

## 5.3 AIR QUALITY

The components of the proposed Project analyzed herein are:

- 1) Adoption and implementation of the General Plan Update (Beaumont 2040 Plan) and
- 2) Adoption and implementation of the revised Zoning Ordinance and Zoning Map.

Of the two Project components, the revised Zoning Ordinance is not considered to have impacts related to air quality because it addresses site planning, building design, and community aesthetics, rather than physical changes to the land, and it was prepared for compatibility with the proposed Beaumont 2040 Plan. The revised Zoning Map will have similar types of land uses as the Beaumont 2040 Plan for consistency purposes; therefore, all discussions which apply to the Beaumont 2040 Plan shall also apply to the revised Zoning Map.

Since an Initial Study was not prepared with the issuance of the Notice of Preparation (Appendix A), the focus of the following discussion is related to potential conflicts with or obstruction of the implementation of the applicable air quality plan, impacts resulting in a cumulative considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard, exposure of sensitive receptors to substantial pollutant concentrations and result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In response to the Notice of Preparation, the City received comment letters from the South Coast Air Quality Management District, Ron Roy, and the Southwest Regional Council of Carpenters regarding air quality. These letters are included in Appendix A and are summarized in **Table 2-A – Summary of Written Comments Received in Response to the Notice of Preparation**. No oral comments were received regarding air quality at the Project’s public scoping meeting.

The analysis of air quality impacts uses the most current methodologies prescribed by the South Coast Air Management District (SCAQMD), which is the California Emissions Estimator Model (CalEEMod) version 2016.3.2.

### 5.3.1 Setting

The City of Beaumont (City) and City’s Sphere of Influence (SOI) (herein collectively referred to as “Planning Area”) lies within the South Coast Air Basin (Basin), which is under the jurisdiction of the SCAQMD. The Basin consists of Orange County, and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. Regional and local air quality within the Basin is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel, San Bernardino, and San Jacinto Mountains form natural horizontal barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. With an inversion, the temperature initially follows a normal pattern of decreasing temperature with increasing altitude; however, at some elevations, the trend reverses and temperature begins to increase as altitude increases. This transition to increasing temperature establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants. (SCAQMD 1993, p. A8-2)

Dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion. Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until a natural barrier (the mountains) is confronted, limiting the horizontal dispersion of pollutants. The result is gradual degradation of air quality from coastal areas to inland areas, which is most evident with the photochemical pollutants such as ozone formed under reactions with sunlight. (SCAQMD 1993, p. A8-1-A8-2)

## **Climate**

Terrain and geographical location determine climate in the Basin. The Planning Area lies within the terrain south of the San Gorgonio Mountains and San Bernardino Mountains and northwest of the San Jacinto Mountains. The climate in the Basin is typical of southern California's Mediterranean climate, which is characterized by dry, warm summers, and mild winters. Winters typically have infrequent rainfall, light winds, and frequent early morning fog and clouds that turn to hazy afternoon sunshine. (SCAQMD 1993, p. A8-1-A8-2)

The following factors govern microclimate differences among inland locations within the Basin: (1) distance of the mean air trajectory from the site to the ocean; (2) site elevation; (3) existence of any intervening terrain that may affect airflow or moisture content; and (4) proximity to canyons or mountain passes. As a general rule, locations farthest inland from the ocean have the hottest summer afternoons, the lowest rainfall, and the least amount of fog and clouds. Foothill communities in the Basin have greater levels of precipitation, cooler summer afternoons, and may be exposed to wind funneling through nearby canyons during Santa Ana winds. Terrain will generally steer local wind patterns. (SCAQMD 1993, p. A8-1-A8-2)

## **Precipitation and Temperature**

Beaumont has a warm-summer Mediterranean climate, with temperatures reaching an average of up to 95 degrees Fahrenheit during the summer and 52 degrees Fahrenheit during the winter. Due to its higher elevation, it is usually 5-10 degrees cooler than its neighboring lower-elevation areas, such as Riverside, Hemet/Perris/San Jacinto, and the Coachella Valley. Snow is rare, and annual precipitation is approximately 17 inches, with most rain occurring between the months of November and April (Beaumont 2040 Plan, p. 13).

The Basin experiences persistent temperature inversions that limit the vertical mixing of air, thus trapping and concentrating pollutants near the ground. During the summer months, a cool marine air layer is located at the surface of coastal areas and a warm, sinking air layer is located within a high-pressure cell located over the Pacific Ocean. Because of the differential heating and cooling of the marine and land areas, a weak local diurnal pattern of wind carries pollutants eastward during the day. The air masses near the coast are relatively clean though they become more polluted as they move eastward over the urban areas. This polluted air, coupled with the photochemical effect of the sun on reactive organic gases, results in the creation of smog.

On winter nights, cold air from the mountains is transported to the valley floor while warm air remains at higher altitudes. These phenomena also produce temperature inversions that trap emissions near their source.

## **Winds**

The interaction of land (offshore) and sea (onshore) breezes control local wind patterns in the area. Daytime winds typically flow from the coast to the inland areas, while the pattern typically reverses in the evening, flowing from the inland areas to the ocean. Air stagnation may occur in the early evening and early morning during periods of transition between day and nighttime flows.

Approximately 5 to 10 times a year the Project vicinity experiences strong, hot, dry desert winds known as the Santa Ana winds. These winds, associated with atmospheric high pressure, originate in the upper deserts and are channeled through the passes of the San Bernardino Mountains and into the inland valleys. Santa Ana winds can last for a period of hours or days, and gusts of over 60 miles per hour have been recorded.

High winds, including Santa Ana winds, affect dust generation characteristics and create the potential for off-site air quality impacts, especially with respect to airborne nuisance and particulate emissions. Local winds in the Project area are also an important meteorological parameter because they control the initial rate of dilution of locally-generated air pollutant emissions.

## **Air Pollution Constituents**

Pollutants regulated by the federal and state Clean Air Acts correspond to the following categories:

- Criteria air pollutants and
- Toxic air contaminants

Pollutants in each of these categories are monitored and regulated differently. Criteria air pollutants are measured by ambient air sampling. The focus of the analysis of this Draft PEIR is to ascertain the levels, and potential effects of, criteria pollutant emissions associated with the implementation of the Beaumont 2040 Plan. Criteria air pollutants refer to those pollutants that are subject to both federal and state ambient air quality standards as a means to protect public health. The federal and state standards have been established at levels to ensure that human health is protected with an adequate margin of safety. For some criteria pollutants, such as carbon monoxide, there are also secondary standards designed to protect the environment, in addition to human health.

Toxic air contaminants are typically measured at the source and their evaluation and control is generally site or project-specific.

### Criteria Air Pollutants

- Ozone

Ozone (O<sub>3</sub>) is a nearly colorless gas that irritates the lungs and damages materials and vegetation. O<sub>3</sub> is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight). Ozone's attainment status for the Basin is nonattainment under both state and national standards.

- Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless toxic gas that interferes with the transfer of oxygen to the brain, is produced by the incomplete combustion of carbon-containing fuels emitted as vehicle exhaust. CO's attainment status for the Basin is unclassified/attainment under national standards and attainment under state standards.

- Oxides of Nitrogen

Nitric Oxide (NO) is a colorless, odorless gas formed by a combination of nitrogen and oxygen when combustion takes place under high temperatures and pressures. Nitrogen dioxide (NO<sub>2</sub>) is a yellowish-brown gas that, at high levels, can cause breathing difficulties. NO<sub>2</sub> is formed when nitric oxide (a pollutant from burning processes) combines with oxygen. Combustion in motor vehicle engines, power plants, refineries and other industrial operations, as well as ships, railroads, and aircraft are the primary sources of NO<sub>x</sub>. NO<sub>2</sub>'s attainment status for the Basin is unclassified/attainment under national standards and attainment under state standards.

- Sulfur Dioxide

Sulfur dioxide (SO<sub>2</sub>) is colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children. Though SO<sub>2</sub> concentrations have been reduced to levels well below state and federal standards, further reductions in SO<sub>2</sub> emissions are desirable since SO<sub>2</sub> is a precursor to sulfate and PM-10. SO<sub>2</sub>'s

attainment status for the Basin is unclassified/attainment under national standards and attainment under state standards.

- Particulate Matter

Particulate Matter (PM), specifically PM-10, refers to particulate matter that is ten microns or less in diameter. PM-2.5 refers to particulate matter that is 2.5 microns or less. PM-10 and PM-2.5 cause greater health risk than larger-sized particles, since fine particles can more easily cause respiratory irritation. PM-10's attainment status for the Basin is attainment under national standards and nonattainment under state standards; PM-2.5 is in nonattainment under federal and state standards.

- Lead

Lead (Pb) concentrations once exceeded the state and federal air quality standards by a wide margin but have not exceeded state or federal air quality standards at any regular monitoring station since 1982. Health effects associated with lead include neurological impairments, mental retardation, and behavioral disorders. At low levels, lead can damage the nervous systems of fetuses and result in lowered IQ levels in children (EPA 2020). Though special monitoring sites immediately downwind of lead sources recorded very localized violations of the state standard in 1994, no violations have been recorded at these stations since 1996. Unleaded gasoline has greatly contributed to the reduction in lead emissions in the Basin. Since the proposed Project will not involve the use or production of leaded gasoline, or other sources of lead emissions, this criteria pollutant is not expected to be a factor with Project implementation.

- Reactive Organic Gases/Volatile Organic Compounds

Reactive Organic Gases/Volatile Organic Compounds (ROG/VOC) are not classified as criteria pollutants; however, they are regulated because a reduction in VOC emissions reduces certain chemical reactions, which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM-10 and lower visibility levels. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere, even at low concentrations, are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen (SCAQMD 2005 p. 1-5).

#### Sources and Effects of Criteria Air Pollutants

Sources and typical effects of criteria pollutants are summarized in **Table 5.3-A – Primary Sources and Effects of Criteria Pollutants**.

The correlation between project-specific emissions and potential health impacts is complex and the SCAQMD has determined the attempting to quantify health impacts from projects that are not regional in scale (e.g. Basin-wide) may not be appropriate because it may be misleading and unreliable for various reasons including modeling limitations as well as where in the atmosphere the air pollutants interact and form (SCAQMD 2015, pp.8-15). To date, SCAQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health. However, if a project in the Basin exceeds the SCAQMD regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standard(s) are met in the Basin.

Monitored Criteria Air Pollutants

The Project is located within SCAQMD Source Receptor Area (SRA) 29. The most recent published data for SRA 29 is presented in **Table 5.3-B – Air Quality Monitoring Summary – 2017 - 2019 (SRA 29)**. This data indicates that the baseline air quality conditions in the Project area include occasional events of very unhealthy air. Atmospheric concentrations of ozone and particulate matter are the two most significant air quality concerns in the Project area. Locally, no second stage alert (0.35 ppm/hour) has been called by SCAQMD in over twenty years. In fact, the last second stage alert was in Upland in 1988.

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**Table 5.3-A – Primary Sources and Effects of Criteria Pollutants**

Pollutant	Primary Effects
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Respiratory Symptoms</li> <li>• Worsening of lung diseases leading to premature death</li> <li>• Damage to lung tissue</li> <li>• Crop, forest and ecosystem damage</li> <li>• Damage to a variety of materials, including rubber, plastics, fabrics, paint and metals.</li> </ul>
PM 2.5 (particulate matter less than 2.5 microns in aerodynamic diameter)	<ul style="list-style-type: none"> <li>• Premature death</li> <li>• Hospitalization for worsening of cardiovascular disease</li> <li>• Hospitalization for respiratory disease</li> <li>• Asthma-related emergency room visits</li> <li>• Increased symptoms, increased inhaler usage</li> </ul>
PM 10 (particulate matter less than 10 microns in aerodynamic diameter)	<ul style="list-style-type: none"> <li>• Premature death &amp; hospitalization, primarily for worsening of respiratory disease</li> <li>• Reduced visibility and material soiling</li> </ul>
Nitrogen Oxides (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>• Lung irritation</li> <li>• Enhanced allergic responses</li> </ul>
Carbon monoxide (CO)	<ul style="list-style-type: none"> <li>• Chest pain in patients with heart disease</li> <li>• Headache</li> <li>• Light-headedness</li> <li>• Reduced mental alertness</li> </ul>
Sulfur dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits</li> </ul>
Lead	<ul style="list-style-type: none"> <li>• Impaired mental functioning in children</li> <li>• Learning disabilities in children</li> <li>• Brain and kidney damage</li> </ul>
Hydrogen Sulfide (H <sub>2</sub> S)	<ul style="list-style-type: none"> <li>• Nuisance odor (rotten egg smell)</li> <li>• At high concentrations: headache &amp; breathing difficulties</li> </ul>
Sulfate	<ul style="list-style-type: none"> <li>• Same as PM-2.5, particularly worsening of asthma and other lung diseases</li> <li>• Reduces visibility</li> </ul>
Sulfate	<ul style="list-style-type: none"> <li>• Same as PM-2.5, particularly worsening of asthma and other lung diseases</li> <li>• Reduces visibility</li> </ul>
Vinyl Chloride	<ul style="list-style-type: none"> <li>• Central nervous system effects, such as dizziness, drowsiness &amp; headaches</li> <li>• Long-term exposure: liver damage &amp; liver cancer</li> </ul>
Visibility Reducing Particles	<ul style="list-style-type: none"> <li>• Reduced airport safety, scenic enjoyment, road safety, and discourages tourism</li> </ul>
Toxic Air Contaminants About 200 chemicals have been listed as toxic air contaminants	<ul style="list-style-type: none"> <li>• Cancer</li> <li>• Reproductive and development effects</li> <li>• Neurological effects</li> </ul>

Source: <https://ww2.arb.ca.gov/resources/common-air-pollutants>

**Table 5.3-B – Air Quality Monitoring Summary – 2017-2019 (SRA 29)**

	Pollutant/Standard	Monitoring Years		
		2017	2018	2019
No. Days Exceeded	<b>Ozone (O<sub>3</sub>):</b>			
	Health Advisory - 0.15 ppm	0	0	0
	California Standard:			
	1-Hour - 0.09 ppm	50	33	24
	8-Hour - 0.07 ppm	82	69	69
	Federal Primary Standards:			
	8-Hour - 0.070 ppm	82	69	59
	Max 1-Hour Conc. (ppm)	0.128	0.119	0.119
Max 8-Hour Conc. (ppm)	0.105	0.106	0.096	
No. Days Exceeded	<b>Carbon Monoxide (CO)<sup>a</sup>:</b>			
	California Standard:			
	1-Hour - 20 ppm	0	0	0
	8-Hour - 9.0 ppm	0	0	0
	Federal Primary Standards:			
	1-Hour - 35 ppm	0	0	0
	8-Hour - 9.0 ppm	0	0	0
	Max 1-Hour Conc. (ppm)	1.9	2.2	2.0
Max 8-Hour Conc. (ppm)	1.7	2.0	1.3	
No. Days Exceeded	<b>Nitrogen Dioxide (NO<sub>2</sub>):</b>			
	California/Federal Standard:			
	1-Hour - 0.18 ppm (180 ppb) / 0.10 ppm (100 ppb)	0	0	0
	Federal/State Standard:			
	Annual Arithmetic Mean (AAM) (53.4 / 30 ppb)	8.0	8.5	7.5
Max. 1-Hour Conc. (ppb)	56.3	50.6	43.3	
No. Days Exceeded	<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>a</sup>:</b>			
	California Standards:			
	1-Hour – 0.25 ppm (250 ppb)	0	0	0
	Federal Primary Standards:			
	1-Hour – 0.075 ppm (75 ppb)	0	0	0
Max. 1-Hour Conc. (ppb)	2.5	1.7	1.7	
No. Days Exceeded	<b>Suspended Particulates (PM-10):</b>			
	California Standards:			
	24-Hour - 50 µg/m <sup>3</sup>	1	0	2
	Federal Primary Standards:			
	24-Hour – 150 µg/m <sup>3</sup>	0	0	0
	State AAM (20 µg/m <sup>3</sup> )	22.4	19.4	17.9
Max. 24-Hour Conc. (µg/m <sup>3</sup> )	97	39	63	
No. Days Exceeded	<b>Fine Particulates (PM-2.5)<sup>a</sup>:</b>			
	Federal Primary Standards:			
	24-Hour – 35µg/m <sup>3</sup>	6	2	9
	Federal/State AAM (12 µg/m <sup>3</sup> )	12.18	12.41	12.53
	Max. 24-Hour Conc. (µg/m <sup>3</sup> )	50.3	50.70	46.70

Notes: AAM = annual arithmetic mean; ppm = parts per million; ppb = parts per billion; µg/m<sup>3</sup> = micrograms/cubic meter  
<sup>a</sup> Metro Riverside County 1 air monitoring station (SRA 23) data summaries used because this pollutant not monitored for SRA 29.

### Toxic Air Contaminants

The California Air Resources Board (CARB) has produced a series of estimated inhalation cancer risk maps based on modeled levels of outdoor composite toxic pollutant levels in the Multiple Air Toxics Exposure Studies (MATES). The MATES provided information on the importance of various Toxic Air Contaminants (TACs) in terms of their relative health risks, as well as their spatial distribution across the Basin. The most recent MATES-IV information can be used to characterize the “background” health risks from both regional and local TAC emission sources based on the available toxics emission inventory for the year 2012.

According to the SCAQMD MATES-IV Carcinogenic Risk Map (SCAQMD MATES IV), individuals residing and working within the City of Beaumont are exposed to inhalation cancer risks of no greater than approximately 602 persons per million. However, it is important to note that these risk maps depict theoretical 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 and the MATES-IV program results indicate that diesel particulate matter (DPM) contributes approximately 68 percent of the total cancer risk (MATES Appendices, p. VII-1). As shown on the MATES-IV Carcinogenic Risk Map, the highest cancer risks within the City are generally adjacent to Interstate 10, where truck traffic and DPM concentrations would likely be highest.

### Sensitive Receptors

Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large. While the ambient air quality standards are designed to protect public health and are generally regarded as conservative for healthy adults, there is greater concern for protecting adults who are ill or have long-term respiratory problems and young children whose lungs are not fully developed. According to CARB, sensitive receptors include children less than 14 years of age, the elderly over 65 years of age, athletes and people with cardiovascular and chronic respiratory diseases. (CARB 2005 p. ES-1).

SCAQMD identifies the following as locations as tending to contain high concentrations of sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers and athletic facilities. (SCAQMD 2005 p.2-1). The City of Beaumont, which has built-out urban as well as rural communities, contains many of each of these sensitive land uses.

## **5.3.2 Related Regulations**

There are a number of federal and state agencies involved in the development, implementation, and enforcement of regulations related to clean air. The primary agencies include, but are not limited to, the United States Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD).

### **Federal Regulations**

#### U.S. Environmental Protection Agency

The EPA is the lead Federal Agency charged with the implementation and enforcement of the Clean Air Act (CAA). As part of this effort, the EPA is responsible for the establishment of national ambient air quality standards (referred to herein as the “Federal Standards” or NAAQS). They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness and persons engaged in



strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has established ambient air quality standards for the following air pollutants:

- Ozone (O<sub>3</sub>)
- Nitrogen dioxide (NO<sub>2</sub>)
- Carbon monoxide (CO)
- Sulfur dioxide (SO<sub>2</sub>)
- Lead (Pb)
- Particulate matter (PM-10 and PM-2.5).

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments dictate that states containing areas violating the NAAQS must revise their SIPs to include extra control measures to reduce air pollution. California's SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans and rules and regulations of the various agencies with jurisdiction over the state's air basins. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

The 1977 federal CAA Amendments required the EPA to identify national emissions standards for hazardous air pollutants (HAPs) to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal CAA Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

## State Regulations

### Assembly Bill 617

Assembly Bill 617 (AB 617), approved in July 2017, focuses on criteria air pollutants and toxic air contaminants from non-mobile sources. AB 617 requires CARB to develop an air monitoring plan for the state, and then select, based on the plan, the highest priority locations to deploy community air monitoring systems. AB 617 also requires CARB to prepare a statewide strategy (with input from public stakeholders) to reduce emissions of toxic air contaminants and criteria pollutants in communities affected by a high cumulative exposure burden, which was due October 1, 2018. Air districts (including SCAQMD) that are in nonattainment must adopt expedited schedules to implement Best Available Retrofit Control Technology (BARCT) for existing sources of air pollution, and CARB is required to maintain a statewide clearinghouse that identifies Best Available Control Technology (BACT) and BARCT for criteria air pollutants and related technologies for toxic air contaminants.

In response to Assembly Bill (AB) 617, CARB established the Community Air Protection Program (CAPP or Program). The Program's focus is to reduce exposure in communities most impacted by air pollution. CARB staff has already begun working closely with local air districts, community groups, community members, environmental organizations, and regulated industries to develop a new community-focused action framework for community protection. In September 2018 CARB selected 10 communities, three of these are in SCAQMD's jurisdiction. Muscoy, San Bernardino, one of the 2018 selected communities, is about 30 miles from Beaumont. In December 2019 CARB approved the AB 617, 2019 Community Selections. The 2019 communities located within SCAQMD boundaries are East Coachella Valley and South East Los Angeles, neither of which are proximate to the Planning Area. (CAPP 2019).

### California Air Resources Board

CARB is part of the California Environmental Protection Agency (CalEPA) and is responsible for overseeing the implementation of the California Clean Air Act (CCAA), meeting State requirements of the Federal Clean Air Act, and the establishment of State ambient air quality standards. CARB is also responsible for setting emission standards for vehicles sold in California and for other emission-sources including consumer goods and off-road equipment. In general, these vehicle emissions standards are more restrictive than those established at the federal level. CARB also established passenger vehicle fuel specifications, that became effective in March 1996.

CARB has also established ambient air quality standards for six of the aforementioned pollutants regulated by the EPA (**Table 5.3-B**). Some of the California ambient air quality standards are more stringent than the national ambient air quality standards. In addition, California has established ambient air quality standards for the following:

- Sulfates;
- Vinyl chloride; and,
- Visibility.

### **Regional**

#### 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, 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. SCAG's Regional Comprehensive Plan and Guide (RCPG) provide 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 address air quality, land use, transportation and economic relationships at all levels of government. SCAG is also charged with developing and implementing Senate Bill 375 (SB 375) with participation from Riverside County and the other local cities and counties of SCAG. See Section 5.7 for further information on SB 375.

#### South Coast Air Quality Management District

Because Southern California experiences some of the worst air quality in the nation, SCAQMD was created in 1977 with passage of the Lewis Air Quality Management Act. This Act merged four county air pollution control agencies into a single regional special district as a means to better address Southern California's air pollution problems. SCAQMD is now the principal agency responsible for comprehensive air pollution control in the region that includes air quality monitoring, the development of long range plans to improve air quality, and the enforcement of regulations designed to attain and maintain State and Federal ambient air quality standards. SCAQMD has jurisdiction over a 10,743 square mile area that includes Orange County, Los Angeles County (except for the Antelope Valley), the non-desert portion of western San Bernardino County, and western Riverside County (that includes the Beaumont area).

- Air Quality Management Plan

All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures.

SCAQMD updated its AQMP for the Basin in 2016, which included a new approach focusing on available, proven, and cost effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts on the health of the nearly 17 million residents within the Basin, including those in disproportionately impacted and environmental justice communities that are concentrated along transportation corridors and goods movement facilities, is to reduce emissions from mobile sources, the principal contributor to air quality challenges within the Basin. For that reason, the SCAQMD has been and will continue to be closely engaged with CARB and the EPA who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. These “win-win” scenarios are key to implementation of the 2016 AQMP with broad support from a wide range of stakeholders. The 2016 AQMP includes integrated strategies and measures to meet the NAAQS (SCAQMD 2016).

The control measures and related emission reduction estimates included in the 2016 AQMP are based on emissions projections for a future development scenario derived from land use, population, and employment estimates defined in consultation with local governments. To do this, the AQMP utilizes the population and growth estimates compiled by the Southern California Association of Governments (SCAG) in their Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), the most recent of which is the 2016 RTP/SCS (SCAG 2016) (SCAQMD 2016, pp. 4-41 – 4-42).

SCAG’s population and employment projections are based on the City’s growth projections provided by cities, including from cities’ general plans (SCAG 2016, p. 70). Thus, since the 2016 AQMP is consistent with the 2016 RTP/SCS, the 2016 AQMP is also consistent with the growth assumptions cities include in their general plans. Accordingly, if a project demonstrates compliance with local land use plans and/or population projections, then the AQMP would have taken into account such uses when it was developed and the project would not conflict with implementation of such a plan.

- Rule 220

SCAQMD Rule 220 gives the Executive Officer the power to exempt a source from prohibitions outlined in SCAQMD Regulations IV and XI, Prohibitions and Source Specific Standards respectively, if they can make the finding that the installation of controls and/or process changes required to achieve compliance with the subject prohibitory rule will result in a net adverse impact on air quality. One of the conditions of the permits on exemptions issued under Rule 220 is that alternative controls and/or process changes which will result in the greatest practical net emission reduction be included for project operation.

- Rule 402

SCAQMD Rule 402 (Nuisance) prohibits the discharge of air containments in such quantities that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, but does not apply to odors emanating from agricultural operations necessary for growing of crops or the raising of fowl or animals.

- Rule 403

All projects will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. The potential requirements include the application of water or chemical stabilizers to disturbed soils at least twice a day, covering all haul vehicles before transport of materials, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, it is required to establish a vegetative ground cover on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph (Rule 403). In addition, projects that disturb 50 or more acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD.

- Rule 445

SCAQMD Rule 445, Wood Burning Devices, reduces particulate matter emissions from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.

- Rule 481

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment and requires all spray coating equipment to be (1) operated inside an approved control enclosure, (2) applied using high velocity-low pressure (HVLP), electrostatic and/or airless spray equipment, or (3) applied using which has an equal effectiveness to either of the two approved methods.

- Rule 1108

SCAQMD Rule 1108 applies to cutback and emulsified asphalt used at project sites.

- Rule 1113

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. This rule dictates the VOC content of paints and coatings available for use during construction and ongoing maintenance.

- Rule 1143

SCAQMD Rule 1143 aims to reduce emissions of VOCs from the use, storage, and disposal of consumer paint thinners and multi-purpose solvents commonly used in thinning of coating materials, cleaning of coating application equipment and other solvent cleaning operations by limiting their VOC content. Additionally, Rule 1143 requires several best management practices to reduce VOCs during use and application of paint thinners and other solvents. For example, this Rule requires containers to be closed when not in use. This Rule also establishes requirements for appropriate labelling and disclosure of contents for containers and storage areas of these corrosive, flammable substances.

- Rule 1186

SCAQMD Rule 1186 is intended to reduce the amount of particulate matter entrained in the ambient air as a result of vehicular traffic on paved and unpaved public roads, and at livestock operations. This includes requirements for local governments that contract for street sweeping services to utilize only certified street sweeping equipment (Rule 1186).

- Rule 1303

SCAQMD Rule 1303 prohibits issuance of permits for any relocation or for any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone depleting compound, or ammonia unless a best available control technology (BACT) is employed for the new or relocated source as specified by the CAA or other regulations.

- Rule 2202

SCAQMD Rule 2202 provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. This Rule applies to any employer who employs 250 or more employees.

## Local Regulations

### City of Beaumont Municipal Code

The following chapters of the Beaumont Municipal Code (BMC) address air quality topics:

#### **Title 9 – Public Peace, Morals, and Welfare, Chapter 9.02 – Noise Control**

BMC Chapter 9.02 establishes City-wide standards regulating noise for residential zones, public places, and motor vehicles. Some of these standards limit exposure of sensitive receptors to air pollution. BMC Section 9.02.110 states that no construction activities may occur within one-quarter mile from an occupied residential dwelling between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September, and between the hours of 6:00 p.m. and 7:00 a.m. between the months of October through May, unless such activities are permitted under written consent of the City's building official.

#### **Title 17 – Zoning, Chapter 17.04 – Performance Standards**

This chapter sets performance standards to regulate the use of a building or land area. These performance standards were established to minimize potential risk to the public from hazards and to prevent the creation of nuisances and other conditions that are potentially harmful or discomforting.

BMC Section 17.04.050 establishes the following performance standards with respect to air quality.

- A. Smoke and Particulates. No smoke of any type shall be emitted from a source in excess of SCAQMD standards. No elements of dust, fly ash, vapors, fumes, gases or other forms of air pollution shall be permitted in excess of the standards set by the SCAQMD or that can cause damage to human health, animals, vegetation, or that can cause excessive soiling at any location.
- B. Permits. Before a building or occupancy permit is issued by the City, the applicant shall be required to show proof that he has secured the necessary permits from the SCAQMD or that the project is exempt from SCAQMD regulations as of the date of filing of the City application.
- C. Enforcement and Standards. In enforcing these regulations, the City shall use the same point of measurement as utilized by the SCAQMD.

BMC Section 17.04.060 establishes the following performance standards with respect to the generation of odors.

- A. Odor Generating Activities. Any process that creates or emits any odors, gases, or other odorous matter shall comply with the standards set by the South Coast Air Quality Management District.
- B. Quantified Standard. No odors, gases, and odorous matter shall be emitted in quantities to be detectable when diluted in a ratio of one volume diluted air to four volumes clean air at the point of greatest concentration.

## **Title 17 – Zoning, Chapter 17.11 – General Development Standards**

This Chapter establishes general development standards for all land uses and development in the City.

BMC Section 17.11.040 states dust shall be controlled by watering or other approved methods.

### **5.3.3 Beaumont 2040 Plan**

The Beaumont 2040 Plan goals, policies, and implementation actions that reduce potential impacts to air quality include:

#### Beaumont 2040 Plan, Chapter 3 – Land Use and Community Design

*Goal 3.4: A City that maintains and expands its commercial, industrial and other employment-generating land uses.*

Policy 3.4.8 Where industrial uses are near existing and planned residential development, require that industrial projects be designed to limit the impact of truck traffic, air and noise pollution on sensitive receptors, especially in El Barrio.

*Goal 3.8: A City that encourages a healthy lifestyle for people of all ages, income levels, and cultural backgrounds.*

Policy 3.8.2 Establish buffers between residential development and high-volume roadways, including SR-79, I-10, and SR-60, to protect residents from negative environmental health impacts.

*Goal 3.10: A City designed to improve the quality of the built and natural environments to reduce disparate health and environmental impacts.*

Policy 3.10.1 Participate in air quality planning efforts with local, regional, and State agencies that improve local air quality to protect human health and minimize the disproportionate impacts on sensitive population groups.

Policy 3.10.2 Reduce particulate emissions from paved and unpaved roads, construction activities, and agricultural operations.

Policy 3.10.3 Discourage development of sensitive land uses – defined as schools, hospitals, residences, and elder and childcare facilities – near air pollution sources that pose health risks – including freeways and polluting industrial sites.

Policy 3.10.4 Designate truck routes to avoid sensitive land uses, where feasible.

Policy 3.10.6 Provide educational information about air quality issues and their health effects, including best practices for reducing and/or eliminating sources of indoor air pollution.

Policy 3.10.7 Support practices that promote low impact development, including water resilient communities, prevention of urban runoff, and mitigation of industrial pollution.

#### Beaumont 2040 Plan, Chapter 4 – Mobility

*Goal 4.1: Promote smooth traffic flows and balance operational efficiency, technological, and economic feasibility.*

Policy 4.1.1 Reduce vehicular congestion on auto-priority streets to the greatest extent possible.

*Goal 4.6: An efficient goods movement system that ensures timely deliveries without compromising quality of life, safety, or smooth traffic flow for Beaumont residents.*

Policy 4.6.2 Minimize or restrict heavy vehicle traffic near sensitive areas such as schools, parks, and neighborhoods.

- Implementation M3 TDM Plan Requirements. Update the City's development processing requirements to require that TDM plans and strategies are developed for residential and employment land uses that reduce vehicle trips or vehicle trip lengths.
- Implementation M26 Truck Route Map. Update the City's truck route map to focus trucks on key streets in the City that should be used for goods movement and reduce heavy vehicle travel adjacent to sensitive areas.

Beaumont 2040 Plan, Chapter 6 – Health and Environmental Justice

*Goal 6.5: A City that builds neighborhoods that enhance the safety and welfare of all people of all ages, income levels, and cultural backgrounds.*

- Policy 6.5.6 Discourage development of sensitive land uses – defined as schools, hospitals, residences, and elder and childcare facilities – near air pollution sources that pose health risks – including freeways and polluting industrial sites.

*Goal 6.7: A City that safely and systemically addresses toxics, legacy pollutants, and hazardous materials.*

- Policy 6.7.5 Reduce particulate emissions from paved and unpaved roads, construction activities, and agricultural operations.
- Policy 6.7.6 Designate truck routes to avoid sensitive land uses, where feasible.
- Policy 6.7.8 Establish a local ordinance that exceeds the state vehicle idling restrictions where appropriate, including restrictions for bus layovers, delivery vehicles, trucks at warehouses and distribution facilities and taxis, particularly when these activities take place close to sensitive land uses (schools, senior centers, medical facilities and residences).

Implementation HEJ19 Idling Ordinance. Update zoning code to support an idling ordinance that reduces emissions from on-road heavy-duty vehicles.

Implementation HEJ20 Particulate Mitigation. Adopt mitigation measures that limit vehicular and construction-related particulate emissions.

Beaumont 2040 Plan, Chapter 8 – Conservation and Open Space

*Goal 8.4. A City that improves awareness and mitigation of negative air quality impacts.*

- Policy 8.4.1 Provide educational information about air quality issues and their health effects, including best practices for reducing and/or eliminating sources of indoor air pollution.
- Policy 8.4.2 Participate in air quality planning efforts with local, regional, and State agencies that improve local air quality to protect human health, minimize the disproportionate impacts on sensitive population groups, and ensure that City concerns are resolved early in the process.
- Policy 8.4.3 Avoid the siting of new projects and land uses that would produce localized air pollution (e.g., Interstate 10, SR-60 high traffic roads, certain industrial facilities) in a way that would adversely impact existing air quality-sensitive receptors including schools, childcare centers, senior housing, and subsidized affordable housing. The recommended minimum distance separating these uses should be 500 feet.

Policy 8.4.4 For sensitive land uses that cannot be avoided within 500 feet of sources of localized air pollution, potential design mitigation options include:

- Providing residential units with individual HVAC systems in order to allow adequate ventilation with windows closed;
- Locating air intake systems for heating, ventilation, and air conditioning (HVAC) systems as far away from existing air pollution sources as possible;
- Using HEPA air filters in the HVAC system and developing a maintenance plan to ensure the filtering system is properly maintained; and
  - Utilizing only fixed windows next to any existing sources of pollution.
  - Using sound walls, berms, and vegetation as physical barriers.
  - Notifying new potential home buyers of risks from air pollution.

Implementation C14 Air Quality Efforts. Partner with local and regional agencies to educate and support efforts that improve local air quality.

Implementation C15 Sensitive Uses. Update the municipal code to prohibit and/or mitigate the impacts of localized air pollution, addressing specific strategies for sensitive receptors.

#### Beaumont 2040 Plan, Chapter 9 – Safety

*Goal 9.9: A City that promotes preparedness related to the adverse effects of high winds common in the Pass area.*

Policy 9.9.2 Require implementation of best practices for dust control at all excavation and grading projects.

Policy 9.9.3 Prohibit excavation and grading during high wind conditions, defined as instantaneous wind speeds that exceed 25 miles per hour by South Coast AQMD.

Implementation S25 Dust Control. Develop guidelines for dust control at all excavation and grading projects, including addressing high wind conditions.

#### Beaumont 2040 Plan, Chapter 10 – Noise

*Goal 10.2: A City with minimal mobile source-generated noise levels.*

Policy 10.2.3 Prohibit truck routes through neighborhoods with sensitive receptors, where feasible.

Implementation N10 Vehicle and Equipment Idling. Establish requirements that construction vehicles and equipment are not left idling for longer than five minutes when not in use.

#### Beaumont 2040 Plan, Chapter 11 – Downtown Area Plan

*Goal 11.11: Create development that provides a safe setting for the Downtown residents.*

Policy 11.11.3 Protect the health of the citizens by careful consideration of uses eliminate or reduce odors, toxins, or other hazardous discharges.

*Goal 11.12: Encourage development to be efficient in the use of non-renewable resources, including water, energy, and air quality.*

Policy 11.12.5 Avoid creating a “canyon effect” through sensitive design and attention to the massing and orientation of new buildings.

Policy 11.12.6 Improve air quality through improved walkability, reduced vehicular use and enhanced non-vehicular travel.



### 5.3.4 Thresholds of Significance

The City has not established local CEQA significance thresholds as described in Section 15064.7 of the *CEQA Guidelines*. Therefore, significance determinations utilized in this section are from Appendix G of the *CEQA Guidelines*. A significant impact will occur if implementation of the proposed Project will:

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

### 5.3.5 Environmental Impacts before Mitigation

At the programmatic level addressed in this EIR, a variety of regulatory measures, including compliance with and implementation of Federal, State, Regional, and Local regulations as well as proposed Beaumont 2040 Plan goals, policies, and implementation actions are intended to reduce potential air quality impacts to less than significant. (See full discussion on environmental impacts below.) In addition, all future implementing projects would be subject to further CEQA review focusing on the specifics of the proposed project which cannot be foreseen at this time since no specific development proposals are included as part of the Beaumont 2040 Plan.

For purposes of the analyses herein, the discussion includes the City limits as well as the City's SOI (collectively referred to as "Planning Area"). Future development of properties within the City's SOI that are annexed to the City would be subject to the City's entitlement process while future development within the City's SOI that is under the County's land use control would be subject to the County's entitlement requirements.

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

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A project may be inconsistent with the Air Quality Management Plan (AQMP) if it would generate population, housing or employment growth exceeding the forecasts used in the development of the AQMP. According to Southern California Association of Governments (SCAG) growth forecasts in their 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Beaumont will have 27,200 dwelling units, a resident population of 80,600, and 18,000 jobs in 2040 (SCAG 2016, Demographics and Growth Forecast Appendix, p. 27). Development facilitated by the proposed Beaumont 2040 Plan is projected to bring the maximum dwelling units to 40,849, total population to 131,949, and total jobs to 38,224, which includes 31,022 dwelling units, population of 101,416, and 21,497 jobs within the city limits. These projections exceed SCAG's 2040 forecasts from the 2016 RTP/SCS (see Section 5.13 – Population and Housing, for further detail). Within the City limits, the increases from SCAG projections are approximately 12.3 percent dwelling units, 21.5 percent population, and 16.3 percent employment, respectively. As these are not considered substantial increases, the Beaumont 2040 Plan would not be inconsistent with SCAG projections.

Consistency with the 2016 AQMP is also a function of consistency with applicable AQMP control measures. The AQMP includes specific control measures to reduce air pollutant emissions in order meet federal and state air quality standards. Even though the anticipated growth from the Beaumont 2040 Plan exceeds the growth projections in the AQMP, the control measures contained within the 2016 AQMP will

still apply to new development, and through this compliance, the development of the Beaumont 2040 Plan will not obstruct implementation of the 2016 AQMP. Such control measures include, for example, further reductions from residential wood burning devices, VOC reductions from architectural coatings, and reductions from commercial space heating. Moreover, the mobile source control measures in the 2016 AQMP were based on a variety of control technologies that focus on accelerated retrofits or replacement of existing vehicles or equipment, acceleration of vehicle turnover through voluntary vehicle retirement programs, and greater use of cleaner fuels. The measures will also encourage greater deployment of zero-emission vehicle and equipment technologies such as plug-in hybrids, battery-electric, and fuel cells. (SCAQMD 2016, p. 4-22). The control measures are implemented by applicable agencies and the development that will result from the Beaumont 2040 Plan will be subject to all applicable measures.

Adoption and implementation of the Beaumont 2040 Plan does not include any specific development proposals. However, it would allow for new development and redevelopment of property throughout the Planning Area, which could result in air contaminant emissions associated with construction and operation of future and existing land uses that would affect how the region attains and maintains air quality standards. Adoption and implementation of the Beaumont 2040 Plan policies and programs would not obstruct implementation of the control measures contained within the AQMP, and because the Beaumont 2040 Plan is not inconsistent with the growth assumptions used in the development of the 2016 AQMP, the development of the Beaumont 2040 Plan would not conflict with or obstruct implementation of the 2016 AQMP. As such, the impacts in this regard are considered **less than significant**.

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

The portion of the Basin within which the Beaumont 2040 Plan is located is designated as a non-attainment area for PM-10 under state standards, and as a nonattainment area for ozone and PM-2.5 under both state and federal standards. SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same (SCAQMD 2003, p. D-3). Consequently, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable. Project emissions within the context of SCAQMD's regional emissions thresholds provide an indicator of potential cumulative impacts within the Basin. Cumulative localized impacts for pollutants are also considered, and reflect project air pollutant emissions in the context of ambient conditions.

Air quality impacts can be described in a short- and long-term perspective. Short-term impacts occur during site preparation and construction activities of new development, whereas long-term impacts are associated with operation of new development.

#### Short-term Construction Emissions

Construction activity facilitated by the Beaumont 2040 Plan would cause temporary emissions of various air pollutants. Ozone precursor NO<sub>x</sub> and PM-2.5 would be emitted by the operation of construction equipment, while VOC emissions result from painting activities and fugitive dust (PM-10) would be emitted by activities that disturb the soil, such as grading and excavation, road construction and building construction. Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with individual construction projects.

Construction activity carried out under the Beaumont 2040 Plan could occur throughout the city. Individual developments in these areas of the city would be subject to independent environmental review under CEQA, at which time SCAQMD project-level thresholds would be used to assess the potential

construction-related air quality impacts of the proposal. Depending upon the development type and size, maximum daily emissions associated with individual projects could potentially exceed SCAQMD regional and/or localized significance thresholds, resulting in a significant air quality impact.

Localized significance thresholds (LSTs) only apply to those emissions generated by on-site construction activities, such as emissions from on-site grading, and do not apply to off-site mobile emissions. Because they are localized, and depend on project-level information such as quantities of demolition, grading, and construction, application of LST thresholds is only appropriate for project-level CEQA analysis, not in the program-level CEQA analysis of this PEIR. Analysis of the potential for exceedances of LST thresholds would be carried out on a project-by-project basis, as necessary and appropriate.

The SCAQMD has established Rules 402 and 403, which require that air pollutant emissions not be a nuisance off-site, and reduce the ambient entrainment of fugitive dust. Rule 403 includes best available control measures (BACM) for all construction activity, contingency control measures for large operations, and conservation management practices for confined animal facilities. Major categories addressed by Rule 403 to reduce fugitive dust include earth moving, disturbed surface areas, unpaved roads, open storage piles, demolition, and other various construction activities. During construction, individual property owners, developers, or contractors would be required to comply with applicable SCAQMD rules, which reduce temporary construction-related air pollutant emissions. If required, individual projects that could occur under the Beaumont 2040 Plan would be required to implement additional mitigation if site-specific analysis identifies the potential to exceed applicable thresholds.

Adoption and implementation of the Beaumont 2040 Plan does not include any specific development proposals. However, it would allow new development and redevelopment of property throughout the Planning Area, which would generate air contaminant emissions from short-term construction of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors, that would be temporary for each construction project, but could occur for multiple projects simultaneously. Adoption and implementation of the Beaumont 2040 Plan policies and programs and adherence to SCAQMD Rules and Regulations would help reduce short-term emissions and these emissions can be mitigated on a specific development basis.

#### Long-term Operational Emissions

Long-term emissions associated with future development in the City of Beaumont in accordance with the Beaumont 2040 Plan are those associated with vehicle trips and stationary sources (electricity and natural gas). Emissions associated with individual projects, depending on project type and size, could exceed project-specific thresholds established by the SCAQMD. However, such projects would be required to undergo independent project-level CEQA review and to include mitigation measures to address potentially significant project-level impacts.

For informational purposes, operational emissions based on future 2040 conditions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 program for stationary and mobile source emissions. Specific data for the types and amounts of various land use development planned were entered into CalEEMod to determine the pollutant emissions anticipated at full build out. This data includes the number of residential dwelling units and square footage of non-residential land uses from **Table 3-B – Proposed Beaumont 2040 Plan Land Use Summary for the Planning Area (City and SOI)**, and vehicle miles traveled from the *Transportation Impact Analysis Beaumont General Plan Update* (Appendix F.1). Where project-specific data was not available, CalEEMod defaults were used. The specific land use inputs and mobile source assumptions are provided in the modeling output and are included in Appendix C.

Stationary source emissions would be generated by the consumption of natural gas for space and water heating devices, the operation of landscape maintenance equipment and the general operation of commercial and industrial land uses. Mobile emissions would be generated by the vehicles traveling to, within and from land uses within the Plan Area. The peak daily emissions are summarized in **Table 5.3-C – Peak Daily Operation Emissions**.

**Table 5.3-C – Peak Daily Operation Emissions**

Pollutant	Peak Daily Emissions (lb/day) <sup>2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>City Wide <sup>1</sup></b>						
Area	7,851.94	652.04	16,281.97	37.14	2,103.88	2,103.88
Energy	36.12	314.97	177.73	1.97	24.95	24.95
Mobile	2,276.01	24,548.72	10,570.75	64.62	3,025.22	821.10
<b>Total</b>	<b>10,164.07</b>	<b>25,515.73</b>	<b>27,030.45</b>	<b>103.73</b>	<b>5,154.05</b>	<b>2,949.93</b>
<b>Sphere of Influence Only <sup>1</sup></b>						
Area	1,745.78	196.96	4,226.38	10.29	538.79	538.79
Energy	16.26	144.46	99.53	0.90	11.23	11.23
Mobile	643.62	6,942.04	2,989.26	18.27	855.49	232.20
<b>Total</b>	<b>2,405.66</b>	<b>7,283.46</b>	<b>7,315.17</b>	<b>29.46</b>	<b>1,405.51</b>	<b>782.22</b>
<b>City and Sphere of Influence Total</b>						
Area	9,597.72	849.00	20,508.38	47.43	2,642.67	2,642.67
Energy	52.38	459.43	277.26	2.87	36.18	36.18
Mobile	2,919.63	31,490.76	13,560.01	82.89	3,888.71	1,053.30
<b>Total</b>	<b>12,569.73</b>	<b>32,799.19</b>	<b>34,345.65</b>	<b>133.19</b>	<b>6,567.56</b>	<b>3,732.15</b>
<b>Exceeds Threshold?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>

Note: <sup>1</sup> The emissions shown are the maximum of either summer or winter daily emissions (i.e., worst-case) results from CalEEMod.  
<sup>2</sup> lb/day – pound per day; NO<sub>x</sub> – oxides of nitrogen; CO – carbon monoxide; PM-10 – particulate matter less than 10 microns in size; PM-2.5 – particulate matter less than 2.5 microns in size

As shown in **Table 5.3.-C**, implementation of the Beaumont 2040 Plan at buildout would generate long-term emissions that exceed the daily SCAQMD thresholds for all criteria pollutants, except SO<sub>2</sub>. Therefore, the Project would contribute to the cumulative contribution of criteria pollutants for which the Basin is nonattainment.

The Beaumont 2040 Plan includes goals 3.4, 3.8, 3.10, 4.1, 4.6, 6.5, 6.7, 8.4, 9.9, 10.2, and 11.12 and their associated policies and implementation actions listed in Section 5.3.3, above, that would require siting of sensitive receptors and site planning to minimize the exposure to localized air pollution, as well reduce vehicle emissions and control dust. However, as stated above, analysis of the potential for exceedances of both regional thresholds and LST would be carried out on a project-by-project basis, as necessary and appropriate.

Adoption and implementation of the Beaumont 2040 Plan would generate air contaminant emissions from long-term operation of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors. Adoption and implementation of the Beaumont 2040 Plan policies and programs and enforcement of SCAQMD Rules and Regulations would help reduce long-term emissions. However, future development projects that would be accommodated by the Beaumont 2040 Plan could exceed the SCAQMD regional and localized emissions thresholds. Therefore, operational air quality impacts associated with future development of the Beaumont 2040 Plan would be **significant and unavoidable**.

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

As stated above in Section 5.3.1, 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.

Existing industrial developments within the City that may emit Toxic Air Contaminants (TACs) include several concrete operations, a steel fabrication plant, plastic manufacturer, and plating, stamping, and tooling manufacturing facility. Locations of TAC emitter facilities include (Beaumont 2040 Plan, p. 202):

- Anderson Charnesky Structural Steel, Inc.
- Dura Plastic Production, Inc.
- Precision Stampings, Inc.
- Rancho Ready Mix Products, LP
- Robertson's Ready Mix – Beaumont #7

When evaluating potential air quality impacts to sensitive receptors, localized concentrations of criteria pollutants and toxic air contaminants is considered. Localized criteria pollutant concentrations are evaluated against the SCAQMD Localized Significance Thresholds (LSTs), as discussed in Threshold B, as well as for the potential to create a CO hot spot. 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 project would not expose existing or future sensitive uses within the Planning Area to substantial CO concentrations. The Basin is in attainment of state and federal CO standards and has been for several years. Background levels of CO are generally low in the Basin. The highest 1-hour and 8-hour average concentration of CO in the Planning Area within the last three years was in 2018 and was reported at 2.2 and 2.0 ppm (see **Table 5.3-B**), respectively, which is well below the state 1-hour and 8-hour standard of 20 ppm and 9 ppm, respectively. Although CO is not expected to be a major air quality concern in Riverside County over the planning horizon, elevated CO levels can occur at or near intersections that experience severe traffic congestion. However, a CO hot spot analysis was conducted in 2003 the four busiest intersections in Los Angeles at the peak morning and afternoon time periods (the busiest intersection had a daily traffic volume of approximately 100,000 vehicles per day) (SCAQMD 2003a, Appendix V, Table 4-7). This hot spot analysis did not predict any violation of CO standards. Considering full build-out of the Beaumont 2040 Plan, the highest average daily trips would be 62,900 trips in on Beaumont Avenue (State Route 79 (SR-74)) south of California Avenue, which is lower than the values studied by SCAQMD (Appendix F.1, pp. 48-49.). Therefore, it can reasonably be concluded that traffic associated with Beaumont 2040 Plan buildout would not have daily traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that roadway intersections affected by the Project would yield higher CO concentrations if modeled in detail. Thus, the Project would not result in CO hot spots.

As stated above, LSTs only apply to those emissions generated by on-site construction or operation activities and do not apply to off-site mobile emissions. Because they are localized, and depend on project-level information, application of LST thresholds is only appropriate for project-level CEQA analysis, not in the program-level CEQA analysis of this PEIR. The Beaumont 2040 Plan includes goals 3.4, 3.8, 3.10, 4.1, 4.6, 6.5, 6.7, 8.4, 10.2, and 11.12 and their associated policies and implementation actions listed in Section 5.3.3, above, that would require siting of sensitive receptors and site planning to minimize the exposure to localized air pollution, as well reduce vehicle emissions. In addition to criteria pollutant analysis, localized emissions of toxic air contaminants (TAC) are also of concern with respect to sensitive receptors. Sources of TACs include diesel particulate matter from trucks and railroads, emissions from the combustion of airplane fuel, benzene emissions near gasoline dispensing stations, dry cleaners and film processing services that use perchloroethylene, auto body shops due to various solvents, furniture manufacturers and repair facilities that use methylene chloride and print shops that use various solvents.

The primary source of TACs within the City of Beaumont is diesel-fueled trucks and other vehicles traveling the freeways and major roadways. The "Air Quality and Land Use Handbook – A Community Health Perspective," provides guidance on how to analyze these TAC emission sources in a general plan update and how to apply program-level mitigation (CARB 2005). In particular, the CARB Guidance uses buffer zones to insulate sensitive receptors from sources of TACs. Due to the programmatic nature of the Beaumont 2040 Plan, detailed construction phasing, equipment and intensities are not available. Further, the exact size and location of future development within the City of Beaumont and, in particular, its timing, is unknown at this time. Therefore, project-level analysis for impacts to sensitive receptors cannot be accurately determined. It can, however, be assumed that various sizes and types of projects will be developed and, because of the increased density seen for the land uses and desired proximity of residential land uses to both transit and commercial centers, it can be assumed that both construction and operation of commercial and potentially industrial sources would be developed relatively close to sensitive receptors such as residences or schools. The Beaumont 2040 Plan goals referenced above also apply to TAC emissions.

In addition, the issuance of SCAQMD air quality permits and compliance with all SCAQMD, state, and federal regulations regarding stationary TACs reduce potential stationary sources of TAC emissions such that sensitive receptors would not be exposed to substantial air pollutant concentrations. The SCAQMD limits public exposure to TACs through a number of programs. The SCAQMD reviews the potential for TAC emissions from new and modified stationary sources through the SCAQMD permitting process for stationary sources.

Adoption and implementation of the Beaumont 2040 Plan and enforcement of SCAQMD Rules and Regulations would minimize exposure of sensitive receptors to substantial criteria pollutant and TAC emissions. However, localized criteria pollutant and TAC impacts associated with implementation of the Beaumont 2040 Plan are considered **significant and unavoidable**.

***Threshold D: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

The Beaumont 2040 Plan would facilitate development within the city. Some commercial and industrial uses developed under the Beaumont 2040 Plan may generate odor nuisance effects to the public. Examples of commercial uses that have the potential to cause odor impacts include fast food restaurants, photographic studios, and laundry facilities. Industrial uses may also generate odors. However, the Beaumont 2040 Plan Policies 3.4.8, 6.5.6, and 11.11.3 would require siting of sensitive receptors and site planning to minimize the exposure to odors and Municipal Code 17.04.060 requires any process that creates or emits gasses or other odorous matter to comply with standards set by SCAQMD. SCAQMD

Rule 402 (Nuisance) would prohibit any land use (except agricultural land uses) from generating odors that “endanger the comfort, repose, health or safety of any such persons of the public” (SCAQMD 1970).

Therefore, implementation of the Beaumont 2040 Plan and compliance with SCAQMD Rules and Regulations would ensure that a substantial number of receptors are not exposed to substantial odor emissions. As such, significant odor impacts are not anticipated.

Construction activity would also generate temporary 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 be temporary and would be confined to the immediate vicinity of the construction site and activity. Therefore, impacts are considered **less than significant**.

### 5.3.6 Proposed Mitigation Measures

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (CEQA Guidelines, Section 15126.4). Although the Beaumont 2040 Plan includes feasible policies and implementation actions, future development per the Beaumont 2040 Plan could result in air pollutant emissions that exceed applicable thresholds. The following mitigation is proposed:

**MM AQ 1:** In order to reduce future impacts related to exceedance of air quality standards from criteria pollutants and from TACs impacting sensitive receptors, prior to discretionary approval for development projects subject to CEQA review, project applicants shall prepare and submit a technical analysis evaluating potential air quality impacts, including TAC’s where appropriate, to the City of Beaumont for review and approval. The analysis shall be prepared in conformance with current SCAQMD methodology for assessing air quality impacts and TACs. Feasible mitigation measures for each future project shall be incorporated, if applicable.

### 5.3.7 Level of Significance after Mitigation

With adherence to and compliance with the proposed Beaumont 2040 Plan goals, policies, and implementation actions, in addition to adherence to standard Federal, State, regional, and local regulations, the impact to air quality from the Project would be reduced. Mitigation measure **MM AQ 1** would contribute to reduced criteria air pollutant emissions associated with buildout of the Beaumont 2040 Plan. However, no further mitigation measures are available that would reduce impacts to below applicable SCAQMD significance thresholds due to the magnitude and associated emissions generated by the Beaumont 2040 Plan. Therefore, air quality impacts remain **significant and unavoidable**.

The significance of impacts to air quality resulting from specific future development projects will be evaluated on a project-by-project basis (**MM AQ 1**) and Beaumont 2040 Plan policies as well as City standards and practices will be applied, individually or jointly, as necessary and appropriate. If project-level impacts are identified at that time, specific mitigation measures may be required by CEQA.

### 5.3.8 References

The following references were used in the preparation of this section of the Draft PEIR:

Beaumont 2040 Plan      *Beaumont General Plan*, Public Draft August 2020, (Available at <https://www.beaumontca.gov/DocumentCenter/View/36596/Beaumont-GPU-Public-Draft>)

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- CARB 2005 California Air Resources Board, *Air Quality and Land Use Handbook: A Community Perspective*, April 2005. (Available at <https://ww3.arb.ca.gov/ch/handbook.pdf>, accessed August 25, 2020.)
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- EPA 2020 U.S. Environmental Protection Agency, *Criteria Air Pollutants, Webpage*. (Available at <https://www.epa.gov/criteria-air-pollutants>, accessed August 25, 2020.)
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- SCAQMD 1970 South Coast Air Quality Management District. *Rules and Compliance*, 1970. (Available at <http://www.aqmd.gov/home/rules-compliance>, accessed January 30, 2020.)
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- SCAQMD 2015 South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae*, April 13, 2015. (Available at <https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf>, accessed August 14, 2020.)
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MATES IV SCAQMD, *MATES-IV Carcinogenic Risk Map*, available at <https://scaqmd-online.maps.arcgis.com/apps/webappviewer/index.html?id=470c30bc6daf4ef6a43f0082973ff45f>; accessed August 6, 2020.
- SCAQMD  
Rulebook South Coast Air Quality Management District, *South Coast AQMD Rule Book*, 2020. (Available at <http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book>, accessed August 2020. )