2.3 Air Quality

This section identifies existing air quality conditions within the PSR Analysis Areas and the former CGSP Area, and analyzes the potential effects of the Proposed Project on these conditions. Air quality conditions considered in this section include air quality plans, air quality attainment within the County, hazardous air pollutants, and odors that would result from the implementation of the Proposed Project. Information contained in this section has been incorporated from the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the Air Quality Technical Report prepared by the County (2017), included as Appendix B of this SEIR, and additional resources as cited throughout the section.

A summary of the air quality impacts identified in Section 2.3.3 is provided below.

Air Quality Summary of Impacts

Issue Topic	Project Direct Impact	Cumulative Impact	Impact After Mitigation
Air Quality Plans	Potentially significant	Potentially significant	Significant and unavoidable
Air Quality Violations	Potentially significant	Potentially significant	Significant and unavoidable
Nonattainment Criteria Pollutants	Potentially significant	Potentially significant	Significant and unavoidable
Sensitive Receptors	Potentially significant	Potentially significant	Significant and unavoidable
Objectionable Odors	Less than significant	Less than significant	Less than significant

2.3.1 Existing Conditions

Section 2.3.1 of the 2011 PEIR included a discussion of existing conditions related to air quality in the unincorporated County. The air quality environment described in the 2011 PEIR is generally the same as the current conditions, although more recent data is now available. This section presents updated air quality conditions within the CPAs, Subregions, and associated PSR Analysis Areas and former CGSP Area, as compared to the 2011 PEIR. References used from the 2011 PEIR were reviewed to ensure they are still valid today, and are hereby incorporated by reference.

Background Air Quality

San Diego County has a network of air monitoring stations established to get current, accurate data on the ambient concentrations of various criteria pollutants. Air monitoring stations located near the Proposed Project include:

- Escondido Monitoring Site – Represents PSR Analysis Areas BO18+, FB2+, FB17, FB19+, FB21+, NC3A, NC18A, NC22, NC37, NC38+, PP30, VC7+, VC51, VC57+, VC67, and the former CGSP Area
  - Located on East Valley Parkway – measures Carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$)
- El Cajon Monitoring Sites – Represents PSR Analysis Area CD14
  - Located on Floyd Smith Drive – measures NO_2, O_3, PM_{10}, $PM_{2.5}$
  - Located on Redwood Avenue – measures CO, NO_2, O_3, PM_{10}, $PM_{2.5}$

- Otay Mesa Monitoring Sites – Represents PSR Analysis Areas ME26 and ME30A
  - Located at Donovan Correctional Facility – measures NO_2, O_3, PM_{10}
  - Located on Paseo International – measures CO, NO_2, O_3, PM_{10}
- Del Mar Monitoring Site – Represents PSR Analysis Areas SD15
  - Located at Mira Costa College – measures O_3
- Indio Monitoring Site (in Riverside County) – Represents PSR Analysis Areas DS8 and DS24
  - Located on Jackson Street[1] – measures O_3, PM_{10}, $PM_{2.5}$

Ambient Air Pollutant Levels

The San Diego Air Pollution Control District (APCD) operates a network of ambient air monitoring stations throughout the county. The purpose of the monitoring stations is to measure ambient concentrations of air pollutants and determine whether the ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS), as defined in Table 2.3-1. The nine CPA/Subregions containing the PSR Analysis Areas and the former CGSP Area are located throughout the San Diego Air Basin (SDAB). Except for the San Dieguito CPA/Subregion, all CPA/Subregions are located at least five miles inland. Table 2.3-2 presents a summary of the ambient pollutant concentrations monitored at the nearest monitoring stations during the last three years available (2013 through 2015). In addition, these individual monitoring stations are also broken down by region and can be seen in Table 2.3-3.

When an area reaches attainment after being designated nonattainment, they officially become a maintenance area, in that they are required to adopt plans that will demonstrate how they will maintain the attainment status. Table 2.3-4 lists the federal and State attainment status of the SDAB for criteria pollutants. The U.S. Environmental Protection Agency (USEPA) has designated the SDAB as an attainment maintenance area for CO; a moderate nonattainment area for the 2008 ozone standard; and attainment/unclassified for lead, NO_2, PM_{10}, $PM_{2.5}$, sulfur dioxide (SO_2). The SDAB is classified within the State attainment status for lead, CO, NO_2, and SO_2 while it remains in nonattainment State status for ozone (1-hour and 8-hour averages), PM_{10}, and $PM_{2.5}$.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TAC are generated by several sources, including construction activities; area sources, such as architectural coatings for maintenance purposes, fuel combustion emissions from landscape maintenance equipment, and energy use from space and water heating; stationary sources, such as diesel emergency generators and laboratories; and mobile sources. Adverse health effects of TAC can be carcinogenic (cancer-causing), short-term (acute) non-carcinogenic, and long-term (chronic) non-carcinogenic.

TAC do not have ambient air quality standards. Since no safe levels of TAC can be determined, there are no air quality standards for TAC. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. Table 2.3-5 shows that PSR Analysis Area NC37 contains three existing sources of TAC including a California-certified emergency standby engine within the San Diego County Water Authority, a California-certified emergency standby engine

[1] Jackson Street O_3, $PM_{2.5}$, PM_{10} data from the ambient air monitoring stations for the last 6 years are presented in Table 2.3-3.

within the Vallecitos Water District, and a registered engine (APCD Rule 12) within the Vallecitos Water District. Five existing sources of TAC are located within PSR Analysis Area VC67 including a registered engine (APCD Rule 12) within Pacific Bell, vehicle refinishing operations at Impact #2 Auto Repair, an emergency standby engine at the County of San Diego Facility Ops PR3002, a Phase II (Vapor Recovery) System at Pala Vista Gas, and a Phase II System at the County of San Diego Public Works - Valley Center Road. PSR Analysis Area DS8 has four existing sources of TAC including initial installations and renovations at Macs Desert Auto Service, an emergency standby engine at Pacific Bell, a registered engine (APCD Rule 12) at AT&T Mobility Borrego Springs 2317, and a California-certified emergency standby engine for the Borrego Springs Fire Protection District. The former CGSP Area has one existing TAC source which is a non-retail facility, the Welk Resort Center.

Sensitive Receptors

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather are defined as sensitive receptors by the APCD. The County Guidelines for Determining Air Quality (DPLU 2007b) state that sensitive receptors are typically defined as schools (preschool-12th Grade), hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality but they have also included residents for the purposes of CEQA.

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution but may also be a producer of air pollutants. Exposure periods are relatively short and intermittent, as workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of society.

2.3.2 Regulatory Framework

Section 2.3.2 of the 2011 PEIR included a discussion of regulatory framework related to air quality in the unincorporated County. The regulations described in the 2011 PEIR are the same as the regulations evaluated in this SEIR, except for the SANDAG San Diego Forward: The Regional Plan, and updates to the California State Implementation Plan (SIP), TAC, CCR Section 2485, San Diego County Regional Air Quality Strategy (RAQS) and APCD Regulations. Updates to air quality regulations are listed below and provided in Appendix B. All references used from the 2011 PEIR were reviewed to ensure they are still valid today, and are hereby incorporated by reference.

Federal Clean Air Act

The Federal Clean Air Act was enacted in 1970 and last amended in 1990 (42 USC 7401, et seq.) with the purpose of controlling air pollution and providing a framework for national, state, and local air pollution control efforts. Basic components of the Act and its amendments include NAAQS for major air pollutants, hazardous air pollutants standards, SIP requirements, motor vehicle emissions standards, and enforcement provisions. The Act was enacted for the purposes of

protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity.

California State Implementation Plan

The California Clean Air Act (and its subsequent amendments) required each State to prepare an air quality control plan referred to as the SIP. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The SIP was most recently modified in 2004. The SIP was submitted to the USEPA for review and consideration on January 27, 2017. USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the Federal Clean Air Act, and will achieve air quality goals when implemented. California Air Resources Board (CARB) adopts the California SIP. The San Diego APCD has developed the SDAB input to the SIP, which is required under the Federal Clean Air Act for areas that are out of attainment of air quality standards. The SIP includes APCD's plans and control measures for attaining the ozone NAAQS. The SIP is updated on a triennial basis. CARB adopted its 2007 State Strategy for California's 2007 SIP on September 27, 2007. As part of the State strategy, the APCD developed its "Eight-Hour Ozone Attainment Plan for San Diego County" (APCD 2016b), which provides plans for attaining and maintaining the 8-hour NAAQS for ozone. This plan accommodates emissions from all sources, including natural sources (such as wildfires and biogenic emissions), through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. The SIP does not address emissions of PM_{10} or $PM_{2.5}$. A Redesignation Request and Maintenance Plan for 1997 Ozone Standard in San Diego County was approved by USEPA in 2013.

Assembly Bill 1807 (Tanner Air Toxics Act) and Assembly Bill 2588 (the Air Toxics Hotspots Information and Assessment Act)

California regulates TAC primarily through the Tanner Air Toxics Act (AB 1807), implemented in 1984 and updated in 2010 and the Air Toxics Hotspots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TAC. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. None of the TAC identified by CARB have a safe threshold.

California Code of Regulations Section 2485

On October 20, 2005, the CARB approved regulatory measures including the adoption of CCR Title 13, Chapter 9, Article 8, Section 2485, which regulates idling activities and auxiliary power systems in commercial vehicle vehicles with a vehicle weight rating of greater than 10,000 pounds. On December 5, 2014, the Office of Administrative Law approved new amendments to Section 2485, which became effective on January 1, 2015. All auxiliary power systems operated in California are now required to meet the model year 2007 or newer emissions standards, and all new systems are required to meet the final Tier 4 (Tier 4f) emission standards by 2023. The USEPA final Tier 4 emission standards and diesel fuel rule for new non-road diesel engines, mandates emission reductions of particulate matter (above 19 kilowatts) and nitrogen oxides (NO_x) (for engines above 56 kilowatts) on the order of 90 percent. New diesel engines in most power categories must contain advanced emission treatment devices, such as particulate filters and NO_x reduction catalysts. Section 2485 also restricts vehicle idling to no more than five minutes at any one location and restricts the operation of an auxiliary power system to no more than five minutes in any location within 100 feet of a sensitive receptor.

California Health and Safety Code Section 41700

This section of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause injury or damage to business or property. This section also applies to sources of objectionable odors.

San Diego County Regional Air Quality Strategy

The RAQS was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2007, 2009, and most recently in 2016 (APCD 2016b). The RAQS outlines APCD's plans and control measures designed to attain the State air quality standards for ozone. The RAQS outlines APCD's plans and control measures designed to attain the State air quality standards for ozone.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed as part of the County General Plan. As such, projects that propose development that is consistent with the growth anticipated by the General Plan would be consistent with the RAQS. If a project would propose development that is less dense than anticipated within the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG's growth projections, the project may conflict with the RAQS and SIP, and may have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the APCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

San Diego Air Pollution Control District Regulations

The APCD has jurisdiction over air quality programs in San Diego County. State and local government projects, as well as projects proposed by the private sector, are subject to these requirements if the sources are regulated by the APCD. Additionally, the APCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air. The APCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and State air quality laws. All development projects within the County may be subject to the following APCD rules (as well as others):

- **APCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or tend to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (APCD 1976).

- **APCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (APCD 2009).

- **APCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce Volatile Organic Compounds (VOC) emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (APCD 2015).

- **APCD Regulation IV: Prohibitions; Rule 67.7: Cutback and Emulsified Asphalts.** Requires manufacturers, distributors, and end users of cutback and emulsified asphalt materials for the paving, construction, or maintenance of parking lots, driveways, streets, and highways to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC evaporation content.

- **APCD Regulation IV: Prohibitions; Rule 69.5: Natural Gas-Fired Water Heaters.** Requires manufacturers, distributors, and end users of natural gas-fired water heaters to reduce NO_X emissions.

- **APCD Regulation IV: Prohibitions; Rule 69.6: Natural Gas-Fired Fan-Type Central Furnaces.** Requires manufacturers, distributors, and end users of natural gas-fired, fan-type central furnaces, including combination heating and cooling units to reduce NO_X emissions.

- **APCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants - New Source Review.** Applicable to any new, relocated, or modified emission unit which may increase emissions of one or more TAC and for which an Authority to Construct or Permit to Operate is required pursuant to APCD Rule 10, or for which a Notice of Intention or Application for Certification has been accepted by the California Energy Commission (APCD 1996).

- **APCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks - Public Notification and Risk Reduction**. Requires owner/operators of stationary sources for which an approved public health risk assessment has identified public health risks at or above levels specified in the rule, i.e. maximum incremental cancer risks equal to or equal to 10 in a million or a cancer burden, total acute noncancer health hazard index, or total chronic noncancer health hazard index equal to or greater than 1.0, provide written public notice (APCD 2016a).

San Diego Forward: The Regional Plan

SANDAG adopted San Diego Forward: The Regional Plan on October 9, 2015. Included in the Regional Plan is an update to the San Diego Regional Comprehensive Plan and the 2050 Regional Transportation Plan and Sustainable Communities Strategy. The Regional Plan includes housing forecasts, establishes targets for greenhouse gas emission reduction, and plans capital and operational expenditures for transit programs and operations and transportation related infrastructure. Building on the current (2012) transportation system with funding anticipated over the next 35 years, the Regional Plan outlines projects for rail and bus services, highways, local streets, bicycling, and walking, as well as systems and demand management. The Sustainable Communities Strategy shows how the region would exceed the SB 375

greenhouse gas emissions reduction targets for passenger vehicles established by CARB for 2020 and 2035 by using land in a way that makes development more compact, conserving open space and investing in a transportation network that reduces vehicle miles traveled and gives residents alternative transportation options.

Although SB 375 sets greenhouse gas reduction targets for only the years 2020 and 2035, the Regional Plan also includes a longer 2050 time horizon. This was done because a major local transportation funding program (TransNet Extension Ordinance and Expenditure Plan) extends to almost 2050.

San Diego County General Plan

The San Diego County General Plan was adopted August 2011 and directs future growth in the unincorporated areas of the County with a projected capacity that will accommodate more than 232,300 existing and future homes (County 2011b). This growth is targeted to occur primarily in the western portions of the unincorporated County where there is the opportunity for additional development. Compared to the previous General Plan, this update reduces housing capacity by 15 percent and shifts 20 percent of future growth from eastern backcountry areas to western communities.

San Diego County Code Section 87.428, Dust Control Measures

The San Diego County Grading Ordinance (County 2012) requires all clearing and grading to be carried out with dust control measures adequate to prevent creation of a nuisance to persons or public or private property. Clearing, grading, or improvement plans shall require that measures such as the following be undertaken to achieve this result: watering, application of surfactants, shrouding, control of vehicle speeds, paving of access areas, or other operational or technological measures to reduce dispersion of dust. These project design measures are to be incorporated into all earth-disturbing activities to minimize the amount of particulate matter emissions from construction.

2.3.3 Analysis of Project Impacts and Determination of Significance

Methodology for Assessing Air Quality Impacts

Construction

Regional impacts related to criteria pollutant emissions from short-term construction activities were assessed using the California Emissions Estimator Model (CalEEMod®, version 2016.3.1). CalEEMod uses EMFAC2014 emission factors for vehicle traffic and OFFROAD2011 for off-road equipment. Construction of future development allowed under buildout of the Proposed Project would result in temporary emissions of CO, NO_X, PM_{10}, $PM_{2.5}$, SO_2, and VOC. Emissions from construction activities would result from fuel combustion and exhaust from construction equipment and vehicle traffic (i.e., worker commute and delivery truck trips), grading and site work, and evaporative emissions of VOC from architectural coatings and paving.

Whereas typically in a project-level analysis, the daily construction activity is known and estimations of pounds per day, spatial locations, and temporal data of construction emissions can reasonably be construed; since this project requires a program-level analysis, specific information regarding the actual dates, durations, and types of construction activity is currently not available. Therefore, for the purposes of this program-level analysis, general assumptions were developed to provide a reasonable analysis of construction emissions from buildout of the Proposed Project.

In most cases, CalEEMod default conditions were assumed, with the following exception: construction start dates are set at an arbitrary January 1, 2018 for consistency and for worst-case conditions, since the vehicle/equipment fleets would be less efficient than an updated fleet with advanced technology, and higher emitting. Construction length and phases are set by CalEEMod based on the size of project. The analysis also assumes that each component of the PSR Analysis Area would begin construction at the same time, which is arbitrarily set at January 1, 2018, providing a conservative analysis. In practice, construction of each component may not occur simultaneously. Adjustments to the CalEEMod defaults were made to accommodate an updated APCD architectural coatings Rule 67.0.1, which requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (APCD 2015).

Operation

Regional impacts related to criteria pollutant emissions from long-term operational activities associated with buildout of land uses allowed by the Proposed Project were assessed in CalEEMod. Long-term operational emissions would occur from mobile sources, onsite fuel combustion, such as natural gas or propane for space and water heating and fireplaces, and area sources, such as landscaping, consumer products, and architectural coatings. Criteria pollutant and precursor emissions were estimated in pounds per day. The most conservative value for the operational year of a project is generally set as the first full year after construction is completed. However, for the purposes of evaluating the whole of the development allowed by the Proposed Project, the operational year was used as the buildout year 2050. Adjustments to the CalEEMod defaults were made to accommodate SANDAG's region-specific trip rates for single family homes (SANDAG 2015a). A detailed summary of the assumptions and model data used to estimate the Proposed Project's potential future emissions are provided in Appendix B.

Health Risks

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the State and federal government as TAC or hazardous air pollutants. The County of San Diego identifies an excess cancer risk level of 1 in 1 million or less for projects that do not implement Toxics Best Available Control Technology (T-BACT), and an excess cancer risk level of 10 in 1 million or less for projects that do implement T-BACT. The significance threshold for non-cancer health effects is a health hazard index of one or less. These significance thresholds are consistent with the APCD Rule 1210 requirements for stationary sources. If a project has the potential to result in emissions of any TAC or hazardous air pollutants which result in a cancer risk of greater than 1 in 1 million without T-BACT, 10 in 1 million with T-BACT, or non-cancer health hazard index of one or more, the project would be deemed to have a potentially significant impact.

Sensitive Receptors

A geospatial study was conducted to identify the locations of existing sensitive receptors near the PSR Analysis Areas and former CGSP Area. The two primary emissions of concern regarding health effects on sensitive receptors for land development projects are diesel-fired particulates and carbon monoxide.

Objectionable Odors

A geospatial study was conducted to identify the existence of existing sources of odors near the PSR Analysis Areas and the former CGSP Area. Odor issues are very subjective by the nature

of odors themselves and their measurements are difficult to quantify. As a result, this guideline is qualitative and each future project would be reviewed on an individual basis, focusing on the existing and potential surrounding uses and location of sensitive receptors.

2.3.3.1 Issue 1: Air Quality Plans

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the future development implemented under the Proposed Project would have a significant impact if it would conflict with or obstruct implementation of the RAQS, applicable portions of the SIP, and/or any local air quality plans.

Impact Analysis

The 2011 PEIR determined that buildout under the adopted General Plan would result in less than significant impacts associated with air quality plans. The discussion of impacts associated with air quality plans from implementation of the General Plan can be found in Section 2.3.3.1 of the 2011 PEIR, and is hereby incorporated by reference.

The RAQS outlines APCD plans and control measures designed to attain the State air quality standards for ozone. In addition, the APCD has developed its input to the SIP, which includes plans and control measures for attaining the 8-hour ozone NAAQS. These plans accommodate emissions from all sources, including natural sources such as wildfires and biogenic emissions, through implementation of control measures, where feasible on stationary sources to attain the standards. Mobile sources are regulated by USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the RAQS and SIP.

The RAQS focuses on attainment of the CAAQS for ozone, and addresses emission reduction measures designed to reduce emissions of ozone precursors (NO_X and VOC) to meet the California Clean Air Act goal of reducing ozone precursor emissions by 5 percent per year or, if that goal is not achievable, to develop an expeditious schedule for adopting every feasible control measure under the APCD purview. Specific NO_X emission reduction strategies included in the RAQS that apply to future development implemented under the Proposed Project are listed in Table 2.3-6. Specific VOC emission reduction strategies included in the RAQS that apply to future development allowed by the Proposed Project are listed in Table 2.3-7. Additional specific control measures for NO_X and VOC emissions that apply to specific industrial sources are not included in Table 2.3-6 or in Table 2.3-7, but compliance with these rules must be demonstrated through permitting requirements with the APCD.

In addition to these measures, the RAQS adopts strategies to reduce emissions from other categories of sources such as on-road vehicles, lawnmowers, and back-up generators. The SIP provides plans for attaining and maintaining the 8-hour NAAQS for O_3 and demonstrates how the SDAB would continue to maintain compliance with federal CO standards. This plan accommodates emissions from all sources, including natural sources, such as wildfires and biogenic emissions, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. Future development occurring under the development allowed by the Proposed Project would be required to be consistent with the emission reduction strategies in the RAQS and SIP to comply with rules and regulations and obtain required APCD permits. All future development projects consistent with the Proposed Project land uses would be required to demonstrate consistency

with the RAQS and the SIP during the environmental review process and identify mitigation measures for any potentially significant conflicts for the project to be approved by the County.

In addition to the RAQS and SIP, the Proposed Project is required to comply with local air quality plans. The APCD Measures to Reduce Particulate Matter in San Diego County (APCD 2005) identifies fugitive dust as the major source of directly emitted particulate matter in the County, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributors to $PM_{2.5}$ within the County are combustion organic carbon, as well as ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM_{10} include resuspended soil and road dust, such as from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on an evaluation of control measures recommended by CARB to reduce particulate matter emissions, the APCD adopted Rule 55 on June 24, 2009 (APCD 2009), which requires control of fugitive dust emissions. Rule 55 prohibits construction or demolition activity that would discharge into the atmosphere, beyond the property line, dust emissions of 10 percent opacity or greater for a period of 3 minutes in any 60-minute period. Rule 55 also requires minimization of visible roadway dust because of active operations that generate fugitive dust.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area source and all other source emissions, to project future emissions and determine from that the strategies necessary for the reduction of emissions through regulatory controls. The RAQS and SIP have established a "budget" of emissions that established our upper boundary of potential County-wide emissions of CO, NO_X, and VOC to maintain progress to attainment of the 8-hour ozone and to maintain CO attainment. Projected USEPA-approved budgets for 2050 in the SDAB are 730 tons per day of CO, 30 tons per day of NO_X, and 21 tons per day of VOC (SANDAG 2015a).

SANDAG Regional Plan (2015) used a calibrated and validated activity-based model to support the development of the Regional Plan and combines the resultant activity with CARB's mobile emission factors to estimate projected regional emissions for NO_X and VOC to compare to the established ozone budget and for CO to compare to the CO budget. The activity-based model requires growth forecast information that is based, in part, on what land uses are projected to be built in each local jurisdiction. Therefore, significant increases in vehicular activity to what is established in growth forecasts would have an effect of creating more emissions that would threaten meeting the emissions budget.

An emissions budget is the part of the SIP that identifies emissions levels necessary for meeting emissions reduction milestones, attainment, or maintenance demonstrations. This budget considers existing conditions, planned growth based on adopted General Plans within the SANDAG region, and air quality control measures implemented by the APCD. However, the Project proposes densities beyond those approved by the General Plan.

The RAQS utilize SANDAG population forecasts in the development of measures for attaining air quality standards; the SANDAG growth forecasts are based on the adopted General Plan for the County (APCD 2016a). The SANDAG model used for projecting growth in the region considers demographic, economic, and land use data (SANDAG 2017a,b). These data may not account for the level of growth associated with buildout of the Proposed Project. The Proposed Project may not be included in the SANDAG growth projections, which the RAQS are based on; therefore, the Proposed Project would not be consistent with the RAQS.

Adoption of the proposed Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4

areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Clustering of development is intended to reduce potential impacts to environmental resources. The adoption of this policy revision would result in less acreage being developed, and would not cause an impact to air quality.

Potential future development allowed under the 2050 buildout condition of the Proposed Project would be required to demonstrate compliance with the strategies and measures adopted as part of the RAQS and SIP during the County's environmental review process for each development application. Additionally, all future development resulting from the Proposed Project would be required to reduce the emissions of CO, NO_X, and VOC by complying with County policies. However, the Proposed Project would result in more intense land uses and contribute to local population growth, employment growth, and associated increases in VMT that is not accounted for in the General Plan. **Therefore, implementation of the Proposed Project associated with obstruction of local air quality plans would be potentially significant (Impact AQ-1)**.

2.3.3.2 Issue 2: Air Quality Violations

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the Proposed Project would have a significant impact if it would exceed the quantitative screening-level thresholds for attainment pollutants (CO, NO_2, and SO_2), and would result in a significant impact if they exceed the thresholds for nonattainment pollutants (ozone precursors and particulate matter). Specifically, the Proposed Project would result in a significant impact if it would result in:

- Emissions of CO that when totaled with the ambient concentrations exceed a 1-hour concentration of 20 ppm or an 8-hour average of 9 ppm;
- Emissions that exceed 250 pounds per day of NO_X, or 75 pounds per day of VOC;
- Emissions of PM_{10} that exceed 100 pounds per day and increase the ambient PM_{10} concentration by 5 $\mu g/m^3$ or greater at the maximum exposed individual;
- Emissions of $PM_{2.5}$ that exceed 55 pounds per day; or
- Emissions of SO_2 that exceed 250 pounds per day.

Impact Analysis

The 2011 PEIR determined that future development would result in potentially significant direct and indirect impacts associated with air quality violations. The discussion of impacts associated with air quality violations from implementation of the General Plan can be found in Section 2.3.3.2 of the 2011 PEIR, and is hereby incorporated by reference. Detailed emissions calculations are included in Appendix B.

Potential localized impacts would be exceedances of State or federal standards for CO, PM_{10}, or $PM_{2.5}$. The pollutant of regional concern is ozone. Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, NO_X and VOC react in the atmosphere in the presence of sunlight to form ozone. Therefore, the County does not have a recommended ozone threshold, but it has regional thresholds of significance for construction and operational NO_X and VOC.

Construction

Construction of future development within the PSR Analysis Areas and the former CGSP Area under the Proposed Project would result in temporary emissions of the air pollutants CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC. Operation of heavy-duty equipment and vehicles during construction would generate exhaust emissions from fuel combustion. Fugitive dust emissions would be generated from earth disturbance during site grading, as well as from construction vehicles operating on open fields or dirt roadways within or adjacent to the construction areas.

For informational purposes, Table 2.3-8 shows growth associated with the Proposed Project and SANDAG's Growth and Table 2.3-9 summarizes the maximum daily construction emissions for development of each PSR Analysis Area and the former CGSP Area. None of these areas would exceed the screening-level thresholds individually. However, this table shows the estimated quantity of construction emissions for the whole of the Proposed Project under the worst-case scenario of construction occurring within the PSR Analysis Areas and the former CGSP Area beginning January 1, 2018, which demonstrates the potential for a significant impact to occur.

Operational Emissions

Operation of the Proposed Project would create new sources of criteria pollutants from area and vehicular sources. Area sources of air pollutant emissions associated with the Proposed Project include fuel combustion emissions from space and water heating, fuel combustion emissions from landscape maintenance equipment, VOC emissions from periodic repainting of interior and exterior surfaces, and consumer products. Increased volumes of vehicles associated with the operation of the Proposed Project would contribute to regional emissions of CO, NO_X, PM_{10}, $PM_{2.5}$, SO_2, and VOC. Criteria pollutant emissions were calculated using CalEEMod based on vehicular trips included in the Traffic Impact Assessment prepared by Chen Ryan (2016, 2017; see Appendix E of this SEIR). For industrial and commercial designations, the estimate of square footage of potential buildings was based on the County maximum floor-area ratio for each use as designated in the County Zoning Ordinance, Part Four Development Regulations. The floor-area ratio for commercial uses is 0.45 and for industrial uses is 0.50. The allowed default CalEEMod inputs were changed in the following ways:

- For all architectural coatings, 50 grams per liter of VOC was used per the APCD Rule 67.0.1, which became effective on January 1, 2016.
- For single-family residential trip rates, SANDAG rates used in the traffic impact assessment were applied. The Traffic Impact Assessment and SANDAG trips per day usually assume weekday trips; therefore, CalEEMod's Saturday and Sunday trip rates were adjusted proportionally. The CalEEMod default weekday trip rate for single family residential is 9.52 as opposed to the SANDAG rate of 10.
- For San Dieguito, where PSR Analysis Area SD15 is located, the Traffic Impact Assessment assumed acreage would be general commercial and used a specific trip rate per acre. Since CalEEMod needs information in square feet, the relative square footage was computed using the maximum allowed 0.45 floor-area ratio for general commercial.
- For PSR Analysis Area VC67, the Traffic Impact Assessment assumed 13 acres of Medium Impact Industrial; however, CalEEMod used the maximum allowed 0.50 floor-area ratio for industrial uses.
- For the former CGSP Area, the General Office Building category was used in CalEEMod to address the Rural Commercial category used in the Traffic Impact Assessment. The

relative square footage was computed using the maximum allowed 0.45 floor-area ratio for general commercial uses.

CalEEMod calculates operational emissions for fully built-out land use development as coming from on-road mobile vehicle traffic generated by the land uses; fugitive dust associated with roads; architectural coating activities; landscaping equipment; use of consumer products, parking lot degreasers, fertilizers/pesticides, and cleaning supplies; wood-burning stoves and hearth usage; and natural gas usage in the buildings. Emissions for the PSR Analysis Areas and the former CGSP Area are presented in Table 2.3-10. The screening-level thresholds are also included in this table as well as information regarding whether operational emissions would exceed those thresholds. As shown in Table 2.3-10, operational emissions from the individual PSR Analysis Areas and the former CGSP Area would exceed the thresholds as follows:

- PSR Analysis Area BO18+ – VOC
- PSR Analysis Area DS8 – CO, PM_{10}, $PM_{2.5}$, VOC
- PSR Analysis Area DS24 – VOC
- PSR Analysis Area NC22 – VOC
- PSR Analysis Area PP30 – VOC
- PSR Analysis Area SD15 – CO, PM_{10}, $PM_{2.5}$, VOC
- PSR Analysis Area VC7+ – $PM_{2.5}$, VOC
- PSR Analysis Area VC57+ – $PM_{2.5}$, VOC

As shown in Table 2.3-10, unmitigated operational emissions from the Proposed Project would exceed CO significance thresholds in PSR Analysis Areas DS8 andSD15. Emissions would not be exceeded for NO_X in any of the PSR Analysis Areas or former CGSP Area. Unmitigated operational emissions from the Proposed Project would exceed the significance thresholds for PM_{10} in PSR Analysis Areas DS8 and SD15. Unmitigated operational emissions from the Proposed Project would exceed the significance thresholds for $PM_{2.5}$ in PSR Analysis Areas DS8, SD15, VC7+, and VC57+. Unmitigated operational emissions from the Proposed Project would exceed VOC significance thresholds in PSR Analysis Areas BO18+, DS8, DS24, NC22, PP30, SD15, VC7+, and VC57+. Table 2.3-10 also shows the 2050 buildout emissions from the Proposed Project, which demonstrates that the Proposed Project's unmitigated operational emissions would exceed thresholds for CO, PM_{10}, $PM_{2.5}$**,** and VOC.

Total Emissions

The Proposed Project would exceed the screening level thresholds during operational and construction impacts. As shown in Table 2.3-11, implementation of mitigation measure M-Air-1.2 on the potential development would mitigate only the operational emissions from the individual PSR Analysis Areas to not exceed significance thresholds. It is estimated that the operation and construction of future land use development allowed by the Proposed Project at 2050 buildout conditions would result in air quality violations, as discussed below under Section 2.3.3.3 Issue 3. **Therefore, impacts resulting from implementation of the Proposed Project associated with air quality violations would be potentially significant (Impact AQ-2)**.

Adoption of the proposed Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Clustering of development is intended to reduce potential impacts to environmental resources. The adoption of this policy revision would result in less acreage being developed, and would not cause an impact to air quality.

2.3.3.3 Issue 3: Nonattainment of Criteria Pollutants

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the Proposed Project would have a significant impact if it would result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable NAAQS or CAAQS (including emissions which exceed the thresholds for ozone precursors listed in Table 2.3-9 and Table 2.3-10).

The following guidelines from the County of San Diego Guidelines for Determining Significance Air Quality apply to the construction phase:

a. A project that has a significant direct impact on air quality with regard to emissions of NO_X, PM_{10}, $PM_{2.5}$, and/or VOC would also have a significant cumulatively considerable net increase.

b. In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified under Issue 2.

The following guidelines from the County of San Diego Guidelines for Determining Significance Air Quality apply to the operational phase:

a. A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of NO_X, PM_{10}, $PM_{2.5}$, and/or VOC would also have a significant cumulatively considerable net increase.

b. Projects that cause road intersections to operate at or below LOS E (analysis only required when the addition of peak-hour trips from the proposed project and surrounding projects exceeds 2,000) and create a CO “hotspot” result in a cumulatively considerable net increase of CO.

Impact Analysis

The 2011 PEIR determined that future development would result in potentially significant direct and indirect impacts associated with nonattainment criteria pollutants. The discussion of impacts associated with nonattainment criteria pollutants from implementation of the General Plan can be found in Section 2.3.3.3 of the 2011 PEIR, and is hereby incorporated by reference.

As discussed in Section 2.3.3.2 for Issue 2, the Proposed Project would have a potentially significant direct impact on air quality regarding construction and operational emissions of CO, PM_{10}, $PM_{2.5}$, and VOC; therefore, the Proposed Project would have a construction-related and operational-related significant cumulatively considerable net increase. **Overall, the Proposed Project would have a potentially significant impact based on cumulatively considerable net increase of nonattainment criteria pollutants (Impact AQ-3).**

Adoption of the proposed Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Clustering of development is intended to reduce

potential impacts to environmental resources. The adoption of this policy revision would result in less acreage being developed, and would not cause an impact to air quality.

2.3.3.4 Issue 4: Sensitive Receptors

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the Proposed Project would have a significant impact if it would directly impact a sensitive receptor and result in a cancer risk of greater than one in one million without implementation of T-BACT, 10 in 1 million with implementation of T-BACT, or health hazard index of one or more, consistent with the APCD Rule 1210 requirements for stationary sources. The Proposed Project would also have a significant impact if it places sensitive receptors near CO hotspots or creates CO hotspots near sensitive receptors.

Impact Analysis

The 2011 PEIR determined that buildout under the adopted General Plan would result in potentially significant direct and cumulative impacts to sensitive receptors. Potential impacts to sensitive receptors would be reduced through the implementation of a combination of federal, State and local regulations, existing County regulatory processes, and specific mitigation measures/implementation programs identified in the 2011 PEIR; however, even with these programs in place, the impacts would not be reduced to below a level of significance because future development would result in increased emissions of diesel particulate matter to an existing impacted SDAB.

Carbon Monoxide Hotspots

Development resulting from implementation of the Proposed Project would potentially create new CO hotspots or add to existing intersection volumes and wait times. Since localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles, impacts related to localized CO are typically determined by estimating CO concentrations from the most project-impacted intersections, where the concentrations would be the greatest. Areas with high vehicle density, such as congested intersections and parking garages, have the potential to create high concentrations of CO, known as CO hotspots. Impacted intersections are typically determined by a traffic study that provides an intersection analysis. Although the prepared traffic impact assessment for the Proposed Project did not evaluate all intersections in the study area, it analyzed the three intersections with the most project-related traffic under future 2050 buildout conditions (Chen Ryan 2016, 2017). The three intersections are located on Old Highway 395 at West Lilac Road, West Dulin Road, and East Dulin Road.

CALINE4, a dispersion model for predicting CO concentrations that may result due to the operation of a project, is the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. The CALINE4 model is used to identify a potential CO hotspot assuming worst-case background CO concentrations.

As shown in **Error! Reference source not found.** based on CO modeling of the three most impacted intersections at buildout, CO concentrations would be substantially below the State 20.0 ppm 1-hour ambient air quality standards, and the national and State 9.0 ppm 8-hour ambient air quality standards. Therefore, sensitive receptors within the County would not be exposed to

substantial CO concentrations, and the potential impacts of the Proposed Project would be less than significant for CO hotspots.

Toxic Air Contaminants

Construction

Construction equipment would emit diesel particulate matter, which is a carcinogen. However, diesel particulate matter emissions from development as a result of the implementation of the Proposed Project would be short-term in nature. According to the Office of Environmental Health Hazard Assessment 2015 Guidance Manual for Preparation of Health Risk Assessments, projects lasting more than 6 months should be evaluated for the duration of the project (OEH 2015). Risks near construction projects are expected to be analyzed in future project specific environmental reviews when the toxic emissions from construction activities are better understood.

Operation

The CARB Air Quality and Land Use Handbook: A Community Health Perspective lists land uses that are considered major air toxic emitters. These land uses are generally industrial and processing land uses that require a permit from the APCD to operate, including chrome plating facilities, ports, refineries, rail yards, and distribution centers. TAC sources are assessed as follows.

Heavily traveled roads. CARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. PSR Analysis Areas BO18+, FB19+, and the former CGSP Area are located within 500 feet of a freeway.

Railroads. Only one railroad line is located near a PSR Analysis Area, the San Diego & Arizona Eastern Railway Desert Line (Desert Line). The Desert Line bisects PSR Analysis Area ME30A and is located less than three miles from PSR Analysis Area ME26. It is the primary freight rail line that traverses the unincorporated County and has been operated intermittently since 1906. The Desert Line, out of operation since 2008, was approved for continued work following a new contract. In May of 2016, Pacific Imperial reached a sublease agreement with Baja California Railroad, Inc., allowing for the reconstruction and operation of 60 of the 70-mile railway for the term of the Pacific Imperial 50 to 100-year lease with the Metropolitan Transit System (MTS 2016).

Fueling stations. CARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. The nearest gas station, Pala Vista Gas, is located within one quarter of a mile from PSR Analysis Area VC67. Therefore, the project would not expose on-site sensitive receptors to substantial TAC from large fueling stations. Two scenarios have the potential for exposing sensitive receptors to TAC. The first is when a project includes a new or modified source of TAC and would be located near an existing or proposed sensitive receptor. The second scenario involves a residential or other sensitive receptor located near an existing or planned source of TAC.

Typical TAC sources include auto service shops, emergency standby engines, non-retail facilities, and registered engines. The Proposed Project would have the potential to produce new sources of TAC, through the implementation of commercial and industrial land use designations. PSR Analysis Areas SD15, VC67, and former CGSP Area would have land use designations under the Proposed Project which would allow for commercial and industrial development. These

commercial and industrial land uses would be located near existing and proposed residential uses. Therefore, implementation of the Proposed Project would have the potential to expose sensitive receptors to substantial TAC from nearby proposed TAC-emitting land uses.

PSR Analysis Areas and the former CGSP Area within proximity to existing TAC sources are shown in Table 2.3-5 and Figure 2.3-1. These areas include PSR Analysis Areas DS8, NC37, VC67, and the former CGSP Area. A registered engine, emergency standby engine, and auto service are located near PSR Analysis Area DS8. PSR Analysis Area NC37 contains a registered engine and two emergency standby engine TAC sources. These TAC sources are listed in Table 2.3-5. Auto services, gas stations, a registered engine, and an emergency standby engine are located within one half of a mile of PSR Analysis Area VC67. A non-retail facility is located near the former CGSP Area.

In addition to the TAC sources discussed above, CARB recommends siting guidance for new land uses relative to ports, refineries, and chrome plating facilities. There are no ports, refineries, or chrome plating facilities in the vicinity of the PSR Analysis Areas.

Also analyzed was a list of stationary sources that emit TAC identified by the APCD. Under the Air Toxics “Hotspots” Information and Assessment Act, stationary sources are required to report the types and quantities of certain substances their facilities routinely release into the air. Emissions of interest are those that result from the routine operation of a facility or that are predictable, including but not limited to continuous and intermittent releases and process upsets or leaks. The list of sources provided in the latest Annual Air Toxics "Hotspots" Program Report (APCD 2017) were geospatially referenced and compared to the location of the PSR Analysis Areas and the former CGSP Area. Table 2.3-13 shows listed stationary sources within three miles of the PSR Analysis Area. PSR Analysis Areas CD14, NC3A, and NC22 have TAC stationary sources located within three miles. No TAC stationary sources were identified near the former CGSP Area.

The potentially significant impacts resulting from implementation of the Proposed Project would be reduced by the same regulations and implementation programs discussed in the 2011 PEIR. Project applicants are required to obtain an Authority to Construct from the APCD and install emissions control equipment for certain TAC sources. As part of the permit review process, APCD evaluates the health impacts associated with any new stationary emission sources (such as gas stations and dry cleaning facilities) and sources must comply with APCD Rule 1200. Additionally, in accordance with Rule 20, the APCD cannot issue a permit if compliance with Rule 1200 and all other applicable air quality rules and regulations is not demonstrated.

PSR Analysis Areas DS8, NC37, VC67, and the former CGSP Area are located close to or contain TAC sources; furthermore, the PSR Analysis Areas and former CGSP Area are located near sensitive receptors. PSR Analysis Areas BO18+, CD14, DS8, FB19+, NC3A, NC18A, NC22, NC38+, PP30, SD15, VC57+, and VC67 are located within one mile of a school. Table 2.3-14 shows listed sensitive receptor type within one mile of each PSR Analysis Area and the former CGSP Area. All PSR Analysis Areas, the former CGSP Area and the Valley Center Community Plan Residential Policy 8 Revision (applicable to former CGSP Subarea CG2, CG3, and CG4) are located within one mile of residences where sensitive receptors may be located. Additionally, PSR Analysis Areas BO18+, FB19+, NC37, and the former CGSP Area are adjacent to I-15 which exposes sensitive receptors to TAC. Therefore, the Proposed Project would expose on-site sensitive receptors to substantial TAC from nearby TAC-emitting land uses as identified in the CARB Land Use Handbook (CARB 2005). **Therefore, impacts to sensitive receptors for stationary sources resulting from the Proposed Project would be potentially significant (Impact AQ-4).**

Adoption of the proposed Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Clustering of development is intended to reduce potential impacts to environmental resources. The adoption of this policy revision would result in less acreage being developed, and would not cause an impact to air quality.

2.3.3.5 Issue 5: Objectionable Odors

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance Air Quality (DPLU 2007b), the Proposed Project, except for agricultural operations, is subject to APCD Rule 51 and would have a significant impact if it would result in the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. A project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

Impact Analysis

The 2011 PEIR determined that buildout under the adopted General Plan would result in less than significant impacts associated with objectionable odors. The discussion of impacts associated with objectionable odors from implementation of the General Plan can be found in Section 2.3.3.5 of the 2011 PEIR, and is hereby incorporated by reference.

Construction

The CARB Air Quality and Land Use Handbook includes a list of the most common sources of odor complaints received by local air districts (CARB 2005). Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. Construction activities are not a typical source of nuisance odors, although construction would result in minor amounts of odorous compounds associated with diesel heavy-duty equipment exhaust or evaporation of volatile compounds within paint or other coatings. Construction-related operations would be temporary in nature and would cease at the completion of construction. In addition, construction emissions would disperse rapidly from the project site, and would not be at a level to induce a negative odor response. Therefore, odor impacts associated with construction would be less than significant.

Operation

The CARB Air Quality and Land Use Handbook identifies a list of the most common sources of odor complaints received by local air districts (CARB 2005). Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. Development of residential, commercial, and mixed-use land uses would occur as a result of the Proposed Project. Industrial facilities, especially those located in the CPA/Subregions containing PSR Analysis Areas, the former CGSP Area and the Valley Center Community Plan Residential Policy 8 Revision (applicable to the former CGSP Subareas CG2, CG3, and CG4), proposed for higher density development may be located near residential developments that would be sensitive to odors. However, as described below, regulations are currently in place that would prohibit land uses such as industrial facilities from emitting nuisance odors in the unincorporated County. The PSR Analysis Areas and former CGSP Area do not contain land uses typically associated with emitting objectionable odors except for the light

industrial zoning of PSR Analysis Area VC67 and the potential commercial zoning in PSR Analysis Area SD15 and the former CGSP Area.

Three existing local odor sources identified as either an asphalt batch plant or painting/coating operations are shown in Figure 2.3-2. An asphalt batch plant lies approximately 900 feet south of PSR Analysis Area FB19+, a painting/coating operation approximately 4,600 feet from PSR Analysis Area NC22, and a painting/coating operation approximately 1,800 feet from PSR Analysis Areas VC57+ and VC67.

APCD Rule 51 (Public Nuisance) and California Health and Safety Code (HSC) Division 26, Part 4, Chapter 3, Section 41700 prohibit the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of the public. County Ordinance Sections 63.401 and 63.402 prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Projects are required to obtain permits from APCD, typically industrial and some commercial projects, are evaluated by APCD staff for potential odor nuisance and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

The Proposed Project may result in the addition of new sources of odor that has the potential to place sensitive receptors near existing sources of odor; however, future development would be required to comply with existing regulation discussed above for industrial and commercial project. Therefore, impacts associated with odors would be less than significant.

Adoption of the proposed Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Clustering of development is intended to reduce potential impacts to environmental resources. The adoption of this policy revision would result in less acreage being developed, and would not cause an impact to air quality.

2.3.4 Cumulative Impacts

The cumulative impact analysis study area for air quality in the 2011 PEIR was identified as the County and surrounding vicinity. As the Proposed Project is applying the adopted General Plan principles to assign land use designations for the project areas throughout the unincorporated county, the cumulative study area for air quality is the same as the 2011 PEIR and is hereby incorporated by reference. In addition, Section 1.11 (Cumulative Project Assessment Overview) of this SEIR provides an update of new projects since adoption of the General Plan that are considered in the cumulative analysis to make the analysis complete.

2.3.4.1 Issue 1: Air Quality Plans

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality plans if, in combination, they would conflict with or obstruct implementation of the RAQS and/or applicable portions of the SIP.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area source and all other source emissions, to project future emissions and determine from that the strategies necessary for the reduction of emissions through regulatory controls. Cumulative projects located in adjacent jurisdictions, including incorporated cities,

adjacent counties, and State-managed lands, would be required to comply with the SIP, and the RAQS or other applicable regional air quality plan.

All future development resulting from the Proposed Project and cumulative projects located within the unincorporated County would be required to reduce the emissions of ozone precursors and particulate by complying with County policies. Each project requiring a general plan amendment would be required to comply with applicable air quality plans or would not be approved.

In the Regional Plan, SANDAG has projected that in 2050, emissions from all sources in the SDAB would be 119 tons per day of CO, 19 tons per day of NO_X, and 13 tons per day of VOC. These projected emissions are under the budget by 611 tons per day of CO, 11 tons per day of NO_X, and 8 tons per day of VOC.

Potential future development allowed with the 2050 buildout of the Proposed Project would be required to demonstrate compliance with the strategies and measures adopted as part of the RAQS and SIP during the County environmental review process for each development application. Additionally, all future development resulting from the Proposed Project would be required to reduce the emissions of CO, NO_X, and VOC by complying with County policies. However, the Proposed Project would result in more intense land uses and contribute to local population growth, employment growth, and associated increase in VMT that is not accounted for in the General Plan.

The CalEEMod model was used to project what the operational emissions would be from potential development due to the Proposed Project's general plan amendments and zoning changes. For determining impact on the RAQS, emissions of CO, NO_X, and VOC were presented in tons per day. Table 2.3-15 shows the USEPA-approved emissions budget for 2050 and the projected emissions from sources in the SDAB from the Regional Plan (SANDAG 2015a), which yields the surplus available emissions that is below the budget. Also included are estimated emissions from the potential development from the Proposed Project for the 2050 buildout year. As Table 2.3-15 demonstrates the potential development from the Proposed Project would represent 0.3 percent of the budget for CO, 0.3 percent of the budget for NO_X, and 6.9 percent of the budget for VOC.

However, a single project contributing approximately 7 percent of the budgeted VOC emissions, in addition to the existing and future cumulative number of projects requiring general plan amendments may cause an exceedance of the budgeted emissions and thus the potential to cause a significant conflict with, or obstruct the implementation of, the RAQS. **Therefore, the Proposed Project, in combination with the cumulative projects, would have the potential to result in a significant cumulative impact associated with Air Quality Plans (Impact AQ-5)**.

2.3.4.2 Issue 2: Air Quality Violations

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative air quality violation if, in combination, they would violate any air quality standard or contribute to an existing or projected air quality violation. New stationary sources of criteria pollutants or projects that would increase vehicle trips may result in increases in pollutant emissions that would violate an air quality standard. New residential development resulting from the Proposed Project would increase vehicle trips and would have the potential to result in an associated air quality violation of the CAAQS or NAAQS from the emission of criteria pollutants due to increased vehicle trips. These projects, and the other cumulative projects located in the unincorporated County and adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, would be required to comply with CAAQS and NAAQS pursuant to CEQA prior to approval. CEQA requires proposed projects provide detailed

information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts related to air quality violations would be mitigated to below a level of significance, consistent with CEQA. However, air quality impacts associated with the development of cumulative projects such as Campus Park in the Fallbrook CPA which proposes the development of an additional 1,099 dwelling units may be significant and unavoidable. Therefore, **cumulative projects in the region would result in a significant cumulative impact associated with air quality violations**.

As discussed above in Section 2.3.3.2, the Proposed Project would result in a potentially significant impact associated with air quality violations. **Therefore, the Proposed Project, in combination with other cumulative projects, would have the potential to result in a significant cumulative impact associated with air quality violations (Impact AQ-6).**

2.3.4.3 Issue 3: Nonattainment of Criteria Pollutants

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with nonattainment criteria pollutants if, in combination, they would result in a net increase of any criteria pollutant for which the SDAB is nonattainment. The SDAB is designated a moderate nonattainment area for the 8-hour NAAQS for ozone and as a nonattainment area under the CAAQS for ozone, PM_{10}, and $PM_{2.5}$. Development of cumulative projects in the region would have the potential to result in new sources of particulate matter from construction activities. In addition, the operation of proposed cumulative projects would result in increases in vehicle trips that would increase emissions of ozone precursors. Therefore, **cumulative projects in the region would result in a significant cumulative impact associated with nonattainment of criteria pollutants**.

As discussed above in Section 2.3.3.3, the Proposed Project would result in a potentially significant direct impact associated with nonattainment of criteria pollutants. **Therefore, the** Proposed Project, **in combination with other cumulative projects, would have the potential to result in significant cumulative impact associated with the nonattainment of criteria pollutants (Impact AQ-7).**

2.3.4.4 Issue 4: Sensitive Receptors

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with sensitive receptors if, in combination, they would expose sensitive receptors to a substantial concentration of TAC that would significantly increase cancer risk. Implementation of cumulative projects would have the potential to result in new sources of TAC, especially diesel particulate matter from truck trips. In general, construction of cumulative projects would result in a temporary increase in truck trips to haul construction materials to and from the site. In addition, new industrial or commercial developments would have the potential to result in permanent increases in truck trips to an area due to project operation. Placement of new sensitive receptors near existing TAC emissions would have the potential to result in a significant cumulative impact. Cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and State-managed lands would be required to comply with CARB recommendations for siting new sensitive receptors. and stationary sources in the SDAB would be required to comply with emission thresholds for TAC resulting in reduced impacts but not to a level below significant. Therefore, **cumulative projects in the region would result in a significant cumulative impact associated with sensitive receptors**.

As discussed above in Section 2.3.3.4, the Proposed Project would result in a potentially significant impact associated with sensitive receptors. **Therefore, the Proposed Project, in combination with other cumulative projects, would have the potential to result in a significant cumulative impact associated with sensitive receptors (Impact AQ-8).**

2.3.4.5 Issue 5: Objectionable Odors

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with objectionable odors if, in combination, they would create objectionable odors or place sensitive receptors next to existing objectionable odors. Cumulative projects located in incorporated cities and on-going projects would be required to comply with APCD rules and regulations regarding odor control. Some projects are located outside of the SDAB and/or may not be subject to similar emissions regulations, such as tribal projects, and projects in adjacent counties. However, odor impacts are localized in nature and cumulative projects would not combine to result in a cumulative odor impact. Therefore, the Proposed Project would not contribute to a significant cumulative impact.

2.3.5 Mitigation

2.3.5.1 Issue 1: Air Quality Plans

Implementation of the Proposed Project would result in a potentially significant impact associated with air quality plans (**Impact AQ-1**). Implementation of the following General Plan policies and 2011 PEIR mitigation measures would reduce **Impact AQ-1** and **Impact AQ-5** but not to a level below significant. Additional mitigation measures have been identified that would reduce impacts, as discussed below, but not to a level below significant. **Therefore, the impacts would remain significant and unavoidable**.

Adopted General Plan Policies

COS-14.1: Land Use Development Form. Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.

COS-14.2: Villages and Rural Villages. Incorporate a mixture of uses within Villages and Rural Villages that encourage people to walk, bicycle, or use public transit to reduce air pollution and GHG emissions..

COS-14.8: Minimize Air Pollution. Minimize land use conflicts that expose people to significant amounts of air pollutants.

COS-14.9: Significant Producers of Air Pollutants. Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.

COS-14.10: Low-Emission Construction Vehicles and Equipment. Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.

COS-15.1: Design and Construction of New Buildings. Require that new buildings be designed and constructed in accordance with “green building” programs that incorporate

techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

COS-15.4: Title 24 Energy Standards. Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.

COS-15.5: Energy Efficiency Audits. Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.

COS-16.2: Single-Occupancy Vehicles. Support transportation management programs that reduce the use of single-occupancy vehicles.

COS-16.3: Low-Emissions Vehicles and Equipment. Require County operations and encourage private development to provide incentives (such as priority parking) for the use of low- and zero-emission vehicles and equipment to improve air quality and reduce GHG emissions. [Refer also to Policy M-9.3 (Preferred Parking) in the Mobility Element.]

COS-20.3: Regional Collaboration. Coordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.

Adopted 2011 PEIR Mitigation Measures

Air-2.6: Use County Guidelines for Determining Significance for Air Quality to identify and mitigate adverse environmental effects on air quality.

Air-2.7: Implement County Air Pollution Control District (APCD) regulations for air emissions from all sources under its jurisdiction.

Air-2.9: Implement the Grading, Clearing, and Watercourses Ordinance by requiring all clearing and grading to be conducted with dust control measures

Table 2.3-16 shows that implementation of mitigation measures M-Air-1.1 and M-Air-1.2 would reduce **Impact AQ-1** and **Impact AQ-5** but not to a level below significant.

M-Air-1.1: The County of San Diego shall provide to SANDAG a revised population, employment, and housing forecast that reflects the anticipated growth generated from the Proposed Project. The updated forecast provided to SANDAG shall be used to inform the APCD to update the RAQS and SIP. The County of San Diego also shall notify the APCD of this revised forecast for use in the future update to the RAQS and SIP as required.

M-Air-1.2: All future construction of residential units on properties approved for increased densities or intensities shall have no wood-burning stoves and all fireplaces shall be fueled by natural gas.

2.3.5.2 Issue 2: Air Quality Violations

Implementation of the following adopted General Plan policies, 2011 PEIR mitigation measures, and M-Air-1.2 listed under Section 2.3.5.1 for Issue 1, would reduce **Impact AQ-2** and **Impact AQ-6** but **not to a level below significant; therefore, impacts would remain significant and unavoidable**.

Adopted General Plan Policies

General Plan policies COS-14.1, COS-14.2, COS-14.8, COS-14.9, COS-14.10, COS-15.1, COS-15.4, COS-15.5, COS-16.2, COS-16.3, and COS-20.3 listed in Section 2.3.5.1 for Issue 1 are applicable to air quality violations and are incorporated here by reference.

Adopted 2011 PEIR Mitigation Measures

In addition to the 2011 PEIR mitigation measures Air-2.6, Air-2.7 and Air-2.9 listed in Section 2.3.5.1 for Issue 1, the following adopted mitigation measure would further reduce **Impact AQ-2** and **Impact AQ-6** but not to a level below significant.

Air-2.5: Require that the following measures be implemented on all construction projects where project emissions are above the SLTs:

- Multiple applications of water during grading between dozer/scraper passes
- Paving, chip sealing or chemical stabilization of internal roadways after completion of grading
- Use of sweepers or water trucks to remove "track-out" at any point of public street access
- Termination of grading if winds exceed 25 miles per hour
- Stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control
- Use of low-sulfur fuels in construction equipment
- Use of low-VOC paints
- Projects exceeding screening-level thresholds will require ten percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, III, IV equipment. Equipment is certified if it meets emission standards established by the U.S. Environmental Protection Agency for mobile non-road diesel engines of almost all types. Standards established for hydrocarbons, nitrogen oxides (NO_X), carbon monoxide, and particulate matter. Tier I standards are for engines over 50 horsepower (such as bulldozers) built between 1996 and 2000, and engines under 50 horsepower (such as lawn tractors) built between 1999 and 2000. Tier II standards are for all engine sizes from 2001 to 2006, and Tier III standards are for engines rated over 50 horsepower from 2006 to 2008. Tier IV standards apply to engines of all sizes built in 2008 or later. Standards are increasingly stringent from Tier I to Tier IV.

Mitigation Measure

Mitigation measure M-Air-1.2 listed above in Section 2.3.5.1 for Issue 1 would also reduce **Impact AQ-2** and **Impact AQ-6** but not to a level below significant.

2.3.5.3 Issue 3: Nonattainment Criteria Pollutants

Implementation of the following adopted General Plan policies and 2011 PEIR mitigation measures, as well as M-Air-1.2, would reduce **Impact AQ-3** and **Impact AQ-7** but **not to a level below significant; therefore, impacts would remain significant and unavoidable**.

Adopted General Plan Policies

General Plan policies COS-14.1, COS-14.2, COS-14.8, COS-14.9, COS-14.10, COS-15.1, COS-15.4, COS-15.5, COS-16.2, COS-16.3, and COS-20.3 listed in Section 2.3.5.1 for Issue 1 are applicable to nonattainment criteria pollutants and are incorporated here by reference.

Adopted 2011 PEIR Mitigation Measures

Mitigation measures Air-2.5, Air-2.6, Air-2.7, and Air-2.9 listed in Sections 2.3.5.1 and 2.3.5.2 for Issues 1 and 2 would further reduce **Impact AQ-3** but not to a level below significant and are incorporated here by reference.

Mitigation Measure

Mitigation measure M-Air-1.2 listed in Section 2.3.5.1 for Issue 1 would also reduce **Impact AQ-3** and **Impact AQ-7** but not to a level below significant and are incorporated here by reference.

2.3.5.4 Issue 4: Sensitive Receptors

Implementation of the following 2011 PEIR mitigation measure would reduce impacts to sensitive receptors **Impact AQ-4** and **Impact AQ-8** but **not to a level below significant; therefore, impacts would remain significant and unavoidable**. Additional mitigation measures have been identified that would reduce impacts but the County has determined these measures as infeasible, as discussed below.

Infeasible Mitigation Measures Identified in the 2011 PEIR

The following measures (and variations of these measures) were considered in attempting to reduce impacts associated with sensitive receptors to below a level of significance. However, the County has determined that these measures would be infeasible to implement for the reasons below; therefore, these mitigation measures would not be implemented.

- Require that all off-road or non-road diesel engines, such as those associated with construction or extraction operations, be replaced by an alternative power source, such as electricity. This measure would limit which construction contractors would be allowed to work within the County, because not all contractors have alternative power source equipment available and the measure would result in undue costs to the project applicant. The County cannot monitor and enforce all construction activities within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from off-road construction equipment.

- Require all diesel trucks that travel on County roads to be equipped with filters or other devices that would limit diesel emissions to below a significant level. This measure is considered infeasible as the County cannot monitor all diesel traffic within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from vehicles. Implementing this measure would result in increased public costs.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable.

Adopted 2011 PEIR Mitigation Measure

Air-4.1: Use the policies set forth in the CARB's Land Use and Air Quality Handbook (CARB 2005) as a guideline for siting sensitive land uses. Implementation of this measure will ensure that sensitive land uses such as residences, schools, day care centers, playgrounds, and medical facilities are sited appropriately to minimize exposure to emissions of TACs.

2.3.5.5 Issue 5: Objectionable Odors

Although odor impacts are unlikely, the Proposed Project would be required to comply with the County odor policies enforced by APCD Rule 51 in the event a nuisance complaint occurs, and County Ordinance Sections 63.401 and 63.402, which prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Therefore, impacts associated with objectionable odors would be less than significant. No mitigation is required.

2.3.6 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses and the level of impact that would occur after adopted General Plan policies, 2011 PEIR mitigation measures, and additional mitigation measures are implemented.

2.3.6.1 Issue 1: Air Quality Plans

The Proposed Project would result in a more intense land use and contribute to population, employment growth, and associated VMT that is not accounted for in the General Plan, and is therefore, not consistent with the RAQS and SIP. Furthermore, implementation of the Proposed Project along with cumulative projects that propose additional growth than the General Plan allows would contribute to a significant cumulative impact. Implementation of the adopted General Plan policies 2011 PEIR mitigation measures, and mitigation measures M-Air-1.1 and M-Air-1.2 would reduce potentially cumulative significant impacts but not to a level below significant. **Therefore, impacts would remain significant and unavoidable (Impacts AQ-1 and AQ-5).**

2.3.6.2 Issue 2: Air Quality Violations

Implementation of the Proposed Project would have the potential to cause significant direct and cumulative impacts to air quality violations. Potential impacts to sensitive receptors would be reduced through the implementation of a combination of federal, State and local regulations; the adopted 2011 General Plan policies, regulatory processes, and specific mitigation measures/implementation programs; however, even with these programs in place. the impacts would not be reduced to a level of below significant because future development would result in increased emissions of ozone precursor PM_{10} and VOC. **Impacts resulting from implementation of the Proposed Project associated with air quality violations under 2050 buildout conditions would remain significant and unavoidable (Impacts AQ-2 and AQ-6).**

2.3.6.3 Issue 3: Nonattainment Criteria of Pollutants

Implementation of the Proposed Project would result in potentially significant direct and indirect impacts associated with nonattainment criteria pollutants. Potential impacts to sensitive receptors would be reduced through the implementation of a combination of federal, State and local

regulations; the adopted General Plan policies, regulatory processes, and specific mitigation measures/implementation programs identified; however, even with these programs in place, the impacts would not be reduced to a level below significant because future development would result in increased emissions of diesel particulate matter to an existing impacted SDAB. Emissions for the Proposed Project would exceed the County's Screening Level Threshold resulting in a significant cumulatively considerable net increase. Implementation of the adopted 2011 PEIR mitigation measures Air-4.1 and M-Air-1.2 would decrease impacts but not to a level below significant. **Therefore, the Proposed Project would result in a cumulatively considerable net increase of a criteria pollutant for which the SDAB is in nonattainment under the NAAQS and CAAQS and impacts would be significant and unavoidable (Impacts AQ-3 and AQ-7).**

2.3.6.4 Issue 4: Sensitive Receptors

Implementation of the Proposed Project would result in potentially significant direct and cumulative impacts to sensitive receptors. Potential impacts to sensitive receptors would be reduced through the implementation of a combination of federal, State and local regulations; the adopted 2011 General Plan policies, regulatory processes, and specific mitigation measures/ implementation programs; however, even with these programs in place, the impacts would not be reduced to a level below significant because future development would result in increased emissions of CO and TACs. Mitigation measure Air-4.1 would reduce direct and cumulative impacts to sensitive receptors; however, not to a level below significant. **Impacts would remain significant and unavoidable (Impacts AQ-4 and AQ-8).**

2.3.6.5 Issue 5: Objectionable Odors

Implementation of the Proposed Project would result in new development that would have the potential to cause odor impacts. Although odor impacts are unlikely, the Proposed Project would be required to comply with the County odor policies enforced by APCD Rule 51 in the event a nuisance complaint occurs, and County Ordinance Sections 63.401 and 63.402, which prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Additionally, the Proposed Project would not result in cumulative impacts. Therefore, impacts associated with objectionable odors would be to less than significant.

Table 2.3-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]	Federal Standards [2]	
		Concentration [3]	Primary [3, 4]	Secondary [3, 5]
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
	8-hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
Nitrogen Dioxide (NO_2) [6]	1-hour	0.18 ppm (470 mg/m^3)	100 ppb (188 µg/m^3)	None
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	53 ppm (100 µg/m^3)	Same as Primary Standard
Ozone (O_3) [7]	1-hour	0.09 ppm (180 µg/m^3)	--	Same as Primary Standards
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Respirable Particulate Matter (PM_{10}) [8]	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary Standards
	Annual Arithmetic Mean	20 µg/m	--	
Fine Particulate Matter ($PM_{2.5}$) [8]	24 Hour	--	35 µg/m^3	Same as Primary Standards
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	15 µg/m^3
Sulfur Dioxide (SO_2) [9]	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	--
	3 Hour	--	--	0.5 ppm (1300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	--	--
Lead[10, 11]	30 Day Average	1.5 µg/m^3	--	--
	Calendar Quarter	--	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average[9]	--	0.15 µg/m^3	
Visibility Reducing Particles	8-hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more due to particles.	No Federal Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m^3)		

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than hour ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the USEPA for further clarification and current national policies.

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

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

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

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

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

[8] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[9] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[10] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

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

Source: CARB 2016

Table 2.3-2 Air Quality Monitoring Data

Pollutant	Monitoring Station	2013	2014	2015
Carbon Monoxide (CO)[(1)]				
Maximum 8-hour concentration (ppm)	Escondido – East Valley Parkway	3.7	--	--
Days above state or federal standard (>9.0 ppm)		0	--	--
Maximum 8-hour concentration (ppm)	El Cajon – Redwood Avenue	1.86	--	--
Days above state or federal standard (>9.0 ppm)		0	--	--
Nitrogen Dioxide (NO_2)				
Peak 1-hour concentration (ppm)	Escondido – East Valley Parkway	0.061	0.063	0.048
Days above state 1-hour standard (0.18 ppm)		0	0	0
Peak 1-hour concentration (ppm)	El Cajon – Floyd Smith Drive	--	0.057	0.059
Days above state 1-hour standard (0.18 ppm)		--	0	0
Peak 1-hour concentration (ppm)	El Cajon – Redwood Avenue	0.051	0.051	--
Days above state 1-hour standard (0.18 ppm)		0	0	--
Peak 1-hour concentration (ppm)	Otay Mesa – Donovan Correctional Facility	--	0.064	0.061
Days above state 1-hour standard (0.18 ppm)		--	0	0
Peak 1-hour concentration (ppm)	Otay Mesa – Paseo International	0.091	0.087	--
Days above state 1-hour standard (0.18 ppm)		0	0	--
Ozone (O_3)				
Maximum 1-hour concentration (ppm)	Escondido – East Valley Parkway	0.084	0.099	0.079
Days above 1-hour state standard (>0.09 ppm)		0	1	0
Maximum 8-hour concentration (ppm)		0.075	0.080	0.071
Days above 8-hour state standard (>0.07 ppm)		4	8	3
Days above 8-hour federal standard (>0.075 ppm)		0	5	0
Maximum 1-hour concentration (ppm)	El Cajon – Floyd Smith Drive	--	0.083	0.083
Days above 1-hour state standard (>0.09 ppm)		--	0	0
Maximum 8-hour concentration (ppm)		--	0.075	0.067
Days above 8-hour state standard (>0.07 ppm)		--	0	0
Days above 8-hour federal standard (>0.075 ppm)		--	3	0
Maximum 1-hour concentration (ppm)	El Cajon – Redwood Avenue	0.090	0.059	--
Days above 1-hour state standard (>0.09 ppm)		0	0	--
Maximum 8-hour concentration (ppm)		0.078	0.053	--
Days above 8-hour state standard (>0.07 ppm)		3	0	--
Days above 8-hour federal standard (>0.075 ppm)		1	0	--
Maximum 1-hour concentration (ppm)	Otay Mesa – Donovan Correctional Facility	--	0.082	0.087
Days above 1-hour state standard (>0.09 ppm)		--	0	0
Maximum 8-hour concentration (ppm)		--	0.075	0.072
Days above 8-hour state standard (>0.07 ppm)		--	1	2
Days above 8-hour federal standard (>0.075 ppm)		--	0	0
Maximum 1-hour concentration (ppm)	Otay Mesa – Paseo International	0.081	0.073	0.061
Days above 1-hour state standard (>0.09 ppm)		0	0	0
Maximum 8-hour concentration (ppm)		0.061	0.063	0.055
Days above 8-hour state standard (>0.07 ppm)		0	0	0
Days above 8-hour federal standard (>0.075 ppm)		0	0	0

Table 2.3-2 Air Quality Monitoring Data

Pollutant	Monitoring Station	2013	2014	2015
Maximum 1-hour concentration (ppm)	Del Mar – Mira Costa College	0.110	0.101	0.099
Days above 1-hour state standard (>0.09 ppm)		7	2	2
Maximum 8-hour concentration (ppm)		0.070	0.088	0.076
Days above 8-hour state standard (>0.07 ppm)		0	4	2
Days above 8-hour federal standard (>0.075 ppm)		0	2	1
Maximum 1-hour concentration (ppm)	Indio – Jackson Street	0.105	0.095	0.093
Days above 1-hour state standard (>0.09 ppm)		2	2	0
Maximum 8-hour concentration (ppm)		0.087	0.081	0.085
Days above 8-hour state standard (>0.07 ppm)		36	30	12
Days above 8-hour federal standard (>0.075 ppm)		18	10	4
Respirable Particulate Matter (PM_{10})				
Peak 24-hour concentration ($\mu g/m^3$)	Escondido – East Valley Parkway	82	44	31
Days above state standard (>50 $\mu g/m^3$)		1	0	0
Days above federal standard (>150 $\mu g/m^3$)		0	0	0
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon – Floyd Smith Drive	--	35.3	50.3
Days above state standard (>50 $\mu g/m^3$)		--	0	0
Days above federal standard (>150 $\mu g/m^3$)		--	0	0
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon – Redwood Avenue	41	47	--
Days above state standard (>50 $\mu g/m^3$)		0	0	--
Days above federal standard (>150 $\mu g/m^3$)		0	0	--
Peak 24-hour concentration ($\mu g/m^3$)	Otay Mesa – Donovan Correctional Facility	65	58	136
Days above state standard (>50 $\mu g/m^3$)		0	0	0
Days above federal standard (>150 $\mu g/m^3$)		1	3	10
Peak 24-hour concentration ($\mu g/m^3$)	Indio – Jackson Street	144.7	118.9	88.3
Days above state standard (>50 $\mu g/m^3$)		10	15	4
Days above federal standard (>150 $\mu g/m^3$)		0	0	0
Fine Particulate Matter ($PM_{2.5}$)				
Peak 24-hour concentration ($\mu g/m^3$)	Escondido – East Valley Parkway	56.3	77.5	29.4
Days above federal standard (>35 $\mu g/m^3$)		1	1	0
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon – Floyd Smith Drive	--	13.9	24.7
Days above federal standard (>35 $\mu g/m^3$)		--	0	0
Peak 24-hour concentration ($\mu g/m^3$)	El Cajon – Redwood Avenue	23.1	38.1	--
Days above federal standard (>35 $\mu g/m^3$)		0	2	--
Peak 24-hour concentration ($\mu g/m^3$)	Indio – Jackson Street	25.3	18.3	24.6
Days above federal standard (>35 $\mu g/m^3$)		0	0	0

ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter
(1) The most recent year CO was monitored in San Diego Air Basin was 2012. This value is listed under 2013
Source: CARB 2016

Table 2.3-3 Air Quality Monitoring Summary for Individual Monitoring

Air Pollutant	Monitoring Year					
	2010	2011	2012	2013	2014	2015
Escondido – East Valley Parkway						
Carbon Monoxide (CO)						
Max 8 Hour (ppm)	2.46	2.30	3.70	N/A	N/A	N/A
Days > NAAQS (9 ppm)	0	0	0			
Days > CAAQS (9.0 ppm)	0	0	0			
Nitrogen Dioxide (NO_2)						
Max Hourly (ppb)	64	62	62	0.061	0.063	0.048
Days > NAAQS (100 ppb)	0	0	0	0	0	0
Days > CAAQS (0.18 ppm)	0	0	0	0	0	0
Ozone (O_3)						
Max 1 Hour (ppm)	**0.105**	**0.098**	0.084	0.084	**0.099**	0.079
Days > CAAQS (0.09 ppm)	2	1	0	0	1	0
Max 8 Hour (ppm)	**0.084**	**0.089**	**0.073**	**0.075**	**0.080**	**0.071**
Days > NAAQS (0.075 ppm*)	3	2	0	0	5	0
Days > CAAQS (0.070 ppm)	5	2	2	4	8	3
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	43	40	33	**82**	44	31
Days > NAAQS (150 µg/m^3)	0	0	0	0	0	0
Days > CAAQS (50 µg/m^3)	0	0	0	1	0	0
Fine Particulate Matter ($PM_{2.5}$)						
Max Daily National Measurement (µg/m^3)	33.3	27.4	**70.7**	**56.3**	**77.5**	29.4
Days > NAAQS (35 µg/m^3)	0	0	1	1	1	0
El Cajon – Floyd Smith Drive						
Nitrogen Dioxide (NO_2)						
Max Hourly (ppb)	N/A	N/A	N/A	N/A	0.057	0.059
Days > NAAQS (100 ppb)					0	0
Days > CAAQS (0.18 ppm)					0	0
Ozone (O_3)						
Max 1 Hour (ppm)	N/A	N/A	N/A	N/A	0.083	0.083
Days > CAAQS (0.09 ppm)					0	0
Max 8 Hour (ppm)	N/A	N/A	N/A	N/A	**0.075**	0.067
Days > NAAQS (0.075 ppm*)					0	0
Days > CAAQS (0.070 ppm)					2	0
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	N/A	N/A	N/A	N/A	35.3	50.3
Days > NAAQS (150 µg/m^3)					0	0
Days > CAAQS (50 µg/m^3)					0	0
Fine Particulate Matter ($PM_{2.5}$)						
Max Daily National Measurement (µg/m^3)	N/A	N/A	N/A	N/A	13.9	24.7
Days > NAAQS (35 µg/m^3)					0	0
El Cajon – Redwood Avenue						
Carbon Monoxide (CO)						
Max 8 Hour (ppm)	N/A	1.35	1.86	1.86	N/A	N/A
Days > NAAQS (9 ppm)		0	0	0		
Days > CAAQS (9.0 ppm)		0	0	0		
Nitrogen Dioxide (NO_2)						
Max Hourly (ppb)	58	49	59	0.051	0.051	N/A
Days > NAAQS (100 ppb)	0	0	0	0	0	
Days > CAAQS (0.18 ppm)	0	0	0	0	0	

Table 2.3-3 Air Quality Monitoring Summary for Individual Monitoring

Air Pollutant	Monitoring Year					
	2010	2011	2012	2013	2014	2015
Ozone (O_3)						
Max 1 Hour (ppm)	**0.102**	**0.105**	0.086	0.090	0.059	N/A
Days > CAAQS (0.09 ppm)	1	1	0	0	0	
Max 8 Hour (ppm)	**0.078**	**0.087**	**0.074**	**0.078**	0.053	N/A
Days > NAAQS (0.075 ppm*)	3	1	0	1	0	
Days > CAAQS (0.070 ppm)	6	1	1	3	0	
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	42.0	41.9	47.2	41.0	47.0	N/A
Days > NAAQS (150 µg/m^3)	0	0	0	0	0	
Days > CAAQS (50 µg/m^3)	0	0	0	0	0	
Fine Particulate Matter ($PM_{2.5}$)						
Max Daily National Measurement (µg/m^3)	27.7	29.7	**37.7**	23.1	**38.1**	N/A
Days > NAAQS (35 µg/m^3)	0	0	1	0	2	
Otay Mesa – Donovan Correctional Facility						
Nitrogen Dioxide (NO_2)						
Max Hourly (ppb)	N/A	N/A	N/A	N/A	64	61
Days > NAAQS (100 ppb)					0	0
Days > CAAQS (0.18 ppm)					0	0
Ozone (O_3)						
Max 1 Hour (ppm)	N/A	N/A	N/A	N/A	0.082	0.087
Days > CAAQS (0.09 ppm)					0	0
Max 8 Hour (ppm)	N/A	N/A	N/A	N/A	**0.075**	**0.072**
Days > NAAQS (0.075 ppm*)					0	0
Days > CAAQS (0.070 ppm)					1	2
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	**57**	**56**	**53**	**65**	**58**	**136**
Days > NAAQS (150 µg/m^3)	0	0	0	0	0	0
Days > CAAQS (50 µg/m^3)	3	2	1	1	3	10
Otay Mesa – Paseo International						
Carbon Monoxide (CO)						
Max 8 Hour (ppm)	2.21	N/A	N/A	N/A	N/A	N/A
Days > NAAQS (9 ppm)	0					
Days > CAAQS (9.0 ppm)	0					
Nitrogen Dioxide (NO_2)						
Max Hourly (ppb)	91	100	77	91	87	N/A
Days > NAAQS (100 ppb)	0	0	0	0	0	
Days > CAAQS (0.18 ppm)	0	0	0	0	0	
Ozone (O_3)						
Max 1 Hour (ppm)	**0.098**	0.076	**0.095**	0.081	0.073	0.061
Days > CAAQS (0.09 ppm)	1	0	1	0	0	0
Max 8 Hour (ppm)	0.068	**0.076**	0.061	0.061	0.063	0.055
Days > NAAQS (0.075 ppm*)	0	1	0	0	0	0
Days > CAAQS (0.070 ppm)	0	1	0	0	0	0
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	**108**	**126**	N/A	N/A	N/A	N/A
Days > NAAQS (150 µg/m^3)	0	0				
Days > CAAQS (50 µg/m^3)	22	23				

Table 2.3-3 Air Quality Monitoring Summary for Individual Monitoring

Air Pollutant	Monitoring Year					
	2010	2011	2012	2013	2014	2015
Del Mar – Mira Costa College						
Ozone (O_3)						
Max 1 Hour (ppm)	**0.122**	**0.103**	**0.111**	**0.110**	**0.101**	**0.099**
Days > CAAQS (0.09 ppm)	3	5	9	7	2	2
Max 8 Hour (ppm)	**0.072**	**0.075**	**0.079**	**0.070**	**0.088**	**0.076**
Days > NAAQS (0.075 ppm*)	0	0	0	0	2	1
Days > CAAQS (0.070 ppm)	2	1	2	0	4	2
Indio – Jackson Street						
Ozone (O_3)						
Max 1 Hour (ppm)	**0.100**	**0.099**	**0.102**	**0.105**	**0.095**	0.093
Days > CAAQS (0.09 ppm)	6	3	2	2	2	0
Max 8 Hour (ppm)	**0.087**	**0.090**	**0.089**	**0.087**	**0.081**	**0.085**
Days > NAAQS (0.075 ppm*)	19	19	24	18	10	4
Days > CAAQS (0.070 ppm)	45	42	45	36	30	12
Respirable Particulate Matter (PM_{10})						
Max Daily California Measurement (µg/m^3)	**106**	**324**	**125**	**144.7**	**118.9**	**88.3**
Days > NAAQS (150 µg/m^3)	0	2	0	0	0	0
Days > CAAQS (50 µg/m^3)	4	3	7	10	15	4
Fine Particulate Matter ($PM_{2.5}$)						
Max Daily National Measurement (µg/m^3)	16.0	35.4	16.4	25.3	18.3	24.6
Days > NAAQS (35 µg/m^3)	0	0	0	0	0	0

* The standard appearing in Table 1 was in effect until October 2015
> = exceed; **Bold** = exceedance
N/A = not available; ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter
CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard
Source: CARB 2016

Table 2.3-4 San Diego Air Basin Attainment Status

Pollutant	State Status	Federal Status
Carbon Monoxide (CO)	Attainment	Maintenance (Moderate)
Nitrogen Dioxide (NO_2)	Attainment	Attainment/Unclassified
Ozone (O_3) (1-hour)	Nonattainment	No federal standard
Ozone (O_3) (8-hour)	Nonattainment	Nonattainment (Moderate)
Lead (Pb)	Attainment	Attainment/Unclassified
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment	Attainment/Unclassified
Respirable Particulate Matter (PM_{10})	Nonattainment	Attainment/Unclassified
Sulfur Dioxide (SO_2)	Attainment	Attainment/Unclassified
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

Source: USEPA 2016, CARB 2016

Table 2.3-5 Toxic Air Contaminant Sources

PSR Analysis Areas	Equipment Type	Company Name
DS8	[26A] Initial Installations and Renovations	Macs Desert Auto Service
DS8	[34C] Emergency Standby Engine	Pacific Bell
DS8	[34W] Registered Engine (Rule 12)	AT&T Mobility Borrego Springs 2317
DS8	[34H] California Certified Emergency Standby Engine	Borrego Springs Fire Protect District
NC37	[34H] California Certified Emergency Standby Engine	San Diego County Water Authority
NC37	[34H] California Certified Emergency Standby Engine	Vallecitos Water District
NC37	[34W] Registered Engine (Rule 12)	Vallecitos Water District
VC67	[34W] Registered Engine (Rule 12)	Pacific Bell
VC67	[27R] Vehicle Refinishing Operations	Impact #2 Auto Repair
VC67	[34C] Emergency Standby Engine	County of San Diego Facility Ops PR3002
VC67	[26F] Phase II System	Pala Vista Gas
VC67	[26F] Phase II System	County of San Diego Public Works Valley Center Road
CGSP	[26E] Non-Retail Facility	Welk Resort Center

Source: County 2017

Table 2.3-6 RAQS Nitrogen Oxides Control Measures

Control Measure	APCD Rule Number	Adoption Date	Full Implementation Date	Estimated Emission Reductions (tons/day)
Further Control of Residential Water Heaters Smaller than 75,000 BTU/hour	Replace 69.5 With 69.5.1	2015	2028	1.04

Table 2.3-7 RAQS Volatile Organic Compounds Control Measures

Control Measure	APCD Rule Number	Adoption/ Amended Date	Full Implementation Date	Estimated Emission Reductions (tons/day)
Further Control of Solvent Cleaning	Replace 66 With 66.1	2016	2017	0.03
Further Control of Architectural Coating	Replace 67.0 With 67.0.1	2015	2016	2.3
Further Control of Wood Coatings	Amend 67.11 Repeal 67.11.1	2012	2013	0.05

Table 2.3-8 Proposed Project Growth and SANDAG's Growth

	General Plan	Proposed Project Increase	New Buildout projections (GP+Proposed Project)	SANDAG Projections for Unincorporated County
Dwelling Unit Buildout Projections	65,804	1,826	67,360	68,889
Population Buildout Projections	192,147	4,946	197,093	201,155

Source: County 2011a

Table 2.3-9 Construction Emissions for Property Specific Requests

	Maximum Daily Criteria Emissions in pounds per day				
PSR Analysis Area / Former CGSP Area	**VOC[(1)]**	**NO_X[(1)]**	**CO**	**PM_{10}**	**$PM_{2.5}$**
BO18+	38.0	59.6	36.1	20.9	12.4
CD14	8.2	24.3	15.9	7.8	4.5
DS8	20.1	59.6	36.1	20.9	12.4
DS24	31.6	59.6	36.1	20.9	12.4
FB2+	9.3	48.3	23.4	20.9	12.4
FB17	18.9	59.6	36.1	20.9	12.4
FB19+	2.6	11.0	8.3	1.5	1.0
FB21+	8.2	24.3	15.9	7.8	4.5
ME26	14.9	48.3	23.4	20.9	12.4
ME30A	16.6	48.3	23.4	20.9	12.4
NC3A	7.2	48.3	23.1	20.8	12.3
NC18A	19.4	59.6	35.8	20.8	12.3
NC22	29.6	59.6	35.8	20.8	12.3
NC37	7.8	48.3	23.1	20.8	12.3
NC38+	21.7	59.6	35.8	20.8	12.3
PP30	25.3	59.6	36.1	20.9	12.4
SD15	23.6	59.6	35.8	20.8	12.3
VC7+	26.2	59.6	36.1	20.9	12.4
VC51	8.4	48.3	23.4	20.9	12.4
VC57+	35.0	59.6	36.1	20.9	12.4
VC67	66.0	48.3	25.1	20.9	12.4
CGSP	45.0	59.6	35.8	20.8	12.3
County Screening Level Threshold:	***75***	***250***	***550***	***100***	***55***
Proposed Project Construction Total Emissions	**483**	**1,113**	**636**	**413**	**245**

[(1)] NO_X and VOC are ozone precursors.
Note: SO_2 construction emissions for each PSR Analysis Area and the former CGSP Area were below one pound per day.
Source CalEEMod Version 2016.3.1

Table 2.3-10 Operational Unmitigated Emissions for Property Specific Requests

PSR Analysis Area / Former CGSP Area	Maximum Daily Criteria Emissions in pounds per day				
	VOC[(1)]	NO_X[(1)]	CO	PM_{10}	$PM_{2.5}$
BO18+	**106.2**	6.1	141.4	23.3	19.3
CD14	11.1	0.6	14.6	2.3	2.0
DS8	**616.7**	35.6	**820.8**	**135.4**	**112.1**
DS24	**242.6**	14.0	322.8	53.3	44.1
FB21+	11.1	0.6	14.8	2.4	2.0
FB19+	1.6	0.1	2.1	0.3	0.3
FB17	52.3	3.0	69.6	11.5	9.5
FB2+	25.4	1.5	33.8	5.6	4.6
ME26	41.2	2.3	54.8	9.0	7.5
ME30A	46.0	2.6	61.2	10.1	8.4
NC37	19.0	1.0	25.0	4.0	3.4
NC38+	60.2	3.3	79.2	12.5	10.8
NC3A	17.4	0.9	22.9	3.6	3.1
NC22	**82.4**	4.5	108.3	17.1	14.7
NC18A	53.9	2.9	70.8	11.2	9.6
PP30	**193.4**	11.2	257.4	42.5	35.2
SD15	**488.6**	44.5	**666.0**	**120.5**	**91.0**
VC51	20.6	1.2	27.4	4.5	3.7
VC7+	**401.1**	23.1	533.8	88.1	**72.9**
VC57+	**366.2**	21.1	487.4	80.4	**66.6**
VC67	8.6	12.4	28.6	16.4	4.6
CGSP	52.8	8.1	76.3	16.8	10.6
County Screening Level Threshold:	***75***	***250***	***550***	***100***	***55***
Proposed Project 2050 Total Emissions:	**2,918**	201	**3,919**	**671**	**536**

Bold indicates the regional significance was exceeded
[(1)] NO_X and VOC are O_3 precursors.
Note: SO_2 operational unmitigated emissions for each PSR Analysis Area and the former CGSP Area were below two pound per day.
Source CalEEMod Version 2016.3.1

Table 2.3-11 Operational Mitigated Emissions for Property Specific Requests

PSR Analysis Area / Former CGSP Area	Maximum Daily Criteria Emissions in pounds per day				
	VOC[(1)]	NO_X[(1)]	CO	PM_{10}	$PM_{2.5}$
BO18+	3.8	5.2	15.3	5.7	1.6
CD14	0.4	0.5	1.4	0.5	0.1
DS8	22.1	30.4	88.7	32.9	9.6
DS24	8.7	12.0	34.9	12.9	3.8
FB2+	0.9	1.3	3.6	1.4	0.4
FB17	1.9	2.6	7.5	2.8	0.8
FB19+	0.1	0.1	0.2	0.1	0.0
FB21+	0.4	0.5	1.6	0.6	0.2
ME26	1.5	2.0	5.9	2.2	0.6
ME30A	1.6	2.2	6.6	2.4	0.7
NC3A	0.6	0.8	2.2	0.7	0.2
NC18A	1.9	2.5	6.8	2.2	0.7
NC22	2.9	3.8	10.5	3.4	1.0
NC37	0.7	0.9	2.4	0.8	0.2
NC38+	2.1	2.8	7.6	2.5	0.7
PP30	6.9	9.5	27.8	10.3	3.0
SD15	28.6	40.5	99.5	41.1	11.7
VC7+	14.4	19.8	57.7	21.4	6.2
VC51	0.7	1.0	3.0	1.1	0.3
VC57+	13.2	18.1	52.6	19.5	5.7
VC67	8.6	12.4	28.6	16.4	4.6
CGSP	5.4	7.7	18.0	8.6	2.4
County Screening Level Threshold:	***75***	***250***	***550***	***100***	***55***
Proposed Project 2050 Total Emissions:	**127**	**176**	**482**	**190**	**55[(2)]**

[(1)] NO_X and VOC are O_3 precursors.
[(2)] Value is rounded up from 54.66 pounds per day.
Note: SO_2 operational mitigated emissions for each PSR Analysis Area and the former CGSP Area were below two pound per day.
Source CalEEMod Version 2016.3.1

Table 2.3-12 CO-Hotspot Results of Proposed Project at 2050 Buildout

Intersection	Caline4 Output (1-hour)	1-hour (with background)	8-hour (without background)	8-hour (with background)
Old Hwy 395 & West Lilac Road	0.1	3.3	0.07	2.3
Old Hwy 395 & West Dulin Road	0.2	3.4	0.14	2.4
Old Hwy 395 & East Dulin Road	0.2	3.4	0.14	2.4
California Standard		***20***		***9.0***
Federal Standard		***35***		***9***

Notes: 1-hour background - 3.24
8-hour background – 2.27
Persistence Factor – 0.7
CO = carbon monoxide; ppm = parts per million
Source: Atkins 2017

Table 2.3-13 Toxic Air Contaminant Sources within 3 Miles of PSR Analysis Areas and former CGSP Area

PSR Analysis Area/ Former CGSP Area	Company Name	Distance
CD14	Robertson Ready Mix	1.8 miles
NC3A	Valley Center Water	2.4 miles
	FT Engineering	3.0 miles
NC22	Killion Industries	2.3 miles
	Hues Metal Finishing	2.2 miles

Source: Atkins 2017

Table 2.3-14 Sensitive Receptors Near Property Specific Requests

CPA/Subregion	PSR Analysis Area/ Former CGSP Area	Sensitive Receptors within 1 mile	
		Type	Location
Bonsall	BO18+	School	0.3 mile
Crest-Dehesa	CD14	School	0.5 mile
		Residential	Bordering[(1)]
Desert	DS8	School	0.4 mile
		Residential	Bordering
	DS24	Residential	Bordering
Fallbrook	FB2+	Residential	In Analysis Area
	FB17	Residential	0.1 mile
	FB19+	School	0.9 mile
		Residential	In Analysis Area
	FB21+	Residential	In Analysis Area
Mountain Empire	ME26	Residential	In Analysis Area
	ME30A	Residential	Bordering[(1)]
North County Metro	NC3A	School	0.7 mile
		Residential	In Analysis Area
	NC18A	School	0.6 mile
		Residential	In Analysis Area
	NC22	School	0.7 mile
		Residential	In Analysis Area
	NC37	Residential	In Analysis Area
	NC38+	School	0.3 mile
		Residential	In Analysis Area
Pala-Pauma	PP30	School	0.5 mile
		Residential	Bordering[(1)]
San Dieguito	SD15	School	0.5 mile
		Residential	0.2 mile
Valley Center	VC7+	Residential	In Analysis Area
	VC51	Residential	In Analysis Area
	VC57+	School	Bordering
		Residential	In Analysis Area
	VC67	School	0.5 mile
		Residential	> 0.1 mile
CGSP Subareas	CG 1-8	Residential	Bordering

[(1)] Single residence in Analysis Area
Source: Google Earth Pro

Table 2.3-15 Potential Development Unmitigated Emissions of Proposed Project at 2050 Buildout

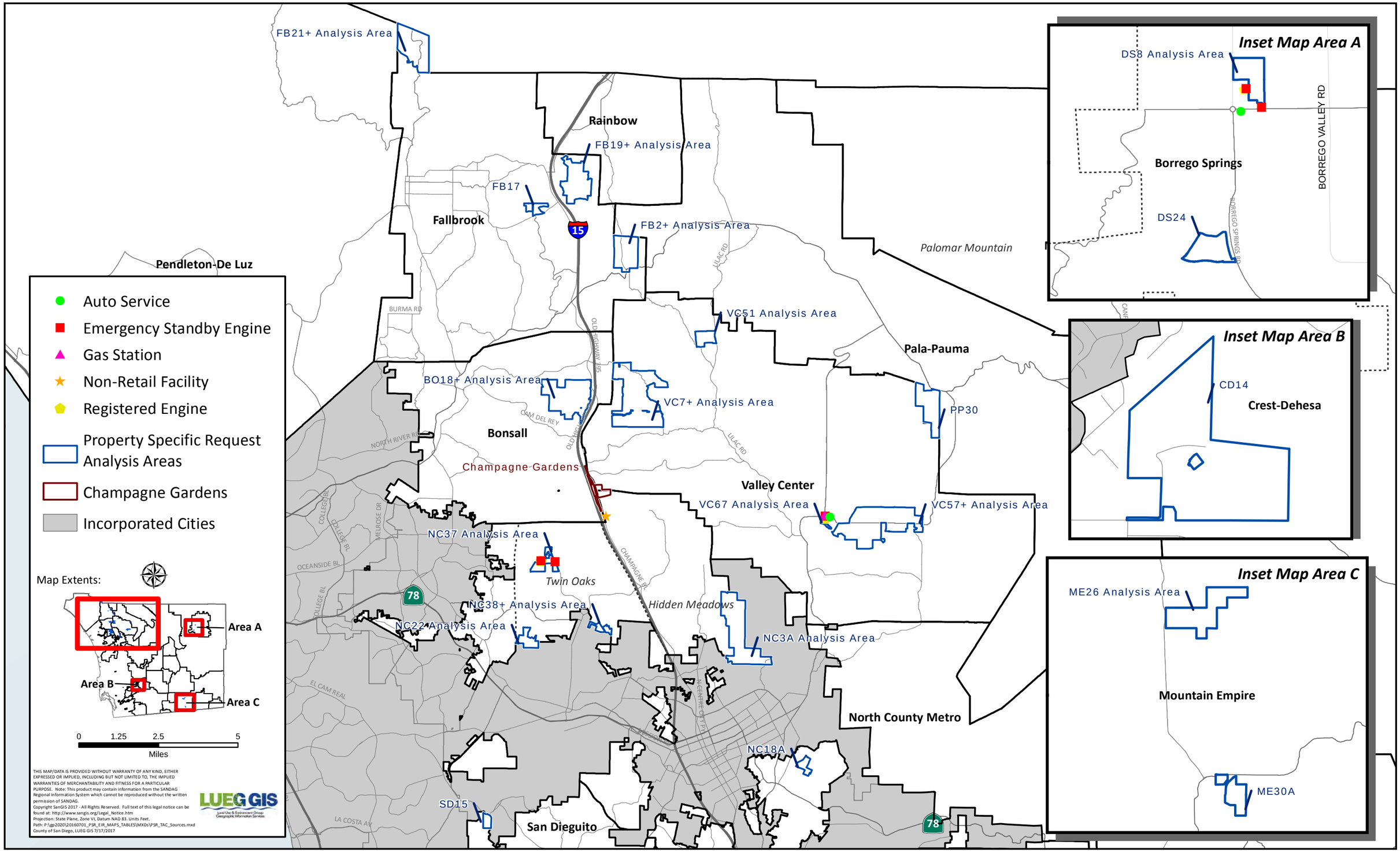
Data for Buildout Year of 2050	2050 Emissions in tons per day		
	VOC	NO_X	CO
RAQS Emissions Budget for 2050	21	30	730
SANDAG Projected County-wide Emissions	13	19	119
Surplus Emissions (Budget – Projected)	8	11	611
Proposed Project 2050 Buildout Unmitigated Emissions	1.46	0.10	1.96
Unmitigated Project Percent of Budget	6.9%	0.3%	0.3%

Source: SANDAG 2015a

Table 2.3-16 Potential Development Mitigated Emissions of Proposed Project at 2050 Buildout

Data for Buildout Year of 2050	2050 Emissions in tons per day		
	VOC	NO_X	CO
RAQS Emissions Budget for 2050	21	30	730
SANDAG Projected County-wide Emissions	13	19	119
Surplus Emissions (Budget – Projected)	8	11	611
Proposed Project 2050 Buildout Mitigated Emissions	0.06	0.08	0.24
Mitigated Project Percent of Budget	0.29%	0.27%	0.03%

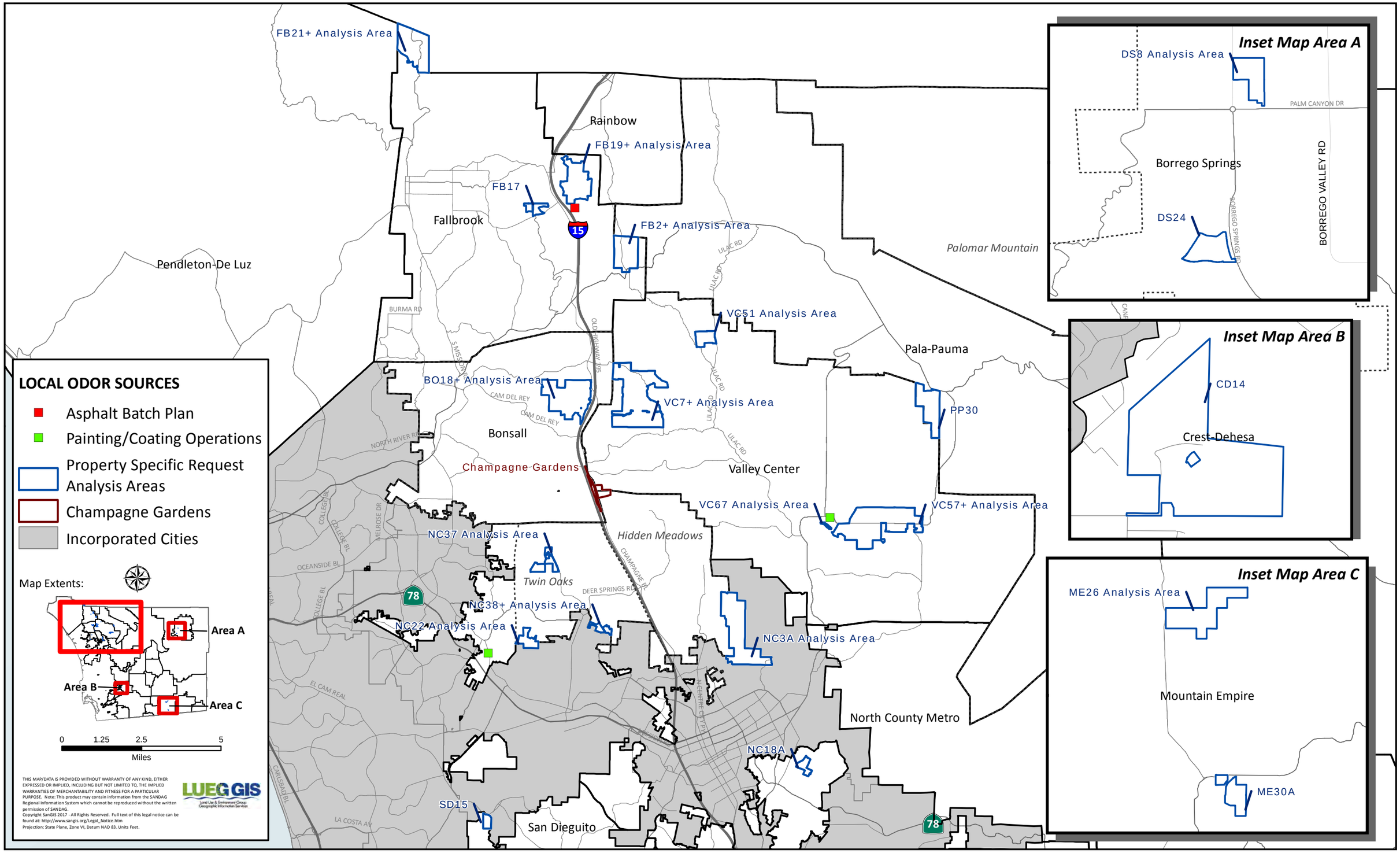
Source: SANDAG 2015a



Source: SanGIS, County of San Diego, 2017

Toxic Air Contaminants Sources

Figure 2.3-1



Source: SanGIS, County of San Diego, 2017

Local Odor Sources

Figure 2.3-2