and $PM_{2.5}$) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantity applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air emissions. Refer to Attachment 2 of Appendix B for Criteria Air Pollutant CalEEMod Output Files.

4.2.4.1 Project-Related Construction Emissions

Construction Activities

Construction activities associated with the Project would result in temporary emissions of ROG, nitrogen oxides (NO_X), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Construction-related emissions would be generated from demolition, site preparation, grading, trenching, building construction, paving, and architectural coating activities.

The Project includes rehabilitation and adaptive reuse of the historic Domingo Yorba Adobe and Casa Manuel Garcia Adobe, demolition of the existing barn structure and select non-historic additions, and construction of a new 70-room boutique hotel, restaurant, event facilities, parking structure, and associated site improvements. Construction would occur in a series of phases including demolition, site preparation, grading, trenching, building construction, paving, and architectural coating activities.

Demolition Activities

Demolition activities would include removal of the existing barn structure and select non-historic additions associated with the historic adobe buildings. Demolition would require the use of excavators, haul vehicles, and related equipment and would generate temporary emissions associated with fuel combustion, material handling, and dust generation.

Site Preparation, Grading, and Trenching Activities

Site preparation, grading, and trenching activities would involve earthmoving necessary to accommodate building foundations, utility installation, circulation improvements, landscaping, and other site improvements. These activities would generate fugitive dust emissions and exhaust emissions from construction equipment and haul vehicles. Fugitive dust emissions are influenced by factors such as soil conditions, moisture content, wind speed, area disturbed, and vehicle

activity. CalEEMod was used to estimate fugitive dust emissions associated with these construction phases.

Construction equipment anticipated during these phases includes dozers, loaders, water trucks, backhoes, dump trucks, and other earthmoving equipment necessary to complete grading and utility installation activities.

Building Construction, Paving, and Architectural Coating Activities

Building construction activities would generate emissions associated with operation of construction equipment, delivery vehicles, worker commute trips, and material handling. Equipment anticipated during building construction includes concrete pumps, telehandlers, lifts, and other equipment associated with foundation, vertical, and mechanical/electrical/plumbing construction activities. Paving activities would involve the use of paving equipment, rollers, and related construction equipment, while architectural coating activities would generate emissions associated with the application of paints, coatings, adhesives, sealants, and related finishing materials.

Construction emissions were quantified using CalEEMod based on the anticipated construction schedule, equipment fleet, trip generation characteristics, and project-specific land use assumptions.

Off-Site Utility and Infrastructure Improvements

Construction of the Project would include limited off-site improvements necessary to connect the development to existing utility infrastructure and complete frontage improvements adjacent to the Project Site. Such improvements may include utility tie-ins, service connections, sidewalk improvements, and related work in adjacent public rights-of-way. These activities would occur concurrently with on-site construction activities and would use equipment similar to that assumed in the CalEEMod analysis.

Because any off-site improvements would be limited in extent and would occur in the developed Historic Town Center area, they are not anticipated to require construction equipment or activity levels beyond those included in the project-specific construction assumptions. Accordingly, emissions associated with off-site utility and infrastructure improvements are accounted for in the overall construction emissions analysis.

Construction Duration

For purposes of this analysis, construction of the Project is anticipated to occur over an approximately 12-month period. The construction schedule includes demolition, site preparation, grading, trenching, building construction, paving, and architectural coating activities. The construction schedule and equipment assumptions used in the analysis represent a reasonable estimate of the anticipated construction program and are consistent with CEQA Guidelines requirements for evaluating potential air quality impacts.

Construction Equipment

Construction emissions were estimated using CalEEMod based on the anticipated construction schedule and equipment fleet for each construction phase. Equipment assumed for Project construction includes excavators, dozers, loaders, water trucks, backhoes, dump trucks, concrete pumps, telehandlers, lifts, paving equipment, rollers, and cement and mortar mixers. Consistent with CalEEMod methodology and standard construction practices, equipment operating hours were based on typical daily construction activity levels for comparable development projects.

4.2.4.2 Project Operational Emissions

Area Source Emissions

Area source emissions associated with operation of the Project would primarily result from architectural coatings, consumer products (e.g., paints, cleaners, and fertilizers), and landscape maintenance activities. These emission sources were quantified using CalEEMod based on project-specific land use assumptions and default emission factors.

Architectural Coatings

Over time, the hotel, restaurant, event spaces, and associated structures would require routine maintenance, including the application of paints, stains, sealants, and other architectural coatings. VOCs contained in these materials may evaporate during application and curing, resulting in operational emissions. Emissions associated with architectural coatings were estimated using CalEEMod methodologies and emission factors.

Consumer Products

Operation of the Project would involve the use of consumer products typical of hotel, restaurant, and hospitality uses, including cleaning products, detergents, disinfectants, polishes, personal care products, and maintenance supplies. Many of these products contain organic compounds that may contribute to the formation of ozone and other photochemical pollutants when released into the atmosphere. Emissions associated with consumer product use were estimated using CalEEMod default assumptions for the proposed land uses.

Landscape Maintenance Equipment

Operation of the Project would include maintenance of landscaped areas throughout the site. Landscape maintenance activities may generate emissions from equipment used for mowing, trimming, pruning, and other routine maintenance functions. Emissions associated with landscape maintenance equipment were estimated using CalEEMod assumptions. Consistent with California law, landscape maintenance equipment used during operation of the Project would be subject to applicable state regulations governing small off-road engines, including requirements associated with the transition toward zero-emission equipment pursuant to Assembly Bill 1346.

Energy Source Emissions

Operation of the Project would result in energy demand associated with electricity consumption and natural gas usage for hotel operations, restaurant and event space activities, lighting, heating and cooling systems, water heating, and other building functions. Electricity service would be provided by San Diego Gas & Electric, and natural gas service would be provided by Southern California Gas Company.

Consistent with SCAQMD guidance and CalEEMod methodology, indirect emissions associated with electricity consumption are calculated using utility-specific emission factors that account for the energy generation mix serving the Project Site. Operational natural gas consumption would result in direct combustion emissions occurring on site. Electricity and natural gas demand associated with the Project were estimated using CalEEMod based on the proposed land uses, building characteristics, and default operational energy consumption rates.

As discussed in Section 4.5, Energy, the Project is anticipated to consume approximately 936,796 kilowatt-hours of electricity and 3,104,347 kBTU of natural gas annually. These energy demands were incorporated into the operational emissions analysis presented below.

Mobile Source Emissions

Operational air emissions associated with the Project would be generated primarily by motor vehicles traveling to and from the site. Mobile source emissions would result from hotel guest trips, employee commute trips, restaurant and event-related visitor trips, service and delivery vehicles, and other vehicle travel associated with operation of the proposed hotel and ancillary uses.

Traffic characteristics used in the air quality analysis were obtained from the Project-specific Focused Traffic Impact Analysis prepared for the Project. The traffic study evaluated a 70-room boutique hotel with associated restaurant, dining, meeting, event, and ancillary hotel uses on the 1.68-acre Project Site.

Project trip generation was developed using rates contained in the Institute of Transportation Engineers Trip Generation Manual, 12th Edition, for Hotel (Land Use Code 310). Based on the traffic analysis, the Project is forecast to generate approximately 409 average daily trips, including 24 trips during the AM peak hour and 33 trips during the PM peak hour.

Vehicle trip generation data were incorporated into the CalEEMod to estimate operational emissions of ROG, nitrogen oxides (NO_X), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and GHGs associated with vehicle travel. In addition to guest and employee

vehicle trips, the analysis accounts for service and delivery vehicles associated with hotel operations, restaurant uses, maintenance activities, and routine deliveries.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

4.2.5 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the Project would have a significant impact on air quality if it would:

- **Threshold AQ-a:** Conflict with or obstruct implementation of the applicable air quality plan.
- **Threshold AQ-b:** Result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard).
- **Threshold AQ-c:** Expose sensitive receptors to substantial pollutant concentrations.
- **Threshold AQ-d:** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Initial Study, provided as Appendix A, substantiates that there would be no impact associated with Threshold AQ-d as the Project would not result in other emissions (such as those leading to odors that would adversely affect a substantial number of people). This threshold will not be addressed in the following analysis.

4.2.6 Plans, Programs, and Policies

Compliance measures are uniformly applied regulations or requirements imposed by the approving agency based on the type of action proposed. Because these measures are standard requirements, they are not considered mitigation measures. The following existing plans, programs, and policies (PPPs) apply to development allowed under the Project and help reduce or avoid potential impacts related to air quality:

PPP AQ-1 **South Coast AQMD Rules.** Development under the Project would be required to comply with all applicable South Coast AQMD rules which may include, but are not limited to, the following:

- **Rule 402:** Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the

public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- **Rule 403:** Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through the application of standard Best Management Practices.
- **Rule 445:** Prohibits permanently installed wood burning devices into any new development.
- **Rule 1108:** Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule regulates the VOC content of asphalt used during construction.
- **Rule 1113:** Serves to limit the VOC content of architectural coatings used on projects in the South Coast Air Basin. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast Air Basin must comply with the current VOC standards set in this rule.
- **Rule 1303:** Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.
- **Rule 1401:** New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.
- **Rule 2305:** The Warehouse Indirect Source Rule requires owners and operators associated with warehouses 100,000 square feet or larger to directly reduce NO_X and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.

PPP AQ-2 Siting of Sensitive Receptors and Toxic Air Contaminant Sources. Development under the Project would be required to incorporate land use planning practices consistent with the California Air Resources Board's Air Quality and Land Use Handbook to reduce potential public exposure to toxic air contaminants (TACs).

This would include, but not be limited to, the following:

- Proposed sensitive receptors and facilities that emit TACs would be evaluated for proximity to existing or planned TAC sources, including major roadways, dry-cleaning facilities, gasoline dispensing facilities, automotive repair facilities, commercial or drive-through facilities, and similar uses, using the screening distances identified in the CARB Air Quality and Land Use Handbook.
- Sensitive receptors would include, but not be limited to, daycare centers, schools, hospitals, medical facilities, retirement homes, residential care facilities, and other

land uses that may accommodate individuals who are particularly vulnerable to air quality–related health effects.

- Where a proposed sensitive receptor or TAC-emitting facility is located in applicable CARB screening distances of a TAC source or sensitive receptor, discretionary land use review would require preparation of a Health Risk Assessment (HRA), or equivalent health risk evaluation, by a qualified air quality professional, consistent with CARB and applicable local air district guidance.
- The results of an HRA would be used to inform land use planning and discretionary decision-making. Potentially significant health risks would be identified where an incremental cancer risk greater than 10 in one million or a chronic or acute hazard index greater than 1.0 is predicted.
- Where potentially significant health risks are identified, land use planning and design strategies would be considered to reduce exposure, which may include, but are not limited to, revised site planning, increased separation distances, enhanced building design features (such as sealed ventilation systems with high-efficiency filtration), operational controls, or alternative siting of the sensitive receptor or TAC-emitting use.

4.2.7 Environmental Impacts

The following sections address various potential impacts relating to air quality that could result from implementation of the Project.

4.2.7.1 Threshold AQ-a: Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis

The Project Site is located in the SCAB, which is characterized by relatively poor air quality. SCAQMD has jurisdiction over an approximately 10,743-square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what used to be referred to as the Southeast Desert Air Basin. In these areas, SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The SCAQMD adopted the 2022 AQMP in December 2022, which builds upon measures already in place from previous AQMPs and continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. The 2022 AQMP incorporates scientific and technological information and planning assumptions, including SCAG's 2020–2045 Connect SoCal and updated emission inventory methodologies for various source categories. Criteria for determining consistency with the AQMP are defined in Chapter 12, Sections 12.2 and 12.3, of the South Coast AQMD CEQA Air Quality Handbook. These indicators are discussed below:

- **Consistency Criterion No. 1:** The Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significant thresholds were exceeded. As evaluated under Thresholds AQ-b and AQ-c, below, the Project's localized and regional construction-source and operation-source emissions would not exceed applicable significance thresholds. As such, the Project is consistent with this criterion, and impacts would be less than significant.

- **Consistency Criterion No. 2:** The Project will not exceed the assumptions in the AQMP based on the years of project buildout phase.

The applicable Air Quality Plan for the Project Site is the SCAQMD 2022 AQMP. The AQMP incorporates regional growth forecasts developed by the SCAG and demonstrates a strategy for attaining federal and state ambient air quality standards through a combination of land use planning, transportation planning, and emissions control measures. Projects that are consistent with regional growth assumptions and do not interfere with implementation of AQMP control measures are generally considered consistent with the AQMP.

The Project consists of the adaptive reuse and rehabilitation of the historic Domingo Yorba Adobe and Casa Manuel Garcia Adobe, demolition of non-historic structures and additions, and development of a 70-room boutique hotel with associated restaurant, meeting, event, and ancillary visitor-serving uses on a 1.68-acre infill site located in the Historic Town Center of San Juan Capistrano. The Project would redevelop a site that is already developed and served by existing roadway, utility, and public service infrastructure. The Project would not facilitate substantial population growth or result in development outside areas planned for urban uses.

The Project Site is located in the City's historic downtown core and within walking distance of the San Juan Capistrano Metrolink and Amtrak Station. Consistent with SCAG's Connect SoCal (2024–2050 Regional Transportation Plan/Sustainable Communities Strategy) and the AQMP's land use and transportation objectives, the Project would concentrate visitor-serving uses in an

established mixed-use area that is served by existing transportation infrastructure and transit opportunities. The Project would therefore support regional strategies intended to reduce vehicle travel and promote efficient land use patterns.

As discussed under Threshold AQ-b, construction and operational emissions associated with the Project would not exceed SCAQMD regional significance thresholds. In addition, the Project would be required to comply with applicable federal, state, and local regulations governing construction equipment, architectural coatings, building energy efficiency, and transportation-related emissions. The Project would not conflict with or obstruct implementation of any AQMP control measure.

Construction emissions are primarily a function of construction activities, equipment usage, and site disturbance rather than land use designation. Because construction and operational emissions associated with the Project would remain below applicable SCAQMD significance thresholds and the Project is consistent with regional growth assumptions and land use planning objectives, the Project would not conflict with or obstruct implementation of the 2022 AQMP. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

4.2.7.2 Threshold AQ-b: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard.

Impact Analysis

The SCAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. These significance thresholds are updated as needed to appropriately represent the most current technical information and attainment status in the SCAB. Table 4.2-4, Maximum Daily Regional Emissions Thresholds of Significance, provides a summary of the SCAQMD Regional Emissions Thresholds for both construction and operational activities. The South Coast AQMD's CEQA Air Quality Significance Thresholds indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (SCAQMD 2023).

Table 4.2-4. Maximum Daily Regional Emissions Thresholds of Significance

Pollutant	Pounds per Day	
	Construction Regional Thresholds	Operational Regional Thresholds
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55

Table 4.2-4. Maximum Daily Regional Emissions Thresholds of Significance

Pollutant	Pounds per Day	
	Construction Regional Thresholds	Operational Regional Thresholds
SO_X	150	150
CO	550	550
Pb	3	3

Source: SCAQMD March 2023.

Notes: CO = carbon monoxide; NO_X = oxides of nitrogen; PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter; SO_X = sulfur oxides; VOC = volatile organic compounds; Pb = lead

Construction

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized in Table 4.2-5, Unmitigated Maximum Daily Regional Construction Emissions. As shown, emissions resulting from the Project construction would not exceed criteria air pollutant thresholds established by the SCAQMD for emissions of any criteria air pollutant and impacts would be less than significant.

Table 4.2-5. Unmitigated Maximum Daily Regional Construction Emissions

Construction Season	Maximum Pollutant Emissions (Pounds Per Day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer 2026	0.7	6.3	11.5	<0.1	0.6	0.3
Winter 2026	51.0	23.0	19.7	0.1	5.5	2.5
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B.

As shown in Table 4.2-5, the Project's maximum daily, unmitigated criteria air pollutant emissions would be well below the SCAQMD's recommended regional pollutant thresholds. Project construction, therefore, would not generate criteria air pollutant emissions levels that exceed SCAQMD regional CEQA thresholds.

Operation

Project mobile source emissions impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations within the vicinity of the Project. The estimated operational-source emissions from mobile sources and area sources for the Project are summarized in Table 4.2-6, Unmitigated Maximum Daily Regional Operational Emissions. As shown, project operations would not exceed criteria air pollutant thresholds established by the SCAQMD for emissions of any criteria air pollutant and impacts would be less than significant.

Table 4.2-6. Unmitigated Maximum Daily Regional Operational Emissions

Emissions Source	Maximum Pollutant Emissions (Pounds Per Day)[a]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources	1.7	<0.1	2.4	<0.1	<0.1	<0.1
Energy Demand	<0.1	0.8	0.7	<0.1	0.1	0.1
Mobile Sources	1.3	1.1	11.6	<0.1	3.1	0.8
Off-Road Emissions[b]	0.1	0.7	1.0	<0.1	<0.1	<0.1
Total Daily Emissions[c]	3.1	2.5	15.7	<0.1	3.1	0.9
SCAQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B.

[a] Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG and CO emissions occur during the summer. Maximum daily NO_X emissions occur during the winter. In general, due to rounding, there is no difference between summer and winter SO_2, PM_{10}, and $PM_{2.5}$ emissions levels for the purposes of this table.

[b] Off-Road emissions includes both the off-road forklift estimated in CalEEMod and the on-road stake bed truck expected to be used on site, estimated using EMFAC.

[c] Totals may not equal due to rounding.

As shown in Table 4.2-6, the Project's maximum daily, unmitigated operational criteria air pollutant emissions would be well below the SCAQMD's recommended regional pollutant thresholds. Project operation, therefore, would not generate criteria air pollutant emissions levels that exceed SCAQMD regional CEQA thresholds.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

4.2.7.3 Threshold AQ-c: Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

As discussed previously, localized emissions associated with the Project-related construction and operational activities were calculated and evaluated in accordance with SCAQMD's Final Localized Significance Threshold Methodology ("Methodology"). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedance of the NAAQS and CAAQS. Collectively, these are referred to as Localized Significance Threshold (LSTs).

Construction

The Project's maximum daily construction emissions are compared against the SCAQMD's recommended LSTs thresholds in Table 4.2-7, Local Significance Threshold Construction Analysis. Consistent with the SCAQMD's LST methodology, the emissions included in the construction LST analysis are on-site emissions only. The LSTs presented in this analysis are for

SRA 21 (Capistrano Valley), the SRA in which the Project is located. Table 4.2-7 compares the Project's on-site emissions with SRA 21 LSTs based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance thresholds recommended for use by the SCAQMD, and a project size of 1.0 acre.

Table 4.2-7. Local Significance Threshold Construction Analysis

Construction Phase [a,b]	Maximum Pollutant Emissions (Pounds Per Day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition	3.0	9.0	0.1	0.1
Site Preparation	9.0	9.7	2.6	1.5
Grading	9.8	10.4	3.0	1.7
Trenching	3.1	4.3	0.1	0.1
Building Construction (Foundation)	3.8	6.3	0.1	0.1
Building Construction (Vertical)	5.9	10.1	0.3	0.2
Building Construction (MEP/Other)	5.1	9.3	0.3	0.2
Paving	4.4	6.5	0.2	0.2
Architectural Coating	0.9	1.1	<0.1	<0.1
SCAQMD LST[c]	**91**	**696**	**4**	**3**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Appendix B.

[a] Emissions estimated using CalEEMod, v. 2022.1.1.33. Estimates are based on default model assumptions unless otherwise noted in this document.

[b] Emissions presented are worst-case emissions and may reflect summer or winter emission levels. In general, due to rounding, there is no difference between summer and winter emission levels for the purposes of this table.

[c] The LSTs are based on 1.0-acre project size and 25-meter receptor distance.

As shown in Table 4.2-7, the Project's construction emissions would not exceed the SCAQMD's recommended construction LSTs. Project construction, therefore, would not generate criteria air pollutant emissions levels that exceed SCAQMD local CEQA thresholds.

Operation

Typically, operations-related LSTs become a concern when there are substantial on-site stationary or on-site mobile sources (e.g., heavy duty or idling trucks) that could impact surrounding receptors, which is not the case for the Project. Nonetheless, the Project's maximum daily operational emissions are compared against the SCAQMD's recommended LSTs in Table 4.2-8, Local Significance Threshold Operational Analysis.

Table 4.2-8. Local Significance Threshold Operational Analysis

Emissions	Maximum Pollutant Emissions (Pounds Per Day)[a]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area Sources	<0.1	2.4	<0.1	<0.1
Energy Sources	0.8	0.7	0.1	0.1
Mobile Sources[b]	<0.1	0.2	0.1	<0.1

Off-Road Vehicles	0.7	1.0	<0.1	<0.1
Total On-site Emissions[c]	1.5	4.3	0.2	0.1
SCAQMD LST[d]	**91**	**696**	**1**	**1**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Appendix B.

[a] Emissions presented are worst-case emissions and may reflect summer or winter emissions levels.

[b] Mobile source emissions estimates reflect potential on-site vehicle emissions only and were derived by assuming 2 percent of operational mobile source emissions in Table 4.2-6 will occur on site.

[c] Totals may not equal due to rounding.

[d] LST threshold is conservatively based on a 1.0-acre project size and 25-meter (82-foot) receptor distance.

As shown in Table 4.2-8, the Project's on-site operational emissions would not exceed the SCAQMD's recommended operational LSTs. Project operations, therefore, would not generate criteria air pollutant emissions levels that exceed SCAQMD local CEQA thresholds.

Sensitive Air Quality Receptors and Health Risk Assessment

Sensitive receptors are land uses where occupants are more susceptible to adverse effects from exposure to air pollutants. Sensitive receptors typically include residences, schools, daycare centers, hospitals, and similar facilities. Existing sensitive receptors within the vicinity of the Project Site include nearby residential uses located west and southwest of the site. The Project itself is not considered a sensitive receptor because hotel uses are generally categorized as transient lodging and are not identified by SCAQMD as sensitive receptor land uses.

In addition to localized criteria air pollutant emissions, the potential for exposure to TACs was evaluated. Construction activities would involve the temporary use of diesel-powered construction equipment, which would generate diesel particulate matter, a TAC identified by the CARB as a carcinogenic air pollutant.

Although construction activities would generate diesel particulate matter emissions, several factors support a conclusion that impacts would be less than significant. First, construction-related emissions would remain well below SCAQMD localized significance thresholds for NOX, CO, PM10, and PM2.5 at nearby receptor locations, indicating that construction activities would not generate substantial localized pollutant concentrations. As shown in Table 4.2-7, maximum on-site construction emissions would be substantially below the applicable localized significance thresholds for all pollutants.

The Project has also been designed to minimize earthwork and heavy equipment use. The Project would avoid extensive excavation by using the site's existing grade differential and would not involve the substantial or prolonged operation of heavy diesel equipment typically associated with larger construction projects. The construction equipment fleet would also be subject to applicable state regulations, including CARB requirements governing off-road diesel equipment and renewable diesel fuel use, which reduce diesel particulate matter emissions.

Additionally, pollutant concentrations decrease rapidly with distance from the source as emissions disperse into the atmosphere. Nearby residences west and southwest of the Project Site would not be exposed to continuous pollutant concentrations throughout the construction period. In addition, meteorological data reviewed in the Air Quality Analysis (Appendix B) indicate prevailing daytime winds within the vicinity of the Project Site generally originate from the northwest and southwest, which would tend to transport construction-related emissions away from the closest residential receptors along Los Rios Street.

Finally, construction activities would be temporary, intermittent, and limited in duration. Unlike operational TAC sources that may expose receptors over decades, construction activities would occur over an approximately one-year period and would not result in long-term exposure to diesel particulate matter emissions.

For these reasons, construction-related TAC emissions would not expose nearby sensitive receptors to substantial pollutant concentrations or health risks. Impacts would be less than significant.

Operationally, the Project would consist of a 70-room boutique hotel with ancillary restaurant, meeting, and event facilities. The Project would not include substantial stationary sources of air pollutant emissions, industrial processes, distribution facilities, warehousing operations, truck terminals, or other land uses commonly associated with elevated TAC emissions. Operational vehicle activity would primarily consist of passenger vehicles associated with hotel guests, employees, visitors, valet operations, and routine service deliveries. As such, operation of the Project would not generate substantial quantities of TACs or diesel particulate matter.

The Project Site is located approximately 1,320 feet west of I-5 and is not located in the California Air Resources Board's recommended 500-foot screening distance for freeway-related air pollution exposure. In addition, the Project Site is located in an urbanized area of downtown San Juan Capistrano characterized by existing commercial development, roadways, and transportation infrastructure. Given the Project's distance from I-5, the absence of substantial operational TAC sources, and the relatively low level of truck activity associated with the proposed hotel use, the Project would not expose nearby sensitive receptors to substantial pollutant concentrations or health risks.

Accordingly, the Proposed Project would not result in significant impacts associated with exposure of sensitive receptors to substantial pollutant concentrations. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation is required.

4.2.8 Cumulative Impacts

The cumulative study area for air quality includes the City of San Juan Capistrano and the SCAB. The SCAB is designated as a non-attainment area for state standards of O_3, PM_{10}, and $PM_{2.5}$. The region is also designated as a non-attainment area for federal standards of O_3 and $PM_{2.5}$. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain ambient air quality standards. Thus, the setting for this cumulative analysis consists of the SCAB and associated growth and development anticipated in the air basin. Air quality impacts are not confined to jurisdictional boundaries. Therefore, cumulative impacts are evaluated using the AQMP, which is based on regional growth projections provided by SCAG.

4.2.8.1 Cumulative Threshold AQ-a: Conflict with or obstruct implementation of the applicable air quality plan.

The SCAQMD's 2022 AQMP is designed to attain and maintain federal and state ambient air quality standards through implementation of regional emissions reduction strategies, transportation planning, and land use policies that are coordinated with SCAG growth forecasts. Cumulative development throughout the SCAB has the potential to increase emissions of criteria air pollutants and place additional demands on the regional transportation network. Therefore, cumulative projects could contribute to regional air quality impacts if development occurs in a manner that is inconsistent with regional growth projections or interferes with implementation of AQMP control measures.

As discussed under Threshold AQ-a, the Project consists of the redevelopment of a previously developed infill site in the Historic Town Center of San Juan Capistrano with a 70-room boutique hotel and associated visitor-serving uses. The Project would not facilitate substantial population growth, induce development beyond that anticipated by regional planning documents, or result in land uses inconsistent with the growth assumptions incorporated into SCAG's Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy and the SCAQMD 2022 AQMP.

In addition, the Project Site is located in an established mixed-use and transit-accessible area of the City in proximity to the San Juan Capistrano Metrolink and Amtrak Station. The Project would therefore support regional land use and transportation objectives intended to reduce vehicle travel demand, encourage efficient development patterns, and improve air quality throughout the region. Furthermore, as discussed under Threshold AQ-b, construction and operational emissions associated with the Project would not exceed SCAQMD significance thresholds, and the Project would be required to comply with all applicable federal, state, and local regulations intended to reduce air pollutant emissions.

Because the Project is consistent with regional growth forecasts, would not conflict with AQMP control measures, and would not generate emissions that would substantially contribute to regional air quality impacts, the Project would not make a cumulatively considerable contribution to a

cumulative conflict with or obstruction of implementation of the applicable Air Quality Plan. Therefore, cumulative impacts would be less than significant.

4.2.8.2 Cumulative Threshold AQ-b: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard).

The SCAB is currently designated as a non-attainment area for ozone and particulate matter standards under applicable federal and state ambient air quality standards. Because air pollutants disperse throughout the Basin and contribute to regional air quality conditions, emissions generated by cumulative development projects have the potential to contribute to regional non-attainment conditions. SCAQMD recommends the use of regional significance thresholds to determine whether a project's emissions would result in a cumulatively considerable contribution to regional air quality impacts. According to SCAQMD guidance, projects with emissions that exceed the regional significance thresholds are considered to have a cumulatively considerable contribution to regional air quality impacts, whereas projects with emissions below the applicable thresholds are generally not considered cumulatively considerable.

As discussed under Threshold AQ-b, construction emissions associated with the Project would remain below all applicable SCAQMD regional significance thresholds for criteria air pollutants. Similarly, operational emissions associated with the Project would not exceed any applicable SCAQMD operational significance threshold. The Project would therefore not generate emissions at levels that would substantially contribute to existing regional non-attainment conditions.

Although implementation of cumulative projects in the SCAB would incrementally increase regional emissions, the Project represents a relatively small infill redevelopment project consisting of a 70-room boutique hotel and associated visitor-serving uses on a previously developed site in the Historic Town Center of San Juan Capistrano. The Project's construction and operational emissions would remain below SCAQMD regional significance thresholds and would not constitute a substantial contribution to cumulative emissions of ozone precursors, particulate matter, or other criteria air pollutants.

Accordingly, the Project would not result in a cumulatively considerable net increase of any criteria air pollutant for which the SCAB is designated non-attainment under an applicable federal or state ambient air quality standard. Therefore, cumulative impacts would be less than significant.

4.2.8.3 Cumulative Threshold AQ-c: Expose sensitive receptors to substantial pollutant concentrations.

Cumulative development in the South SCAB has the potential to expose sensitive receptors to elevated concentrations of criteria air pollutants, TACs, and diesel particulate matter generated by construction activities, roadway traffic, industrial operations, and other emission sources.

However, unlike regional air quality impacts, impacts associated with exposure of sensitive receptors to substantial pollutant concentrations are generally localized and site-specific in nature. As a result, cumulative impacts are typically evaluated based on whether a project would make a cumulatively considerable contribution to localized air quality conditions affecting nearby sensitive receptors.

As discussed under Threshold AQ-c, the Project's construction and operational emissions would not exceed SCAQMD localized significance thresholds for nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter (PM_{10}), or fine particulate matter ($PM_{2.5}$). In addition, construction activities would be temporary in nature and would not result in long-term exposure of nearby receptors to diesel particulate matter or other TACs.

Operationally, the Project consists of a 70-room boutique hotel with associated restaurant, meeting, event, and ancillary visitor-serving uses. The Project would not include industrial operations, distribution facilities, warehousing uses, truck terminals, or other substantial sources of TACs. Vehicle activity associated with the Project would consist primarily of passenger vehicles, with limited service and delivery vehicle traffic typical of hotel operations. As a result, the Project would not generate substantial concentrations of TACs or diesel particulate matter that could adversely affect nearby sensitive receptors.

The Project Site is located in an urbanized area of downtown San Juan Capistrano and is surrounded by existing commercial, transportation, and mixed-use development. Although cumulative development in the region may contribute incrementally to localized air quality conditions, the Project would not generate substantial pollutant concentrations and would not expose nearby sensitive receptors to significant health risks. Furthermore, the Project Site is located approximately 1,320 feet west of I-5, well beyond the California Air Resources Board's recommended 500-foot screening distance for evaluating freeway-related air pollution exposure.

Because the Project would not generate substantial localized emissions, would not create a substantial source of TACs, and would not expose nearby sensitive receptors to significant pollutant concentrations, the Project would not make a cumulatively considerable contribution to cumulative impacts associated with exposure of sensitive receptors to air pollutant concentrations. Therefore, cumulative impacts would be less than significant.

4.2.9 Level of Significance Before Mitigation

Environmental impacts related to Thresholds AQ-a through AQ-c would be less than significant.

4.2.10 Mitigation Measures

No mitigation measures are required.

4.2.11 Level of Significance After Mitigation

Not applicable.