8 AIR RESOURCES

This chapter provides an evaluation of the potential effects to air quality with implementation of the proposed City of Folsom 2035 General Plan (2035 General Plan). As established in the Notice of Preparation for the proposed 2035 General Plan (see Appendix A, *Notice of Preparation)*, urban development and other activities subject to the plan may result in adverse effects to air resources, including odors. The following chapter discusses only those pollutants directly regulated by federal and state agencies and the local air district; greenhouse gas emissions and climate change are evaluated in Chapter 12, *Global Climate Change*, of this Draft Program Environmental Impact Report (PEIR). Impacts related to Naturally Occurring Asbestos are evaluated in Chapter 13, *Hazards and Hazardous Materials*, of the PEIR.

The following environmental assessment includes a review of air resources potentially affected by the implementation of the 2035 General Plan. This analysis includes a review of regulations, requirements, plans, and policies applicable to the control of air pollutants and odors. The environmental setting reviews the federal and state criteria pollutant attainment status for the Sacramento Valley Air Basin (SVAB), the estimated criteria pollutant emissions in the City of Folsom and the SVAB, and recent air pollutant monitoring data. Potential impacts related to air quality were determined by comparing potential activities to the existing environment, based on California Environmental Quality Act (CEQA) assessment criteria and analysis methodologies approved by the Sacramento Metropolitan Air Quality Management District (SMAQMD), and by considering the policies, regulations, and guidelines adopted by the City of Folsom and by federal and state resource agencies.

8.1 SETTING

The environmental and regulatory setting of the City of Folsom with respect to air resources is described below for both the physical environment and the body of federal, state, and local policies and regulations with respect to air quality.

8.1.1 ENVIRONMENTAL SETTING

The air quality setting describes the federally- and state-identified criteria pollutants, the status of these pollutants in the SVAB, and emission sources in the SVAB.

REGIONAL CLIMATE AND METEOROLOGY

Folsom is located in Sacramento County near the eastern edge of the SVAB, which includes the counties of Shasta, Tehama, Glenn, Butte, Colusa, Yolo, Sutter, Yuba, and Sacramento Counties, as well as portions of Solano and Placer Counties.

The SVAB has a Mediterranean climate characterized by hot, dry summers and cool, rainy winters. During winter, the North Pacific storm track intermittently dominates valley weather, and fair weather alternates with periods of extensive clouds and precipitation. Also characteristic of winter weather in the valley are periods of dense and persistent low-level fog, which is most prevalent between storms. The frequency and persistence of heavy fog in the valley diminishes with the approach of spring. The average yearly temperature range for the Sacramento Valley is between 20 and 115° F, with summer high temperatures often exceeding 90°F and winter low temperatures occasionally dropping below freezing.

Prevailing wind in the Sacramento Valley is generally from the southwest due to marine breezes flowing through the Carquinez Strait, which is the major corridor for air moving into the Sacramento Valley from the west. The strength of incoming airflow varies daily and also exhibits a pronounced diurnal cycle. Influx strength is weakest in the morning and increases in the evening hours. Associated with the influx of air through the Carquinez Strait is the Schultz Eddy, which is formed when mountains on the valley's western side divert incoming marine air. The eddy contributes to the formation of a low-level southerly jet between 500 and 1,000 feet above the surface that is capable of speeds in excess of 35 miles per hour. This jet is important for air quality in the Sacramento Valley because of its ability to transport air pollutants over large distances.

The SVAB's climate and topography contribute to the formation and transport of photochemical pollutants throughout the region. The region experiences temperature inversions that limit atmospheric mixing and trap pollutants; high pollutant concentrations result near the ground surface. Generally, the lower the inversion base height from the ground and the greater the temperature increase from base to top, the more pronounced the inhibiting effect of the inversion will be on pollutant dispersion. Consequently, the highest concentrations of photochemical pollutants occur from late spring to early fall, when the yield from photochemical reactions is greatest due to intensifying sunlight and lowering altitude of daytime inversion layers. Surface inversions (those at altitudes of zero to 500 feet above sea level) are most frequent during winter, and subsidence inversions (those at 1,000 to 2,000 feet above sea level) are most common in summer.

AIR QUALITY IN FOLSOM

From 1990 to 2010, Folsom experienced a faster rate of growth than the County of Sacramento, and is poised to continue its rapid growth through 2035 with development of the area south of Highway 50 (City of Folsom 2011). Folsom accounts for 5.1 percent of Sacramento County's population, and the air pollutants emitted by the city are likely to increase proportionally with population without mitigation. Increased development is anticipated to result in increases in commercial and residential chemical and on-site fuel use, motor vehicle travel, and waste generation, which could lead to increased levels of criteria pollutants that are both harmful to public health and inconsistent with SMAQMD air quality plans. Some of the largest sources of criteria pollutants in the city include petroleum marketing (i.e., bulk gasoline storage and transfer), mobile sources, road and construction dust, and residential fuel combustion.

Air Pollutants of Concern

Pollutants of concern and their regional standards are discussed individually below. Ozone (O_3), NO_2, and particulate matter (PM) are generally considered to be "regional" pollutants, as these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, sulfur dioxide (SO_2), lead, and PM are considered to be local pollutants that tend to accumulate in the air locally. PM is considered to be a localized pollutant as well as a regional pollutant. Toxic air contaminants (TAC) are also discussed below, although no federal or state ambient air quality standards exist for these pollutants. The pollutants of greatest concern in the region and city are O_3, CO, and PM.

Ozone

Ozone (O_3) is a respiratory irritant that increases susceptibility to respiratory infections. It is also an oxidant that can cause substantial damage to vegetation and other materials. O_3 is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. O_3 precursors (reactive organic gases [ROG]/volatile organic gases [VOC][1] and nitrogen oxides [NO_X]) react in the atmosphere in the presence of sunlight and heat to form O_3. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O_3 is primarily a summer air pollution problem.

Carbon Monoxide

Carbon Monoxide (CO) is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. CO can cause health problems such as fatigue, headache, confusion, dizziness, and death.

Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

Nitrogen Dioxide

Nitrogen oxides (NO_X) are a family of highly reactive gases that are primary precursors to the formation of ground-level ozone and include NO_2 and nitric oxide (NO). Nitrogen oxides are produced from natural sources, motor vehicles, and other fuel combustion processes. NO_X are critical components of photochemical smog. NO_2 produces the yellowish-brown color of smog.

NO_X can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. The effects of short-term exposure are still unclear, but continued or frequent exposure to elevated concentrations may cause an increased incidence of acute respiratory illness in children. Health effects associated with NO_X are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may lead to eye and mucus membrane aggravation along with pulmonary dysfunction. NO_X can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_X can impair visibility.

Because NO_X is a major component of acid deposition in California, NO_X may affect both terrestrial and aquatic ecosystems. NO_X may also affect aquatic ecosystems through eutrophication. Eutrophication occurs when a body of water suffers an increase in nutrients that reduces the amount of oxygen in the water, producing an environment that is destructive to fish and other animal life.

[1] ROG/VOC are organic chemical compounds that are released into the atmosphere by anthropogenic and natural emissions. Health effects associated with VOCs include eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system.

Sulfur Dioxide

Sulfur Dioxide gases are a family of colorless, pungent gases that include SO_2 and are formed primarily by combustion of sulfur-containing fossil fuels (mainly coal and oil), metal smelting, electricity generation, and other industrial processes. SO_x can react to form sulfates, which significantly reduce visibility through particulate matter formation.

The major health concerns associated with exposure to high concentrations of SO_x include effects related to breathing, respiratory illness, alterations in pulmonary defenses, and aggravation of existing cardiovascular disease. Major subgroups of the population that are most sensitive to SO_x include individuals with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema), as well as children and the elderly. SO_x emissions can also damage tree foliage and agricultural crops. Together, SO_x and NO_X are the major precursors to acid rain, which is associated with the acidification of lakes and streams and accelerated corrosion of buildings and monuments.

Particulate Matter

Particulate matter (PM) can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulates also reduce visibility and corrode materials. Coarse particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. $PM_{2.5}$ includes a subgroup of finer particles that have an aerodynamic diameter of 2.5 micrometers or less. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} is of concern because it bypasses the body's natural filtration system more easily than larger particles, and can lodge deep in the lungs. $PM_{2.5}$ poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health.

Lead

Several decades ago lead (Pb) was used as an automotive fuel additive to increase the octane rating. Because gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels, and the use of leaded fuel has been mostly phased out, the ambient concentrations of lead have dropped dramatically.

Short-term exposure to high levels of lead can cause vomiting, diarrhea, convulsions, coma, and death. Small amounts of lead can be harmful, especially to infants, young children, and pregnant women. Even low-level exposure may harm the intellectual development, behavior, size, and hearing of infants. During pregnancy, and especially in the last trimester, the developing fetus is at particular risk from maternal lead exposure, with low birth weight and slowed postnatal neurobehavioral development noted.

Symptoms of long-term exposure to lower lead levels may be less noticeable but are still serious. Anemia is common, and damage to the nervous system may cause impaired mental function. Other symptoms are appetite loss, abdominal pain, constipation, fatigue, sleeplessness, irritability, and headache. Continued excessive exposure, as in an industrial setting, can affect the kidneys.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the federal, state, and regional level.
Diesel exhaust is the predominant TAC in urban air with the potential to cause cancer. It is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resources Board (ARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by ARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The EPA and ARB have adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially.

Ambient Air Quality Conditions

Existing air quality conditions in the project area can be characterized in terms of the ambient air quality standards that the federal and state governments have established for various pollutants (see Appendix C) and by monitoring data collected in the region. Monitoring data concentrations are typically expressed in terms of parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Two monitoring stations are located in the vicinity of Folsom: the Folsom - Natoma Street monitoring station, located at 50 Natoma Street in Folsom, which monitors for O_3 and NO_2 (ARB 2017), and the Del Paso Manner Station located at 2701 Avalon Drive in Sacramento, which monitors for PM_{10}, $PM_{2.5}$, and CO. Air quality monitoring data as measured at these stations is summarized in Table 8-1. This data represents air quality monitoring data for the last five years (2012-2016) for which data is available. As indicated in Table 8-1, the monitoring stations in the vicinity of Folsom have experienced violations of the following standards during the 5-year monitoring period for which monitoring data are available:

- 1-hour ozone: California ambient air quality standards (CAAQS[2])
- 8-hour ozone: CAAQS and national ambient air quality standards (NAAQS[3])
- PM_{10}: CAAQS
- $PM_{2.5}$: NAAQS

[2] CAAQS – California Ambient Air Quality Standard. For further discussion of CAAQS, see page 8-7.
[3] NAAQS – National Ambient Air Quality Standard. For further discussion of NAAQS, see page 8-7.

Table 8-1 Ambient Air Quality Monitoring Data Measured at the Folsom Natoma Street and Sacramento Del Paso Manor Monitoring Stations

Pollutant Standards	2012	2013	2014	2015	2016
1-Hour Ozone (Folsom - Natoma Street)					
Maximum 1-hour concentration (ppm)	0.122	0.114	0.100	0.114	0.111
1-hour California designation value	0.12	0.12	0.11	0.10	0.11
Number of days standard exceeded[a]					
CAAQS 1-hour (>0.09 ppm)	19	5	7	3	6
8-Hour Ozone (Folsom - Natoma Street)					
National maximum 8-hour concentration (ppm)	0.105	0.087	0.084	0.093	0.094
State maximum 8-hour concentration (ppm)	0.106	0.087	0.085	0.093	0.095
8-hour national designation value	0.095	0.090	0.085	0.080	0.083
8-hour California designation value	0.106	0.106	0.099	0.087	0.093
Number of days standard exceeded[a]					
NAAQS 8-hour (>0.075 ppm)	38	6	14	5	13
CAAQS 8-hour (>0.070 ppm)	53	16	34	11	23
Carbon Monoxide (CO) (Del Paso Manor)					
National[b] average 8-hour concentration (ppm)	1.51	-	-	-	-
California[c] average 8-hour concentration (ppm)	1.51	-	-	-	-
Expected peak day concentration (ppm)	2.09	-	-	-	-
Number of days standard exceeded[a]					
NAAQS 8-hour (≥9 ppm)	0	-	-	-	-
CAAQS 8-hour (≥9.0 ppm)	0	-	-	-	-
Particulate Matter (PM_{10})[d] (Del Paso Manor)					
National[b] max. 24-hour concentration (µg/m³)	41.0	56.0	40.0	42.0	31.0
State[c] maximum 24-hour concentration (µg/m³)	43.0	63.5	42.8	51.4	42.2
State[c] max. 3-year average concentration (µg/m³)	21	23	23	23	19
State annual average concentration (µg/m³)[e]	15.8	23.2	18.8	18.0	17.6
Number of days standard exceeded[a]					
NAAQS 24-hour (>150 µg/m³)[f]	0	0	0	0	0
CAAQS 24-hour (>50 µg/m³)[f]	0	12.3	0	0	0
Particulate Matter ($PM_{2.5}$) (Del Paso Manor)					
National[b] max. 24-hour concentration (µg/m³)	35.3	53.8	32.0	54.4	46.8
State[c] maximum 24-hour concentration (µg/m³)	45.7	59.5	39.5	54.5	57.5
National annual designation value (µg/m³)	9.5	10.4	9.8	10.2	9.3
National annual average concentration (µg/m³)	9.1	11.5	8.8	10.4	8.8
State annual designation value (µg/m³)	12	12	12	12	10
State annual average concentration (µg/m³)[e]	9.2	11.5	8.8	10.4	9.8
Number of days standard exceeded[a]					
NAAQS 24-hour (>35 µg/m³)	0.0	13.0	0.0	8.7	3.3

Table 8-1 Ambient Air Quality Monitoring Data Measured at the Folsom Natoma Street and Sacramento Del Paso Manor Monitoring Stations

Pollutant Standards	2012	2013	2014	2015	2016

Notes: Underlined Values in excess of applicable standard. ppm = parts per million / μg/m³ = micrograms per cubic meter.
CAAQS = California ambient air quality standards. NAAQS = national ambient air quality standards.
"–" = insufficient data available to determine the value.
2016 is the latest year of data available as of preparation of this section (November 2017)

a. An exceedance is not necessarily a violation.
b. National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
c. State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, State statistics are based on California approved samplers.
d. Measurements usually are collected every six days.
e. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
f. Mathematical estimate of how many days that concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2017.

ATTAINMENT STATUS

Ambient air quality is described in terms of compliance with national and state standards, and the levels of air pollutant concentrations considered safe to protect the public health and welfare. These standards are designed to protect people most sensitive to 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.

State and national air quality standards consist of two parts: an allowable concentration of a pollutant, and an averaging time over which the concentration is to be measured. Allowable concentrations are based on the results of studies on the effects of the pollutants on human health, crops and vegetation, and, in some cases, damage to paint and other materials. The averaging times are based on whether the damage caused by the pollutant is more likely to occur during exposures to a high concentration for a short time (i.e., one hour), or to a relatively lower average concentration over a longer period (e.g., eight hours, 24 hours, or one month). For some pollutants, there is more than one air quality standard, reflecting both its short-term and long-term effects. The EPA has established NAAQS for air pollutants. As permitted by the federal Clean Air Act (CAA), California has adopted more stringent CAAQS (see Table 8-2 for selected pollutants).

Table 8-2 Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards Concentration	Federal Primary Standards Concentration	Federal Secondary Standards Concentration
Ozone	8-hour	0.07 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)
	1-hour	0.09 ppm (180 µg/m^3)	--- [a]	---
PM_{10}	24-hour	50 µg/m^3	150 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	---	---
$PM_{2.5}$	24-hour	---	35 µg/m^3	35 µg/m^3
	Annual Average	12 µg/m^3	12 µg/m^3	15 µg/m^3
CO	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	---
	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	---

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

a 1-Hour ozone standard revoked effective June 15, 2005, although some areas have continuing obligations under that standard ("anti-backsliding").

Source: California Air Resources Board 2016. U.S. Environmental Protection Agency 2016.

Local monitoring data (see Table 8-1) is used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are further defined as follows:

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

Table 8-3 summarizes the attainment status of Sacramento County with regard to the NAAQS and CAAQS. Based on the region's existing air quality and attainment status, air quality plans have been prepared to document how the region would achieve attainment of standards for nonattainment pollutants.

The Sacramento County/Sacramento Metropolitan Area portion of the SVAB is currently in nonattainment for federal and state ozone, state PM_{10}, and federal $PM_{2.5}$ standards (see Table 8-3).

Table 8-3 Federal and State Attainment Status for Sacramento County

Air Pollutant	NAAQS	CAAQS
1-Hour Ozone	No Federal Standard	Nonattainment
8-Hour Ozone	Nonattainment	Nonattainment
CO	Attainment	Attainment
$PM_{2.5}$	Nonattainment (24-hour) Attainment/Unclassified (Annual)	Attainment
PM_{10}	Attainment (24-hour)	Nonattainment

Notes: CAAQS = California ambient air quality standards. NAAQS = national ambient air quality standards.

Sources: California Air Resources Board 2016. Environmental Protection Agency 2017a. SMAQMD 2017a.

EMISSION SOURCES

Folsom is home to many industries, processes, and actions that generate emissions of criteria pollutants. The ARB compiles an emissions inventory for all sources of emissions within Sacramento County. This inventory is used by the SMAQMD and ARB for regional air quality planning purposes and is the basis for the region's air quality plans. It includes such sources as stationary (e.g., landfills, electric utilities, mineral processors); area-wide (e.g., farming operations, construction/demolition activities, residential fuel combustion); and mobile sources (e.g., automobiles, aircraft, off-road equipment).

For ozone precursors, stationary sources, including landfill and petroleum marketing, account for a majority of the region's total organic gases (TOG)[4] (63 percent), and mobile sources account for a majority of the region's ROG[5] emissions (46 percent). Mobile sources account for 89 percent of the region's NO_X emissions. Area-wide sources including residential fuel combustion (wood burning fireplaces and stoves), construction/demolition, and road dust account for a majority of the region's PM_{10} and $PM_{2.5}$ emissions (81 percent and 74 percent, respectively) (ARB 2012). Reducing emissions from these sources will help the region to meet its attainment goals.

SENSITIVE LAND USES

The SMAQMD identifies sensitive receptors as "facilities that house or attract children, the elderly, and people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors" (SMAQMD 2017). In general, these sensitive receptors are concentrated in areas zoned for housing and open space. Areas classified as business, commercial, industrial, and agriculture are less likely to include sensitive land uses, although the majority of Folsom is zoned to accommodate housing and/or open space, except for land along the southern city limit and a small portion of land that runs diagonally through the center of the city.

ODORS

The odor characteristics that contribute to nuisance conditions include the intensity, concentration or strength of the odor, the odor frequency, the duration that the odor remains detectable, and the perceived offensiveness and character or quality of the odor. The ability to detect odors varies considerably among the population and overall is quite subjective. There are no major sources of odors in the City of Folsom. Minor sources of odors in the 2035 Plan Evaluation Area could include, but are not limited to, restaurants and construction sites (diesel exhaust and asphalt paving).

8.1.2 REGULATORY SETTING

At the federal level, air quality in the United States and California is governed by the CAA, which is administered by the U.S. Environmental Protection Agency (EPA). Air quality in the state of California is also governed by more stringent regulations in the California Clean Air Act (CCAA), administered by the ARB at the state level and SMAQMD at the local level. The EPA has

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4 TOG refers to all organic gas compounds emitted to the atmosphere, (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) and includes ROG emissions.

5 ROGs are a subset of TOGs that do not include compounds exempted by the ARB (i.e., methane, ethane, CFCs, etc.).

established federal standards for which the ARB and SMAQMD have been delegated primary implementation responsibility. The ARB and SMAQMD are also responsible for ensuring that state standards are met.

The following regulations of federal, state, and local agencies govern various aspects of air resources. These regulations are summarized below and discussed in detail in Appendix C.

FEDERAL LAWS AND REGULATIONS

Federal Clean Air Act

The federal CAA directs the EPA to establish NAAQS for six pollutants: ozone (O_3), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), and SO_2. Areas that do not meet the federal ambient air quality standards are called nonattainment areas. For these nonattainment areas, the CAA requires states to develop and adopt State Implementation Plans (SIP), which are air quality plans showing how air quality standards will be attained and which are reviewed and approved by the EPA.

CALIFORNIA LAWS AND REGULATIONS

California Clean Air Act

In California, the ARB is responsible for meeting the state requirements of the federal CAA, administering the CCAA, and establishing the CAAQS. The CCAA requires all air districts in the state to endeavor to meet the CAAQS established by the ARB as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines.

California Air Resources Board

The ARB regulates mobile air pollution sources, such as motor vehicles, and is responsible for setting emission standards for vehicles sold in California and other sources, such as consumer products and certain off-road equipment. The ARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county levels.

California Air Toxics Program

The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk.

LOCAL LAWS AND REGULATIONS

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county greater Sacramento region, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties, as well as the region's incorporated cities. SACOG provides planning for transportation and other regional issues, including the distribution of affordable housing, bicycle networks, air quality issues, airport land uses, and public transit. SACOG is also working closely with local governments in the region to plan development in accordance with the Blueprint Project,

which promotes smart growth principles for land development and transportation projects within the region.

Sacramento Metropolitan Air Quality Management District

The SMAQMD is responsible for local air quality regulation within the 2035 General Plan Planning Area. The SMAQMD's primary responsibility is to regulate stationary sources and develop plans to achieve and maintain CAAQS and NAAQS. The SMAQMD is responsible for enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and recommending mitigation measures for new growth and development. The SMAQMD also works with SACOG to ensure a coordinated approach in the development and implementation of transportation plans throughout Sacramento County.

Air Quality Plans

State Planning

The CCAA requires districts to adopt air quality attainment plans and to review and revise their plans to address deficiencies in interim measures of progress once every three years. The SMAQMD 1991 Air Quality Attainment Plan (AQAP) was designed to make expeditious progress toward attaining the state ozone standard and contained schedules for control programs on stationary sources, transportation and indirect sources, and a vehicle/fuels program. Every three years, the SMAQMD issues a report that assesses their progress toward attaining state air quality standards. The most recent update to this report is the 2015 Triennial Report and Air Quality Plan Revision.

Federal Planning

To address the EPA's 8-hour ozone standard, counties within the Sacramento Area (Sacramento, Yolo, and portions of Placer, El Dorado, Solano, and Sutter) adopted the 2013 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan to address how the region would attain the 1997 8-hour standard. This plan was approved by U.S. EPA effective March 2, 2015. The region shows that it attained the 1997 8-hour NAAQS based on ambient data for the 2013–2015 monitoring period. The 2017 Sacramento Regional 2008 8-hour Ozone Attainment and Further Reasonable Progress Plan to achieve NAAQS of 75 ppb by an attainment year of 2024 was approved by the SMAQMD Board on August 24, 2017, and four other air districts in the Sacramento Federal Nonattainment Area approved the plan on November 16, 2017. The Plan has yet to be approved by the EPA.

The Sacramento $PM_{2.5}$ planning region was classified as attainment for the 2012 annual average $PM_{2.5}$ NAAQS of 12 $\mu g/m^3$, and classified as nonattainment in 2009 for the 2006 24-hour $PM_{2.5}$ NAAQS of 35$\mu g/m^3$. The region prepared the $PM_{2.5}$ Maintenance Plan and Redesignation Request (2013) to address how the region attained and would continue to attain the 24-hour $PM_{2.5}$ standard. On May 10, 2017, EPA found that the area attained the 2006 24-hour $PM_{2.5}$ NAAQS by the attainment date of December 31, 2015. The $PM_{2.5}$ Maintenance Plan and Redesignation Request will be updated and submitted in the future based on the clean data finding made by the EPA. The particulate matter planning region includes all of Sacramento County, the eastern portion of Yolo County, the western portions of El Dorado and Placer counties and the northeast portion of Solano County

The Sacramento region was classified as attainment for the 1997 PM_{10} 24-hour NAAQS of 150 $\mu g/m^3$. In October 2010, the SMAQMD prepared the PM10 Implementation /Maintenance Plan

and Redesignation Request for Sacramento County. EPA approved the PM_{10} Plan, which allowed EPA to proceed with the redesignation of Sacramento County as attainment for the PM_{10} NAAQS. The first Maintenance Plan showed maintenance from 2012 through 2022. A second plan must provide for maintenance of the NAAQS for 10 more years after expiration of the first 10-year maintenance period. The SMAQMD will prepare and submit a second maintenance plan in 2020 to demonstrate maintenance of the PM_{10} standard through 2032.

Measures identified in the air quality plans to reduce emissions include the adoption of rules by the SMAQMD (such as the Check Before You Burn program for indoor wood burning appliances associated with Rule 421) to control stationary sources emissions, market-based incentive programs to promote the accelerated introduction of lower emission mobile source technologies into the Sacramento region, transportation control measures that reduce air pollutant emissions during construction and operational phases of land developments.

Rules and Regulations

SMAQMD has adopted rules and regulations that apply to stationary sources of air pollutant emissions, some of which apply to construction-related emissions. Specific rules potentially applicable to new development at the time of preparation of this chapter (February 2018) may include, but are not limited to, the following:

- **Rule 201: General Permit Requirements**. This rule provides procedure and permit requirements for new sources of air pollution and the modification and operation of existing sources. Any project that issues air contaminants may require an authority to construct, which remains in effect until a permit to operate the equipment is granted or denied or the application is canceled.
- **Rule 202: New Source Review**[6]. New sources of air pollution, and modifications of existing sources, must comply with District Rule 202, also known as New Source Review (NSR). The NSR rule provides the mechanism for the District to issue permits to new and expanding businesses without interfering with efforts to meet the federal and state health-based air quality standards. NSR main requirements include Best Available Control Technology (BACT) and emission offset requirements.
- **Rule 402: Nuisance.** This rule prohibits the discharge of air contaminants that cause injury, detriment, nuisance, or annoyance to the public. Odors from agricultural operations are exempted.
- **Rule 403: Fugitive Dust**. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.
- **Rule 417: Wood Burning Appliances**. Installation of any new wood burning appliance must meet performance requirements.
- **Rule 442: Architectural Coatings**. The developer or contractor is required to use coatings that comply with the content limits for volatile organic compounds specified in the rule.

[6] This rule applies to all emission sources subject to Rule 201, except that emission sources exempted by Rule 201 must be included in the potential to emit of the stationary source unless the emissions unit emits less than 2 pounds per day of each pollutant.

- **Rule 902: Asbestos**. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.[7]

City of Folsom

The City of Folsom has adopted ordinances and standard conditions to protect air resources and sensitive receptors during the construction and operation of urban development. These requirements are found in the Folsom Municipal Code (FMC) and City's Standard Construction Specifications.

Mixed-Use Zones (FMC Chapter 17.23.030(D))

This section of the FMC allows the Community Development Department (CDD) director to determine whether a proposed use that is not listed in the mixed-use zoning district use table should be conditionally allowed within the mixed-use zone. Uses that are generally considered incompatible with residential uses due to noise, odor, vibration, and glare are prohibited in any of the mixed-use zones.

A-1-1, Agricultural-Reserve District, Uses requiring use permits (FMC Chapter 17.35.040)

The section states that applications for use permits will be reviewed for compatibility with the long-term uses designated for the area on the general plan, and that uses which have the potential to emit noise and/or odor beyond the property lines will not be approved.

Standard Construction Specifications

Requirements of the City's Standard Construction Specifications and Details, General Provisions related to air quality and odors include:

- 6.07 Air Pollution Control
- Section 6: Sanitary Sewer System Construction, 6.6(2)(A)(6)

Folsom Plan Area/Russell Ranch Adopted Mitigation Measures

Mitigation measures adopted by the City during its approval of the Folsom Plan Area Specific Plan (FPASP) and the Russell Ranch project related to air quality include:

Folsom Plan Area Specific Plan EIR/EIS

- Mitigation Measure 3A.2-1a: Implement Measures to Control Air Pollutant Emissions Generated by Construction of On-Site Elements.
- Mitigation Measure 3A.2-1b: Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of On-Site Elements.
- Mitigation Measure 3A.2-1c: Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of On-Site Elements.

[7] Impacts related to Naturally Occurring Asbestos are evaluated in Chapter 13, *Hazards and Hazardous Materials*, of this Draft PEIR.

- Mitigation Measure 3A.2-1d: Implement SMAQMD's Basic Construction Emission Control Practices during Construction of all Off- site Elements located in Sacramento County.
- Mitigation Measure 3A.2-1f: Implement SMAQMD's Enhanced Exhaust Control Practices during Construction of all Off-site Elements.
- Mitigation Measure 3A.2-1g: Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of Off-site Elements.
- Mitigation Measure 3A.2-1h: Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of Off-site Elements.
- Mitigation Measure 3A.2-2: Implement All Measures Prescribed by the Air Quality Mitigation Plan to Reduce Operational Air Pollutant Emissions.
- Mitigation Measure 3A.2-4a: Develop and Implement a Plan to Reduce Exposure of Sensitive Receptors to Construction-Generated Toxic Air Contaminant Emissions.
- Mitigation Measure 3A.2-4b: Implement Measures to Reduce Exposure of Sensitive Receptors to Operational Emissions of Toxic Air Contaminants.
- Mitigation Measure 3A.2-6: Implement Measures to Control Exposure of Sensitive Receptors to Operational Odorous Emissions.

Russell Ranch Project EIR

- Mitigation Measure 3A.2-1a (FPASP EIR/EIS): Implement Measures to Control Air Pollutant Emissions Generated by Construction of On-Site Elements.
- Mitigation Measure 3A.2-1b (FPASP EIR/EIS): Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of On-Site Elements.
- Mitigation Measure 3A.2-1d (FPASP EIR/EIS): Implement SMAQMD's Basic Construction Emission Control Practices during Construction of all Off- site Elements located in Sacramento County.
- Mitigation Measure 3A.2-1f (FPASP EIR/EIS): Implement SMAQMD's Enhanced Exhaust Control Practices during Construction of all Off-site Elements.
- Mitigation Measure 3A.2-1g (FPASP EIR/EIS): Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of Off-site Elements.
- Mitigation Measure 3A.2-1h (FPASP EIR/EIS): Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of Off-site Elements.
- Mitigation Measure 3A.2-2 (FPASP EIR/EIS): Implement All Measures Prescribed by the Air Quality Mitigation Plan to Reduce Operational Air Pollutant Emissions.

8.1.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The following policies from the proposed 2035 General Plan address air quality within the 2035 General Plan Planning Area. Several policies in the 2035 General Plan address sustainable development, which influence operational mobile- and area-source emissions within the planning area.

LAND USE ELEMENT

Policy LU 1.1.6: Compact Development Patterns. Encourage compact development patterns that support walking, bicycling, transit usage, and more efficient use of land.

Policy LU 1.1.12 Infill Development: Coordinate with the real estate development community to encourage infill development in key parcels north of U.S. Highway 50. Infill development should follow these guidelines:

1. *Respect the local context.* New development should improve the character and connectivity of the neighborhoods in which it occurs. Physical design should respond to the scale and features of the surrounding community, while improving critical elements such as transparency and permeability.
2. Work with neighbors. Infill development requires neighborhood consultation to understand the concerns, goals, and needs of existing neighborhoods. Ensure the planning and design process provides proper avenues for neighborhood input while fulfilling the community's larger goals for walkability and compact development.

Policy LU 1.1.13 Sustainable Building Practices: Promote and, where appropriate, require sustainable building practices (e.g., LEED certification) that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water and other resources; facilitate natural ventilation; use daylight effectively; and, are healthy, safe, comfortable, and durable.

Policy LU 1.1.14 Promote Resiliency: Continue to collaborate with nonprofit organizations, neighborhoods groups, and other community organizations to promote the issues of air quality, food availability, renewable energy systems, sustainable land use and the reduction of GHG emissions.

Policy LU 1.1.15: SACOG Blueprint Principles. Strive to adhere to the Sacramento Regional Blueprint Growth Principles.

Goal LU 3.1: Encourage mixed-use development projects that create vibrant, walkable districts.

Policy LU 3.1.1 Mixed-Use Nodes: Encourage mixed-use development in nodes located at major intersections that include housing, open space, and offices. This development pattern should reflect best practices in mixed-use development, in contrast to strip retail developments along corridors.

Goal LU 4.1: Establish transit-supported mixed-use districts near rapid transit stations that support the needs of commuters, residents, employees, business-owners, and patrons.

Policy LU 4.1.2: Mix of Uses Near Stations. Encourage new development around transit stations that mix retail with a variety of housing and employment options to transform Folsom stations into destinations that take advantage of public investment in transit.

Policy LU 4.1.3: Maximize TOD-Related CEQA Streamlining Benefits. Assist property owners and developers interested in building high-density housing and employment within SACOG Transit Priority Areas (i.e., ½ mile of light rail stations) to maximize CEQA streamlining benefits available through SACOG's MTP/SCS.

Policy LU 4.1.4: Restrict Auto-Oriented Uses Around Transit Stations. Restrict new auto-oriented uses (e.g., automobile repair, gas station, car wash) within one-quarter mile of light rail stations.

Policy LU 4.1.5: Connections Between Modes. Encourage transit transfer points to be located at rapid transit stops to facilitate connections between transit modes. In addition, the City should require stations to be pedestrian- and bicycle-friendly.

Goal LU 6.1: Allow for a variety of housing types and mix of uses that provide choices for Folsom residents, create complete and livable neighborhoods, and encourage walking and biking.

Policy LU 6.1.1 Complete Neighborhoods: Encourage the establishment of "complete neighborhoods" that integrate schools, childcare centers, parks, shopping and employment centers, and other amenities.

Policy LU 6.1.3 Efficiency Through Density: Support an overall increase in average residential densities in identified urban centers and mixed-use districts. Encourage new housing types to shift from lower-density, large-lot developments to higher-density, small-lot and multifamily developments, as a means to increase energy efficiency, conserve water, reduce waste, as well as increase access to services and amenities (e.g., open space) through an emphasis of mixed uses in these higher-density developments.

Policy LU 6.1.10: Enhanced Walking and Biking. Where volume to capacity analysis demonstrates that bike lanes and pedestrian improvements can be included in the public right of way, encourage opportunities to promote walking and biking in existing suburban neighborhoods through improvements such as:

- introducing new pedestrian and bicycle connections;
- adding bike lanes and designating and signing bike routes;
- narrowing streets where they are overly wide;
- introducing planting strips and street trees between the curb and sidewalk; or
- introducing appropriate traffic-calming improvements.

Policy LU 8.1.5: Transit. Encourage new employment uses to locate where they can be easily served by public transit. Transit centers should be incorporated into the project, when appropriate.

Policy LU 9.1.5 Pedestrian-Friendly Entrances: Encourage automobile-oriented business districts to provide clear and legible entry features, connected by pedestrian-friendly walkways.

Policy LU 9.1.9: Passive Solar Access. Ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.

MOBILITY ELEMENT

Goal M 1.1: Provide a comprehensive, integrated, and connected network of transportation facilities and services for all modes of travel that also incorporates emerging transportation technologies and services to increase transportation system efficiency.

Policy M 1.1.6: Intermodal Connections. Provide connections between modes, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots.

Policy M 1.1.7: Transportation System Management. Require a transportation system management (TSM) program that applies to existing as well as future development and will ensure the assumed reduction in peak hour vehicle trips.

Policy M 1.1.8: Intelligent Transportation Systems (ITS) Master Plan. Prepare and adopt an ITS Master Plan to prioritize the deployment of technology designed to maximize the efficiency of the City's traffic signal systems. Require that all development projects incorporate ITS infrastructure where feasible and consistent with the City's adopted ITS Master Plan.

Policy M 1.1.9: Transportation Demand Management. Develop a citywide Transportation Demand Management Program, which provides a menu of strategies and programs for developers and employers to reduce single-occupant vehicle travel in the city.

Policy M 1.1.10: Facilities for Emerging Technologies. Assist in the provision of support facilities such as advanced fueling stations (e.g., electric and hydrogen) for emerging technologies.

Goal M 2.1: Maintain and expand facilities and programs that encourage people to walk and bike in safety and comfort, and support the lifestyle and amenities that Folsom residents value.

Policy M 2.1.1: Pedestrian Master Plan. Maintain and implement a pedestrian master plan that guides the development of a network that links residential developments with employment centers, public open spaces, parks, schools, shopping districts, and other major destinations.

Policy M 2.1.3: Pedestrian and Bicycle Linkages in New Development. Require developers to provide a system of sidewalks, trails, and bikeways that link all land uses, provide accessibility to parks and schools, and connect to all existing or planned external street and trail facilities.

Policy M 2.1.5: Bikeway Master Plan. Maintain and implement a bikeway master plan that guides the development of a network that links residential developments with employment centers, public open spaces, parks, schools, shopping districts, and other major destinations.

Policy M 3.1.3: Regional Transit Connectivity. Coordinate with Sacramento Regional Transit and neighboring jurisdictions on fixed route connectivity and transfers to improve the transit system.

Policy M 6.1.3: Support Zero- and Low-Emission Vehicle Adoption. The City shall continue to support rapid adoption of zero-emissions and low-emission vehicles by:

- installing public charging stations at City facilities,
- streamlining the permit-process for private electric vehicle charging stations (including home charging stations), and
- developing guidelines and standards for dedicated and preferential parking for zero and low-emissions vehicles (including charging stations for plug-in-electric vehicles, where necessary).

HOUSING ELEMENT

Policy H-7.6: The City shall encourage "smart growth" that accommodates higher- density residential uses near transit, bicycle-, and pedestrian-friendly areas of the city that encourage and facilitate the conservation of resources by reducing the need for automobile use.

NATURAL AND CULTURAL RESOURCES ELEMENT

Policy NCR 3.1.1: Regional Cooperation. Coordinate with surrounding jurisdictions, the Sacramento Metropolitan Air Quality Management District (SMAQMD), the California Air Resources Board (ARB), CALTRANS, and the U.S. Environmental Protection Agency toward the development of a consistent and effective approach to the regional air pollution problem.

Policy NCR 3.1.2: California Air Resources Board. Coordinate with ARB and SMAQMD to use consistent and accurate procedures in the review of projects which may have air quality impacts. Comments on the analysis shall be solicited from SMAQMD and ARB.

Policy NCR 3.1.3: Reduce Vehicle Miles Traveled. Encourage efforts to reduce the amount of vehicle miles traveled (VMT). These efforts could include encouraging mixed-use development promoting a jobs/housing balance, and encouraging alternative transportation such as walking, cycling, and public transit.

Policy NCR 3.1.4: Maintain Ambient Air Quality Standards. Work with the California Air Resources Board (ARB) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and National ambient air quality standards in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location from the health effects of air pollution.

Policy NCR 3.1.5: Emission Reduction Threshold for New Development. Require all new development projects that exceed SMAQMD's thresholds of significance to incorporate design, construction material, and/or other operational features that will result in a 15 percent reduction in emissions when compared to an "unmitigated baseline" project.

Policy NCR 3.1.6: Sensitive Uses. Coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose appropriate conditions on projects to protect public health and safety so as to comply with the requirements of SMAQMD for the exposure of sensitive receptors to toxic air contaminants.

Policy NCR 3.2.6: Coordination with SMAQMD. Coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce GHG emissions and air pollution if not already provided for through project design.

Policy NCR 3.2.7: Preference for Reduced-Emission Equipment. Require contractors to use reduced-emission equipment for City construction projects and contracts for services.

PUBLIC FACILITIES AND SERVICES

Policy PFS 8.1.8: City Fleet Fuel Efficiency. Strive to reduce consumption of carbon-intensive fuels related to business travel and fleet vehicles through the purchase of more efficient or alternative-fuel vehicles when buying new or replacement vehicles.

8.2 ENVIRONMENTAL EFFECTS

8.2.1 SIGNIFICANCE CRITERIA

As set forth in Appendix G, Question VII of the State CEQA Guidelines, the following criteria have been established to quantify the level of significance of an adverse effect to air quality evaluated pursuant to CEQA. An impact would exceed an impact threshold under these circumstances:

- Conflict with or obstruct implementation of the applicable air quality plan? *(III.a)*
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation? *(III.b)*
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *(III.c)*
- Expose sensitive receptors to substantial pollutant concentrations? *(III.d)*
- Create objectionable odors affecting a substantial number of people? *(III.e)*

The SMAQMD Guidance for program-level analysis (SMAQMD 2017) also recommends that the analysis include discussion of the following:

- The plan's consistency with the Sacramento Regional Ozone Attainment Plan (OAP) and the SACOG's MTP population growth projections;
- The relationship between the plan's projected VMT and population growth (i.e., whether the two projections are proportional, or whether the VMT increases at a slower rate than population, indicating a successful mode shift); and
- The extent to which the plan implements adopted transportation control measures.
- The extent to which the plan provides buffer zones around sources of odors and TACs.

The SMAQMD's *Guide to Air Quality Assessment in Sacramento County* establishes analysis expectations and thresholds for the evaluation of air quality impacts for individual and subsequent projects developed consistent with the 2035 General Plan. Table 8-4 summarizes applicable thresholds of significance for criteria pollutants.

Table 8-4 Adopted SMAQMD Thresholds of Significance

Pollutant	Construction Phase	Operational Phase
ROG	NONE	65 pounds per day
NOx	85 pounds per day	65 pounds per day
PM_{10}	**Zero (0).** If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year	
$PM_{2.5}$	**Zero (0).** If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year	

Source: Sacramento Metropolitan Air Quality Management District 2017.

Additionally, the SMAQMD requires that emissions concentrations from all phases of project activities not exceed the applicable CAAQS. A project is considered to contribute substantially to an existing or projected violation of a CAAQS if it emits pollutants at a level equal to or greater than five percent of the applicable CAAQS.

For stationary sources the SMAQMD also considers an air quality impact from TACs as significant if the proposed project would:

- result in an incremental increase in cancer risk greater than 10 in one million at any off-site receptor, or
- result in ground-level concentration of project-generated TACs that would result in a Hazard Index greater than 1 at any off-site receptor.

The SMAQMD has not established a threshold for mobile source or non-permitted sources of TAC.

8.2.2 ANALYSIS METHODOLOGY

This air emissions analysis is consistent with the recommendations of SMAQMD's Guide to Air Quality Assessment in Sacramento County, Chapter 9, "Program-Level Analysis of General Plans and Area Plans" (SMAQMD 2017). The analysis primarily focuses on the extent to which the proposed 2035 General Plan would conflict with regional and local air quality planning and regulatory compliance efforts.

Construction Emissions

Construction emissions at any given time would depend on the number and intensity of concurrent individual development projects during buildout of the 2035 General Plan. The construction timing for development of proposed land uses in the Planning Area over the 18-year planning horizon is not available. However, the majority of the land available for new development with urban uses (2,218 acres of developed uses, or approximately 77 percent) would occur in the FPASP area, as assessed in the *Folsom Plan Area Specific Plan EIR/EIS* (Folsom 2011). Impacts associated with construction within the FPASP area would be similar to those that would occur in other areas, and overall would be representative of maximum daily construction-generated criteria emissions associated with buildout of the 2035 General Plan. If construction does not occur until future years, emission factors associated with off-road construction equipment would be lower due to the regulatory progression of more stringent emissions standards for engines. As older models of equipment are phased out and replaced by newer models with cleaner engines, fleet wide emissions would decline.

The EIR/EIS included modeling for the worst-case scenario for construction of land uses in the FPASP, assuming construction activity would be the same over each year of buildout of the FPASP. It is more likely, however, that some period of construction (and associated emissions) would be more intense than other periods due to changes in market conditions and according to preferences of the City and the project applicants. For example, peak construction activity could be as much as three times as intense as the average level of construction activities modeled, and emission levels would be three times the levels anticipated in the EIR/EIS. While construction emissions modeled for this scenario are used as a basis for this analysis, it is understood that these projections are speculative and are for illustrative purposes.

Operations Emissions

Operational emissions were modeled using the CalEEMod v.2016.3.2 computer program. Model defaults were adjusted to reflect project-specific data where available, including the sizes and types of proposed land uses for the 2035 General Plan (Mintier Harnish 2018). To estimate operational emissions, the net increase in criteria air pollutant emissions generated by the proposed 2035

General Plan was based on 2035 General Plan land use buildout assumptions contained in the Land Use Element and predicted vehicle miles traveled (VMT).[8]

The analysis also evaluates the potential for exposure of sensitive receptors to substantial pollutant concentrations and to excessive odors according to guidance from SMAQMD (SMAQMD 2017).

8.2.3 LESS THAN SIGNIFICANT IMPACTS

There are no impacts of this type for this issue area.

8.2.4 POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS

The following discussion examines the potential impacts of the proposed project based on the impact threshold criteria described above.

Impact AQ-1 Increase in construction-related emissions of criteria air pollutants and precursors associated with 2035 General Plan buildout	
Applicable Regulations	Clean Air Act, California Clean Air Act, SMAQMD Guidelines, Rules, and Regulations.
Adopted Mitigation Measures	FPASP Mitigation Measures 3A.2-1a, 3A.2-1b, 3A.2-1d, 3A.2-1f, 3A.2-1g, Russell Ranch Mitigation Measures 3A.2-1a, 3A.2-1b, 3A.2-1d, 3A.2-1f, 3A.2-1g.
Proposed GP Policies that Reduce Impacts	Policies NCR 3.1.2, NCR 3.2.6 - 3.2.7.
Significance after Implementation of GP Policies	Less than significant; no mitigation required.

Buildout of the 2035 General Plan would generate short-term or temporary air emissions during construction of proposed uses, and during the construction of infrastructure necessary to serve these uses. Because mass emissions of NO_X would exceed SMAQMD's recommended threshold of significance, and because grading activities are anticipated to be extensive, construction-generated emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation. However, compliance with the 2035 General Plan policies, combined with ARB's construction equipment exhaust standards and SMAQMD Rules and Regulations, would ensure that short-term construction emissions generated by buildout of the 2035 General Plan would be minimized to the maximum extent feasible.

Construction-related emissions are considered short-term or temporary in duration. Buildout of the 2035 General Plan would result in emissions of criteria air pollutants and precursors from construction activities, including: site preparation such as excavation, grading, and clearing; exhaust from off- road equipment, material delivery trucks, and worker commute vehicles; vehicle travel on paved and unpaved roads; and other activities such as building construction, asphalt paving, application of architectural coatings, and trenching for utility installation. For a discussion of

[8] As described in Chapter 17, *Transportation and Circulation*, of this Draft PEIR, the regional travel demand model for the SACOG region, known as SACMET, was used to estimate projected travel demand and VMT estimates for 2036 (and scaled back to 2035 using Folsom growth projections). SACMET was updated to reflect current demographic projections in the SACOG region, including the City of Folsom. Additional information regarding methodology regarding VMT estimates can be found in Section 17.2.3 in Chapter 17, *Transportation and Circulation* of this Draft PEIR.

construction emissions of criteria air pollutants and precursors that could expose sensitive receptors to substantial pollutant concentrations, see Impact AQ-5, below.

Table 8-5 includes existing federal, state, regional, and City regulations that protect the public and the environment from emissions of criteria air pollutants, and policies from the 2035 General Plan that state the City's intent to minimize the emission of air pollutants released during construction. A discussion for each policy and its implications for reducing construction emissions are also provided.

Table 8-5 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Construction Air Quality

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
FEDERAL REGULATIONS	
Clean Air Act	Directs the EPA to establish ambient air standards, which sets the basis for air quality planning and emissions thresholds for project construction and operation.
STATE REGULATIONS	
California Clean Air Act	Requires Air Districts to meet California ambient air quality standards and emphasizes the control of indirect and area-wide sources of air pollutant emissions.
SMAQMD REQUIREMENTS	
Rule 403: Fugitive Dust	Requires the control of dust emissions from construction activities to prevent airborne dust from leaving the project site.
Rule 442: *Architectural Coatings*	Regulates ROG emissions from architectural coatings.
CITY REQUIREMENTS	
Standard Construction Specifications - 6.07 Air Pollution Control	Requires that construction contractors comply with all air pollution control rules and regulations.
FOLSOM PLAN AREA SPECIFIC PLAN EIR/EIS	
Mitigation Measure 3A.2-1a	Requires implementation of SMAQMD measures in addition to rules and regulations to control air pollutant emissions generated by construction of on-site elements.
Mitigation Measure 3A.2-1b	Requires the payment of off-site mitigation fee to SMAQMD to off-set NO_X emissions generated by construction of on-site elements.
Mitigation Measure 3A.2-1d	Requires implementation of SMAQMD's Basic Construction Emission Control Practices during construction of all off-site elements located in Sacramento County.
Mitigation Measure 3A.2-1f	Requires implementation of SMAQMD's Enhanced Exhaust Control Practices during construction of all off-site elements.
Mitigation Measure 3A.2-1g	Requires the payment of off-site mitigation fee to SMAQMD to off-set NO_X emissions generated by construction of off-site elements.
RUSSELL RANCH PROJECT EIR	
Mitigation Measure 3A.2-1a (FPASP EIR/EIS)	Requires implementation of SMAQMD measures in addition to rules and regulations to control air pollutant emissions generated by construction of on-site elements.
Mitigation Measure 3A.2-1b (FPASP EIR/EIS)	Requires the payment of off-site mitigation fee to SMAQMD to off-set NO_X emissions generated by construction of on-site elements.
Mitigation Measure 3A.2-1d (FPASP EIR/EIS)	Requires implementation of SMAQMD's Basic Construction Emission Control Practices during construction of all off-site elements located in Sacramento County.

Table 8-5 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Construction Air Quality

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
Mitigation Measure 3A.2-1f (FPASP EIR/EIS)	Requires implementation of SMAQMD's Enhanced Exhaust Control Practices during construction of all off-site elements.
Mitigation Measure 3A.2-1g (FPASP EIR/EIS)	Requires the payment of off-site mitigation fee to SMAQMD to off-set NO_X emissions generated by construction of off-site elements.
2035 GENERAL PLAN GOALS AND POLICIES	
Policy NCR 3.1.2: California Air Resources Board	Requires coordination with ARB and SMAQMD to use consistent and accurate procedures in the review of projects that may have air quality impacts.
Policy NCR 3.2.6: Coordination with SMAQMD	Requires coordination with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce air pollution.
Policy NCR 3.2.7: Preference for Reduced-Emission Equipment	Requires contractors to use reduced-emission equipment for City construction projects.

Source: Planning Partners 2018.

On-road and off-road exhaust emissions associated with construction activities are regulated by the ARB. The ARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants, particulate matter, and toxics emitted by on and off-road mobile sources. ARB continues to develop and implement many diesel programs and activities to reduce emissions from diesel sources. This is important because the majority of construction emissions are generated by diesel-powered equipment.

Fugitive dust emissions generated by construction activities are regulated by the SMAQMD. Construction activities associated with buildout of the 2035 General Plan must comply with all applicable SMAQMD rules and regulations, including Rule 403: Fugitive Dust, and Rule 442: Architectural Coatings. Due to the nonattainment status of the SVAB with respect to ozone, PM_{10}, and $PM_{2.5}$, the SMAQMD recommends that all projects, regardless of significance, implement a set of Basic Construction Emission Control Practices as best management practices.

As discussed in the analysis methodology, above, construction emissions at any given time would depend on the number and intensity of concurrent individual development projects during buildout of the 2035 General Plan over the 18-year planning horizon. Maximum daily construction-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ as modeled in the *Folsom Plan Area Specific Plan EIR/EIS* would exceed SMAQMD significance thresholds of 85 lbs/day for NOx, and 80 lbs/day for PM_{10} and 82 lbs/day for $PM_{2.5}$ if all feasible BACT/BMPs are applied (Folsom 2011).

The 2035 General Plan includes Policy NCR 3.2.6, which requires the City to coordinate with the SMAQMD to ensure projects incorporate feasible measures that reduce construction and operational emissions if not already provided for through project design. In addition, Policy NCR 3.2.7 requires contractors to use reduced-emission equipment for City construction projects. Prior to initiation of individual project construction, applicable SMAQMD rules would be confirmed with the Air District. In addition, all construction projects are required to implement the District's Basic Construction Emission Control Practices (SMAQMD 2009, updated May 2017), which include measures such as watering all exposed surfaces two times daily and limiting vehicle speeds on

unpaved roads. These Basic Construction Emission Control Practices collectively reduce PM dust emissions by approximately 54 percent (50 percent for linear projects).

For projects where emissions exceed SMAQMD's daily emission threshold of 85 lbs/day, SMAQMD has developed standard construction mitigation measures, including Enhanced Exhaust Control Practices for off-road construction equipment, in order to achieve a 20 percent reduction for NOx and a 45 percent reduction for PM_{10} from off-road construction equipment exhaust when compared to the state fleet average. The District requires projects that exceed the PM_{10} and $PM_{2.5}$ mass emissions thresholds after implementation of Basic Construction Emission Control Practices to implement all measures of the Enhanced Fugitive PM Dust Control Practices that are feasible and applicable to the project. Implementation of the Enhanced Fugitive PM Dust Control Practices will reduce total fugitive PM dust emissions by an additional 21 percent from the Basic Construction Emission Control Practices. For projects where emissions still exceed SMAQMD's daily emission threshold after implementation of the above measures, SMAQMD requires the project applicant to pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NO_X and PM. Payment into the construction offset program allows the Air District to offset the contribution of NOx and PM associated with individual construction projects by removing other NOx and PM generating sources elsewhere in the air basin. For a discussion of PM_{10} emission concentrations adjacent to sensitive receptors, see Impact AQ-5 below. Individual construction projects that are consistent with the General Plan would comply with all SMAQMD-required mitigation measures, including payment into the NO_X mitigation fund, which would reduce project-level construction emissions to below applicable thresholds. Therefore, construction-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with development consistent with the proposed 2035 General Plan would be less than significant.

The *Folsom Plan Area Specific Plan EIR/EIS* and the *Russell Ranch Project EIR* mitigation measures would reduce construction-related PM_{10} and NO_X emissions from development in the FPASP with implementation of SMAQMD's Basic Construction Emission Control Practices and Enhanced Exhaust Control Practices, in addition to payment of an off-site mitigation fee to off-set construction-generated NO_X emissions. These measures would reduce emissions of NO_X associated with construction to levels that do not exceed SMAQMD's threshold of significance of 85 lbs/day.

Compliance with the 2035 General Plan policies, combined with ARB's construction equipment exhaust standards and SMAQMD Rules and Regulations, would ensure that short-term construction emissions generated by buildout of the 2035 General Plan would be minimized to the maximum extent feasible. These measures in combination would ensure that construction emissions are reduced to a less-than-significant level.

Significance of Impact: Less than significant.

Mitigation Measure: None required.

Impact AQ-2 Increase in operational emissions of criteria air pollutants and precursors associated with 2035 General Plan buildout that could contribute to a violation of air quality standards	
Applicable Regulations	Clean Air Act, California Clean Air Act, SMAQMD Guidelines, Rules, and Regulations.
Adopted Mitigation Measures	FPASP Mitigation Measure 3A.2-2, Russell Ranch Mitigation Measure 3A.2-2.
Proposed GP Policies that Reduce Impacts	Policies LU 1.1.6, LU 1.1.12 - 1.1.15, LU 3.1.1, LU 4.1.2 - 4.1.5, LU 6.1.1, LU 6.1.3, LU 6.1.10, LU 8.1.5, LU 9.1.9, M 1.1.6 - 1.1.10, M 2.1.1, M 2.1.3, M 2.1.5, M 3.1.3, M 6.1.3, H-7.6, NCR 3.1.1 - 3.1.5, NCR 3.2.6 - 3.2.7, PFS 8.1.8.
Significance after Implementation of GP Policies	Significant; mitigation required.
Mitigation Measures	AQ-2: Modify Policy NCR 3.1.5.
Significance after Mitigation	Significant and unavoidable.

Implementation of the proposed 2035 General Plan would lead to urban development that would result in area- and mobile-source emissions of criteria pollutants for which the area is in nonattainment (ozone precursors, PM_{10}, and $PM_{2.5}$). These emissions would exceed SMAQMD's significance thresholds and contribute to the Air Basin's nonattainment status. This would be significant impact.

Development projects that would occur with implementation of the proposed 2035 General Plan would include development of residential, commercial and industrial projects, transportation facilities, public/quasi-public facilities, and other land uses. The majority of the land available for new development with urban uses (77 percent of the citywide total or 2,218 acres) would be located within the FPASP area south of Highway 50. North of Highway 50, 441 acres in 453 parcels are planned for urban uses by 2035. Long-term operational sources of criteria air pollutant emissions from this development would include mobile sources (vehicle emissions), area sources (e.g., landscaping equipment, consumer products, architectural coatings), and natural gas consumption for space and water heating.

Table 8-6 includes existing federal, state, regional, and City regulations that protect the public and the environment from emissions of criteria air pollutants, and policies from the 2035 General Plan that state the City's intent to minimize the emission of air pollutants released during operation. A discussion for each policy and its implications for reducing operational emissions is also provided.

Table 8-6 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Criteria Air Pollutant Emissions

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
FEDERAL REGULATIONS	
Clean Air Act	Directs the EPA to establish ambient air standards, which sets the basis for air quality planning and emissions thresholds for project construction and operation.
STATE REGULATIONS	
California Clean Air Act	Requires Air Districts to meet California ambient air quality standards and emphasizes the control of indirect and area-wide sources of air pollutant emissions.

Table 8-6 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Criteria Air Pollutant Emissions

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
SMAQMD REQUIREMENTS	
Rule 201: General Permit Requirements	Provides a permitting procedure for the review of new sources of air pollution and the modification and operation of existing sources.
Rule 202: New Source Review	Provides the mechanism for the District to issue permits to new and expanding businesses without interfering with efforts to meet the federal and state health-based air quality standards.
Rule 417: Wood Burning Appliances	Requires new wood burning appliances to meet air emissions performance requirements.
Rule 442: Architectural Coatings	Requires the use of architectural coatings that limit VOC contents.
CITY REQUIREMENTS	
None applicable	--
FOLSOM PLAN AREA SPECIFIC PLAN EIR/EIS	
Mitigation Measure 3A.2-2	Requires implementation of measures contained in the Air Quality Mitigation Plan prepared for the FPASP in order to reduce operational air pollutant emissions.
RUSSELL RANCH PROJECT EIR	
Mitigation Measure 3A.2-2 (FPASP EIR/EIS)	Requires implementation of measures contained in the Air Quality Mitigation Plan prepared for the FPASP in order to reduce operational air pollutant emissions.
2035 GENERAL PLAN GOALS AND POLICIES	
Policy LU 1.1.6: Compact Development Patterns	Compact development patterns promote walking, bicycling, and transit use, resulting in reductions in VMT and associated vehicle exhaust emissions.
Policy LU 1.1.12: Infill Development	Locating development in suitable infill sites, near existing development and transit services can promote the use of existing transit modes and existing community amenities (e.g., medical, retail, grocery stores), resulting in a decrease in VMT as compared to siting new development further away from these amenities, requiring people to drive further. Reduction in VMT results in reduced vehicle exhaust emissions.
Policy LU 1.1.13: Sustainable Building Practices	Improved building energy efficiency, improved water efficiency, and increasing the use of sustainable building materials and construction practices results in less energy-related, water-related, and solid waste-related air pollutant emissions.
Policy LU 1.1.14: Promote Resiliency	Encourages collaboration with nonprofit organizations, neighborhoods groups, and other community organizations to promote the issues of air quality, which would encourage actions to reduce air pollutant emissions.
Policy LU 1.1.15: SACOG Blueprint Principles	Encourages the City to strive to adhere to the Sacramento Regional Blueprint Growth Principles, which espouses smart growth principles to reduce VMT and associated air emissions.
Policy LU 3.1.1: Mixed-Use Nodes	Mixed-use development focuses on locating various amenities (e.g., retail, jobs, entertainment, residential) in close proximity to each other, promoting the use of alternative transportation to vehicle or reducing trip lengths, which reduces VMT. A reduction in VMT results in reduced vehicle exhaust emissions.
Policy LU 4.1.2: Mix of Uses Near Stations	New development located in close proximity to transit stations encourages the use of non-vehicle travel and reduces VMT. A reduction in VMT results in reduced vehicle exhaust emissions.

Table 8-6 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Criteria Air Pollutant Emissions	
Measure Identification	**How the Regulation or Policy Avoids or Reduces Impact**
Policy LU 4.1.3: Maximize TOD-Related CEQA Streamlining Benefits	Encourages high density development in prioritized locations near existing and future planned transit services. Transit supportive development located in close proximity to transit stations encourages the use of non-vehicle travel and reduces VMT. A reduction in VMT results in reduced vehicle exhaust emissions.
Policy 4.1.4: Restrict Auto-Oriented Uses Around Transit Stations	Restricting auto-oriented uses near transit stations encourages increased transit use and reduces VMT. A reduction in VMT results in reduced vehicle exhaust emissions.
Policy LU 4.1.5: Connections Between Modes	Providing connections between transportation modes (e.g., bicycle parking, bus stops), promotes the use of walking, bicycle, and transit use, resulting in reduction in VMT and associated vehicle-related emissions.
Policy LU 6.1.1: Complete Neighborhoods	Complete neighborhoods can promote walkability and safety. Increased walking can result in reduced VMT or shorter trip lengths and associated reduction in vehicular-related exhaust emissions.
Policy LU 6.1.3 Efficiency Through Density	Higher density development patterns promote walking, bicycling, and transit use, resulting in reductions in VMT and associated vehicle exhaust emissions.
Policy LU 6.1.10: Enhanced Walking and Biking	Providing bicycle and pedestrian amenities (e.g., bicycle lanes, traffic calming measures, signage), promotes walking, and bicycle use, resulting in reductions in VMT and associated vehicle-related emissions.
Policy LU 8.1.5: Transit	Locating new employment uses near transit can promote the use of mass transit for work-commute, reducing VMT and associated vehicle-related emissions.
Policy LU 9.1.3: Eliminate Large Blocks	Reducing or removing existing barriers to pedestrian and bicycle access can promote these modes of transportations, reducing VMT and associated vehicle-related emissions.
Policy LU 9.1.5: Pedestrian-Friendly Entrances	Improving pedestrian access and safety on streets and sidewalks can promote walkability, reducing VMT and associated vehicle-related emissions.
Policy M 1.1.6: Intermodal Connections	Providing connections between transportation modes (e.g., bicycle parking, bus stops), promotes the use of walking, bicycle, and transit use, resulting in a reduction in VMT and associated vehicle-related emissions.
Policy M 1.1.7: Transportation System Management	Implementing a TSM program can reduce peak hour trips and associated emissions with vehicle use.
Policy M 1.1.8: Intelligent Transportation Systems (ITS) Master Plan	Implementing an ITS program can maximize the efficiency of the City's roadway, resulting in decreased delay and idling that can reduce emissions associated with vehicle use.
Policy M 1.1.9 Transportation Demand Management	Implementing a TDM program can reduce vehicle trips and VMT, resulting in a reduction in associated emissions with vehicle use.
Policy M 1.1.10: Facilities for Emerging Technologies	Providing cleaner fueling stations (e.g., electric, hydrogen) can promote the use of electric vehicles, reducing exhaust emissions associated with gasoline powered vehicles.
Policy M 2.1.1: Pedestrian Master Plan	Planning to improve the pedestrian network within the city can promote walkability, resulting in reduced VMT and associated vehicle-related emissions.
Policy M 2.1.3: Pedestrian and Bicycle Linkages in New Development	Providing street, bicycle, and pedestrian connectivity between existing and future development and all land use types, promotes walking, biking, and transit use, resulting in a reduction in VMT and associated vehicle-related emissions.
Policy M 2.1.5: Bikeway Master Plan	Planning to improve the bicycle network within the city can promote bicycle use, resulting in reduced VMT and associated vehicle-related emissions.

Table 8-6 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Criteria Air Pollutant Emissions

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
Policy M 3.1.3: Regional Transit Connectivity	Providing street, bicycle, and pedestrian connectivity between existing and future development and all land use types, promotes walking, biking, and transit use, resulting in a reduction in VMT and associated vehicle-related emissions.
Policy M 6.1.3: Support Zero- and Low-Emission Vehicle Adoption	Providing electric vehicle charging stations can promote the use of electric vehicles, reducing exhaust emissions associated with gasoline powered vehicles.
Policy H-7.6	Encourages smart growth principles that reduce the need for automobiles and associated vehicle-related emissions.
Policy NCR 3.1.1: Regional Cooperation	Requires coordination with agencies to develop a consistent approach to regional air pollution problems, which would result in more effective regional plans.
Policy NCR 3.1.2: California Air Resources Board	Requires coordination with ARB and SMAQMD to use consistent and accurate procedures in the review of projects that may have air quality impacts.
Policy NCR 3.1.3: Reduce Vehicle Miles Traveled	A reduction in VMT results in reduced vehicle exhaust emissions.
Policy NCR 3.1.4: Maintain Ambient Air Quality Standards	Directs the City to work with the ARB and the SMAQMD to meet CAAQS and NAAQS in order to protect residents from the health effects of air pollution.
Policy NCR 3.1.5: Emission Reduction Threshold for New Development	Requires all new projects that exceed SMAQMD's thresholds of significance to incorporate measures to meet a 15 percent reduction in emissions, as recommended by SMAQMD guidance.
Policy NCR 3.2.6: Coordination with SMAQMD	Requires coordination with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce GHG emissions and air pollution.
Policy NCR 3.2.7: Preference for Reduced-Emission Equipment	Requires contractors to use reduced-emission equipment for City contracts for services, which would reduce operational air emissions from City services.
Policy PFS 8.1.8: City Fleet Fuel Efficiency	Increased fuel efficiency and alternatives fuels reduce vehicle-related exhaust emissions.

Source: Planning Partners 2018.

Regulatory programs are in place at the federal, state, and District level to reduce air pollutant emissions from nearly all sources; however, they are not always sufficient to eliminate impacts to air quality. For example, ARB's motor vehicle programs have dramatically reduced average tailpipe emissions from the state's vehicle fleet, but motor vehicle emissions will continue to be a predominant source of ozone precursor emissions in the Sacramento Valley Air Basin due to growth in the number of vehicles and in vehicle miles traveled (SMAQMD 2017).

The following table shows the anticipated growth from existing conditions to 2035 General Plan buildout. As shown in Table 8-7, VMT is projected to increase at a slower rate than population growth.

Table 8-7 2035 General Plan Forecast Increase in Population and VMT

	2017 (Existing)	2035 Increase	2035 Total	Percent Change
Population [1]	78,525	31,883	110,408	29%
VMT (daily)(for year 2015) [2, 3]	2,001,885	343,187	2,345,072	15%

Notes: (1) Population estimates from Mintier Harnish (2018)
(2) 2017 numbers from TAZ data provided by DKS (2017)
(3) 2035 VMT from Traffic Report DKS (2017)

Source: Planning Partners 2018.

Operational emissions were estimated for anticipated land use development for the 2035 General Plan using CalEEMod v.2016.3.2. Both area-source and energy emissions were based on land use type and acreage inputs for growth anticipated with the 2035 General Plan (Mintier Harnish 2018). Mobile source emissions were based on project-specific trip generation and annual VMT (DKS 2017). While the exact amount of development that would occur under 2035 General Plan buildout is not known, it was estimated for this analysis. See Appendix E for a detailed summary of the land use assumptions used for CalEEMod modeling, inputs, and outputs. Table 8-8 contains a summary of operational emissions of criteria air pollutants from implementation of the 2035 General Plan.

Table 8-8 Summary of Modeled Operational Emissions of Criteria Air Pollutants and Precursors - Increment of Increase from Development Associated with Buildout of the 2035 General Plan

Source	Emissions (lbs/day) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
2035 General Plan Operational Emissions				
Area Sources	737.15	14.48	6.99	6.99
Natural Gas	10.47	90.66	7.23	7.23
Mobile Source [2]	131.96	789.99	289.36	78.55
Total	**879.57**	**895.14**	**303.57**	**92.77**

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = particulate matter less than or equal to 50 microns in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; ROG = reactive organic gases

1. Totals may not sum due to rounding.
2. Emissions from the anticipated increment of increase (growth) in land use development for the 2035 General Plan were modeled using the CalEEMod v.2016.3.2. Land use buildout assumptions are based on Mintier Harnish Buildout Model dated 2016-09-26, which was used as the basis for the DKS Traffic Report.
3. In order to account for project-specific VMT, default trip rates in CalEEMod were scaled to match total trip generation as presented in Table 17-13 of Chapter 17. Default trip lengths were also scaled for project-specific annual VMT.
4. See Appendix E for detailed assumptions and modeling output files.

Source: Data modeled by Planning Partners 2018.

Based on the modeling conducted, and as summarized in Table 8-8 implementation of the 2035 General Plan would result in criteria pollutant emissions that would exceed SMQMD thresholds of 65 pounds per day of ROG and NO_X, 80 pounds per day of PM_{10}, and 82 pounds per day of $PM_{2.5}$. These emissions are attributable to the increase in mobile source emissions associated with growth in population and employment in the 2035 Plan Evaluation Area, as well as an increase in area-source emissions associated with new urban and infrastructure development.

The proposed General Plan includes Policy NCR 3.1.5, which requires individual development projects that would exceed the SMAQMD operational thresholds to incorporate design or operational features that result in at least a 15 percent reduction in emissions. Projects consistent with the 2035 General Plan with significant operational emissions would be required to reduce ozone precursor emissions by 15 percent with preparation and implementation of a SMAQMD-approved Air Quality Mitigation Plan. If a project's emissions were reduced to below the operational thresholds, the project's air emissions impact would be considered to be less-than-significant with mitigation incorporated by SMAQMD. However, if a project's long-term operational emissions were to remain above the applicable threshold of significance after implementation of all feasible on-site mitigation measures, the City may consult with SMAQMD on off-site mitigation strategies to further reduce project long-term operational impacts below the applicable threshold. Feasible mitigation

refers to measures contained in SMAQMD's *Recommended Guidance for Land Use Emission Reductions,* which includes providing bicycle, transit, and pedestrian infrastructure; diversity of land uses; parking pricing and limiting parking supply; improving energy efficiency of buildings beyond code requirements; among many others.

The various elements of the 2035 General Plan include numerous policies and actions that seek to reduce air pollution and minimize the air quality impacts of new development. Even with incorporation of these policies, measures, and actions, operational area- and mobile-source emissions of criteria air pollutants could result in or substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS. As a result, the long-term impact is considered significant, requiring mitigation.

Significance of Impact: Significant.

Mitigation Measure AQ-2a:

Modify **Policy NCR 3.1.5: Emission Reduction Threshold for New Development.**

> Require all new development projects that exceed SMAQMD's thresholds of significance to incorporate design, construction material, and/or other operational features that will result in a minimum of 15 percent reduction in emissions when compared to an "unmitigated baseline" project.

Mitigation Measure AQ-2b:

> Implement Mitigation Measures GHG-1 through GHG-17.

Environmental Effects of Measures: Implementation of Mitigation Measure AQ-2a would result in a modified policy to reduce air pollutant emissions from development projects, and Mitigation Measure AQ-2b would result in new policies and regulations for reducing GHG emissions, which would also result in a reduction of air pollutant emissions. Implementation of the measures would not result in an expansion of the area within the 2035 Plan Evaluation Area devoted to urbanized land uses, and would not act to increases the intensity of existing or planned land uses. These measures would not directly result in any increased construction activities or increases in air pollutant effects. No environmental effects would occur beyond those identified in this Draft PEIR.

Level of Significance After Mitigation:

Even with implementation of 2035 General Plan policies and implementation of all feasible SMAQMD mitigation measures, the total emissions under buildout conditions are still anticipated to make a considerable contribution to air pollutant emissions in the region and influence the County's nonattainment status. As a result, this impact would be considered to be significant and unavoidable.

Impact AQ-3 Consistency with air quality planning efforts	
Applicable Regulations	SMAQMD Air Quality Attainment Plans.
Adopted Mitigation Measures	None applicable.
Proposed GP Policies that Reduce Impacts	Policies LU 1.1.6, LU 1.1.12 - 1.1.15, LU 3.1.1, LU 4.1.2 - 4.1.5, LU 6.1.1, LU 6.1.3, LU 6.1.10, LU 8.1.5, LU 9.1.9, M 1.1.6 - 1.1.10, M 2.1.1, M 2.1.3, M 2.1.5, M 3.1.3, M 6.1.3, H-7.6, NCR 3.1.1 - 3.1.5, NCR 3.2.6 - 3.2.7, PFS 8.1.8.
Significance after Implementation of GP Policies	Less than significant.

The City of Folsom 2035 General Plan would be consistent with SMAQMD's Ozone Attainment Plan and the Metropolitan Transportation Plan/Sustainable Communities Strategy. This impact would be less than significant.

The Sacramento County portion of the SVAB is currently in nonattainment for federal and state ozone, state PM_{10}, and federal $PM_{2.5}$ standards (see Table 8-3 above). Based on the region's existing air quality and attainment status, air quality plans have been prepared to document how the region would achieve attainment of standards for nonattainment pollutants.

The SMAQMD guidance for evaluation of program-level analysis pursuant to CEQA recommends consideration of the General Plan's consistency with OAP and MTP growth projections, the relationship of the Draft General Plan's VMT and population growth rates, and the extent to which the Draft General Plan incorporates adopted transportation control measures, including growth principles from the Preferred Blueprint Scenario. The Sacramento Regional Ozone Attainment Plans and Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) are the regional air quality plans in effect for the City of Folsom.

The air emissions inventory contained in the air quality plans is based on regional growth projections (the foundation of which include local jurisdiction general plans, specific plans, and other local policies and regulations) and associated VMT estimated by SACOG. The emissions inventory includes growth projections anticipated by the City of Folsom 2035 General Plan. SACOG maintains the regional travel demand model that predicts regional VMT. As discussed earlier in this chapter in the Analysis Methodology, mobile-source air pollutant emissions reflect land use and growth projections consistent with SACOG's 2036 VMT forecasts. The emissions budgets and control measures contained in the applicable air quality plans demonstrate the region's path to attaining the applicable air quality standards by the respective attainment deadlines.

The current 2016 MTP/SCS includes a transportation project list and forecasts housing and employment expected through 2036. As confirmed by SACOG, the 2035 General Plan Land Use Diagram and Circulation Diagram are generally in alignment with the MTP/SCS assumptions and growth forecasts (SACOG NOP comment letter 2017, see Appendix B)[9].

[9] As noted by SACOG in the agency's NOP comment letter on this Draft PEIR, the proposed Folsom 2035 General Plan Land Use Diagram includes an area extending south of White Rock Road and the existing city limits, which is not identified for development in the 2016 MTP/SCS. This area, called Planning Area 2 in the Draft PEIR, is discussed more fully in Chapter 3, Project Description. No land uses are identified for this area in the 2035 General Plan.

The Blueprint vision is based on the principles of smart growth and is intended to give general direction on how the region should develop to reap the benefits of the Blueprint Preferred Scenario (and related MTP/SCS) (SACOG 2016). The 2035 General Plan contains many smart growth principles for future development. (See Table 8-6.) Various elements of the 2035 General Plan include policies and actions that seek to reduce air pollution and minimize the air quality impacts of new development.

Policies in various elements of the 2035 General Plan Land promote smart growth principles by encouraging reductions in VMT through increasing density of land uses in certain areas of the City, walkable neighborhood design, bicycle facilities and infrastructure, and public transportation facilities and infrastructure. The 2035 General Plan would allow for a system of multimodal transportation; would provide a variety of mixed-use areas and a range of housing choices; and would emphasize compact development, quality design, and natural resource conservation.

Table 8-6 above includes existing federal, state, and City regulations, in addition to policies from the 2035 General Plan that are designed to promote smart growth principles and reduce criteria air pollutant emissions in order to achieve consistency with regional air quality planning efforts. The table also sets forth how each cited regulation acts to protect or provide for these resources.

The SMAQMD CEQA guidance also recommends an assessment of the rate of increase of plan VMT and population. The 2035 General Plan would increase VMT in the year 2035 by 343,187 VMT daily, which is a 15 percent increase from existing conditions (2,001,885 daily VMT) (DKS 2017). The 2035 General Plan is projected to increase population by 31,883 residents through the year 2035 (Mintier Harnish 2018). Compared to the existing population in the 2035 Plan Evaluation Area of 78,525, the 2035 General Plan would increase population by approximately 29 percent. Therefore, the rate of increase of proposed VMT (approximately 15 percent) from plan buildout would be less than the rate of increase from the proposed population (approximately 29 percent) (see Table 8-7). Since projected VMT would increase at a slower rate than population, this shows a successful mode shift in accordance with SMAQMD recommended discussion.

All projects under the 2035 General Plan would be required to be consistent with SMAQMD rules and regulations. Buildout of the 2035 General Plan would not preclude any planned transit or bike pathways, and would not otherwise disrupt regional planning efforts to reduce VMT and meet federal and state air quality standards. The proposed 2035 General Plan promotes the goals of the regional air quality plans to reach attainment of federal and state ozone and PM standards. Therefore, the proposed General Plan would not conflict with applicable air quality plans, and this impact would be less than significant.

Impact AQ-4 Increase in local mobile-source emissions of carbon monoxide	
Applicable Regulations	None applicable.
Adopted Mitigation Measures	None applicable.
Proposed GP Policies that Reduce Impacts	Policies LU 1.1.6, LU 1.1.12, LU 1.1.15, LU 3.1.1, LU 4.1.2 - LU 4.1.5, LU 6.1.1, LU 6.1.3, LU 6.1.10, LU 8.1.5, LU 9.1.3, 9.1.5, M 1.1.6 - M 1.1.10, M 2.1.1, M 2.1.3, M 2.1.5, M 3.1.3, M 6.1.3, H-7.6, NCR 3.1.1, NCR 3.1.3 - 3.1.5, NCR 3.2.7, PFS 8.1.8
Significance after Implementation of GP Policies	Less than significant.

Local mobile source emissions of CO with buildout of the 2035 General Plan would not be expected to substantially contribute to emissions concentrations that would exceed the ambient air quality standards. As a result, this impact would be less than significant.

The concentration of CO is a direct function of motor vehicle activity, particularly during periods of peak travel demand, and of meteorological conditions. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Under specific meteorological conditions, CO concentrations may reach unhealthy levels with respect to local sensitive land uses (e.g., residential areas, schools, and hospitals).

The 2035 General Plan contains policies designed to reduce long term operational mobile source emissions, including CO, as included in Table 8-6 above.

The SMAQMD has developed a screening process to assist in determining if CO emissions from operations of a project in Sacramento County would exceed the District's operational significance threshold for CO. Operation of a project that does not exceed the screening level and meets all the screening parameters will be considered to have a less-than-significant impact on air quality. (SMAQMD 2017) SMADQMD's recommended screening criteria are divided into the following two tiers.

First Tier

The project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the proposed project will not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project will not contribute additional traffic to an intersection that already operates at LOS of E or F.

If the first tier of screening criteria is not met then the second tier of screening criteria shall be examined.

Second Tier

If all of the following criteria are met, the proposed project will result in a less-than-significant impact to air quality for local CO.

- The project will not result in an affected intersection experiencing more than 31,600 vehicles per hour;

- The project will not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

Based on the traffic analysis prepared for the 2035 General Plan (see Chapter 17, *Transportation and Circulation)* and the FPASP DEIR/DEIS (Folsom 2011), some signalized intersections in the 2035 Plan Evaluation Area are predicted to operate at an unacceptable LOS under buildout conditions. Based on the traffic volumes presented in Table 17-15, none of the intersections would be anticipated to accommodate volumes of traffic that would exceed 31,600 vehicles per hour. Further, all affected roadways would be at-grade, and the mix of vehicles traveling on these roadways is not anticipated to be substantially different from the County average. Thus, the project would not result in concentrations of CO that would exceed or contribute to an exceedance of the CAAQS. Furthermore, due to stricter vehicle emissions standards in newer cars, new technology, and increasing fuel economy, future CO emission factors under future buildout conditions (year 2035) would be substantially lower than those under existing conditions. Thus, even though there would be more vehicle trips at buildout than under existing conditions, local mobile-source CO emissions generated from the 2035 General Plan would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm. This impact would be considered less than significant.

Significance of Impact: Less than significant.

Mitigation Measure: None required.

Impact AQ-5 Increase in health risks associated with exposure of sensitive receptors to emissions of toxic air contaminants	
Applicable Regulations	Clean Air Act, California Clean Air Act, California Air Toxics Program, SMAQMD Rules and Regulations.
Adopted Mitigation Measures	FPASP Mitigation Measures 3A.2-1a, 3A.2-1c, 3A.2-1d, 3A.2-1f, 3A.2-1h, 3A.2-4a, 3A.2-4b, Russell Ranch Mitigation Measures 3A.2-1a, 3A.2-1d, 3A.2-1f, 3A.2-1h .
Proposed GP Policies that Reduce Impacts	Policies NCR 3.1.4, NCR 3.1.6.
Significance after Implementation of GP Policies	Significant; mitigation required.
Mitigation Measures	None available.
Significance after Mitigation	Significant and unavoidable.

The 2035 General Plan has the potential to expose sensitive receptors to short-term and long-term emissions of TACs from stationary and mobile sources in the 2035 Plan Evaluation Area. Even with implementation of the proposed 2035 General Plan policies and existing programs that would minimize exposure to TACs, because project construction activities with buildout of the 2035 General Plan would not necessarily be reduced to less-than-significant levels, this impact would be considered significant.

Construction activities associated with buildout of the 2035 General Plan would result in short-term emissions of TACs from construction equipment exhaust, paving, and other construction activities. The 2035 General Plan anticipates development of commercial land uses, which may potentially include stationary sources of TACs, such as dry-cleaning establishments, gasoline-dispensing facilities, and diesel-fueled backup generators. Additional sources of TACs could include emissions from mobile sources, TAC exposure from remediation activity in the FPASP area, and the exposure of sensitive receptors in the 2035 Plan Evaluation Area to diesel PM generated at the off-site corporation yard.

Table 8-9 includes existing federal, state, and City regulations, in addition to policies from the 2035 General Plan and mitigation measures for development of the FPASP area that protect the public from emissions of toxic air contaminants. A discussion for each policy and its implications for reducing exposure to TAC emissions is also provided.

Table 8-9 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Toxic Air Contaminant Emissions

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
FEDERAL REGULATIONS	
Clean Air Act	Defines toxic air contaminants and establishes NAAQS designed to protect the health of the most sensitive groups.
STATE REGULATIONS	
California Clean Air Act	CAAQS define clean air, and are established to protect the health of the most sensitive groups.
California Air Toxics Program	The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk.
CITY/REGIONAL REQUIREMENTS	
SMAQMD Rules and Regulations	Rules 201 and 202 regulate new sources of air pollution and the modification of existing sources.
Standard Construction Specifications - 6.07 Air Pollution Control	Requires that construction contractors comply with all air pollution control rules and regulations.
FOLSOM PLAN AREA SPECIFIC PLAN EIR/EIS	
Mitigation Measure 3A.2-1a	Requires implementation of SMAQMD construction measures in addition to rules and regulations to control air pollutant emissions generated by construction of on-site elements in the FPASP, which would also reduce TACs.
Mitigation Measure 3A.2-1c	Requires a project-level CEQA analysis and dispersion modeling of construction to disclose PM_{10} emission concentrations at nearby sensitive receptors in the FPASP
Mitigation Measure 3A.2-1d	Requires implementation of SMAQMD Basic Construction Emission Control Practices to control air pollutant emissions generated by construction of off-site elements in the FPASP, which would also reduce TACs.
Mitigation Measure 3A.2-1f	Requires implementation of SMAQMD Enhanced Exhaust Control Practices to control air pollutant emissions generated by construction of off-site elements in the FPASP, which would also result in a reduction of TACs.

Table 8-9 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Toxic Air Contaminant Emissions	
Measure Identification	**How the Regulation or Policy Avoids or Reduces Impact**
Mitigation Measure 3A.2-1b	Requires a project-level CEQA analysis and dispersion modeling of construction to disclose PM_{10} emission concentrations from off-site elements at nearby sensitive receptors in the FPASP.
Mitigation Measure 3A.2-4a	Requires a plan for any discretional development application in the FPASP to reduce exposure of sensitive receptors to construction-related TACs.
Mitigation Measure 3A.2-4b	Requires implementation of measures to reduce exposure of sensitive receptors to TACs.
RUSSELL RANCH PROJECT EIR	
Mitigation Measure 3A.2-1a (FPASP EIR/EIS)	Requires implementation of SMAQMD construction measures in addition to rules and regulations to control air pollutant emissions generated by construction of on-site elements in the FPASP, which would also reduce TACs.
Mitigation Measure 3A.2-1d (FPASP EIR/EIS)	Requires implementation of SMAQMD Basic Construction Emission Control Practices to control air pollutant emissions generated by construction of off-site elements in the FPASP, which would also reduce TACs.
Mitigation Measure 3A.2-1f (FPASP EIR/EIS)	Requires implementation of SMAQMD Enhanced Exhaust Control Practices to control air pollutant emissions generated by construction of off-site elements in the FPASP, which would also result in a reduction of TACs.
Mitigation Measure 3A.2-1h (FPASP EIR/EIS)	Requires a project-level CEQA analysis and dispersion modeling of construction to disclose PM_{10} emission concentrations from off-site elements at nearby sensitive receptors in the FPASP.
2035 GENERAL PLAN GOALS AND POLICIES	
Policy NCR 3.1.4: Maintain Ambient Air Quality Standards	Directs the City to work with the ARB and the SMAQMD to meet CAAQS and NAAQS in order to protect residents from the health effects of air pollution.
Policy NCR 3.1.6: Sensitive Uses	Requires coordination with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and requires appropriate conditions on projects to comply with the requirements of SMAQMD.

Source: Planning Partners 2018.

The ARB *Land Use and Air Quality Handbook: A Community Health Perspective* (April 2005) recommends that sensitive land uses are located a minimum of 500 feet from a freeway or high-volume roadway[10]. Where this minimum separation is not achievable, ARB recommends that local jurisdictions perform health risk assessments to determine the cancer risk potential of individual land use proposals locating an air toxics source (e.g., high volume freeway) close to a sensitive land use (e.g., residential uses). No high volume freeways would be constructed with implementation of the 2035 General Plan. Highway 50 is the only existing highway within the 2035 Plan Evaluation Area, though it would not meet the definition of a high-volume roadway. Since there is no high traffic volume roadway within the 2035 Plan Evaluation Area, no roadway-related air quality evaluations are recommended.

Construction-related emissions would be short term in nature and comply with the SMAQMD best management practices. These include implementation of the District's Basic Construction Emission

[10] Urban roads carrying 100,000 vehicles per day, or rural roads carrying 50,000 vehicles per day would be considered high-volume roadways.

Control Practices, which would result in the reduction of diesel PM exhaust emissions in addition to CAP emissions, particularly the measures to minimize engine idling time and maintain construction equipment in proper working condition and according to manufacturer's specifications. This is also true for the Enhanced Exhaust Control Practices for off-road construction equipment, which reduce particulate exhaust emissions by 45 percent and regulate the opacity of exhaust from all off-road diesel powered equipment. The SMAQMD recommends additional measures to reduce exposure of sensitive receptors to diesel PM exhaust emissions associated with construction activity, if determined necessary.

While the degree of impact of potential TACs on nearby sensitive receptors is unknown at this time, proposed development would be reviewed by the City on a case-by-case basis during the development review process. Any land use development that may emit TACs would be subject to SMAQMD rules and regulations. Thus, SMAQMD would analyze such sources with a quantitative Health Risk Assessment (HRA) that discloses health risk levels at affected receptors. If it is determined that the sources would emit TACs in excess of SMAQMD's applicable significance threshold, Maximum Available Control Technology (MACT) or BACT would be implemented to reduce emissions. If the implementation of MACT or BACT would not reduce the risk below the applicable threshold, SMAQMD would deny the required permit. As a result, given compliance with applicable rules and regulations, operation of stationary sources would not result in the exposure of sensitive receptors to TACs at levels exceeding SMAQMD significance thresholds.

Project construction activities associated with the development of urban land uses in the FPASP area would result in TAC emissions from diesel exhaust generated by construction equipment. During some periods of the 2035 General Plan buildout, intense levels of construction activity and the acreage of ground disturbance that could occur at any one point in time could be substantially high and potentially occur in close proximity to existing or future-planned sensitive receptors, or construction activity could potentially occur near sensitive receptors for an extended period of time. For development within the FPASP area, the FPASP EIR/EIS (Impact 3A.2-4) found that PM_{10} emissions associated with construction within the FPASP could be significant. To reduce these potential impacts, Mitigation Measure 3A.2-1h requires a detailed project-level analysis after project phasing has been determined and tentative maps and improvement plans have been prepared.

The City plans to develop a new corporation yard south of White Rock Road outside of the southwestern corner of the 2035 Plan Evaluation Area. The corporation yard would be used to stage, store, and maintain equipment used by the City, including diesel-powered trucks and heavy-duty equipment (e.g., mowers). The location of sensitive receptors, particularly residences within the 2035 Plan Evaluation Area that would be zoned for multi-family medium density development near the southwestern corner of the FPASP, could be exposed to diesel PM emissions generated at the corporation yard. Moreover, because the predominant wind direction in the area is from the south-southwest at approximately 10 mph, these receptors would be located downwind of the corporation yard. The types of equipment that would be operated at the corporation yard and the frequency and intensity of their operation have not yet been identified. Given that activities at the corporation yard could potentially generate substantial levels of diesel PM exhaust, as well as the close proximity of nearby sensitive receptors, the potential for these on-site receptors to be exposed to high concentration of diesel PM emissions from the corporation would be considered potentially significant. Even with FPASP mitigation measures, increasing the set back distance between on-site residents and the off-site, future planned corporation yard would not necessarily reduce the levels of TAC exposure at these residences to a less-than-significant level.

Implementation of 2035 General Plan policies, existing regulations, and FPASP mitigation measures would lessen health-related risks associated with the use of off-road diesel powered equipment during construction activity in the 2035 Plan Evaluation Area. However, given that construction activity would occur on the FPASP area during buildout of the 2035 General Plan over the 18-year planning horizon, exposure to construction-generated TAC emissions would not necessarily be reduced to less-than-significant levels. Therefore, the potential exposure of receptors to construction-generated TAC emissions would be considered to be significant.

Significance of Impact: Significant.

Mitigation Measure AQ-5: None available.

There is no feasible available mitigation the City can implement, either individually or in conjunction with other agencies, that would reduce the impact to a less-than-significant level during the timeframe of the 2035 General Plan. This impact would therefore remain significant and unavoidable.

Impact AQ-6 Increase in exposure of sensitive receptors to emissions of odors	
Applicable Regulations	SMAQMD Rule 402: Nuisance.
Adopted Mitigation Measures	FPASP Mitigation Measures 3A.2-1a, 3A.2-1f, 3A.2-6.
Proposed GP Policies that Reduce Impacts	None available.
Significance after Implementation of GP Policies	Significant; mitigation required.
Mitigation Measures	AQ-6: Modify Policy NCR 3.1.6.
Significance after Mitigation	Significant and unavoidable.

Implementation of the 2035 General Plan could result in the exposure of sensitive receptors to emissions of objectionable odors. While the proposed buildout of the General Plan would not result in major sources of odors, odorous emissions from construction equipment throughout buildout of the General Plan could affect a substantial number of people. This would be a significant impact.

The SMAQMD has identified land uses that typically generate significant odor impacts, including, but not limited to: wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/Coating operations, rendering plants, and food packaging plants (SMAQMD 2017). The occurrence and severity of odor impacts depend on a number of factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Unlike the other air pollutants evaluated in this section, odor does not have generally accepted methods of measurement or allowable concentration, and its offensiveness differs among individuals. Odors can be unpleasant, leading to individual distress and often generating complaints to local governments and regulatory agencies.

Construction activities associated with buildout of the General Plan would be a source of odors. In addition, proposed industrial and commercial land uses could generate odorous emissions that would be perceived as offensive to some individuals. These minor sources of odors might include uses such as restaurants and auto service stations.

Table 8-10 includes existing regional and City regulations that protect the public and the environment from emissions of criteria air pollutants, and policies from the 2035 General Plan that state the City's intent to minimize the emission of odors released during construction and operation. A discussion for each policy and its implications for reducing odors is also provided.

Table 8-10 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Odors

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
FEDERAL REGULATIONS	
None applicable	--
STATE REGULATIONS	
None applicable	--
CITY/REGIONAL REQUIREMENTS	
SMAQMD Rule 402: Nuisance	This rule prohibits the discharge of air contaminants that cause injury, detriment, nuisance, or annoyance to the public, including odors.
FMC Chapter 17.23.030(D)	This section prohibits incompatible uses in the mixed-use zone, including uses that emit odors.
FMC Chapter 17.35.040	This section minimizes odor impacts from uses in the agricultural-reserve district uses that have the potential to emit noise and/or odor beyond the property lines will not be approved.
Standard Construction Requirements Section 6.6(2)(A)(6)	Minimizes odors during removal and replacement of existing sewer main pipe by requiring the contractor to submit an odor mitigation plan.
Standard Construction Requirements Section 6.07	Requires that construction contractors comply with all air pollution control rules and regulations, including odor control.
FOLSOM PLAN AREA SPECIFIC PLAN EIR/EIS	
Mitigation Measure 3A.2-1a (FPASP EIR/EIS)	Requires implementation of SMAQMD construction measures in addition to rules and regulations to control air pollutant emissions generated by construction of on-site elements in the FPASP, which would also reduce TACs.
Mitigation Measure 3A.2-1f	Requires implementation of SMAQMD Enhanced Exhaust Control Practices to control air pollutant emissions generated by construction of off-site elements, which would also result in a reduction of odors.
Mitigation Measure 3A.2-6	Requires the consideration of the odor-producing potential of land uses, and locating measures with high odor potential far from existing and proposed sensitive receptors.
RUSSELL RANCH EIR	
Mitigation Measure 3A.2-1a	Requires implementation of SMAQMD Enhanced Exhaust Control Practices to control air pollutant emissions generated by construction of on-site elements, which would also result in a reduction of odors.
Mitigation Measure 3A.2-1f (FPASP EIR/EIS)	Requires implementation of SMAQMD Enhanced Exhaust Control Practices to control air pollutant emissions generated by construction of off-site elements in the FPASP, which would also result in a reduction of TACs.
Mitigation Measure 3A.2-6 (FPASP EIR/EIS)	Requires the consideration of the odor-producing potential of land uses, and locating measures with high odor potential far from existing and proposed sensitive receptors.

Table 8-10 Regulatory Requirements and Proposed 2035 General Plan Goals/Policies Related to Odors

Measure Identification	How the Regulation or Policy Avoids or Reduces Impact
2035 GENERAL PLAN GOALS AND POLICIES	
Policy NCR 3.1.6: Sensitive Uses	Requires coordination with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and requires appropriate conditions on projects to comply with the requirements of SMAQMD. By requiring conditions to reduce TACs, odors would also be reduced.

Source: Planning Partners 2017.

No federal or state laws exist for odor emissions; regulation is usually achieved through SMAQMD rules, and enforcement is based upon complaints. The SMAQMD *Guide to Air Quality Assessment in Sacramento County* includes a screening tool for odor sources that includes recommended odor screening distances to assess a project's potential to adversely affect existing or future planned receptors. SMAQMD recommends a screening distance of one mile for most odor-generating land uses, including landfills, transfer stations, coffee roaster, feed lots, and dairies, among others (SMAQMD 2017). Because of the subjective nature of odor impacts, the many variables that can influence odors, and the many types of odor sources, the SMAQMD does not prescribe any quantitative methodologies to determine if potential odors would have a significant impact. Rather, determinations of significance are usually based on a review of complaint records.

The proposed 2035 General Plan would not result in major sources of odor, as the plan does not envision construction of any of the types of facilities that are known to produce odors, such as landfills or wastewater treatment facilities. Various land uses would be permitted under the 2035 General Plan that could potentially result in the siting of new sources of odors. With regular maintenance and proper design, residential land uses are typically not considered a major source of odors. Commercial or industrial uses could provide development of convenience uses that may include sources of odorous emissions (e.g., fast-food restaurants) that would be perceived as offensive to some individuals. While the degree of impact of potential odors on nearby sensitive receptors is unknown at this time, proposed development would be reviewed by the City on a case-by-case basis during the development review process. The development application requires disclosure of any sources of odors, and the emissions of odors would be subject to SMAQMD's Nuisance Rule (Rule 402) and FMC restrictions with regard to odors, if applicable. Impacts from these types of odors would be reduced to less-than-significant levels.

Project construction activities associated with the development of on-site land uses could result in odorous emissions from diesel exhaust generated by construction equipment. During some periods of the 2035 General Plan buildout, intense levels of construction activity and high volume of grading could potentially occur in close proximity to existing or future-planned sensitive receptors, or construction activity could potentially occur near sensitive receptors for an extended period of time. For development within the FPASP area, the FPASP EIR/EIS (Impact 3A.2-6) found that the mass levels of odorous diesel exhaust during construction of the on-site elements within the FPASP could affect a substantial number of people. Even with implementation of FPASP mitigation measures, the potential exposure of a substantial number of people to these objectionable odors was considered significant.

The City plans to develop a corporation yard south of White Rock Road and west of Scott Road, outside of the southwestern corner of the 2035 Plan Evaluation Area. The corporation yard would be used to stage, store, and maintain equipment used by the City, including diesel-powered trucks and heavy-duty equipment (e.g., mowers). The facility could also house a solid waste transfer station. The location of sensitive receptors, in particular residences within the 2035 Plan Evaluation Area that would be zoned for multi-family medium density development near the southwestern corner of the FPASP, could be exposed to odorous exhaust emissions generated by equipment at the corporation yard. FPASP Mitigation Measure 3A.2-6 includes an increased setback from the boundary of the proposed corporation yard to minimize odor impacts. Development of the corporation yard is outside of the 2035 Plan Evaluation Area and is a separate project and subject to its own environmental review. Prior to approval, an EIR evaluating the required Sphere of Influence Amendment and Annexation would be required, and an analysis of potential odor effects would be included. However, the FPASP EIR/EIS (Impact 3A.2-6) found that even with increasing the set back distance, the potential exposure of residents to odorous emissions from the corporation yard would be considered significant.

Even with existing regulations and mitigation measures designed to minimize nuisance affects from odors, because construction activities could result in objectionable odors that affect a substantial number of people, this would be considered to be a significant impact.

Significance of Impact: Significant.

Mitigation Measure AQ-6:

Modify **Policy NCR 3.1.6: Sensitive Uses**.

> Coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants and odors, and ~~will~~ impose appropriate conditions on projects to protect public health and safety so as to comply with the requirements of SMAQMD for the exposure of sensitive receptors to toxic air contaminants and odors.

Environmental Effects of Measures: Implementation of Mitigation Measure AQ-6 would result in a modified policy for reducing odors. Implementation of the measure would not result in an expansion of the area within the 2035 Plan Evaluation Area devoted to urbanized land uses, and would not act to increases the intensity of existing or planned land uses. This measure would not directly result in any increased construction activities or increases in odor effects. No environmental effects would occur beyond those identified in this Draft PEIR.

Level of Significance After Mitigation: Significant and unavoidable.

Mitigation measures, City regulatory requirements, SMAQMD rules, and the revised 2035 General Plan policy would reduce odor impacts; however, it is technically infeasible to allow new development without possible impacts related to nearby odorous emissions. Therefore, mitigation to a less-than-significant level is not possible while still allowing for implementation of the 2035 General Plan. No additional feasible mitigation is available to reduce this impact, and this would remain a significant and unavoidable impact.

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