

4.2 AIR QUALITY

This section discusses existing air quality, summarizes existing air quality regulations, and evaluates potential air quality impacts associated with the modified Dana Point Harbor Hotels Project (Modified Project).

This section assesses the Modified Project in accordance with methodologies recommended by the California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD). The Original Project analysis presented in the 2021 Draft Environmental Impact Report (EIR) utilized the California Emissions Estimator Model (CalEEMod) version 2016.3.2 to quantify the construction and operational air quality emissions of the Original Project. Since the analysis of the Original Project was prepared, CalEEMod version 2022.1 was approved and previous CalEEMod versions, such as 2016.3.2, are now considered outdated. CalEEMod version 2022.1 includes updated default parameters and refined underlying calculations for emissions quantification; therefore, CalEEMod version 2022.1 is appropriate for use and supersedes version 2016.3.2. As such, CalEEMod version 2022.1 was used to quantify the construction and operational air quality emissions of the Modified Project. In addition, the Original Project and existing uses were remodeled using CalEEMod version 2022.1, and the updated CalEEMod modeling sheets for the Original Project and Modified Project are included in Appendix D of this Revised Draft EIR.

4.2.1 Scoping Process

4.2.1.1 Original Project Scoping

The City of Dana Point (City) received eight comment letters during the public review period of the Initial Study/Notice of Preparation (IS/NOP) prepared for the Original Project. For copies of the IS/NOP comment letters, refer to Appendix A of this Revised Draft EIR.

The letter from SCAQMD received on October 22, 2020, suggested that the Original Project utilize its 1993 *CEQA Air Quality Handbook* (and associated updates) and CalEEMod to analyze air quality and greenhouse gas impacts.

4.2.1.2 Modified Project Scoping

A Supplemental Notice of Preparation (NOP) for the Modified Project was circulated for public review from July 19, 2024, through August 19, 2024.

Copies of the Supplemental NOP and comment letters received in response to the Supplemental NOP are included within Appendix A of this Revised Draft EIR. One comment letter included comments related to air quality.

The letter from Mitchell M. Tsai received on August 12, 2024, noted that the use of local workers for construction of the Modified Project could reduce pollutant emissions by decreasing commute distances.

4.2.2 Existing Environmental Setting

The project site is located in the City of Dana Point, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the SCAQMD. The following sections provide background information about air quality, regulated pollutants, and the agencies responsible for regulating those pollutants. As the Modified Project would be located on the same site as the Original Project, the following existing environmental setting is derived from that discussed in the 2021 Draft EIR.

4.2.2.1 Climate/Meteorology

Air quality in the planning area is affected not only by various emission sources (e.g., mobile, stationary, and area sources) but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin the worst air pollution problem in the nation.

Climate in the Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the Basin, which lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a climate that is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted; however, periods of extremely hot weather, winter storms, or Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The Laguna Beach Meteorological Station (approximately 7 miles northwest from Dana Point) climate temperature ranges from 65.1°F in January to 78.1°F in August. The monthly average minimum temperature ranges from 43.0°F in January to 59.6°F in August (Western Regional Climate Center [WRCC] 2016). January is typically the coldest month, and August is typically the warmest month in this area of the Basin.

Most rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The monthly average rainfall at Laguna Beach Meteorological Station typically varies from 3.77 inches in February to 0.03 inch in July with an annual total of 12.52 inches (WRCC 2016). Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Although the Basin has a semi-arid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The dominant daily wind patterns are onshore winds from the west that average 7.8 miles per hour (mph) (Iowa State University 2019). The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly (Santa Ana) winds from the mountains and deserts northeast of the Basin. Summer wind flow patterns represent worst-case conditions because this is the period of higher temperatures and more sunlight, which result in ozone (O₃) formation.

Temperature normally decreases with altitude, and a reversal of this atmospheric state, where temperature increases with altitude, is called an inversion. The height from the Earth to the inversion base is known as the mixing height. Persistent low inversions and cool coastal air tend to create morning fog and low stratus clouds. Cloudy days are less likely in the eastern portions of the Basin and are about 25 percent more likely along the coast. The vertical dispersion of air pollutants in the Basin is limited by temperature inversions in the atmosphere close to the Earth's surface.

Inversions are generally lower in the nighttime when the ground is cooler than during daylight hours when the sun warms the ground and, in turn, the surface air layer. As this heating process continues, the temperature of the surface air layer approaches the temperature of the inversion base, causing heating along its lower edge. If enough warming takes place, the inversion layer becomes weak and opens up to allow the surface air layers to mix upward. This can be seen in the middle-to-late afternoon on a hot summer day when the smog appears to clear up suddenly. Winter inversions typically break earlier in the day, preventing excessive smog buildup.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversions or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_x) due to extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog.

4.2.2.2 Air Pollution Constituents and Attainment Status

The United States Environmental Protection Agency (EPA) has identified and established ground-level concentration criteria for air pollutants known to have detrimental human health impacts. Under the Clean Air Act (CAA), the EPA is charged with establishing National Ambient Air Quality Standards (NAAQS) for each criteria pollutant based on the concentration required to protect public health and welfare. In addition, the State of California has implemented the more stringent California Ambient Air Quality Standards (CAAQS) (with the exception of the recent 1-hr nitrogen dioxide [NO₂] and sulfur dioxide [SO₂] NAAQS), which aid in effectively reducing harmful emissions in areas with poor air quality or nonattainment designations.

The CARB coordinates and oversees both State and federal air pollution control programs in the State. The CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air quality districts. The CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by the CARB and EPA to classify air basins as attainment, nonattainment, nonattainment-transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the ambient air quality standards (AAQS).

Attainment areas may be:

- Attainment/unclassified (“unclassifiable” in some lists), which have never violated the air quality standard of interest or do not have enough monitoring data to establish attainment or nonattainment status;
- Attainment/maintenance (NAAQS only), which violated the NAAQS that is currently in use (was nonattainment) in or after 1990, but now attains the standard and is officially redesignated as attainment by the EPA with a maintenance State Implementation Plan (SIP); or
- Attainment (usually only for CAAQS, but sometimes for NAAQS), which have adequate monitoring data to show attainment, have never been nonattainment, or, for NAAQS, have completed the official maintenance period.

Additional restrictions are imposed on nonattainment areas as required by the EPA. The air quality data collected from monitoring stations are also used to monitor progress in attaining air quality standards. Table 4.2.A lists the attainment status for the criteria pollutants in the Basin.

Table 4.2.A: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O ₃ 1-hour	Nonattainment	Not Applicable
O ₃ 8-hour	Nonattainment	Extreme Nonattainment ¹
PM ₁₀	Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment	Unclassified/Attainment (1-hour) Attainment/Maintenance (Annual)
SO ₂	Attainment	Unclassified/Attainment
Lead	Partial Attainment ²	Unclassified/Attainment ¹
All others	Attainment/Unclassified	Attainment/Unclassified

Source 1: NAAQS and CAAQS Attainment Status for South Coast Air Basin (SCAQMD 2016).¹

Source 2: Nonattainment Areas for Criteria Pollutants (Green Book) (USEPA 2019).

¹ Only the Los Angeles County portion of the South Coast Air Basin is in nonattainment for lead.

CAAQS = California Ambient Air Quality Standards

CO = carbon monoxide

N/A = not applicable

NAAQS = National Ambient Air Quality Standards

NO₂ = nitrogen dioxide

O₃ = ozone

PM₁₀ = particulate matter less than 10 microns in diameter

PM_{2.5} = particulate matter less than 2.5 microns in diameter

SCAQMD = South Coast Air Quality Management District

SO₂ = sulfur dioxide

USEPA = United States Environmental Protection Agency

¹ South Coast Air Quality Management District (SCAQMD). 2016. South Coast Air Basin. National Ambient Air Quality Standards (NAAQS). California Ambient Air Quality Standards (CAAQS) Attainment Status. Website: <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf> (accessed October 2024).

4.2.2.3 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the proposed project site is the Mission Viejo Monitoring Station, which monitors air pollutant data for O₃, CO, NO₂, SO₂, coarse particulates (PM₁₀), and fine particulates (PM_{2.5}). NO₂ and SO₂ data were obtained from the Anaheim and Costa Mesa Monitoring Stations, which are the closest monitoring station for these pollutants, respectively. The air quality trends from these three stations are used to represent the ambient air quality in the vicinity of the proposed project site. Table 4.2.B lists the ambient air quality data monitored at these stations within the past three years. It should be noted that there are no available SO₂ data for Orange County during the three-year period.

Table 4.2.B: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	NAAQS/CAAQS Standard	2021	2022	2023
Ozone (O₃) – Mission Viejo Monitoring Station (26081 Via Pera)				
Maximum 1-hour concentration (ppm)		0.105	0.110	ND
Number of days exceeded:	State: > 0.09 ppm	2	1	ND
Maximum 8-hour concentration (ppm)		0.081	0.088	ND
Number of days exceeded:	State: > 0.07 ppm	8	6	ND
	Federal: > 0.07 ppm	8	5	ND
Coarse Particulates (PM₁₀) – Mission Viejo Monitoring Station (26081 Via Pera)				
Maximum 24-hour concentration (µg/m ³)		35.2	31.0	ND
Number of days exceeded:	State: > 50 µg/m ³	0	0	0
	Federal: > 150 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		16.2	12.7	ND
Exceeded for the year:	State: > 20 µg/m ³	No	No	ND
Fine Particulates (PM_{2.5}) – Mission Viejo Monitoring Station (26081 Via Pera)				
Maximum 24-hour concentration (µg/m ³)		32.6	22.6	ND
Number of days exceeded:	Federal: > 35 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		9.3	ND	ND
Exceeded for the year:	State: > 12 µg/m ³	No	ND	ND
	Federal: > 15 µg/m ³	No	ND	ND
Carbon Monoxide (CO) – Anaheim Monitoring Station (Pampas Lane)				
Maximum 1-hour concentration (ppm)		1.5	2.4	2.5
Number of days exceeded:	State: > 20 ppm	ND	ND	ND
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.5	1.4	1.6
Number of days exceeded:	State: ≥ 9.0 ppm	ND	ND	ND
	Federal: ≥ 9 ppm	0	0	0

Table 4.2.B: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	NAAQS/CAAQS Standard	2021	2022	2023
Nitrogen Dioxide (NO₂) – Anaheim Monitoring Station (1630 W. Pampas Lane)				
Maximum 1-hour concentration (ppm)		0.0671	0.0530	0.0509
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.10 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.012	0.012	0.010
Exceeded for the year:	State: > 0.030 ppm	No	No	No
	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO₂) – Costa Mesa Monitoring Station (2850 Mesa Verde Drive East)				
Maximum 24-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND
Maximum 1-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.25 ppm	ND	ND	ND
	Federal: > 0.075 ppm	ND	ND	ND

Source: CARB (2020).

Data taken from: the Mission Viejo station at 26081 Via Pera in Mission Viejo, CA for O₃, PM_{2.5}, PM₁₀, and CO.

Data taken from: Anaheim-Pampas Land station at 1630 West Pampas Lane in Anaheim, CA for NO₂, and CO.

µg/m³ = micrograms per cubic meter

CAAQS = California Ambient Air Quality Standard

CARB = California Air Resources Board

CO = carbon monoxide

NAAQS = National Ambient Air Quality Standard

ND = No data available

NO₂ = nitrogen dioxide

O₃ = ozone

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ppm = parts per million

SO₂ = sulfur dioxide

As shown in Table 4.2.B, the ambient air quality data indicate that CO, PM_{2.5}, PM₁₀, NO₂, and SO₂ levels are consistently below the relevant State and federal standards. From 2021 to 2023, the State 1-hour O₃ standards were exceeded one to two times, and the State 8-hour O₃ standard was exceeded between 6 and 8 times. The federal 8-hour O₃ standard was exceeded between 5 and 8 times in the last three years. The federal and State 24-hour PM₁₀ standards were not exceeded in the three-year period. The federal PM_{2.5} was also not exceeded during the three-year period. SO₂ data are generally not monitored in Orange County due to the region’s attainment status.

4.2.3 Regulatory Setting

The applicable federal, State, regional, and local regulatory framework is discussed below. As the Modified Project would be located on the same site as the Original Project and would result in the development of the same types of uses on the project site, the following federal, State, and local regulatory setting is derived from that discussed in the 2021 Draft EIR. However, since the analysis of the Original Project was prepared, the SCAQMD adopted the 2022 Air Quality Management Plan (AQMP) and the Southern California Association of Governments (SCAG) adopted the Connect SoCal 2024 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

4.2.3.1 Federal Regulations

Clean Air Act. The EPA is responsible for implementing the Federal Clean Air Act (CAA). The CAA was first enacted in 1955, and has been amended numerous times in subsequent years (i.e., 1963, 1965, 1967, 1970, 1977, and 1990). The CAA authorizes the federal government to set federal air quality standards for pollutant emissions.

Pursuant to the CAA, the EPA established the NAAQS. The NAAQS were established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health.

As discussed above, data collected at permanent monitoring stations are used by the EPA to classify regions as “attainment” or “nonattainment,” depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA. The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

4.2.3.2 State Regulations

Mulford-Carrell Act. In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board), to establish the CARB. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to the State’s air pollution problems.

California Air Pollution Control Officers Association. The California Air Pollution Control Officers Association (CAPCOA) is a nonprofit association of the air pollution control officers from all 35 local air quality agencies throughout California. CAPCOA was formed in 1976 to promote clean air and to provide a forum for sharing knowledge, experience, and information among the air quality regulatory agencies around the State. CAPCOA meets regularly with federal and State air quality officials to develop statewide rules and to assure consistent application of rules and regulations. CAPCOA works with specialized task forces (including regulated industry) by participating actively in the legislative process, and continuing to coordinate local efforts with those of the State and federal air agencies. The goal is to protect public health while maintaining economic vitality.

California Clean Air Act. Assembly Bill (AB) 2595, the California Clean Air Act (CCAA), was signed into law in 1988 and requires all areas of the State to achieve and maintain the CAAQS. The CCAA mandates achievement of the maximum degree of emission reductions possible from vehicular and other mobile sources in order to attain the CAAQS by the earliest practical date. The CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for ensuring implementation of the CCAA and federal CAA and for regulating emissions from consumer products and motor vehicles within California. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the Basin because they are not considered

to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS. All air basins have been formally designated as attainment or nonattainment for each CAAQS.

Nonattainment areas are required to prepare Air Quality Management Plans (AQMPs) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emission vehicles by fleet operators; and
- Sufficient control strategies to achieve a 5 percent or more annual reduction in emissions or 15 percent or more in a period of 3 years for volatile organic compounds (VOCs), NO_x, CO, and PM₁₀. However, air basins may use an alternative emission reduction strategy that achieves a reduction of less than 5 percent per year under certain circumstances.

4.2.3.3 Regional Regulations

South Coast Air Quality Management District. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air quality districts throughout the State. The CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the State.

The CARB is responsible for incorporating air quality management plans for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air quality districts that regulate stationary-source emissions and develop local nonattainment plans.

SCAQMD Rule 402 Measures. The Modified Project would be required to comply with regional rules to prevent occurrences of odor nuisances. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, nuisance, or annoyance. This applies to any persons or to the public, or which endanger the comfort, health or safety of any such persons or the public or cause, injury or damage to business or property.

SCAQMD Rule 403 Measures. The Modified Project would be required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures (BACMs) so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission

source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these rules as listed below will ensure compliance:

- Water active sites at least three times daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

SCAQMD Rule 1113 Measures. The Modified Project would be required to comply with regional rules to control VOC emissions from architectural coatings. SCAQMD Rule 1113 limits the VOC content of architectural coatings used in the Basin, requiring that paints containing no more than 50 grams/liter of VOCs be used.

2016 Air Quality Management Plan. The SCAQMD is responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. The SCAQMD prepares a new AQMP every three years, updating the previous plan and 20-year horizon.

The 2016 AQMP, under which the Original Project was evaluated, utilized the latest scientific and technological information and planning assumptions at the time, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and updated emission inventory methodologies for various source categories. The 2016 AQMP included the integrated strategies and measures needed to meet the NAAQS, implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour ozone NAAQS as well as the latest 24-hour and annual PM_{2.5} standards. Key elements of the 2016 AQMP included:

- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation);
- A strategy with fair-share emission reductions at the federal, State, and local levels;
- Investment in strategies and technologies meeting multiple air quality objectives;
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near zero technologies;
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis;

- Attainment of the 24-hour PM_{2.5} standard in 2019 with no additional measures;
- Attainment of the annual PM_{2.5} standard by 2025 with implementation of a portion of the ozone strategy; and
- Attainment of the 1-hour ozone standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures).

On December 2, 2022, the SCAQMD adopted the 2022 AQMP, which supersedes the 2016 AQMP. The Modified Project is evaluated against the 2022 AQMP. 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 emissions 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.

4.2.3.4 Local Regulations

City of Dana Point General Plan The City addresses air quality in the Conservation and Open Space Element of its General Plan.² The Conservation and Open Space Element includes goals and policies that work to reduce air pollution through land use, transportation, and energy use planning. The following policies from the Conservation and Open Space Element are applicable to the Modified Project:

Goal 5: Reduce air pollution through land use, transportation, and energy planning.

Policy 5.1: Design safe and efficient vehicular access to streets to ensure efficient vehicular ingress and egress.

Policy 5.4: Provide commercial areas that are conducive to pedestrian and bicycle circulation.

Policy 5.6: Encourage bicycle/trail systems to reduce air pollution.

Policy 5.7: Consider the development of shuttles, train, or transit facilities, to help reduce vehicular trips and air pollution.

Dana Point Energy Efficiency and Conservation Plan. The Dana Point Energy Efficiency and Conservation Plan was adopted in December 2011. This plan outlines seven goals for the City to use as pathways to future energy reduction and outlines GHG reduction goals. The plan goals cover both measures that City operations can undertake and measures the citizens of Dana Point can accomplish within the community and they include: Energy Consumption, Water Efficiency and Conservation, Sustainable Land Use and Development, Sustainable Construction, Effective Transportation, Waste Reduction, and Public Education and Outreach. The broader objectives of these goals can be briefly summarized as follows:

² City of Dana Point. 1991. *City of Dana Point General Plan*. July. Website: <https://www.danapoint.org/home/showpublisheddocument/28638/637027764764870000> (accessed August 2024).

- Reduce energy use, and hence reduce greenhouse gas emissions.
- Promote sustainable land use and redevelopment.
- Encourage sustainable construction.
- Promote efficient transportation.
- Continue current efforts to conserve and efficiently use water.
- Reduce waste produced citywide and divert at minimum 50 percent of waste from landfills.
- Encourage public education and outreach in the community concerning energy reduction and sustainable behaviors.

Dana Point Harbor Revitalization Plan & District Regulations. The Dana Point Harbor Revitalization Plan & District Regulations (DPHRP&DR) were certified by the California Coastal Commission on October 6, 2011.³ The DPHRP&DR established new land use policies and development standards for the needed upgrades to visitor serving and marina service areas of Dana Point Harbor. The DPHRP&DR designated planning areas are expected to be redeveloped over the next 5 to 20 years. This plan is designed to improve infrastructure, enhance public access opportunities, commercial and recreational amenities, water quality improvements, and coastal resource preservation. The Dana Point Harbor Revitalization Plan and the Dana Point Harbor District Regulations (DPHRP&DR) include the following policies and special provisions respectively related to air quality that are applicable to the Modified Project:

Dana Point Harbor Revitalization Plan

Policy 8.9.1-1: Encourage patterns of development necessary to minimize air pollution and vehicle miles traveled. (Coastal Act Section 30250)

Policy 8.9.1-2: Provide commercial areas that are conducive to pedestrian and bicycle circulation.

Policy 8.9.1-5: Should asbestos be determined to be present within the existing structures, the project shall comply with SCAQMD Rule 1403, Asbestos Emission from Demolition/Renovation Activities during the demolition process.

Policy 8.9.1-6: Lead-based paint removal shall be performed in accordance with California Code of Regulations Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring and mandates good working practices by workers exposed to lead.

Policy 8.9.1-7: All finishing products used on-site shall meet applicable SCAQMD regulations for solvent content, as required by SCAQMD Rules 1102 and 1171.

³ City of Dana Point. 2011. Dana Point Harbor Revitalization Plan & District Regulations. October.

Policy 8.9.1-8: To reduce long-term operation emissions from area sources (by implementing energy conservation measures and by reducing motor vehicle emissions) the following measures shall be implemented:

- Install energy-efficient street lighting on the site; and
- Landscape with native or non-invasive and drought-tolerant species to reduce water consumption and provide passive solar benefits, where feasible.

Policy 8.9-10: Reduction of vehicle trips is achieved by implementing the Transportation Management Plan, including:

- Shuttle service to off-site (remote) parking areas when necessary;
- Shuttle service to regional visitor attractions and for hotel guests;
- Seasonal water taxi service;
- Visitor boat slips and dingy docks located near restaurants and retail areas; and
- Phased construction of new development will minimize the size of areas subject to disruption from construction activities.

Policy 8.9.1-11: In order to reduce operational energy usage and reduce energy production and air emissions, Harbor projects are required at a minimum to comply with Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation standards.

Dana Point Harbor District Regulations

Special Provision 12:

Air Quality Control Regulations. To minimize construction emissions, all development projects in the Harbor shall be required to implement all applicable regulations of the South Coast Air Quality Management District. These measures may include using low emission construction equipment, maintaining equipment in tune per the manufacturer's specifications, using catalytic converters on gasoline powered equipment and using reformulated, low-emission diesel fuels. Additionally, all finishing products used within Dana Point Harbor shall meet applicable SCAQMD Rules 1102 and 1171.⁴

4.2.4 Methodology

As previously stated, analysis of the Original Project presented in the 2021 Draft EIR utilized CalEEMod version 2016.3.2 to quantify the criteria pollutant emissions for both construction and

⁴ Dana Point Harbor District Regulations. General Regulations and Special Provisions. 2010; as amended through 2024. Website: <https://documents.coastal.ca.gov/reports/2011/1/W8b-1-2011-a1.pdf> (accessed October 2024).

operation of the Original Project. Since the analysis of the Original Project was prepared, CalEEMod version 2022.1 was approved and serves as the most up-to-date version of CalEEMod. As such, CalEEMod version 2022.1 was used to quantify the criteria pollutant emissions associated with construction and operation of the Modified Project. In addition, the Original Project and existing uses were remodeled using CalEEMod version 2022.1, which is available for reference as Appendix D to this Revised Draft EIR.

4.2.4.1 Overview

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the SCAQMD. As discussed above, the latest version of CalEEMod (2022.1), was used to determine construction and operational air quality emissions of the Modified Project. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Construction-generated air pollutant emissions for the Modified Project were primarily calculated using CalEEMod model defaults for Orange County. The length of construction was based on estimates provided by the Project Applicant; construction of the Modified Project is anticipated to begin in October 2025 and reach completion in May 2028 for an approximate 32-month schedule. Operational air pollutant emissions for the Modified Project were based on the Modified Project site plans and the estimated traffic trip generation rates from the updated *Traffic Impact Analysis for the Dana Point Harbor Hotels Project, Dana Point, Orange County, California (2025 Traffic Impact Analysis)* prepared by LSA in February 2025 (Appendix N to this Revised Draft EIR).

The SCAQMD has established daily emissions thresholds for construction and operation for the evaluation of proposed projects in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set by the EPA at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks. The following emissions thresholds were utilized to evaluate air quality impacts of the Modified Project.

4.2.4.2 Regional Thresholds for Construction and Operational Emissions

The SCAQMD *CEQA Air Quality Handbook* is utilized to identify potentially significant impacts on air quality. For the purposes of this analysis, an impact is considered significant if a project:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 4.2.C below.
2. Generates a violation of any ambient air quality standard when added to the local background.
3. Does not conform with the applicable attainment or maintenance plan(s).
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million, and/or a health index (non-cancerous) greater than or equal to one.

Table 4.2.C: SCAQMD Air Quality Significance Thresholds

Air Pollutant	Construction Phase (lbs/day)	Operational Phase (lbs/day)
VOCs	75	55
CO	550	550
NO _x	100	55
SO _x	150	150
PM ₁₀	150	150
PM _{2.5}	55	55

Source: SCAQMD (2019).

CO = carbon monoxide

lbs/day = pounds

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOCs = volatile organic compounds

Projects in the Basin with temporary construction emissions or operational emissions that exceed any of these emission thresholds are considered to be significant under SCAQMD guidelines. These thresholds, which apply throughout the Basin and were developed by the SCAQMD, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

4.2.4.3 Thresholds for Localized Impacts Analysis

The SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors (SCAQMD 2008). This guidance was used to analyze potential localized air quality impacts associated with construction of the Modified Project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area, and the distance to the project. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or places where they gather as sensitive receptors (e.g., residences, schools, playgrounds, childcare centers, convalescent centers, retirement homes, and athletic fields) as sensitive receptors.

LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the Modified Project, the appropriate SRA for the LST is the nearby Capistrano Valley area (SRA 21). SCAQMD provides LST screening tables for 25, 50, 100, 200, and 500-meter source-receptor distances.

LSTs only apply to on-site CO, NO₂, PM₁₀, and PM_{2.5} emissions during construction and operation at the discretion of the lead agency. Screening-level analysis of LSTs is recommended for construction activities at project sites that are approximately 5 acres or less. The total construction area of the project site is 9.16 acres; however, given the phasing of the construction project, it is assumed that daily construction activities would only occur on 5 acres on any given day; therefore, the 5-acre LST would be applicable to the project.

The SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses (SCAQMD 2008). The LST methodology uses lookup tables based on site acreage to determine the significance of emissions for CEQA purposes. However, CalEEMod does not allow the user to mitigate construction emissions by directly modifying acreage disturbed. CalEEMod calculates construction emissions (i.e., off-road exhaust and fugitive dust emissions) based on the number of grading equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. While the project site (including parking areas where no physical development is proposed) is 13.0 acres, a screening-level analysis of LSTs for 5 acres was used for construction and operational activities. As previously stated, the closest off-site sensitive receptors would be patrons visiting Heritage Park, located approximately 31 meters (102 feet) north of the project site. Additionally, the park is located at an elevation above the project site, as the park is on top of a man-altered coastal bluff north of Dana Point Harbor Drive. The park's elevation ranges from approximately 61 feet to 115 feet, resulting in different levels of exposure to potential sensitive receptors.

The LST look-up thresholds for NO_x were developed based on the 1-hour NO_2 CAAQS of 0.18 ppm. However, the EPA has promulgated a 1-hour NO_2 NAAQS of 0.1 ppm based on a 98th percentile value, which is more stringent than the CAAQS. In addition to the more stringent federal 1-hour NO_2 standard, the CARB has also established a new annual standard of 0.03 ppm. The LST look-up thresholds were developed for short-term standards (less than 24-hour concentration standards).

The SCAQMD has developed methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions are greater than the LSTs, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for CO and NO_2 .
- Maximum localized PM_{10} or $\text{PM}_{2.5}$ emissions during construction are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed $50 \mu\text{g}/\text{m}^3$ over five hours (SCAQMD Rule 403 control requirement).

In the case of CO and NO_2 , if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, then emissions of a project are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $\text{PM}_{2.5}$, both of which are nonattainment pollutants (SCAQMD 2006). For these two, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of $10.4 \mu\text{g}/\text{m}^3$ applies to construction emissions. The Rule 1301 threshold of $2.5 \mu\text{g}/\text{m}^3$ applies to operational activities.

4.2.5 Thresholds of Significance

The thresholds for air quality impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The Modified Project may be deemed to have a significant impact with respect to air quality if it would:

- Threshold 4.2.1:** Conflict with or obstruct implementation of the applicable air quality plan.
- Threshold 4.2.2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- Threshold 4.2.3:** Expose sensitive receptors to substantial pollutant concentrations.
- Threshold 4.2.4:** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Initial Study prepared for the Original Project in September 2020, included as Appendix B to this Revised Draft EIR, substantiated that impacts of the Original Project associated with Threshold 4.2.4 would be less than significant because operation of the Original Project was not anticipated to result in objectionable odors. Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills, or heavy manufacturing uses. The Original Project did not propose any such uses or activities that would result in potentially significant odor impacts. As the Modified Project would result in the same uses as the Original Project, the conclusions of the Initial Study prepared for the Original Project related to other emissions, such as those leading to odors, would remain the same for the Modified Project. This threshold will therefore not be addressed in the following analysis.

4.2.6 Project Impacts

Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. The applicable air quality plan for the region is the 2022 AQMP. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The Modified Project would consist of two hotels (Dana House Hotel and Surf Lodge) with a total of 299 rooms, 526 parking spaces, and associated site improvements. The Modified Project would not house more than 1,000 persons, occupy more than 40 acres of land, or encompass more than 650,000 square feet of floor area. Thus, the Modified Project would not be defined as a regionally significant project under CEQA, and therefore, it does not meet SCAG's Intergovernmental Review criteria.

The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook* (1993), consistency with the 2022 AQMP, as with the 2016 AQMP, is affirmed

when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is based on the following criteria:

1. The Modified Project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated below under Threshold 4.2.2. Consequently, the Modified Project could not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation. Therefore, the Modified Project, would be consistent with the AQMP under the first criterion.
2. The *CEQA Air Quality Handbook* (1993) indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. Based on this definition, the Modified Project is not a significant project. In addition, the Modified Project does not require a General Plan or Specific Plan amendment. Therefore, the Modified Project would be consistent with the AQMP under the second criterion.

The Modified Project's land use designation and zoning classifications are consistent with the applicable AQMP. In addition, there are existing commercial uses on the site that have already been included in the AQMP assumptions. As such, the Modified Project is not anticipated to exceed the AQMP assumptions for the project site and are found to be consistent with the AQMP for the Basin. Based on the consistency analysis presented above, the Modified Project would be consistent with the current regional AQMP and would not result in a new or worsening impact related to implementation of the AQMP. Therefore, impacts related to the conflict with or obstruction of implementation of the applicable air quality plan would be less than significant under the Modified Project, similar to the Original Project, and no mitigation is required.

Threshold 4.2.2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Construction. Short-term construction activities produce combustion emissions from various sources (e.g., demolition, site preparation, grading, trenching, utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on the site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Air pollutant emission sources during project construction would include the following:

- Exhaust and particulate emissions generated from construction equipment;

- Fugitive dust from soil disturbance during site preparation, grading, and excavation activities; and
- Volatile compounds that evaporate during site paving and painting of the structures.

Based on the information provided by the Project Applicant, the Modified Project would consist of varying construction phases taking place over a 32-month period. The construction phases would include scheduled demolition, site preparation, grading/trenching, building construction, paving, and architectural coating (painting) activities for each respective area on the project site.

The Modified Project would involve the demolition of the existing Dana Point Marina Inn, existing boater service buildings, and associated parking. The Modified Project would develop two new hotels, Dana House Hotel and Surf Lodge, which would include guest amenities, a signature restaurant, parking structure, surface parking, and new designated boater services with dedicated parking. The Modified Project would also make improvements to facilitate better pedestrian and vehicular access along surrounding roadways to and from the project site, landscaping improvements, and utility upgrades.

This construction analysis includes construction equipment provided by the Project Applicant to be used during each construction activity. This analysis also includes the estimated construction equipment hours of use, the quantities of soil and debris disturbed, and on-road vehicle trips (e.g., worker, soil-hauling, and vendor trips). The Modified Project requires excavation and could include either bore drilling for the foundation or a mat foundation method, and reinforcement of the proposed multilevel hotels. Under the worst-case scenario, the Modified Project would require 11,570 cubic yards (cy) of soil cut and 12,240 cy of fill, resulting in 670 cy of net soil import. The trenching activities refer to areas surrounding the project site that include landscaping, cutting curbs and gutters, sidewalks, and roadway improvements that would occur along the surrounding roadways during construction.

As specified below in Standard Conditions 4.2-1 through 4.2-3 (SC 4.2-1 through SC 4.2-3; refer to Section 4.2.8, Standard Conditions and Mitigation Measures, below), construction of the Modified Project would comply with SCAQMD standard conditions, including Rule 402 (Nuisance) to control nuisance emissions, Rule 403 (Fugitive Dust) to control fugitive dust, and Rule 1113 (Architectural Coatings) to control VOC emissions from paint. Compliance with SCAQMD standard conditions are regulatory requirements, not mitigation, and were considered in the analysis of construction emissions.

CalEEMod calculations and defaults are assumed for the construction activities, select off-road equipment, on-road construction fleet mix, and trip lengths. Construction equipment was added to each respective phase in order to match the provided equipment list. Construction activities, such as application of paving and architectural coating, would occur after building construction and is assumed to occur toward the end of the construction process. Table 4.2.D shows the approximate number of days of each respective construction phase of the Modified Project, based on a probable start date in October 2025 and scheduled completion in May 2028. Table 4.2.E shows the type of equipment used during each phase, hours of use, horsepower rating, and EMFAC2021 load factors.

Table 4.2.D: Tentative Project Construction Schedule

Construction Phases	Approximate Number of Days
Demolition	75
Site Preparation	25
Grading	110
Building Construction	490
Paving (Concurrent with Bldg.)	45
Architectural Coating (Concurrent with Bldg.)	145

Table 4.2.E: Diesel Construction Equipment Utilized by Construction Phase

Construction Phase	Off-Road Equipment Type	Total Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	2	8	367.0	0.40
	Excavators	3	8	36.0	0.38
	Off-Highway Trucks	2	8	33.0	0.73
	Rubber Tired Loaders	1	8	150.0	0.36
Site Preparation	Rubber Tired Dozers	3	8	367.0	0.40
	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Graders	1	8	148.0	0.41
	Excavators	2	8	36.0	0.38
	Tractors/Loaders/Backhoes	2	8	84.0	0.37
	Scrapers	2	8	423.0	0.48
	Rubber-tired Dozers	1	8	367	0.40
	Plate Compactors	1	8	8.0	0.43
	Off-Highway Trucks	2	8	376.0	0.38
	Skid Street Loaders	1	8	71.0	0.31
	Bore/Drill Rigs	2	8	83.0	0.50
	Generator Sets	1	8	14.0	0.74
Air Compressors	1	8	37.0	0.48	
Building Construction	Forklifts	3	8	82.0	0.20
	Generator Sets	1	8	14.0	0.74
	Cranes	1	7	367.0	0.29
	Welders	1	8	46.0	0.45
	Tractors/Loaders/Backhoes	3	7	84.0	0.37
	Pumps	2	8	11.0	0.74
	Off-Highway Trucks	4	8	376.0	0.38
	Dumpers/Tenders	1	8	16.0	0.38
	Skid Street Loaders	2	8	71.0	0.37
Excavators	4	8	36.0	0.38	
Paving	Pavers	2	8	81.0	0.42
	Paving Equipment	2	8	89.0	0.36
	Rollers	2	8	36.0	0.38
Architectural Coating	Air Compressors	4	8	78	0.48

Source: Applicant-provided equipment list (November 2024).

Table 4.2.F shows the estimated emission results during each respective construction phase as single peak daily emissions listed per year in pounds per day (lbs/day). Standard conditions (SCAQMD Rules 402, 403, and 1113) were incorporated into the analysis. Table 4.2.F shows construction emissions as unmitigated construction equipment during the short-term construction period for each calendar construction year.

Table 4.2.F: Unmitigated Short-Term Regional Construction Emissions

Construction Phase-Year	Total Regional Pollutant Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	Total PM ₁₀	Total PM _{2.5}
Peak Daily Emissions for Year 2025	1.0	32.2	24.9	<0.1	2.3	1.2
Peak Daily Emissions for Year 2026	2.3	78.8	58.8	0.1	9.0	5.0
Peak Daily Emissions for Year 2027	7.2	67.4	53.0	0.1	3.6	2.2
Peak Daily Emissions for Year 2028	7.2	1.1	1.8	<0.1	0.3	0.1
Maximum Daily Peak	7.2	78.8	58.8	0.1	9.0	5.0
SCAQMD Thresholds	75.0	100.0	550.0	150.0	150.0	55.0
Significant Emissions?	No	No	No	No	No	No

Source: Compiled by LSA (February 2025).

CO = carbon monoxide
lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compound

As shown in Table 4.2.F, construction emissions associated with the Modified Project would be less than significant for VOC, NO_x, CO, PM_{2.5} and PM₁₀ exhaust emissions.

As shown in Table 4.2.F, the maximum daily construction emissions would not exceed the SCAQMD thresholds of significance. As previously discussed, the portion of the Basin in which the project site is located is in nonattainment of the NAAQS for O₃ and PM_{2.5}. The Basin is in nonattainment of the CAAQS for O₃, PM_{2.5}, and PM₁₀. Construction equipment/vehicle emissions during construction periods associated with the Modified Project would not exceed any of the SCAQMD established daily emissions thresholds for which the region is nonattainment under the CAAQS or NAAQS. Therefore, the Modified Project would not exceed the SCAQMD construction emissions thresholds and short-term (construction) air quality impacts would be less than significant, similar to the Original Project. No mitigation is required.

Operation. Long-term air pollutant emission impacts are those associated with changes to the project site related to stationary sources and mobile sources. The Modified Project would result in a net increase in both stationary and mobile-source emissions. The stationary-source emissions would come from area and energy sources.

Operational emissions associated with the Modified Project (including energy use for appliances, landscaping equipment, use of consumer products, solid waste generation, and motor vehicles) were calculated using CalEEMod. The Modified Project was modeled using land use codes *Hotel* and *Parking Lot*. In calculating mobile-source emissions, the vehicle fleet mix and trip length values were

based on the defaults provided in CalEEMod. The 2025 Traffic Impact Analysis (Appendix N to this Revised Draft EIR) determined that the Modified Project would generate 2,394 average daily traffic (ADT). A conservative internal trip capture of 10 percent was applied to the ADT data for the Modified Project, resulting in an adjusted 2,155 ADT.

The existing Dana Point Marina Inn currently generates 1,051 ADT, resulting in a net increase of 1,104 ADT for the Modified Project. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions (e.g., energy land use intensity, vehicle emission factors, consumer products, water and waste generation rates, etc.). Table 4.2.G presents the existing source emissions for the Dana Point Marina Inn and provides a net comparison to the estimated source emissions of the Modified Project.

Table 4.2.G: Regional Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	Total PM ₁₀	Total PM _{2.5}
Existing Operational Emissions						
Existing Mobile Sources	4.0	4.2	44.4	0.1	10.6	2.8
Existing Area Sources	6.1	0.1	8.6	<0.1	<0.1	<0.1
Existing Energy Sources	0.1	2.3	2.0	<0.1	0.2	0.2
Total Existing Emissions	10.3	6.6	55.0	0.1	10.8	3.0
Modified Project Operational Emissions						
Project Mobile Sources	7.0	6.6	75.9	0.2	21.8	5.6
Project Area Sources	6.6	0.1	9.6	<0.1	<0.1	<0.1
Project Energy Sources	0.1	2.6	2.2	<0.1	0.2	0.2
Total Project Emissions	13.7	9.3	87.7	0.2	22.0	5.8
Net New Operational Emissions	3.4	2.7	32.6	0.1	11.2	2.8
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds?	No	No	No	No	No	No

Source: Compiled by LSA (February 2025).

Note: Column totals may not add due to rounding from the model results.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 4.2.G shows the net increased emission results of the Modified Project would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants, and in fact, even the gross emissions would not exceed any SCAQMD daily emission thresholds for any criteria pollutants. As previously discussed, the portion of the Basin in which the project site is located is in nonattainment of the NAAQS for O₃ and PM_{2.5}. The Basin is in nonattainment of the CAAQS for O₃, PM_{2.5}, and PM₁₀. Table 4.2.G summarizes the Modified Project's maximum daily emissions during operation. Once operational, the Modified Project would have a less than significant impact, similar to the Original Project, and no mitigation is required.

Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Construction. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. Screening-level analysis of LSTs is recommended for construction activities at project sites that are approximately 5 acres or less. The SCAQMD has also issued guidance on applying the CalEEMod emissions software to LSTs for projects greater than 5 acres.⁵ Further, CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. The project site has a construction surface area of 13.0 acres. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, based on the list of equipment (i.e., six dozers, one grader, and two scrapers) required for the Modified Project, the maximum daily disturbed acreage is conservatively assumed to be approximately 5.0 acres per day. Based on SCAQMD guidance for localized significant threshold analysis and the construction phasing of the Modified Project, the maximum daily site grading of 5 acres was assumed during the grading phase. Therefore, screening-level analysis of LSTs for 5 acres was used for construction and operational activities in determining the applicability of SCAQMD’s LST look-up tables.

Table 4.2.H shows that the construction emission rates are well below the LST thresholds for any of the sensitive receptors near the project site. Therefore, impacts from localized construction-related emissions would be less than significant, and no mitigation is required.

Table 4.2.H: Construction Localized Impacts Analysis

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
On-Site Emissions	78.5	56.9	8.8	5.0
SRA 21 LST Thresholds–5 acres	195.0	1,876.0	18.0	8.7
Significant Emissions?	No	No	No	No

Source: Compiled by LSA (February 2025).

Note: Source Receptor Area 21 – Capistrano Valley, 5 acres, receptors at 31-meter distance.

CO = carbon monoxide

lbs/day = pounds per day

LST = local significance threshold

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SRA = Source Receptor Area

Operation. Table 4.2.I shows the calculated emissions for the proposed operational activities of the Modified Project compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources as off-site vehicle trips and their corresponding emissions are excluded.

⁵ South Coast Air Quality Management District (SCAQMD). *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. Website: www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf (accessed September 2024).

Table 4.2.I: Long-Term Operational Localized Impacts Analysis

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Modified Project				
Total On-Site Emissions	3.0	15.6	1.3	0.5
SRA 21 LST Thresholds–5 acres	195.0	1,876.0	4.4	2.2
Exceedance?	No	No	No	No

Source: Compiled by LSA (February 2025).

Notes: Column totals may not add due to rounding from the model results.

SRA 21 – Capistrano Valley Area, 5 acres, receptors at 31 meters.

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in size

lbs/day = pounds per day

PM₁₀ = particulate matter less than 10 microns in size

LST = localized significance thresholds

SRA = Source Receptor Area

NO_x = nitrogen oxides

More importantly, the CalEEMod outputs do not separate on-site and off-site emission values for mobile sources. For a worst-case scenario assessment, the emissions detailed in Table 4.2.I assume all area- and energy-source emissions would occur on site, and 5 percent of the project-related new mobile sources (which is an estimate of the amount of project-related on-site vehicle and truck travel) would occur on site. Considering the total trip length included in CalEEMod, the 5 percent assumption is conservative. Table 4.2.I shows the results of the LST analysis during project construction and operation.

Table 4.2.I shows that the operational emission rates would not exceed the LSTs for the nearest sensitive receptors located at Heritage Park approximately 31 meters (102 feet) north of the project site. Therefore, impacts from localized operation-related emissions of the Modified Project would be less than significant, and no mitigation is required.

CO Hot Spot Analysis. Vehicular trips associated with the Modified Project could contribute to congestion at intersections and along roadway segments in the vicinity of the project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the Modified Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (residents, schoolchildren, the elderly, and hospital patients, etc.).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project’s effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project site vicinity are not available. In previously referenced Table 4.2.A, the ambient CO levels monitored

at the Mission Viejo Monitoring Station showed a highest recorded 1-hour concentration of 2.5 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.6 ppm (the State standard is 9 ppm) from 2021 to 2023, which are well below the State and federal standards identified in Table 4.2.A. The highest CO concentrations would normally occur during peak traffic hours; therefore, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Reduced speeds and vehicular congestion at intersections result in increased CO emissions.

The 2025 Traffic Impact Analysis (refer to Appendix N of this Revised Draft EIR) evaluated the level of service (LOS) (i.e., increased congestion) impacts at intersections affected by the Modified Project, respectively. The potential for CO hotspots under the Modified Project was evaluated based on the results of the 2025 Traffic Impact Analysis. Of the intersections evaluated, none were found to operate at or below LOS D under the Modified Project. Given that the CO concentrations in the Basin are extremely low and consistently below the relevant State and federal standards; and better than LOS D conditions at nearby intersections, vehicles associated with the Modified Project are not expected to contribute significantly to CO concentrations exceeding the State or federal CO standards. Therefore, the Modified Project can be implemented in the buildout scenario with no significant peak-hour intersection impacts. Because no CO hot spot would occur, as identified in the Modified Project, there would be no impacts related to CO concentrations, similar to the Original Project. No mitigation is required.

4.2.7 Level of Significance Prior to Mitigation

There would be no potentially significant impacts related to air quality under the Modified Project.

4.2.8 Standard Conditions and Mitigation Measures

The Modified Project would comply with the following standard conditions, which the City considers to be mandatory; therefore, they are not considered mitigation. Construction and operation of the Modified Project would result in a less than significant impact. No mitigation is required.

Standard Condition 4.2-1 South Coast Air Quality Management District (SCAQMD) Rule 402, Nuisance. This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material that 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. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Standard Condition 4.2-2 SCAQMD Rule 403, Fugitive Dust. The Project Applicant shall ensure the Construction Contractor implements fugitive dust control measures in compliance with SCAQMD Rule 403. The Project Applicant shall include the following fugitive dust control measures

for SCAQMD Rule 403 compliance in the project plans and specifications:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.
- The Construction Contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project site are watered, with complete coverage of disturbed areas, at least three (3) times daily during dry weather and preferably mid-morning, afternoon, and after work is done for the day.
- The Construction Contractor shall ensure that traffic speeds on unpaved roads and project site areas are reduced to 15 mph or less.

Standard Condition 4.2-3

SCAQMD Rule 1113. The Project Applicant shall ensure the Construction Contractor implements measures to control volatile organic compound (VOC) emissions from architectural coatings in compliance with SCAQMD Rule 1113. The Project Applicant shall include the following control measures for SCAQMD Rule 1113 compliance in the project plans and specifications:

- Only “Low-Volatile Organic Compounds” paints (no more than 50 grams/liter of VOC) shall be used.

4.2.9 Level of Significance after Mitigation

Implementation of SC 4.2-1 through SC 4.2-3 would further reduce less than significant air quality impacts of the Modified Project. No significant unavoidable impacts related to air quality would occur with implementation of these standard measures. All anticipated impacts related to air quality would be considered less than significant under the Modified Project, and no mitigation would be required.

4.2.10 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for air quality. The cumulative impact area for air quality related to the Modified Project is the South Coast Air Basin.

Air pollution is inherently a cumulative impact measured across an air basin. The discussion under Threshold 4.2.2, above, includes an analysis of the Modified Project’s contribution to cumulative air impacts. To summarize the conclusion with respect to that analysis, the incremental effect of projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively considerable per SCAQMD guidelines. The Modified Project’s construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all

criteria pollutants. In addition, adherence to SCAQMD rules and regulations on a project-by-project basis would substantially reduce potential impacts associated with the related cumulative projects and basin-wide air pollutant emissions. Therefore, similar to the Original Project, the Modified Project would not have a cumulatively considerable increase in emissions, and impacts of the Modified Project related to cumulative air quality impacts would be less than significant. No mitigation is required.