

4.2 AIR QUALITY

4.2.1 Introduction

This section evaluates the potential impacts on air quality resulting from the proposed General Plan Update. This includes the potential for the proposed General Plan Update to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors that would affect a substantial number of people. Data for this section were taken from the 2004 Technical Background Report, the 2005 Local Coastal Program, and other documents prepared for the City.

During the Initial Study process, it was determined that the proposed project could have potentially significant impacts for all five of the air quality CEQA criteria for determining significance. All potential impacts were analyzed in this Draft EIR. Full bibliographic entries for all reference materials are provided in Section 4.2.7 (References) of this section.

One comment letter related to Air Quality was received in response to the IS/NOP circulated for the proposed General Plan Update. The South Coast Air Quality Management District (SCAQMD) recommended that analysis of the potential air quality impacts associated with the proposed project should be included in this EIR. Recommendations for the calculation of construction and operational impacts would not apply to this EIR as analysis of the proposed project is at the programmatic level.

4.2.2 Existing Conditions

■ Regional Climate

The Planning Area is located within the South Coast Air Basin (Basin), named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys and basins below. This area includes all of Orange County and the nondesert portions of Los Angeles, San Bernardino, and Riverside Counties. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity.

■ Local Climate

The Planning Area is located in central coastal Orange County. The typical daily wind pattern in the Basin is a daytime onshore sea breeze (from the west) followed by a nighttime land breeze in the opposite direction. On practically all spring and early summer days, the winds are strong enough to flush much of the air pollutants from the Basin. However, from late summer through the winter months, the

wind speeds decrease, the flushing is much less pronounced, and higher levels of air pollutants can build up.

■ Air Quality Background

Air pollutant emissions within the Basin are generated by stationary sources (e.g., industrial processes, power generation), mobile sources (e.g., automobiles, trucks, aircraft, trains), and natural sources (e.g., dust suspension from high winds).

Both the federal and state governments have established outdoor ambient air quality standards for several of the most common air pollutants in order to protect public health. Each of these air pollutants is identified and briefly described below:

- *Ozone* is a gas that is formed when *volatile organic compounds (VOCs)* and *nitrogen oxides (NOX)* undergo photochemical reactions in the presence of sunlight; internal combustion engine exhaust accounts for a majority of such compounds. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to ozone formation.
- *Carbon Monoxide (CO)* is a colorless, odorless gas produced by the incomplete combustion of motor vehicle fuels. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections in the winter.
- *Nitrogen Dioxide (NO₂)* is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is an essential ingredient in the formation of ozone. It is emitted as a by-product of fuel combustion.
- *Respirable Particulate Matter (PM₁₀)* and *Fine Particulate Matter (PM_{2.5})* consist of extremely small, suspended particles or droplets with diameters less than 10 microns and less than 2.5 microns, respectively. Most particulate matter in urban areas is produced by fuel combustion, motor vehicle travel, and construction activities.
- *Sulfur dioxide (SO₂)* is a colorless, extremely irritating gas. It enters the atmosphere as a result of burning sulfur-containing fuels and from certain industrial processes (e. g., oil refining).
- *Lead (Pb)* is present in the atmosphere in particulate form. Its primary source is the combustion of leaded gasoline, but other sources also contribute (e.g., recycling of batteries, manufacture of paint, ink, ceramics, ammunition, etc.).

■ Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (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. Elevated ozone levels are also associated with increased school absences. In recent years, a correlation between elevated

ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities.

Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposure to a combination of pollutants that include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

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 worsening 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 (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM₁₀ and PM_{2.5}) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, 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 school and kindergarten absences, 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.

The elderly, people with pre-existing respiratory or cardiovascular disease and children appear to be more susceptible to the effects of high levels of PM₁₀ and PM_{2.5}.

Nitrogen Dioxide

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 exposures to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO₂ considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO₂.

Sulfur Dioxide

A few minutes exposure to low levels of SO₂ can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO₂.

Animal studies suggest that despite SO₂ being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO₂ levels. In these studies, efforts to separate the effects of SO₂ from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb 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 adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures and death, although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, some odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress. Potential operational airborne odors relevant to implementation of the proposed General Plan Update include cooking activities associated with the new residential and restaurant uses. These odors could be similar to existing housing and food service uses throughout the City are generally confined to the immediate vicinity of buildings. Other potential sources of odors include trash receptacles.

Toxic Air Contaminant Emissions

Toxic air contaminants (TAC) are airborne substances that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Toxic air contaminants are different than the “criteria” pollutants previously discussed in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be local rather than regional.

Lifetime cancer risk is defined as the increased chance of contracting cancer over a 70-year period as a result of exposure to a toxic substance or substances. It is the product of the estimated daily exposure of each suspected carcinogen by its respective cancer unit risk. The end result represents a worst-case estimate of cancer risk. The California Air Resources Board (ARB) has produced a series of estimated inhalation cancer risk maps based on modeled levels of outdoor composite toxic pollutant levels. The 2000 map (the most recent map available) indicates that the City of Newport Beach is exposed to an estimated inhalation cancer risk of more than 250 persons per million. These risk maps depict inhalation cancer risk due to modeled outdoor toxic pollutant levels, and do not account for cancer risk due to other types of exposure. The largest contributors to inhalation cancer risk are diesel engines.

■ Regional Air Quality

The Southern California Air Quality Management District (SCAQMD) is responsible for bringing air quality within the Basin into conformity with the federal and state standards. The Basin is a nonattainment area for the federal ozone and PM₁₀ standards. It has recently improved from nonattainment to attainment for the federal NO₂ standard, and is about to be designated an attainment area for CO. The Basin is a nonattainment area for the state ozone, CO (Los Angeles County only), and PM₁₀. Regional air quality throughout the Basin has improved substantially over the 1980’s and 1990’s, even as substantial growth has occurred.

Local Air Quality

Ambient air pollutant concentrations of ozone, CO, NO₂, and SO₂ are monitored near the Planning Area by a SCAQMD station in Costa Mesa. Table 4.2-1 identifies the federal and state ambient air quality standards and provides a summary of ambient air quality measured at Costa Mesa from 2001 to 2003.

Table 4.2-1 Summary of Ambient Air Quality at the Costa Mesa Monitoring Station (SRA 18)

Pollutant	Air Quality Standards	Year		
		2001	2002	2003
Ozone				
Maximum 1-hour concentration		0.098	0.087	0.107
Number of days exceeding federal 1-hour standard	>0.12 ppm	0	0	0
Number of days exceeding state 1-hour standard	>0.09 ppm	1	0	4
Maximum 8-hour concentration		0.073	0.070	0.088
Number of days exceeding federal 8-hour standard	>0.08 ppm	0	0	1
Carbon Monoxide (CO)				
Maximum 1-hour concentration		6	5	7
Number of days exceeding federal 1-hour standard	>35.0 ppm	0	0	0
Number of days exceeding state 1-hour standard	>20.0 ppm	0	0	0
Maximum 8-hour concentration		4.64	4.29	5.90
Number of days exceeding federal 8-hour standard	>9.0 ppm	0	0	0
Number of days exceeding state 8-hour standard	>9.0 ppm	0	0	0
Nitrogen Dioxide (NO₂)				
Maximum 1-hour concentration		0.082	0.106	0.107
Number of days exceeding state 1-hour standard	>0.25 ppm	0	0	0
Sulfur Dioxide (SO₂)				
Maximum 24-hour concentration		0.005	0.011	0.012
Number of days exceeding federal 24-hour standard	>0.14 ppm	0	0	0
Number of days exceeding state 24-hour standard	>0.04 ppm	0	0	0

SOURCE: ARB 2004, www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w/Branch.

ppm = parts by volume per million of air.

Ambient concentrations of PM₁₀ and PM_{2.5} are not monitored in SRA 18.

The California Air Resources Board (ARB) has produced a series of cancer risk maps based on modeled levels of composite TAC inhalation exposures. Residents of Newport Beach are exposed to an estimated risk of more than 250 chances in a million of developing cancer from the inhalation of TACs. This is generally higher than what is estimated by the Environmental Protection Agency (EPA) to be the national average, in which case the risk is more than 25 chances in a million in urban areas and more than

50 chances in a million in transportation corridors.⁴ However, the risk in the City of Newport Beach is lower than the state and regional cancer risk. The estimated regional cancer risk from air toxics in the South Coast Air Basin is approximately 1,000 chances in a million.⁵ The estimated risk from air toxic contaminants statewide, based on being exposed to an annual average concentration for 70 years, is approximately 750 chances in a million.⁶ The largest contributor to inhalation cancer risk is small-diameter particulate matter produced by diesel engines.

■ Sensitive Receptors

Federal and state ambient air quality standards have been set to protect the most sensitive persons from illness or discomfort. Residential areas, schools, playgrounds, child care centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes are especially likely to include persons sensitive to air pollutants. Each of these land use types is present within the Planning Area.

■ Land Use Planning and Air Quality

Land use patterns and development density affect the amount of air pollutants that are generated in communities. Segregation of land uses within a community reduces the opportunities to walk, ride bicycles and use public transportation and increases the number of motor vehicle trips. Communities with low development densities have longer average trip distances and fewer opportunities for efficient public transportation services. Thus, land use segregation and low density, both characteristics of the Newport Beach Planning Area, increase air pollutant emissions. Low-density uses also produce more air pollutant emissions from the use of natural gas for space and water heating, and from the use of landscape maintenance equipment. In job-rich communities like Newport Beach, there is an increased potential for air pollutant emissions as non-resident employees commute long distances to/from their homes and work.

4.2.3 Regulatory Framework

Air quality within the air basins is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the air basins are discussed below.

⁴ Environmental Protection Agency, 2006. National-Scale Air Toxics Assessment for 1999: Estimated Emissions, Concentrations and Risk. February 22, 2006

⁵ Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005).

⁶ Air Resources Board Roseville Rail Study, Stationary Source Division, October 14, 2004.

■ Federal Regulations

U.S. Environmental Protection Agency

The United States EPA is responsible for setting and enforcing the National Ambient Air Quality Standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The EPA also maintains jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

■ State Regulations

California Air Resources Board

The ARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the ARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. The organization also promotes using carpools, buses, trains, and other alternative forms of transportation throughout the region. SCAG's Regional Comprehensive Plan and Guide (RCPG) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCPG is a framework for decision-making for local governments, assisting them in meeting federal and state mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015, and beyond.

Policies within the RCPG include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions, local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and natural sources. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The most recent of these was adopted by the Governing Board of the SCAQMD on August 1, 2003. This AQMP, referred to as the 2003 AQMP, was prepared to comply with the federal and state Clean Air Acts and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet federal and state ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. It identifies the control measures that will be implemented to reduce major sources of pollutants. These planning efforts have substantially decreased the population's exposure to unhealthy levels of pollutants, even while substantial population growth has occurred within the Basin. As discussed on pages 2-5 through 2-7 of the 2003 AQMP, levels of ambient pollutants monitored throughout the Basin have decreased substantially since 1980. The future air quality levels projected in the 2003 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the RCPG, which was adopted in March 1996. The AQMP also assumes that general development projects will include strategies (mitigation measures) to reduce emissions generated during construction and operation.

■ Local Regulations

City of Newport Beach

Local jurisdictions, such as the City of Newport Beach, have the shared responsibility to help develop and implement some of the control measures of the AQMP. Transportation-related strategies for congestion management, low emission vehicle infrastructure, and transit accessibility and non-transportation-related strategies for energy conservation can be encouraged by policies of local governments. A summary of the AQMP control measures that are partially within the jurisdiction of local governments to implement is provided in Table 4.2-2.

Table 4.2-2 AQMP Control Strategies for Local Governments

<i>AQMP Strategy Name</i>		<i>Effect</i>
Miscellaneous Sources		
MSC-01	Promotion of Lighter Colored Roofing and Road Materials and Tree Planting Programs	Energy Conservation
Transportation Strategies		
TCM-B	Transit & Systems Management	Trip Reduction
TCM-C	Information Based Measures	Trip Reduction
SOURCE: SCAQMD 2003 Air Quality Management Plan.		

4.2.4 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2005 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on air quality if it would result in any of the following:

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

The SCAQMD is principally responsible for comprehensive air pollution control in the South Coast Air Basin and recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA Air Quality Handbook. These thresholds were developed by the SCAQMD to provide quantifiable significance levels for comparison with projects. The City of Newport Beach utilizes the SCAQMD's thresholds that are recommended at the time that development projects are proposed to assess the significance of quantifiable impacts. The following quantifiable thresholds are currently recommended by the SCAQMD and are used to determine the significance of air quality impacts associated with the proposed General Plan Update.

■ Construction Emissions Thresholds

The SCAQMD currently recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered potentially significant. These thresholds apply to individual development projects only; they do not apply to cumulative development:

- 550 pounds per day of carbon monoxide (CO)
- 75 pounds per day of volatile organic compounds (VOC)
- 100 pounds per day of nitrogen oxides (NO_x)
- 150 pounds per day of sulfur oxides (SO_x)
- 150 pounds per day of Fine Suspended Particulate Matter (PM₁₀)

■ Operational Emissions Thresholds

The SCAQMD currently recommends that projects with operational emissions that exceed any of the following emissions thresholds should be considered potentially significant. These thresholds apply to individual development projects only; they do not apply to cumulative development:

- 550 pounds per day of CO
- 55 pounds per day of VOC
- 55 pounds per day of NO_x
- 150 pounds per day of SO_x
- 150 pounds per day of PM₁₀

In order to assess cumulative impacts, the SCAQMD recommends that projects be evaluated to determine whether they would be consistent with Air Quality Management Plan (AQMP) performance standards and emission reduction targets. If a project incorporates design features, land use characteristics, and/or mitigation measures that reduce emissions of CO, VOC, NO_x, SO_x, and PM₁₀ by at least one percent, then it would not result in a cumulatively considerable net increase of criteria pollutants. If a project does not reduce these operational emissions by one percent, then it would result in a cumulatively considerable net increase of criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

4.2.5 Project Impacts, Mitigation Measures, and Proposed Policies

■ Effects Not Found to Be Significant

The IS/NOP prepared for the proposed project did not identify any effects not found to be significant associated with Air Quality. Therefore, all thresholds are addressed in this section.

■ Project Impacts

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?
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Impact 4.2-1 Implementation of the proposed General Plan Update would conflict with or obstruct implementation of the Air Quality Management Plan.

The 2003 Air Quality Management Plan (AQMP) discussed in Section 4.24 (Regulatory Setting) was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development

of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG) prepared by the Southern California Association of Governments (SCAG) are considered consistent with the AQMP growth projections, since the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

The City of Newport Beach is located within the Orange County subregion of the RCPG. As discussed in Section 4.10 (Population and Housing) of this EIR, implementation of the proposed General Plan Update would induce substantial population growth through increased residential development beyond projected population levels for the City. The potential net increase of 14,215 residential units would result in a population increase of approximately 31,131 residents.

This population increase would result in a total population of 103,753 persons at buildout of the proposed General Plan Update, which would represent a 43 percent increase in population over 2002 population. The SCAG-projected population for Newport Beach is 94,167 by 2030, and the population resulting from the proposed General Plan Update buildout would be approximately 10 percent higher than SCAG projections. The projected net population increase of 31,131 residents would represent an increase of approximately less than one percent over what is projected by SCAG for Orange County as well as the entire SCAG region for 2030.

However, as the AQMP growth projections are based on SCAG population levels, the increase in population growth associated with the proposed plan would not have been accounted for in the AQMP. Therefore, implementation of the proposed General Plan Update would not be consistent with AQMP attainment forecasts and attainment of the standards could be delayed.

Another measurement tool in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT), both within the project area and the surrounding area in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP.

Goals and policies contained in the General Plan Update would serve to promote a mixed-use, pedestrian-friendly district for Balboa Peninsula, Airport Area, Newport Center/Fashion Island, Mariners' Mile and which could contribute to decreases in vehicle miles traveled. Land Use Policy 3.3 identifies opportunities for mixed use development in these subareas and encourages a mixed-use district which would integrate economic and commercial centers, serving the needs of Newport Beach residents and the sub-region, with expanded opportunities for residents to live close to jobs, commerce, entertainment, and recreation, and is supported by a pedestrian-friendly environment. Specifically, Policy LU 6.14.5 encourages improved pedestrian connections and streetscape amenities, and Policy LU 6.15.9 allows the development of multi-family residential units and mixed-use buildings that integrate residential with commercial uses, and supporting retail, grocery stores, and parklands. Integration of residential uses

with commercial and entertainment uses, along with pedestrian-oriented development, would encourage pedestrian activities and discourage vehicle trips.

The proposed General Plan Update also includes specific policies in the Natural Resources Element aimed at reducing vehicle miles traveled, providing alternative methods of transportation, encouraging the use of alternative fuel vehicles, as well as land uses that encourage pedestrian use through placement and design. Policy NR6.1, NR6.2, and NR6.3 would reduce vehicle trips through land use planning through mixed-use development or siting of amenities in proximity to residential or employment areas. Policy NR 6.4 and NR 6.5 would promote Transportation Demand Management programs, which encourages the use of alternative transportation modes, and coordination with transit agencies to promote mass transit use. These planning policies would serve to encourage the use of transit, reduce the number of vehicle trips and miles traveled, and create further opportunities for residents and employees of the City to walk and bike to work or shop.

Based on the above information, the proposed General Plan Update would be consistent with the 2003 AQMP in the reduction of vehicle miles traveled, but would be inconsistent with the 2003 AQMP, because buildout of the proposed project would result in population levels above those uses in the 2003 AQMP. Therefore, because the proposed General Plan Update would conflict with implementation of the 2003 AQMP, this impact would be *significant*.

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
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Impact 4.2-2 Implementation of the proposed General Plan Update would result in construction emissions that would contribute substantially to an existing or projected air quality violation.

Implementation of the proposed General Plan Update would result in new emissions being generated from construction activities. The thresholds of significance that have been recommended by the SCAQMD for these new emissions were developed for individual development projects. Under the proposed General Plan Update, varying amounts of construction would likely occur every year until buildout of the proposed General Plan Update. Many of the individual projects would be small and generate construction emissions that do not exceed the SCAQMD's recommended thresholds of significance. Although the City would not consider these projects to cause a potentially significant air quality impact, it will require each project to implement the proposed General Plan Update policies that address air quality in order to minimize emissions. Other projects will be large enough to generate construction emissions that exceed these thresholds. Through the environmental review process for individual projects, additional mitigation may also be required to further reduce emissions and potential impacts; however, even with mitigation it may not be possible to mitigate to a *less-than-significant* level.

In the case of the proposed General Plan Update, which is an individual project under CEQA, it is expected that a number of construction projects could occur every year. It would be difficult, if not impossible, to quantify the emissions related to construction activities under the proposed General Plan

Update as the amount and timing of each construction event is not known at this time. Because the thresholds are established for individual development projects, and it is assumed that some of the projects that would be implemented under the proposed General Plan Update could individually exceed the SCAQMD thresholds, the total amount of construction within the Planning Area under the proposed General Plan Update could also exceed the SCAQMD’s recommended thresholds of significance, and this impact would be *significant*.

Implementation of proposed General Plan Update policies NR 8.1 through NR 8.5 would help reduce construction-related impacts by reducing air pollutant emissions from construction activities. These policies call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust. However, this impact would not be reduced to a less-than-significant level. This impact would remain *significant and unavoidable*. Air emissions associated with the proposed General Plan Update would also occur as a result of operation of new land uses. The thresholds of significance that have been recommended by the SCAQMD for these new emissions were developed for individual development projects and are based on the SCAQMD’s New Source Review emissions standards for individual sources of new emissions such as boilers and generators. They do not apply to cumulative development or multiple projects.

The SCAQMD does not recommend calculation of operational emissions for a planning document, such as the proposed General Plan Update.

Threshold	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;
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Impact 4.2-3 Implementation of the proposed General Plan Update would result in a cumulatively considerable net increase of criteria pollutants for which the region is in nonattainment under an applicable national or state ambient air quality standard.

The SCAQMD’s CEQA Air Quality Handbook identifies possible methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). These methods differ from the methodology used in other cumulative impact analyses in which all foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. Instead, the SCAQMD’s methods are based on performance standards and emission reduction targets necessary to attain federal and state air quality standards as predicted in the AQMP.

As discussed previously under Impact 4.2-1, according to the CEQA Air Quality Handbook, projects that are consistent with the 2003 AQMP performance standards and emission reduction targets would be considered less than significant unless there is other pertinent information to the contrary. The method employed for this impact is an analysis of consistency with specific AQMP performance standards and emission reduction targets. If implementation of the proposed General Plan Update provides at least a one percent per year reduction in project emissions of CO, VOC, NO_x, SO_x, and PM₁₀, then it would

not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Construction emissions reductions measures, as estimated by the CEQA Air Quality Handbook, remove 0.1 percent to 98.0 percent of construction equipment emissions and 7.0 percent to 92.5 percent of fugitive dust emissions. Similarly, the effectiveness of control policies aimed at operational emissions associated with water heating and space heating/cooling would be approximately 1.5 to 14 percent, and motor vehicle trip reduction policies could reduce potential emissions by 0.1 percent and up to 40 percent. Policies that are aimed at air quality reduction are included in the Natural Resources Element of the proposed General Plan Update (see below). In particular, Natural Resources policies under Goal NR6 would reduce mobile source emissions through the reduction of vehicle travel, cleaner vehicles, and promotion of alternative transportation; policies under Goal 7 would reduce emissions from stationary sources by promoting best management practices and efficiency to minimize pollution, incentives for new technologies, and discouraging the use of blowers by the City and private users; and policies under Goal NR 9 would reduce air pollution emissions from aircraft associated with the John Wayne Airport. Other policies related to energy conservation, land use design, and circulation would also indirectly reduce air pollution emissions. The policies contained in the proposed General Plan Update would be consistent with the measures, programs, and policies of the 2003 AQMP.

Although it can be reasonably assumed from the CEQA Air Quality Handbook data that the proposed policies would reduce the potential emissions that would otherwise be generated within the City by at least one percent on an annual basis, given the general nature of the proposed General Plan Update, it is not possible to quantify the exact reduction in emissions that would be provided by these policies. Therefore, the proposed General Plan Update may not meet the performance standard for annual emissions reductions and could result in a cumulatively considerable net increase of one or more criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard, and this impact would be *significant*.

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?
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Impact 4.2-4 Implementation of the proposed General Plan Update could expose sensitive receptors to substantial CO concentrations.

SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by SCAQMD. The simplified model is intended as a screening analysis in order to identify a potential CO hotspot and assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

The SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and

retirement homes. When evaluating potential air quality impacts to sensitive receptors, the SCAQMD is primarily concerned with high localized concentrations of CO. Motor vehicles, and traffic-congested roadways and intersections are the primary source of high localized CO concentrations. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO “hotspots.”

Implementation of the proposed General Plan Update is not expected to expose existing or future sensitive uses within the City to substantial CO concentrations. As shown in Table 4.2-3, based on CO modeling using the simplified CALINE4 methodology at the 17 intersections expected to operate at LOS D or worse, CO concentrations would be substantially below the national 35.0 ppm and state 20.0 ppm 1-hour ambient air quality standards, and the national and state 9.0 ppm 8-hour ambient air quality standards when growth envisioned under the proposed General Plan Update occurs. Therefore, sensitive receptors within the City would not be exposed to substantial pollutant concentrations, and the potential impacts of the proposed General Plan Update would be *less than significant*.

Table 4.2-3 Carbon Monoxide Concentrations at Selected Intersections

Intersection	Carbon Monoxide Concentrations (ppm)			
	1-Hour Average Exist (2005)	1-Hour Average GP Update Buildout (2030)	8-Hour Average Exist (2005)	8-Hour Average GP Update Buildout (2030)
Newport Boulevard & Hospital Road	8.5	5.4	6.7	4.4
Riverside Avenue & Pacific Coast Highway	9.9	5.6	7.9	4.5
Tustin Avenue & Pacific Coast Highway	8.7	5.6	7.1	4.5
MacArthur Boulevard & Campus Drive	8.2	5.7	6.8	4.6
MacArthur Boulevard & Birch Street	8.2	5.4	6.7	4.4
Von Karman Boulevard & Campus Drive	8.2	5.4	6.7	4.4
Jamboree Road & Campus Drive	9.5	5.9	7.6	4.7
Campus Drive & Bristol Street North	10.2	5.8	8.1	4.7
Irvine Avenue & Mesa Drive	9.0	5.6	7.3	4.5
Irvine Avenue & University Drive	8.8	5.6	7.2	4.5
Irvine Avenue & Westcliff Drive	8.5	5.4	7.0	4.3
Dover Drive & Pacific Coast Highway	9.5	5.9	7.7	4.7
Bayside Drive & Pacific Coast Highway	9.3	5.7	7.5	4.6
MacArthur Boulevard & Jamboree Road	9.5	5.7	7.6	4.6
MacArthur Boulevard & Ford Road/Bonita Canyon Drive	10.0	5.7	8.0	4.6
MacArthur Boulevard & San Joaquin Hills Road	10.1	5.8	8.1	4.6
Marguerite Avenue & Pacific Coast Highway	8.9	5.5	7.2	4.4

SOURCE: EIP Associates, 2005; Calculation sheets are provided in Appendix B

National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.

Federal 8-hour standard is 9.0 parts per million. State 8-hour standard is 9.0 parts per million.

Threshold	Would the project create objectionable odors affecting a substantial number of people?
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Impact 4.2-5 Implementation of the proposed General Plan Update could create objectionable odors that could affect a substantial number of people.

Construction activities occurring under the proposed General Plan Update would generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. However, these odors are not generally considered to be especially offensive. Emissions would occur during daytime hours only and would be isolated to the immediate vicinity of the construction site and activity. As such, they would not affect a substantial number of people as impacts related to these odors are limited to the number of people living and working nearby the source. However, due to the types of odors that would occur in the City, the exposure of substantial people to the source would not constitute an impact.

Potential operational airborne odors could result from cooking activities associated with the new residential and restaurant uses within the City. These odors would be similar to existing housing and food service uses throughout the City and would be confined to the immediate vicinity of the new buildings. Restaurants are also typically required to have ventilation systems that avoid substantial adverse odor impacts. The other potential source of odors would be new trash receptacles within the community. The receptacles would be stored in areas and in containers as required by City and Health Department regulations, and be emptied on a regular basis, before potentially substantial odors have a chance to develop. Consequently, implementation of the proposed General Plan Update would not create objectionable odors affecting a substantial number of people within the City and potential impacts would be *less than significant*.

4.2.6 Cumulative Impacts

The geographic context for air quality impacts is Source Receptor Area (SRA) 18 of the Basin. This area includes the Planning Area for the proposed General Plan Update. The analysis accounts for all anticipated cumulative growth within this geographic area. However, the significance of cumulative air quality impacts is typically determined according to the project methodology employed by the SCAQMD, as the regional body with authority in this area, and which has taken regional growth projections into consideration.

Cumulative development, including the proposed General Plan Update would result in a potentially significant impact in terms of conflicting with, or obstructing implementation of, the 2003 AQMP as development would result in population levels above those used in preparation of the AQMP. The AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, if growth in the Basin is not within the projections for growth identified in the Growth Management Chapter of the RCPG, implementation of the AQMP would be obstructed by such growth.

As growth in the Basin would exceed these projections, at least in the Planning Area, this is considered to be a significant cumulative impact. Since growth under the proposed General Plan Update is inconsistent with growth under the RCPG, the impact of the proposed General Plan Update is cumulatively considerable. This is considered a *significant* impact.

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is in nonattainment, this is considered to be a potentially significant cumulative impact, due to nonattainment of ozone, CO, and PM₁₀ standards in the Basin. With regard to the contribution of the proposed General Plan Update, the SCAQMD has recommended methods to determine the cumulative significance of new land use projects. The SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain federal and state air quality standards as predicted in the AQMP. Under the SCAQMD methodology, as set forth in SCAQMD's CEQA Air Quality Handbook, because it is unknown whether the policies in the proposed General Plan Update would provide more than a one percent per year reduction in daily construction and operational emissions of criteria pollutants within the Planning Area, the proposed General Plan Update would have the potential to contribute to a cumulatively considerable net increase of a criteria pollutant. As discussed in Impact 4.2-3, the contribution of daily construction and operational emissions from the proposed project could be cumulatively considerable. This cumulative impact is considered to be *significant*.

Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations. Thus, this is considered to be a less-than-significant cumulative impact. As discussed under Impact 4.2-4, future ambient CO concentrations resulting from the proposed project would be substantially below national and state standards. These future predictions take into account cumulative development that would occur in SRA 18. Therefore, the project's contribution to the impact is considered less than cumulatively considerable, and the cumulative impact would be *less than significant*.

Cumulative development would not have a potentially significant impact in terms of the creation of objectionable odors affecting a substantial number of people. Thus, this is considered to be a less-than-significant cumulative impact. Projects projected to be built in the Planning Area include residential, office, and commercial developments, and could include restaurants. Odors resulting from the construction of projects that would occur upon implementation of the General Plan Update are not likely to affect a substantial number of people, due to the fact that construction activities occur in a limited area and do not usually emit odors that are considered to be offensive. Other odor impacts resulting from these projects are also not expected to affect a substantial amount of people, as garbage from these projects would be stored in areas and in containers as required by City and Health Department regulations, and restaurants are typically required to have ventilation systems that avoid substantial adverse odor impacts. Cumulative odor impacts would thus be *less than significant*.

■ Proposed General Plan Update Policies

The Natural Resources and Land Use Elements of the proposed General Plan Update include policies that would address issues related to existing and future air quality within the City of Newport Beach. The policies that are applicable to the project are included below.

Natural Resources Element

Air Quality

Goal NR 6 Reduced mobile source emissions

Policy NR 6.1 Walkable Neighborhoods

Provide for walkable neighborhoods to reduce vehicle trips by siting amenities such as services, parks, and schools in close proximity to residential areas.

Policy NR 6.2 Mixed-Use Development

Support mixed-use development consisting of commercial or office with residential uses in accordance with the Land Use Element that increases the opportunity for residents to live in proximity to jobs, services, and entertainment.

Policy NR 6.3 Vehicle-Trip Reduction Measures

Support measures to reduce vehicle-trip generation such as at-work day care facilities, and on-site automated banking machines.

Policy NR 6.4 Transportation Demand Management Ordinance

Implement the Transportation Demand Management Ordinance which promotes and encourages the use of alternative transportation modes, and provides those facilities such as bicycle lanes that support such alternate modes.

Policy NR 6.5 Local Transit Agency Collaboration

Collaborate with local transit agencies to: develop programs and educate employers about employee rideshare and transit; establish mass transit mechanisms for the reduction of work-related and non-work related vehicle trips; promote mass transit ridership through careful planning of routes, headways, origins and destinations, and types of vehicles; and develop bus shelters, bicycle lanes, and other bicycle facilities.

Policy NR 6.6 Traffic Signal Synchronization

Encourage synchronization of traffic signals throughout the City and with adjoining cities and counties to allow free flow of traffic.

Policy NR 6.7 City Fleet Vehicles

Implement the program to replace existing vehicles in the City fleet with clean vehicles that are commercially available and will provide needed services.

Policy NR 6.8 Accessible Alternative Fuel Infrastructure

Support the development of alternative fuel infrastructure that is available and accessible to the public, and provide incentives for alternative fuel vehicles.

Policy NR 6.9 Education on Mobile Source Emission Reduction Techniques

Provide education to the public on mobile source emission reduction techniques such as using alternative modes of transportation.

Goal NR 7 Reduced air pollution emissions from stationary sources.

Policy NR 7.1 Fuel Efficient Equipment

Support the use of fuel efficient heating equipment and other appliances.

Policy NR 7.2 Source Emission Reduction Best Management Practices

Require the use of Best Management Practices (BMP) to minimize pollution and to reduce source emissions.

Policy NR 7.3 Incentives for Air Pollution Reduction

Provide incentives to promote siting or to use clean air technologies and building materials (e.g., fuel cell technologies, renewable energy sources, UV coatings, hydrogen fuel).

Policy NR 7.4 Use of Blowers

Consider eliminating the use of blowers by the City, and discourage their use on private property.

Goal NR 8 Reduced air pollutant emissions from construction activities

Policy NR 8.1 Construction Equipment

Require developers to use construction equipment that use low polluting fuels, engines, and exhaust controls to the extent available and feasible.

Policy NR 8.2 Maintenance of Construction Equipment

Require developers maintain construction in good operating condition to minimize air pollutants.

Policy NR 8.3 Construction Equipment Operation

Require developers to turn off construction equipment when not in use for an extended time period.

Policy NR 8.4 Non-Polluting and Non-Toxic Building Materials

Require developers to use building materials, paints, sealants, mechanical equipment, and other improvements that yield low air pollutants and are non-toxic.

Policy NR 8.5 Fugitive Dust

Require developers to use construction practices that minimize fugitive dust and do not impact adjoining uses, such as watering of exposed surfaces, covering stock piles with tarps, limitation of vehicle speeds, sweeping of adjacent streets, and similar techniques.

Goal NR 9 Reduced air pollution emissions from aircraft**Policy NR9.1 Efficient Airport Operations**

Work with John Wayne Airport to continue efficient airport operations through high gate utilization and other methods.

Policy NR9.2 Aircraft and Equipment Emission Reduction

Work with John Wayne Airport to encourage development and use of emission reduction aircraft and other equipment.

Land Use Element

Goal LU 3 A development pattern that retains and complements the City's residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.

Policy LU 3.3 Opportunities for Change

Provide opportunities for improved development and enhanced environments for residents in the following districts and corridors, as specified in Policies 6.3.1 through 6.22.7:

- **West Newport:** consolidation of retail and visitor-serving commercial uses, with remaining areas developed for residential units
- **West Newport Mesa:** re-use of underperforming commercial and industrial properties for offices and other uses that support Hoag Hospital's medical activities, improvement of remaining industrial properties adjoining the City of Costa Mesa, and development of residential in proximity to jobs and services
- **Santa Ana Heights:** use of properties consistent with the adopted Specific Plan and Redevelopment Plan
- **John Wayne Airport Area:** re-use of underperforming industrial and office properties and development of cohesive residential neighborhoods in proximity to jobs and services

- **Fashion Island/Newport Center:** expanded retail uses and hotel rooms and development of residential in proximity to jobs and services, while limiting increases in office development
- **Balboa Peninsula:** more efficient patterns of use that consolidate the Peninsula’s visitor-serving and mixed uses within the core commercial districts; encourage marine-related uses especially along the bay front; integrate residential with retail uses in Lido Village, McFadden Square, and Balboa Village; re-use interior parcels in Cannery Village for residential and limited mixed-use and live/work buildings; and redevelop underperforming properties outside of the core commercial districts along the Balboa Boulevard corridor for residential. Infill development shall be designed and sited to preserve the historical and architectural fabric of these districts
- **Mariners’ Mile:** re-use of underperforming properties for retail, visitor-serving, and marine-related uses, integrated with residential
- **Corona del Mar:** enhancement of public improvements and parking

Goal LU 5.3 Districts where residents and businesses are intermixed that are designed and planned to assure compatibility among the uses, that they are highly livable for residents, and are of high-quality design reflecting the traditions of Newport Beach.

Policy LU 5.3.1 Mixed Use Buildings

Require that mixed-use buildings be designed to convey a high level of architectural and landscape quality and ensure compatibility among their uses in consideration of the following principles:

- Design and incorporation of building materials and features to avoid conflicts among uses, such as noise, vibration, lighting, odors, and similar impacts
- Visual and physical integration of residential and nonresidential uses
- Architectural treatment of building elevations and modulation of their massing
- Separate and well-defined entries for residential units and nonresidential businesses
- Design of parking areas and facilities for architectural consistency and integration among uses
- Incorporation of extensive landscape appropriate to its location; urbanized streetscapes, for example, would require less landscape along the street frontage but integrate landscape into interior courtyards and common open spaces

Policy LU 5.3.2 Mixed-Use Building Location and Size of Nonresidential Uses

Require that 100 percent of the ground floor street frontage of mixed-use buildings be occupied by retail and other compatible nonresidential uses, unless specified otherwise by LU 6.0 for a district or corridor.

Policy LU 5.3.3 Parcels Integrating Residential and Nonresidential Uses

Require that properties developed with a mix of residential and nonresidential uses be designed to achieve high levels of architectural quality in accordance with policies 5.1.8 and 5.2.2 and planned to assure compatibility among the uses and provide adequate circulation and parking. Residential uses should be seamlessly integrated with nonresidential uses through architecture, pedestrian walkways, and landscape. They should not be completely isolated by walls or other design elements.

Goal LU 6.14 A successful mixed-use district that integrates an economic and commercial centers serving the needs of Newport Beach residents and the subregion, with expanded opportunities for residents to live close to jobs, commerce, entertainment, and recreation, and is supported by a pedestrian-friendly environment.

Policy LU 6.14.5 Pedestrian Connectivity and Amenity

Encourage that pedestrian access and connections among uses within the district be improved with additional walkways and streetscape amenities concurrent with the development of expanded and new uses.

Policy LU 6.15.9 Residential and Supporting Uses

Accommodate the development of multi-family residential units, including work force housing, and mixed-use buildings that integrate residential with ground level office or retail uses in areas and supporting retail, grocery stores, and parklands. This may occur as replacement of existing buildings or as infill on parking lots, provided that the parking is replaced in a structure located on-site.

■ Impacts and Mitigation Measures

The proposed General Plan Update policies listed above would not reduce future population levels as predicted for buildout of the proposed General Plan Update and there would be no feasible mitigation to reduce the impact of an increased population on implementation of the AQMP.

The proposed General Plan Update policies would reduce air pollutant emissions associated with construction under the proposed General Plan Update to the maximum extent feasible (as discussed in Impact 4.2-2). They would not, however, reduce the total emissions generated by new uses within the City to levels that are less than the SCAQMD's recommended thresholds of significance for construction of individual development projects. There are no additional feasible mitigation measures available. Implementation of the proposed General Plan Update policies would apply to activities associated with operation of the projects that would occur under the proposed General Plan Update; however, implementation of the policies would not reduce the impact to a less-than-significant level. No additional mitigation is considered feasible to reduce this potential impact.

Level of Significance After Policies/Mitigation Measures

The proposed General Plan Update policies listed above would not reduce future population levels as predicted for buildout of the proposed General Plan Update and there would be no feasible mitigation to reduce the impact of an increase population on implementation of the Air Quality management plan (AQMP). Therefore, Impact 4.2-1 would be considered *significant and unavoidable*.

The proposed General Plan Update policies and mitigation measures listed above would reduce air pollutant emissions associated with construction under the proposed General Plan Update to the maximum extent feasible. They would not, however, reduce the total emissions generated by new uses within the City to levels that are less than the SCAQMD's recommended thresholds of significance for construction of individual development projects. Because the policies and mitigation measures would not reduce this potential impact (Impact 4.2-2) construction air quality impacts would remain significant and unavoidable. Cumulative impacts associated with construction air pollutant emissions would also remain *significant and unavoidable*.

Implementation of the proposed General Plan Update policies would apply to activities associated with operation of the projects that would occur under the proposed General Plan Update; however, implementation of the policies would not reduce the impact to a less-than-significant level. Because no additional mitigation is considered feasible to reduce this potential impact, air quality impacts would remain *significant and unavoidable*.

4.2.7 References

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