

## 2.3 Air Quality

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential short-term and long-term air quality impacts that could result from implementation of the project. Potential impacts of the project are analyzed, and mitigation measures are provided for impacts determined to be significant.

There were no comments received during the Notice of Preparation (NOP) scoping process that included specific concerns regarding air quality. However, several commenters provided suggestions for improvements that should be included in the CAP that would positively impact air quality such as increased alternative transportation infrastructure, energy efficiency improvements, and urban tree planting. A copy of the NOP and comment letters received in response to the NOP are included in Appendix A of this Draft Supplement to the 2011 General Plan Update (GPU) Program Environmental Impact Report (PEIR) (Draft SEIR).

### 2.3.1 Existing Conditions

The 2011 GPU PEIR included a discussion of existing conditions related to air quality in Section 2.3.1 on pages 2.3-1 through 2.3-3. The air quality conditions described in the 2011 GPU PEIR are similar to the conditions on the ground today. The 2011 GPU PEIR reported data from 2003 to 2007 for criteria air pollutants addressed in the ambient air quality standards. Since certification of the 2011 GPU PEIR in August 2011, more recent ambient background air quality data has been made available by the San Diego Air Pollution Control District (SDAPCD). Changes to the monitoring station concentration data and ambient risk levels in the County have been updated and are described below. Updated attainment designations for the County are also provided; however, this updated information does not substantially change the existing conditions or alter any conclusions previously described for air quality in the 2011 GPU PEIR.

#### *2.3.1.1 Monitoring Station Data and Attainment Area Designations*

SDAPCD operates and maintains eleven monitoring stations throughout the San Diego Air Basin (SDAB). The Alpine – 2300 Victoria Drive monitoring station is the only station located in unincorporated San Diego County. Alpine is the SDAPCD's easternmost monitoring station and measures pollutants downwind of the County's major metropolitan areas for ozone and fine particulate matter (PM<sub>2.5</sub>) concentrations. The Escondido – 600 East Valley Parkway monitoring station is not located in an unincorporated area, but is located east of the most heavily traveled Interstate Highway and State Route in SDAB. The Escondido monitoring station reports ozone, respirable particulate matter (PM<sub>10</sub>), and PM<sub>2.5</sub> concentrations. In general, the local ambient air quality measurements from these stations are representative of the air quality within the County. **Table 2.3-1** summarizes the air quality data for the three most recent calendar years for which data are available (i.e., 2013 through 2015).

Both the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) use this type of monitoring data to designate areas according to their

attainment status for criteria air pollutants. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are “nonattainment,” “attainment,” and “unclassified.” In addition, the California designations include a subcategory of the nonattainment designation, called “nonattainment-transitional.” The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. Unclassified is designated in an area that cannot be classified based on available information as meeting or not meeting the standards. Attainment designations for San Diego County are shown in **Table 2.3-2** for each criteria air pollutant. SDAB is designated as a nonattainment area for the state ozone and PM<sub>10</sub> and PM<sub>2.5</sub> standards, a nonattainment area for the federal ozone standards and a maintenance area for the carbon monoxide (CO) standards (western portion of SDAB).

### ***2.3.1.2 Toxic Air Contaminants***

Mobile, area, and natural sources contribute to toxic air contaminants in the County. Toxic air contaminants from industrial facilities have been reduced by approximately 24.8% since 2009. Based on the most recent emissions inventory available of 2008, the inventoried industrial facilities emit less than 1.5 million pounds of toxic air contaminants annually. SDAPCD started sampling for toxic air contaminants at the Chula Vista and El Cajon monitoring stations in the mid-1980's. The estimated cancer risks were 116 in one million for Chula Vista and 136 in one million for El Cajon in 2013. Diesel particulate matter emitted from mobile sources traveling on highways and roadways contributes significantly to ambient cancer risk levels. Although diesel particulate concentrations are not directly monitored, CARB has suggested methods that can be used to estimate diesel concentrations. Based on SDAPCD measurements taken at the El Cajon, Escondido, and San Diego monitoring stations between August 2008 and June 2010, the diesel particulate emissions potentially add an additional 354 in one million to the ambient risk levels in the County. CARB estimates that health risk from diesel particulate matter has declined by approximately 50% since 1990 (SDAPCD 2017b).

## **2.3.2 Regulatory Framework**

Air quality in SDAB is regulated by EPA, CARB, and the SDAPCD. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although state and local regulations may not be less stringent than EPA regulations, they may be more stringent. The Regulatory Framework described in Section 2.3.2 on pages 2.3-8 through 2.3-9 of the 2011 GPU PEIR is incorporated by reference. Specific regulations discussed in the 2011 GPU and applicable to the project include the following:

### Federal

- Federal Clean Air Act (CAA)
- National Ambient Air Quality Standards (NAAQS)
- New Source Performance Standards (NSPS)
- National Emissions Standards for Hazardous Air Pollutants (NESHAP) Program

- New Source Review (NSR)
- Prevention of Significant Deterioration (PSD)

### State

- California Clean Air Act (CCAA)
- California Ambient Air Quality Standards (CAAQS)
- California State Implementation Plan (SIP)
- California Air Toxics “Hot Spots” Information and Assessment Act (AB 2588)

### Local

- San Diego County Regional Air Quality Strategy (RAQS)
- County of San Diego Code of Regulatory Ordinances, Title 8, Division 7, Chapter 4, Section 87.428, Dust Control Measures
- County of San Diego Code of Regulatory Ordinances, Title 6, Division 3, Chapter 4, Sections 63.401 and 63.402, Nuisance

All projects in San Diego County are subject to the adopted SDAPCD rules and regulations. Specific rules applicable may include, but are not limited to the following:

- SDAPCD Rule 10—Permits Required,
- SDAPCD Rule 20.1 et. seq.—New Source Review,
- SDAPCD Rule 50—Visible Emissions,
- SDAPCD Rule 51—Nuisance,
- SDAPCD Rule 52—Particulate Matter,
- SDAPCD Rule 53—Specific Contaminants,
- SDAPCD Rule 54—Dust and Fumes,
- SDAPCD Rule 55—Fugitive Dust,
- SDAPCD Rule 59—Control of Waste Disposal Site Emissions,
- SDAPCD Rule 59.1—Municipal Solid Waste Landfills,
- SDAPCD Rule 62—Sulfur Content of Fuels,
- SDAPCD Rule 67.0—Architectural Coatings,
- SDAPCD Rule 69.4—Stationary Reciprocating Internal Combustion Engines,

- SDAPCD Rule 1200—Toxic Air Contaminants-New Source Review,
- SDAPCD Rule 1210—Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction, and
- SDAPCD Regulation XI, Subpart M, Rule 361.145—National Emission Standards for Asbestos- Standard for Demolition and Renovation.

### **2.3.2.1 Odors**

Federal, and state, and local air quality regulations do not contain quantitative requirements for the control of offensive odors. SDAPCD has the authority to restrict and prevent the release of odorous air contaminants through Rule 51 (Nuisance):

**Rule 51—Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property.

Actions related to odors are typically based on citizen complaints to local governments as documented by SDAPCD.

#### ***Adopted 2011 GPU Policies***

The policies addressing air quality that were adopted as part of the 2011 GPU and are applicable to the project include the following:

Policy 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.

Policy 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 greenhouse gas (GHG) emissions.

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

Policy 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.

Policy 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.

Policy 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.

Policy COS-15.3 Green Building Programs. Require all new County facilities and the renovation and expansion of existing County buildings to meet identified “green building” programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

Policy 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.

Policy 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.

Policy COS-15.6 Design and Construction Methods. Require development design and construction methods to minimize impacts to air quality.

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

Policy 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.]

Policy COS-20.3 Regional Collaboration. Coordinate air quality planning efforts with federal and state agencies, San Diego Association of Governments (SANDAG), and other jurisdictions.

Policy LU-2.8 Mitigation of Development Impacts. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

### ***Adopted 2011 GPU PEIR Mitigation Measures***

The mitigation measures addressing air quality that were adopted as part of the 2011 GPU PEIR and are applicable to the project include the following:

Air-2.1 Provide incentives such as preferential parking for hybrids or alternatively fueled vehicles such as compressed natural gas (CNG) vehicles or hydrogen- or electric-powered vehicles. The County shall also establish programs for priority or free parking on County streets or in County parking lots for hybrids or alternatively fueled vehicles.

Air-2.2 Replace existing vehicles in the County fleet as needed with the cleanest vehicles commercially available that are cost-effective and meet vehicle use needs.

Air-2.3 Implement transportation fleet fueling standards to improve the number of alternatively fueled vehicles in the County fleet.

Air-2.4 Provide incentives to promote the siting or use of clean air technologies where feasible. These technologies shall include, but not be limited to, fuel cell technologies, renewable energy sources, and hydrogen fuel.

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/scrapper 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-volatile organic compound (VOC) paints; and
- projects exceeding SLTs will require 10% of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or C ARB certified Tier I, II, III, IV equipment. Equipment is certified if it meets emission standards established by the EPA for mobile non-road diesel engines of almost all types. Standards established for hydrocarbons, oxides of nitrogen (NO<sub>x</sub>), CO, and PM. Tier I standards are for engines over 50 horsepower (hp) (such as bulldozers) built between 1996 and 2000, and engines under 50 hp (such as lawn tractors) prop 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 hp 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.

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 regulations for air emissions from all sources under its jurisdiction.

Air-2.8 Require NSRs to prevent permitting projects that are “major sources.”

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

Air-2.10 Revise Board Policy F-50 to strengthen the County’s commitment and requirement to implement resource-efficient design and operations for County- funded renovation and new building projects. This could be achieved by making the guidelines within the policy mandatory rather than voluntary.

Air-2.11 Implement County RAQS to attain state air quality standards for ozone.

Air-2.12 Revise Board Policy G-15 to require County facilities to comply with Silver Leadership in Energy and Environmental Design (LEED) standards or other equivalent Green Building rating systems.

Air-2.13 Revise Board Policy G-16 to require the County to:

- adhere to the same or higher standards it would require from the private sector when locating and designing facilities concerning environmental issues and sustainability, and
- require government contractors to use low-emission construction vehicles and equipment.

Air-4.1 Use the policies set forth in the CARB’s Land Use and Air Quality Handbook 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.

### **2.3.3 Issues Not Discussed Further**

As described in Chapter 1.0, Project Description, in response to litigation and considering legislative changes that have occurred since preparation of the 2012 CAP, the County prepared a new CAP (subject of this Draft SEIR). The CAP and the targets and strategies identified therein necessitate changes to Goal COS-20 and Policy COS-20.1 of the County’s General Plan (2011 GPU) and mitigation adopted in the 2011 GPU PEIR, Mitigation Measures CC-1.2, CC-1.7, and CC-1.8 to attain consistency with current legislative requirements. These changes require a General Plan Amendment to the County’s General Plan and revision to the associated mitigation monitoring and reporting program (hereafter these two actions collectively refer to as (GPA)) as part of the administrative approval process. The Draft SEIR evaluates the GPA as part of the actions associated with the CAP because the changes reflected in the GPA support and are consistent with implementation of the CAP and its GHG targets and GHG reduction measures. Therefore, the GPA is not addressed as a separate impact discussion below, but its impacts are included within the overall impact analysis of the CAP.

The Draft SEIR also evaluates the impacts associated with the implementation of a proposed GHG Threshold, Guidelines for Determining Significance for Climate Change (Guidelines), and the Report Format and Content Requirements. The proposed GHG Threshold requires consistency with the CAP, and is the level below which a project would be determined to result in less-than-significant GHG impacts. To achieve consistency, a project will be required to implement the applicable GHG reduction measures outlined in the CAP. All measures have been evaluated throughout the Draft SEIR. Therefore, adoption of a GHG Threshold that establishes a requirement to be consistent with the CAP, the individual measures of which have been evaluated throughout this Draft SEIR, would not require a separate impact analysis because the impacts of establishing that threshold and what it would take to meet the threshold have been fully evaluated.

The Guidelines would provide direction to project applicants on how a project could achieve consistency with the CAP. The Guidelines are proposed to include a checklist that would require applicants to demonstrate how a project would be consistent with the CAP including through implementation of GHG reduction measures. The specific actions that would result from the Guidelines would be project-specific implementation of approved GHG reduction measures, the environmental impacts of which have been evaluated throughout this Draft SEIR. Therefore, evaluation of the Guidelines as a separate impact discussion is not provided below.

Finally, the Report Format and Content Requirements document would not result in any physical impact on the environment as it simply details the format for how reports should be written. As a result, this document is also not separately discussed below.

In summary, the GPA, GHG Threshold, Guidelines, and Report Format and Content Requirements are not addressed as a separate impact discussion below. The GPA, GHG Threshold, and Guidelines are combined in the overall impact analysis of the CAP, while the Report Format and Content Requirement document provides technical direction to future project applicants and will not result in any physical impacts.

### **2.3.4 Analysis of Project and Cumulative Impacts**

The scope of the project and cumulative impact analysis study area for air quality in the 2011 GPU PEIR was identified as the entire unincorporated County and the SDAB. The project and cumulative study area for air quality for the project is the same as the 2011 GPU PEIR.

#### **Proposed GHG Reduction Measures**

**Table 1-1** of this Draft SEIR, provides a list of all the proposed GHG reduction measures and supporting efforts that would be implemented by the CAP. However, only those measures and efforts that are relevant to air quality and could potentially result in a significant impact within the County are described and evaluated below. None of the proposed measures indicate where specific improvements would be constructed, their size, or specific characteristics. As a program EIR, the Draft SEIR does not, and cannot, speculate on the individual environmental impacts of specific future

projects/improvements. However, implementation of all GHG reduction measures and supporting efforts were considered during preparation of the Draft SEIR, to the degree specific information about implementation is known. Consistent with the requirements of CEQA Guidelines Section 15168, this Draft SEIR provides a programmatic discussion of the potential general impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. This is consistent with the scope of analysis in the 2011 GPU PEIR.

The GHG reduction measures would result in several beneficial environmental effects. For example, beneficial air quality impacts would result from implementation of measures and efforts that conserve water, reduce energy consumption, and encourage the use of alternative fuels instead of fossil fuels.

### **Strategy T-1: Reduce Vehicle Miles Traveled**

**Measure T-1.2: Acquire Agricultural Easements.** Acquire agricultural easements through an expanded Purchase of Agriculture Conservation Easement (PACE) Program, including acquisition of 443 acres of agricultural easements by 2020 and an additional 4,430 acres between 2021 and 2030. This measure would result in existing agricultural land becoming dedicated for agricultural uses in perpetuity. It may result in physical changes related to the loss of future development potential. While this measure would not be expected to result in a large conversion of land to agricultural uses, a nominal amount of additional fugitive dust could be generated because of the continued farming activities in perpetuity. Additional air emissions of diesel particulate matter and criteria air pollutants could be generated from use of agricultural heavy-duty equipment.

### **Strategy T-2: Shift Toward Alternative Modes of Transportation**

**Measure T-2.1: Improve Roadway Segments as Multi-Modal.** Improve roadway segments, intersections, and bikeways to implement multi-modal enhancements for pedestrian and cyclist comfort and safety along County-maintained public roads by improving 700 centerline miles of roadway segments, including 250 intersections and 210 lane miles of bikeway improvements by 2030 and an additional 500 centerline miles of roadway segments, including 250 intersections and 210 lane miles of bikeway improvements by 2050. This measure would implement roadway improvements to reduce Vehicle Miles Traveled (VMT) by calming traffic and improving the bicyclist and pedestrian infrastructure and would occur as part of resurfacing projects within existing paved areas. Air quality impacts could result from construction activities including the use of heavy-duty equipment-related emissions of air pollutants.

## Strategy T-4: Invest in Local Projects to Offset Carbon Emissions

**Measure T-4.1: Establish a Direct Investment Program. Close the 2030 GHG emissions target gap of 195,514 MTCO<sub>2</sub>e through direct investments in local projects that would offset carbon emissions within the unincorporated county by 2030.** This measure would result in direct investments for local projects. The specific protocols that would be utilized are not known and evaluation of such actions would be speculative. However, this Draft SEIR conservatively assumes that some construction-related activities may occur with individual project implementation. Please see Chapter 2.7 and Appendix B of this SEIR for additional information on direct investment projects and protocols. Protocols could include the following types of projects:

- Biomass Conversion,
- Boiler Efficiency Retrofits,
- Wetland Creation,
- Forest Restoration,
- Compost Additions to Rangeland,
- Organic Waste Digestion Capture,
- Manure Management,
- Building Weatherization Programs, and
- Urban Forest Management.

### Supporting Efforts for the Built Environment and Transportation Category

- Collaborate with incorporated cities, California Department of Transportation (Caltrans) and SANDAG, to consider additional park-and-ride facilities.
- Collaborate with SANDAG to encourage installation of EV charging stations in new residential and non-residential developments.

## Strategy E-1: Increase Building Energy Efficiency

**Measure E-1.1: Achieve 10% greater building energy efficiency in all new non-residential development than is required by the 2016 State Energy Code (Title 24 Part 6) by 2020; require all new residential development to meet the State's Zero Net Energy (ZNE) standards by 2020; and require all new non-residential development to the State's ZNE standards by 2030.** This measure would result in energy efficiency regulations that are 10% more efficient than current standards. Air quality impacts would be attributed to the installation, operation, and maintenance of small-scale solar systems and battery storage, or small-scale wind turbines with new residential construction which may include roof or ground-mounted systems.

## Strategy E-2: Increase Renewable Electricity Use

**Measure E-2.1: Increase Renewable Electricity. Achieve 90% renewable electricity for the unincorporated county by 2030.** Implementation of this measure could result in construction of small-scale distributive energy renewable systems, and large-scale photovoltaic solar, photovoltaic concentrator technology, or wind turbines. Air quality impacts could result from construction, operation, and maintenance activities.

**Measure E-2.2: Increase Renewable Electricity in Non-Residential Development. Require installation of renewable energy systems (e.g., solar photovoltaics, wind) on new non-residential development.** This measure would result in an increase in solar photovoltaic and small-scale wind turbines on new non-residential buildings throughout the unincorporated County. Physical changes could result from the addition of photovoltaic solar and small wind turbines in new development resulting in construction impacts. Installation of small-scale solar or small wind systems could result in minimal construction and operation-related air quality impacts.

**Measure E-2.3: Install Solar Photovoltaics in Existing Homes. Increase installation of photovoltaic (PV) electrical systems in 52,273 existing residential homes by 2020 and additional 77,902 homes by 2030.** Implementation could result in development of new solar photovoltaic systems on existing residential buildings. Installation of small-scale solar systems could result in minimal construction and operation-related air quality impacts.

**Measure E-2.4: Increase Use of Renewable Electricity for County Operations. Generate 10% of the County's operational electricity with renewables by 2020 and 20% by 2030.** Implementation could result in development of new renewable energy systems on County facilities, and could include solar photovoltaic or small-scale wind turbines. This would result in construction-related and operational air quality impacts.

## Strategy SW-1: Increase Solid Waste Diversion in the Unincorporated County

**Measure SW-1.1: Increase Solid Waste Diversion. Achieve 75% solid waste diversion by 2030.** Implementation of this measure could result in construction of new or/expanded composting projects and facilities throughout the unincorporated County. Operation of these facilities could result in operational impacts to air quality.

## Supporting Effort for the Water and Wastewater Category

Work with the Padre Dam Municipal Water District (MWD) to advance the Advanced Water Purification (AWP) Program.

## Strategy A-1: Support Conversion of Agricultural Equipment to Alternative Fuels

**Measure A-1.1: Convert Farm Equipment to Electric. Convert farm equipment used in the unincorporated county from gas- and petroleum-diesel-powered to electric to achieve 8% conversion by 2030.** Implementation of this measure would result in the development of an incentive program that would aid in the transition from gas and diesel-powered engines to electric engines in agricultural equipment. This may result in a small increase in electricity consumption and corresponding air quality impacts.

**Measure A-1.2: Convert Stationary Irrigation Pumps to Electric. Convert stationary petroleum-diesel or gas-powered irrigation pumps to electric to achieve four electric stationary irrigation pumps by 2020 and an additional 40 electric stationary irrigation pumps by 2030.** Implementation of this measure would result in an incentive program that would convert diesel or gas-powered irrigation pumps to electric-powered pumps. This may result in a small increase in electricity consumption and corresponding air quality impacts.

## Strategy A-2: Increase Carbon Sequestration

**Measure A-2.1: Increase Residential Tree Planting. Require trees to be planted per every new residential dwelling unit constructed in the unincorporated county at a rate of two trees per new dwelling unit.** Implementation of this measure would result in the development of a tree planting program to increase tree canopy coverage. This would result in beneficial impacts that would allow an increase in carbon sequestration throughout the unincorporated County. Some impacts related to distribution, installation, and early maintenance of trees could occur. Air quality impacts could result from the installation of the trees, water consumption, and minor trips associated with maintenance and monitoring.

**Measure A-2.2: Increase County Tree Planting. Prepare and adopt a tree planting program for the unincorporated county to plant a minimum of 3,500 trees annually starting in year 2017.** Implementation of this measure would result in the development of a tree planting program to increase tree canopy coverage. This would result in beneficial impacts that would allow an increase in carbon sequestration throughout the unincorporated County. Some impacts related to distribution, installation, and early maintenance of trees could occur. Air quality impacts could result from the installation of the trees, water consumption, and minor trips associated with maintenance and monitoring.

### ***2.3.4.1 Issue 1: Conformance to the Regional Air Quality Strategy***

This section describes potential project and cumulative impacts resulting from conflicts with the RAQS and SIP with implementation of the project.

## **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, which is reflective of the guidelines that were utilized in the 2011 GPU PEIR, the project would have a significant impact if it would conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. These plans consider emissions from all sources, including natural sources, and seek to achieve the appropriate standards through implementation of feasible control measures on stationary sources. Mobile sources are regulated by the EPA and CARB, and the emissions and reduction strategies related to mobile sources are also considered in the RAQS and the SIP.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, mobile, area 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 CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS and SIP.

## **Impact Analysis**

### **2011 GPU PEIR Determination**

The 2011 GPU PEIR included land use designations that would allow development of residential, commercial, industrial, and other land uses in the unincorporated areas. Based on the requirements for consistency with emission control strategies in the RAQS and SIP, the 2011 GPU PEIR concluded that the 2011 GPU would not conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP. The discussion of this impact can be found in Section 2.3.3.1, pages 2.3-13 to 2.3-15 of the 2011 GPU PEIR and is hereby incorporated by reference in this document. Specific policies and mitigation measures related to the protection of air quality are listed above in Section 2.3.2 Regulatory Framework.

### **CAP Impact Analysis**

Implementation of the CAP could result in significant impacts related to conflicts with the RAQS and SIP from implementation of GHG reduction measures that would preserve agricultural land, improve bicycle and pedestrian transportation infrastructure, construct park-and-ride facilities, result in direct investment projects, install small-scale renewable energy systems and other energy efficiency retrofits, construct large-scale renewable energy generation systems including wind, solar, and geothermal, construct new or expand existing waste compost processing facilities, implement agricultural equipment

retrofits, and result in a tree planting program. These measures and actions were not specifically evaluated within the 2011 GPU PEIR. The 2012 Wind Energy Ordinance EIR (2012 Wind Energy EIR) evaluated impacts specifically related to the development of small and large-scale wind turbines and that analysis is summarized below and is hereby incorporated by reference where appropriate (San Diego County 2012). Additionally, the Padre Dam Municipal Water District's Comprehensive Facilities Master Plan PEIR (2017 Padre Dam PEIR) evaluated impacts related to the development/expansion of water purification infrastructure and impacts that are associated with the Supporting Effort for the Water and Wastewater Category. The analysis from that document is summarized below and hereby incorporated by reference (Padre Dam MWD 2017). The following section describes the potentially significant impacts related to conflicts with the RAQS and SIP from the implementation of these measures.

### Bicycle, Pedestrian, and Park-and-Ride, Infrastructure Improvements

Implementation of GHG reduction measures and supporting efforts within the Built Environment and Transportation Category would encourage a shift towards alternative modes of transportation and reduce single-occupancy vehicle trips. These measures would be implemented through actions such as bicycle and pedestrian projects and construction of new and expansion of existing park-and-ride facilities within the region. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate conflicts with the RAQS and SIP to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Locations for such improvements have not been identified; however, because of the nature of these improvements, these would most likely occur near residential and commercial areas throughout the unincorporated area. While construction-related emissions would be generated, these measures would be anticipated to reduce long-term emissions primarily from reduced vehicle use, reduced VMT, and increased alternative fuel use. Implementation of these measures would not result in population growth beyond SANDAG's projections for the County. Accordingly, implementation of these measures would not conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP. Further, as described above, adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would ensure that new development would minimize emissions consistent with County policies and requirements to comply with federal and state standards. Where air quality impacts may occur, the County requires implementation of mitigation for proposed development that would reduce emissions. Therefore, implementation of these measures would result in a **less-than-significant** impact related to obstruction of the implementation of the San Diego RAQS and/or applicable portion of the SIP.

### **Cumulative Impacts**

Impacts would be cumulative in nature if they would, in combination with cumulative development, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. CEQA Guidelines Section 15130 describes two methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects; or the use of adopted

projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis uses a combination of the list and planning document approach, as described in Chapter 1, Project Description. Physical improvements resulting from implementation of the CAP have the potential to combine with the physical impacts of other past, present, or probable future projects in the County and could result in a cumulative impact based upon proximity and construction schedule. **Table 1-3** in the Project Description contains a list of past, present, and probable future projects that when combined with the project, could result in a cumulatively considerable effect. Cumulative impacts could also result when the physical improvements resulting from implementation of the CAP interact with development associated with build-out of the County's General Plan and potentially increase those impacts resulting in a cumulatively considerable effect.

The 2011 GPU PEIR concluded that the 2011 GPU would not conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP. Implementation of the above GHG reduction measures is anticipated to reduce emissions primarily from reduced vehicle use and reduce VMT. Implementation of bicycle and pedestrian projects and construction of new and expansion of existing park-and-ride facilities within the unincorporated area would not increase the number of employees or residents nor result in population growth in the County. Therefore, implementation of these measures **would not result in a considerable contribution** such that a new impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur.

#### Direct Investment Program

Implementation of GHG Reduction Measure T-4.1 would result in direct investment projects to offset carbon emissions. As described in detail in Chapter 2.7 and Appendix B of this Draft SEIR, projects that could result from implementation of this measure could include but would not be limited to: biomass conversion to energy or soil application (i.e., conversion of biomass waste to fuel for electricity generation, or conversion of forestry and agricultural residues to soil compost), boiler efficiency upgrades (i.e., implementing retrofits to increase thermal efficiency in natural-gas fired boilers or process heaters), coastal wetlands creation (i.e., restoring degraded wetlands to recapture soil carbon stock), reforestation projects (i.e., planting of trees to recapture CO<sub>2</sub> sinks), compost additions to rangeland (i.e., increasing soil carbon sequestration and improving quality of soils), organic waste digestion (i.e., diverting organic waste and/or wastewater to a biogas control system), livestock management (i.e., installing biogas control systems for manure management on dairy cattle and swine farms), urban forest and urban tree planting projects (i.e., tree planting, maintenance, and/or improved management activities to increase carbon storage through trees), and winterization (i.e., energy efficiency upgrades to buildings). This list is not intended to be exhaustive, but represents some of the types of projects that could be considered in the future. Protocols for these projects and others that could be considered are described in Chapter 2.7 with page numbers to review the protocols contained in Appendix B.

Most direct investment projects would involve some level of construction and physical disturbance of the land. This analysis assumes that implementation of GHG Reduction Measure T-4.1 would result in construction activities that could include: the use of heavy equipment for earthmoving, materials processing, or compost spreading; vehicle trips during construction/equipment replacement/monitoring activities; possible changes in land form and views; and installation or upgrades of mechanical equipment or facilities. Construction activities and project operations associated with these measures could result in construction-related air quality emissions.

Because the variety of projects that may be approved and ultimately undertaken by the County under the Direct Investment Program is not known, it is too speculative to determine the types of impacts that could occur and whether regulations or mitigation measures would be available to minimize potential environmental impacts. However, none of the projects would be expected to result in new employees or residents which would conflict with the RAQS or SIP. All projects would be required to comply with applicable existing federal, state, and local regulations. Specifically, projects would be evaluated for their consistency with 2011 GPU policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, County Resources Protection Ordinance regulations, etc. Future discretionary projects may also be required to undergo additional CEQA analysis to evaluate their project-specific impacts. If a determination is made that potentially significant impacts would result from implementation of direct investment projects, then all feasible mitigation would be required to be implemented in accordance with CEQA Guidelines Section 15126.4. Therefore, conflicts with the RAQS and SIP related to direct investment projects would be **less than significant**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if they would, in combination with cumulative development, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure T-4.1, would result in direct investment projects as described above. The 2011 GPU PEIR concluded that cumulative impacts related to conflicts with the RAQS and SIP resulting from the build-out associated with the 2011 GPU would be reduced with implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable state and federal regulations. Future discretionary direct investment projects would be required to be evaluated under CEQA and to reduce and minimize impacts to the maximum extent feasible, as well as comply with existing federal, state, and local regulations that minimize conflicts among projects and the RAQS and SIP. Therefore, implementation of GHG Reduction Measure T-4.1 **would not result in a considerable contribution** such that a new significant cumulative impact would occur.

### Ground or Roof-Mounted Photovoltaic Solar, Small Wind Turbines, and other Building Retrofits

Implementation of GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3, and E-2.4 could result in energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, upgraded mechanical systems, and other similar improvements. Installation and operation of solar arrays, small wind turbines, and energy storage solutions would not result in an increase in population or the growth projections in the County. Therefore, implementation of these measures would not result in population growth that could obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP. Further, increased renewable energy generation would result in decreased reliance on fossil fuels for energy consumption, which would reduce areawide emissions associated with the generation of electricity. This would be a benefit of the project. Overall, these measures would result in a **less-than-significant** impact related to obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP.

### **Cumulative Impacts**

Impacts would be cumulative in nature if they would, in combination with cumulative development, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of the above measures would not in itself increase the growth projections in the County. Cumulative impacts were determined to be less than significant in the 2011 GPU PEIR. Therefore, implementation of these measures **would not result in a considerable contribution** such that a new significant cumulative impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur.

### Large-Scale Renewable Energy Infrastructure

Implementation of GHG Reduction Measure E-2.1 could result in the construction of new large-scale renewable energy systems, including solar photovoltaic concentrated solar, geothermal systems, and/or large wind turbines. As described in detail in Section 2.1, Aesthetics and Visual Resources, large-scale renewable energy infrastructure would generally be constructed in undeveloped locations that are productive for generating the renewable energy resource. Because the amount of demand generated by such a program and the mix of renewable energy types that would be constructed to satisfy demand is unknown, this Draft SEIR evaluates the potential for impacts at the program level. The potential for the construction of large-scale renewable energy infrastructure was not specifically evaluated in the 2011 GPU PEIR; however, potential wind energy impacts were evaluated in the 2012 Wind Energy EIR and that analysis is summarized below and hereby incorporated by reference (San Diego County 2012).

Large-scale renewable energy systems, including wind turbines, geothermal, solar photovoltaic, and concentrated solar require large, undeveloped lands that are productive for generating renewable energy. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to air quality to the extent feasible in compliance with CEQA Guidelines Section 15126.4. While specific locations are unknown; it is likely that suitable locations would be areas that are not highly developed with residential and commercial uses because of the size, massing, coverage, and scale of this type of infrastructure which typically results in the need for large amounts of land unencumbered by buildings or shadowed by buildings or trees.

As described in Section 2.1, Aesthetic and Visual Resources of this Draft SEIR, the large-scale production of energy from solar photovoltaic systems generally includes a variety of infrastructure components such as arrays, substation site, battery storage, collection system, and overhead and underground transmission facilities. Large-scale wind turbines infrastructure generally includes wind turbines (300–500 feet to the topmost blade tip), substation, meteorological towers, overhead and underground collector cable system, and overhead transmission lines.

Large-scale renewable energy infrastructure is typically located in areas where there is little residential or commercial development. Construction of renewable energy facilities would require an increase in the number of workers; however, workers would likely be from San Diego or the surrounding counties but would not permanently relocate for construction of renewable energy facilities. Operation of renewable energy facilities would require a small increase in the number of full-time employees to operate and maintain the facilities; however, these types of projects are not substantial employment generators such that substantial population growth would be induced. Therefore, implementation of this measure would not result in substantial population growth and would not conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP.

As described on page 2.3-8 of the 2012 Wind Energy EIR, all large-scale wind turbine projects would be required to comply with the RAQS and SIP during the County's discretionary review process, and as such would not conflict with or obstruct the implementation of the air quality plans. All large-scale renewable energy projects would be subject to discretionary review and required to obtain a Major Use Permit (MUP). As part of the discretionary review process, all projects would be evaluated under CEQA and required to demonstrate compliance with the RAQS and/or applicable portions of the SIP prior to approval. Further, this measure would facilitate the reduction of emissions by transitioning to a larger-scale renewable energy source, which would help improve air quality in the SDAB and assist in implementing the RAQS and SIP. Implementation of large-scale renewable projects would result in a **less-than-significant** impact related to obstruction of implementation of the San Diego RAQS and/or applicable portion of the SIP.

## Cumulative Impacts

Impacts would be cumulative in nature if they would, in combination with cumulative development, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure E-2.1 would not increase the projected growth of residents or employees within the County, nor would large-scale renewable energy projects obstruct or impede the attainment of the RAQS or SIP. Cumulative impacts were determined to be less than significant in the 2011 GPU PEIR. Therefore, implementation of GHG Reduction Measure E-2.1 associated with large-scale renewable projects **would not result in a considerable contribution** such that a new significant impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur.

### Diversion of Solid Waste

Implementation of GHG Reduction Measure SW-1.1 would increase diversion of solid waste from the unincorporated areas. One of the goals of the CAP is to achieve 75% diversion by 2030. This measure could result in construction of new, and expansion of existing organics processing facilities throughout the County. Specific locations for projects have not been identified. Organics processing begins with the delivery of organic waste to a processing facility, where it undergoes several pre-treatment steps. Materials are screened for contaminants, often chopped or shredded to smaller sizes for faster decomposition, and may be blended with other organic streams or bulking agents for ideal processing conditions. Organics processing facilities use mechanical handling techniques such as physical turning, windrowing, or aeration. Organic wastes are generated from forest management, landscaping, agricultural processing, crop harvesting, food consumption, and emergency animal mortalities. Organics processing can be conducted outdoors or in partially or fully enclosed facilities.

Different types of organics processing include windrow composting, aerated static pile (ASP) composting, enclosed ASP composting, or fully enclosed composting. Windrow composting involves spreading organic materials into long, semi-circle shaped piles which are mechanically turned by heavy equipment to maintain even decomposition. Piles generally range from 4 to 8 feet in height and 14 to 16 feet in length. Windrow composting requires large amounts of land. ASP composting involves pushing or pulling air through the organic materials pile. Enclosed ASPs consist of covered piles, often by heavy duty plastic bags or tarps, where a negative air system pulls air through the pile and then through a biofilter. Fully enclosed composting facilities digest organic matter in a closed pressure vessel. Operation of new or expanded organics processing facilities throughout the County would require a small increase in the number of full-time employees to operate and maintain the facilities; however, these types of facilities are not substantial employment generators such that substantial population growth would be induced beyond that planned for in the 2011 GPU. Therefore, implementation of these measures would

not result in an increase of residents or employees, and therefore would not conflict with or obstruct the implementation of the RAQS and/or applicable portions of the SIP. Implementation of these measures would result in a **less-than-significant** impact related to obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP.

### **Cumulative Impacts**

Impacts would be cumulative in nature if they would, in combination with cumulative projects, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Cumulative impacts were determined to be less than significant in the 2011 GPU PEIR. Implementation of GHG Reduction Measure SW-1.1 that would result in new or expanded waste facilities would not increase the growth projections in the County. Therefore, implementation of these measures **would not result in a considerable contribution** such that a new significant cumulative impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur.

### Padre Dam Water and Wastewater Supporting Effort

As described in Chapter 1, Project Description, the CAP includes a Water and Wastewater Supporting Effort, that would support participation in the Padre Dam AWP project. The Padre Dam MWD prepared the Padre Dam PEIR and that analysis is hereby incorporated by reference. As described on pages 4.2-10 through 4.2-11 of the Padre Dam PEIR, less-than-significant direct and indirect impacts were identified for conflicts related to air quality plans. Therefore, the impacts related to conflicts with applicable air quality plans because of the Padre Dam AWP would be **less than significant**.

### **Cumulative Impacts**

The Padre Dam PEIR evaluated the potential for cumulative impacts related to conflicts with air quality plans for the project on page 6-13. As described therein, the AWP project would result in less-than-significant impacts to conflicts with air quality plans and it **would not have a considerable contribution** to a new significant cumulative impact.

### Agricultural Improvements

Implementation of GHG Reduction Measures T-1.2, A-1.1, and A-1.2, would increase the ability to expand the PACE agricultural easement program, and encourage and support conversion of agricultural equipment to alternative fuels. Specific locations for projects have not been identified. These measures could lead to temporary increases in air emissions due to construction of new methane digesters, minor emissions from replacement of pumps, and onsite equipment use and vehicle trips for establishing carbon farming practices. Implementation of Measure T-1.2 would lead to additional preservation of agricultural lands in the County; however, an intensification of agricultural uses and

associated emissions is not expected because the purpose of the measure is to preserve agricultural land already zoned for agricultural use and it is likely that agricultural activities are already occurring. Activities under these measures are not substantial employment generators such that substantial population growth would be induced beyond that planned for in the 2011 GPU. Further, implementation of measures that would result in improved agricultural operations and use of alternative fuels would reduce air emissions, which would be a project benefit. Implementation of these measures would result in a **less-than-significant** impact related to obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP.

### **Cumulative Impacts**

Impacts would be cumulative in nature if they would, in combination with cumulative development, conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portion of the SIP. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Cumulative impacts were determined to be less than significant in the 2011 GPU PEIR. Implementation of the measures above that would result in agricultural equipment retrofits and agricultural land preservation would not increase residential or employment growth in the County, nor would it impede the attainment of the RAQS or SIP. Therefore, implementation of these measures **would not result in a considerable contribution** such that a new significant cumulative impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur.

### **Impact Summary**

Implementation of the CAP would not conflict with or obstruct implementation of the RAQS or SIP. Project impacts would be **less than significant** and the project **would not result in a considerable contribution** such that a new significant cumulative impact related to the obstruction of the implementation of the San Diego RAQS and/or applicable portions of the SIP would occur. The County's participation in the AWP project would result in **less than significant project** impacts related to conflicts with the RAQs and SIP, and **would not have a considerable contribution** to a new significant cumulative impact related to conflicts with the RAQS and SIP.

### ***2.3.4.2 Issue 2: Conformance to Federal and State Air Quality Standards***

This section describes potential project and cumulative impacts related to conformance with federal and state ambient air quality standards because of implementation of the project.

#### **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, which is reflective of the guidelines that were

utilized in the 2011 GPU PEIR, the project would have a significant impact if it would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Screening-level thresholds (SLTs) are established for the attainment-criteria pollutants (nitrogen dioxide [NO<sub>2</sub>], sulfur dioxide [SO<sub>2</sub>], and CO) and for nonattainment-criteria pollutants (ozone precursors, PM<sub>10</sub>, and PM<sub>2.5</sub>). Specifically, the CAP would result in a significant impact if it would result in:

- emissions that exceed 250 pounds per day of NO<sub>x</sub>, or 75 pounds per day of VOCs;
- emissions of CO that, when totaled with the ambient concentrations, will exceed a 1-hour concentration of 20 parts per million (ppm) or an 8-hour average of 9 ppm, or exceed 550 pounds per day of CO, or 100 pounds per year of CO;
- emissions that exceed 55 pounds per day of PM<sub>2.5</sub>; or
- emissions of PM<sub>10</sub> that exceed 100 pounds per day and increase the ambient PM<sub>10</sub> concentration by 5 micrograms per cubic meter (µg/m<sup>3</sup>) or greater at the maximum exposed individual.

## **Impact Analysis**

### **2011 GPU PEIR Determination**

The 2011 GPU PEIR included a discussion of emissions of criteria pollutants and precursors associated with future development consistent with the land use plan of the adopted 2011 GPU. The 2011 GPU PEIR concluded that the 2011 GPU under project and cumulative conditions would exceed the SLTs for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and VOCs.

The 2011 GPU PEIR determined that the impacts related to conformance with federal and state air quality standards would be reduced through the implementation of a combination of federal, state, and local regulations; existing County regulatory processes; the adopted 2011 GPU Goals and Policies; and mitigation measures identified in the 2011 GPU PEIR. However, even with these programs, implementation measures, and identified mitigation measures, the direct and cumulative impacts would remain significant and unavoidable because the mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County in Section 2.3.6.2 of the 2011 GPU PEIR. Some of the reasons this mitigation was considered infeasible and would still be considered infeasible is that it would have restricted new development in areas identified for growth, would have required the use of new technology and would have been more restrictive than the existing air quality regulations, and would have required all applicants to provide on-site renewable energy systems. The discussion of impacts related to air quality can be found in Chapter 2.3 Air Quality on pages 2.3-1 through 2.1-52, and is hereby incorporated by reference.

### **CAP Impact Analysis**

Implementation of the CAP has the potential to result in significant impacts related to exceedance of state and federal ambient air quality standards from implementation of

GHG reduction measures that would preserve agricultural land, improve bicycle and pedestrian transportation infrastructure, construct park-and-ride facilities, result in direct investment projects, install small-scale renewable energy systems and other energy efficiency retrofits, construct large-scale renewable energy generation systems including wind, solar, and geothermal, construct new or expand existing solid waste processing facilities, implement agricultural equipment retrofits, and result in a tree planting program. These measures and actions were not specifically evaluated within the 2011 GPU PEIR. The 2012 Wind Energy EIR evaluated impacts specifically related to the development of small and large-scale wind turbines and that analysis is summarized below and is hereby incorporated by reference (San Diego County 2012). Additionally, the Padre Dam MWD's Padre Dam PEIR evaluated impacts related to the development/expansion of water purification infrastructure and impacts that are associated with the Supporting Effort for the Water and Wastewater Category. The analysis from that document is summarized below and hereby incorporated by reference (Padre Dam MWD 2017). The following section describes the potentially significant impacts related to conflicts with the state and federal ambient air quality standards from the implementation of these measures.

### Bicycle, Pedestrian, and Park-and-Ride Infrastructure Improvements

Implementation of GHG Reduction Measures T-2.1 and Supporting Measures within the Built Environment and Transportation Category would result in a shift towards alternative modes of transportation and reduction of single-occupancy vehicle trips. These measures would be implemented through actions such as pedestrian and bicycle safety improvements and the construction of new and expansion of existing park-and-ride facilities within the unincorporated area. While locations for such improvements have not been identified; because of the nature of these improvements, these would most likely occur near residential and commercial centers throughout the unincorporated areas. The size, scale, and location of these improvements is unknown.

Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Construction emissions associated with applicable GHG reduction measures may lead to a short-term increase in air emissions to the extent that County SLTs may be exceeded. Air emissions from construction activities would result from use of heavy-duty equipment, fugitive dust from earth moving and grading activities, and worker commute trips, vendor truck trips, and haul trips. Construction activities may include grading, clearing, and paving, but would not include construction of new buildings or structures. Operational emissions would be primarily from mobile sources, but the improvements would involve activities to reduce vehicle use, reduce VMT, and increase alternative fuel use resulting in an overall reduction in County-wide air emissions. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of bicycle and pedestrian safety improvements, and park-and-ride facilities would have a **potentially significant** impact associated with air quality violations (**Impact AIR-1**).

## Cumulative Impacts

Impacts would be cumulative in nature if the project, in combination with cumulative development, leads to violation of any air quality standard or contributes substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

The 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, impacts associated with air quality violations would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Implementation of measures and supporting efforts that would result in bicycle, pedestrian, and park-and-ride improvements would have a potentially significant impact associated with air quality violations; therefore, the project **could result in a considerable contribution** to a significant cumulative impact associated with air quality violations (**Impact AIR-2**).

### Direct Investment Program

Implementation of GHG Reduction Measure T-4.1 would result in direct investment projects to offset carbon emissions. As described in detail in Chapter 2.7 and Appendix B of this Draft SEIR, there are a variety of projects that could result from implementation of this measure. See Chapter 2.7 for a detailed list.

Most direct investment projects would involve some level of construction and physical disturbance of the land. This analysis assumes that implementation of projects under GHG Reduction Measure T-4.1 would result in construction activities that could include: the use of heavy equipment for earthmoving, materials processing, or compost spreading; vehicle trips during construction/equipment replacement/monitoring activities; possible changes in land form and views; and installation or upgrades of mechanical equipment or facilities.

Because the variety of projects that may be approved and ultimately undertaken by the County under the Direct Investment Program is not known, it is not possible to speculate upon the types of impacts that could occur and whether regulations or mitigation measures would be available to minimize potential environmental impacts. However, all projects would be required to comply with applicable existing federal, state, and local regulations. Specifically, projects would be evaluated for their consistency with 2011 GPU policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, County Resources Protection Ordinance regulations, etc. Future discretionary projects may also be required to undergo additional CEQA analysis to evaluate project-specific impacts. If a determination is made that potentially significant impacts would result from implementation of direct investment projects, then all feasible mitigation would be required to be implemented in accordance with CEQA Guidelines Section 15126.4.

While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with GHG Reduction Measure T-4.1 could still adversely affect the attainment of air quality standards because projects would likely require the use of heavy construction equipment. At the programmatic level, it is not possible to determine with certainty that impacts to air quality standards from construction activities would be reduced below a level of significance. Therefore, the project would result in a **potentially significant** impact to air quality standards (**Impact AIR-3**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with cumulative development, leads to violation of any air quality standard or contributes substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure T-4.1, would result in direct investment projects as described above. The 2011 GPU PEIR concluded that although cumulative impacts to air quality standards resulting from the buildout associated with the General Plan would be reduced with implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable state and federal regulations, they would remain significant and unavoidable. Projects would be required to be evaluated under CEQA and to reduce and minimize impacts to the maximum extent feasible, as well as comply with existing federal, state, and local regulations that protect air quality standards. However, because the exact location and nature of direct investment projects is not known, the potential for a contribution to a cumulatively significant impact remains. Therefore, implementation of direct investment projects **could result in a considerable contribution** to a significant cumulative impact related to air quality violations (**Impact AIR-4**).

### Ground or Roof-Mounted Photovoltaic Solar, Small Wind Turbines, and other Building Retrofits

As described in detail in Section 2.3.1.1, implementation of GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3, and E-2.4 could result in energy efficiency retrofits on existing residential and non-residential structures, including small-scale rooftop or ground-mounted solar arrays or small wind turbines, upgraded mechanical systems, and other similar improvements on new developments. Specific locations for projects have not been identified.

The installation of rooftop solar photovoltaic energy panels, ground-mounted solar photovoltaic arrays, small wind turbines, and energy storage solutions generally do not require substantial construction activities, such as earth moving or operation of heavy-duty equipment. Rooftop solar photovoltaic energy panels typically do not result in substantial activities related to operating the equipment, and include only minor

maintenance activities, such as regular inspections, repairs, and removing debris as necessary.

As described on pages 2.3-9 through 2.3-11 of the 2012 Wind Energy EIR, impacts related to air quality standards from the implementation of small-scale wind turbines would be less than significant regarding construction and operation of the facilities because of the small amount of labor and equipment required.

Implementation of new mechanical equipment or new renewable energy equipment would be regulated by the County Zoning Ordinance Section 6952(b), which governs the use of solar energy systems, and would require approval of a building permit to ensure County codes and requirements are met. In the cases of small photovoltaic energy systems, (under 500 square feet) or small wind turbines (up to 3 turbines allowed as accessory use), the County would not require a discretionary permit and would not require mitigation for air quality impacts. In these cases, the scale of the projects would not require large construction equipment, and would not violate air quality standards. In cases of larger renewable energy systems, the County would have the discretion to review the projects and could require mitigation if any air quality violations were identified. Therefore, implementation of energy efficiency and small-scale renewable improvements would result in **less-than-significant** impacts related to air quality violations.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to violation of any air quality standard or contribute substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Small-scale rooftop solar photovoltaic energy panels, ground-mounted solar photovoltaic arrays, small wind turbines, and energy storage solutions generally do not result in substantial construction activities or operational activities. While the County determined that significant and unavoidable cumulative air quality violations could result with buildout of the 2011 GPU, installation of renewable energy systems large enough to require heavy construction equipment or a substantial number of workers that may result in air quality violations would be required to comply with County Zoning Ordinance Section 6952(b) and would be required to mitigate any identified impacts. Any emissions associated with these improvements would be minimal and temporary and would not contribute to air quality violations. Therefore, implementation of measures that would result in energy efficiency and small-scale renewable improvements **would not result in a considerable contribution** to a significant cumulative air quality violation impact.

### Large-Scale Renewable Energy Infrastructure

Implementation of GHG Reduction Measure E-2.1 could result in the construction of new large-scale renewable energy systems, including large-scale photovoltaic solar, concentrated solar power geothermal systems, and/or wind turbines. As described in detail

in Section 2.1, Aesthetics and Visual Resources, large-scale renewable energy infrastructure would generally be constructed in undeveloped locations that are productive for generating the renewable energy resource. Because the amount of demand generated by such a program and the mix of renewable energy types that would be constructed to satisfy demand is unknown, this Draft SEIR evaluates the potential for impacts at the program level. The potential for construction of large-scale renewable energy infrastructure was not evaluated in the 2011 GPU PEIR, but potential wind energy impacts were evaluated in the 2012 Wind Energy EIR and are incorporated by reference as applicable (San Diego County 2012).

Large-scale renewable energy systems, specifically wind, geothermal, solar concentrator, and solar photovoltaic, require large swaths of undeveloped land that are productive for generating renewable energy. Specific locations of potential facilities are unknown. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4. The large-scale production of energy from solar photovoltaic and solar concentrator systems generally includes a variety of infrastructure components such as arrays, substation site, battery storage, collection system, and overhead and underground transmission facilities. Large-scale wind turbines infrastructure generally includes wind turbines (300-500 feet to the topmost blade tip), substation, meteorological towers, overhead and underground collector cable system, and overhead transmission lines. Large-scale geothermal infrastructure includes power plants and associated facilities (e.g., control room, office, maintenance shop, electrical substation, access roads, parking areas, piping/pipelines), well pads, and wells. Air quality issues could result from construction, operations and maintenance of these renewable energy systems.

Air emissions resulting from construction activities include fugitive dust emissions from earth moving and grading activities, products of combustion from heavy-duty equipment, vendor vehicles, haul trips, and worker commute vehicles, stationary sources such as generators, products of combustion from diesel engines that operate drill rigs used to drill geothermal production and injection wells, and hydrogen sulfide from flow testing geothermal wells once drilling is complete. The emissions of hydrogen sulfide would be short in duration. Furthermore, only one well is drilled and flow tested at a time. Earth moving and grading activities would be subject to the County Grading Ordinance, which requires the implementation of dust control measures, minimization of land disturbance to the extent feasible, application of water to active grading areas to decrease fugitive dust emissions, reduced speed limits on unpaved roads, and requirements for trucks hauling soil materials to be covered. Construction emissions associated with large-scale renewable energy facilities may lead to a short-term increase in air emissions to the extent that County SLTs may be exceeded.

The 2012 Wind Energy EIR evaluated potential construction impacts for large-scale wind turbines on pages 2.3-11 to 2.3-12 and adopted mitigation measure M-AQ-1 which requires standard construction measures and is described below in Section 2.3.5.2. Additional mitigation was considered but rejected in the 2012 Wind Energy EIR that would have required the use of only Tier 3 equipment, and prohibited f large wind projects that

would increase vehicle trips, because those mitigation measures would conflict with the County's goal of expanding renewable energy (San Diego County 2012). The same infeasibility applies to large-scale solar and geothermal projects. Ultimately, the 2012 Wind Energy EIR concluded that the amount of air emissions resultant from the construction of large-scale wind projects is dependent upon the location and scale of the project but without specific project-level details, concluded that this impact would be potentially significant.

Operation of large-scale renewable energy systems including solar, wind, and geothermal would not directly produce substantial air emissions because no large emission-generating equipment would be operated. Operation could result in a minimal increase in the number of fulltime employees commuting to and from these facilities. Other operational emissions include minor VOC emissions during routine changes of lubricating and cooling fluids and greases, fugitive dust emissions from vehicle travel, and products of combustion from panel washing equipment operation, water trucks, and stationary sources such as generators. Operation of geothermal well fields and power plants could produce emissions of non-condensable gas from particulate matter, VOC, and ammonia from operation of well pad separators, sand separators, injection filters, and pipeline condensate drains; emissions of PM<sub>10</sub> from cooling towers; products of combustion from emergency diesel generators and diesel fire pump engines; emission of isopentane from Ormat Energy Converter units; and products of combustion and fugitive dust emissions from vehicle travel. While the sizes, scale, and location of renewable infrastructure is unknown, typical emissions associated with these facilities are low and occur infrequently such that County SLTs are not anticipated to be violated.

Decommissioning activities are an additional consideration for possible air quality emissions, because decommissioning would require disassembly of wind turbine generators, disassembly of solar facilities, demolition of on-site buildings, removal of perimeter fencing, and restoration of the site. However, decommissioning activities would result in the operation of construction equipment and vehicle exhaust emissions, which would be similar to those generated by construction activities, and would not be expected to generate substantial air quality emissions.

The 2012 Wind Energy EIR on page 2.3-12 states that impacts related to emissions from large wind turbines may violate air quality standards or contribute substantially to an existing or projected air quality violation due to construction activities only (San Diego County, 2012). All large-scale renewable energy projects would be subject to discretionary review and required to obtain a MUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to minimize air quality impacts. However, there is no guarantee that a project-level air quality impact would be mitigated to a level below significant. While adopted 2011 GPU policies and 2011 GPU EIR mitigation measures listed above would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of activities included in GHG Reduction Measure E-2.1 that could result in new large-scale renewable projects would have a **potentially significant** impact associated with air quality violations (**Impact AIR-5**).

## Cumulative Impacts

Impacts would be cumulative in nature if the project, in combination with cumulative development, would lead to violation of any air quality standard or contribute substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described on page 2.3-19 of the 2012 Wind Energy EIR, some large wind turbine projects would not violate any air quality standards or contribute substantially to an existing or projected air quality violation because of their size (San Diego County, 2012). Compliance with the County Grading Ordinance would ensure dust control measures are provided to reduce CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions that may result during construction. However, there is ultimately no guarantee that mitigation measures for all future large wind turbines projects would reduce impacts to a level below significant.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with air quality violations would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Therefore, implementation of GHG Reduction Measure E-2.1 which would result in new large-scale renewable projects would have a potentially significant impact associated with air quality violations; therefore, this measure **could result in a considerable contribution** to a significant cumulative impact associated with air quality violations (**Impact AIR-6**).

### Diversion of Solid Waste

Implementation of GHG Reduction Measure SW-1.1 would increase diversion of solid waste from the unincorporated areas and would help the County achieve 75% diversion by 2030. These measures could result in construction of new, and expansion of existing organics processing facilities throughout the County. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of discretionary application and project-specific mitigation would minimize or eliminate impacts related to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4.

Air emissions from these facilities would occur from construction activities including operation of heavy-duty equipment and vehicle travel by worker commute trips, material delivery, and haul trips. As described in detail above in Section 2.3.4.1, organics processing can be conducted outdoors or in partially or fully enclosed facilities. Construction activities would primarily consist of grading and clearing land and construction of small structures. The anaerobic decomposition of the waste would result in operational emissions of VOCs; however, the diversion of waste from landfills to organics processing facilities would reduce GHG emissions from decomposition of organic waste in landfills. These organics processing facilities could generate additional

VOC emission that would be analyzed during discretionary review of individual projects. Generators used for aeration and powering water pumps generate air emissions, but the emissions are typically minimal.

Operation of new or expanded organics processing facilities would result in increased haul truck trips to and from the facility; however, it is anticipated that the haul truck trips to the organics processing facility would displace the haul truck trips that would be diverted from the landfill. Therefore, a net increase in the number of haul truck trips within the County is not anticipated. Similarly, increased construction and demolition waste recycling and collection of commercial food scraps and household hazardous waste (HHW) is expected to displace trips already occurring to transport this waste to landfills. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of GHG Reduction Measure SW-1.1 that would result in new or expanded solid waste facilities would have a **potentially significant** impact associated with air quality violations (**Impact AIR-7**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with cumulative development, would lead to violation of any air quality standard or contribute substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with air quality violations would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Therefore, implementation of these measures would also have a potentially significant impact associated with air quality violations, and implementation of new or expanded solid waste facilities **could result in a considerable contribution** to a significant cumulative impact associated with air quality violations (**Impact AIR-8**).

### Padre Dam Water and Wastewater Supporting Effort

As described in Chapter 1, Project Description, the CAP includes a Water and Wastewater Supporting Effort, that would support participation in the Padre Dam AWP project. The Padre Dam MWD prepared the Padre Dam PEIR and that analysis is hereby incorporated by reference. As described on pages 4.2-11 through 4.2-17 of the Padre Dam PEIR, potentially significant direct and indirect impacts were identified for air quality standards. However, all impacts were reduced to a level below significance with implementation of mitigation measure AIR-1 as described in the Padre Dam PEIR.

Therefore, the impacts related to air quality violations because of the Padre Dam AWP would be **less than significant**.

### **Cumulative Impacts**

The Padre Dam PEIR evaluated the cumulative impacts related to air quality standards for the project on page 6-13. As described therein, the AWP project would result in less-than-significant impacts to cumulative impacts related to air quality violations and it **would not have a considerable contribution** to a significant cumulative impact.

#### Agricultural Improvements

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures T-1.2, A-1.1, A-1.2, A-2.1 and A-2.2 would expand the amount of land that may be preserved under the PACE program; encourage and support the conversion of agricultural equipment to alternative fuels; and increase carbon sequestration by increasing tree canopy coverage in the county. Specific locations for projects have not been identified.

These measures could lead to temporary increases in air emissions due to minor emissions from replacement of pumps and conversion to electricity, onsite equipment use, and vehicle trips and water consumption for tree planting.

Implementation of Measure T-1.2 would lead to preservation of agricultural lands in the County; however, an intensification of agricultural uses and associated emissions is not expected. In general, the activities that would be undertaken because of the measures described above would not require the use of heavy equipment. Conversion of agricultural equipment would rely on small hand-held equipment, if any at all. Establishing a tree planting program would not require heavy equipment, but could be attributed to a small amount of air emissions because of distribution of trees, and watering at the beginning of the establishment period. Any emissions associated with these improvements would be minimal and temporary and would not contribute to air quality violations. Therefore, implementation of measures that would result in preservation of agricultural lands, conversion of agricultural equipment, and the establishment of a tree planting program would result in **less-than-significant** impacts related to air quality standards.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with cumulative development, would lead to violation of any air quality standard or contribute substantially to an existing or projected air quality violation. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with air quality violations would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed

in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. The GHG Reduction Measures listed above that would result in preservation of agricultural land, agricultural equipment retrofits, and a tree planting program would not require the use of heavy construction equipment nor a substantial amount of vehicle trips. Therefore, implementation of measures that would result in these project types **would not have a considerable contribution** to a significant cumulative impact associated with air quality violations.

### **Impact Summary**

Implementation of the above described 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce the project and cumulative impacts associated with air quality violations associated with GHG Reduction Measures that would result in ground or roof-mounted solar photovoltaic, small wind turbines and energy retrofits, preservation of agricultural land, retrofits of agricultural equipment, and a tree planting program to **less than significant** and these measures **would not have a considerable contribution** to a significant cumulative impact. The County's participation in the AWP project would result in **less-than-significant** impact related to air quality standards, and **would not have a considerable contribution** to a significant cumulative impact to air quality violations.

While implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2 would reduce the direct and cumulative air quality violation impacts because of implementation of bicycle and pedestrian infrastructure, park-and-ride facilities, direct investment projects, solid waste diversion, and large-scale renewable energy systems, these mitigation measures may not be able to fully mitigate the impacts to a less-than-significant level. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and mitigation measures, impacts associated with air quality violations would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Therefore, new bike, pedestrian, park-and-ride facilities, direct investment projects, large-scale renewable energy systems, and new or expanded diversion of waste facilities **could result in a considerable contribution** to a significant cumulative air quality violation impacts.

### ***2.3.4.3 Issue 3: Nonattainment Criteria Pollutants***

This section describes potential project and cumulative impacts on criteria pollutants from implementation of the project.

### **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, which is reflective of the guidelines utilized in

the 2011 GPU PEIR, the 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 in nonattainment under an applicable federal or state ambient air quality standard (including emissions which exceed the SLTs for ozone precursors listed under Section 2.3.3.2). The SDAB is currently classified as a nonattainment area for the NAAQS and CAAQS for ozone, which is caused by ozone precursors NO<sub>x</sub> and VOCs. The SDAB is also classified as a nonattainment area for the CAAQS for PM<sub>10</sub> and PM<sub>2.5</sub>.

## **Impact Analysis**

### **2011 GPU PEIR Determination**

The 2011 GPU PEIR included a discussion of emissions of criteria pollutants associated with future development consistent with the land use plan of the adopted 2011 GPU. The 2011 GPU PEIR concluded that the 2011 GPU under project and cumulative conditions would generate a cumulatively significant impact regarding PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and VOC under the CAAQS.

The 2011 GPU PEIR determined that the impacts related to criteria pollutants would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; the adopted 2011 GPU policies and mitigation measures identified in the 2011 GPU PEIR and listed above in Section 2.3.2; however, even with these programs, implementation measures, and identified mitigation measures, the impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.3 of the 2011 GPU PEIR and described above. The County determined these measures were infeasible and remain infeasible because they would have restricted new development in areas identified for growth, would have required the use of new technology, would have been more restrictive than the existing air quality regulations, and would have required all applicants to provide on-site renewable energy systems. The discussion of impacts related to air quality can be found in Chapter 2.3 Air Quality on pages 2.3-1 to 2.3-52 of the 2011 GPU PEIR, and is hereby incorporated by reference.

### **CAP Impact Analysis**

Implementation of the CAP could result in significant impacts from implementation of the GHG reduction measures that would preserve agricultural land; improve bicycle and pedestrian transportation infrastructure; construct park-and-ride facilities; result in direct investment projects; install small-scale renewable energy systems and other energy efficiency retrofits; construct large-scale renewable energy generation systems including wind, solar, and geothermal; construct new or expand existing solid waste processing facilities; implement agricultural equipment retrofits; and result in a tree planting program. These impacts were not specifically evaluated within the 2011 GPU PEIR. The 2012 Wind Energy EIR evaluated impacts specifically related to the development of small and large-scale wind turbines and this analysis is summarized below and hereby incorporated by reference (San Diego County, 2012). Additionally, the Padre Dam Municipal Water

District's Comprehensive Facilities Master Plan PEIR (Padre Dam PEIR) evaluated impacts related to the development/expansion of water purification infrastructure and impacts that are associated with the Supporting Effort for the Water and Wastewater Category. The analysis from that document is summarized below and hereby incorporated by reference (Padre Dam MWD 2017). The following section describes the potentially significant impacts related to criteria air pollutants that could result from the implementation of the measures.

### Bicycle, Pedestrian, and Park-and-Ride Infrastructure Improvements

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, the goal of GHG Reduction Measures T-2.1 and Supporting Efforts within the Built Environment and Transportation Category is to encourage a shift towards alternative modes of transportation and reduce single-occupancy vehicle trips. These measures would be implemented through pedestrian and bicycle safety measures by the County and construction of new and expansion of existing park-and-ride facilities within the unincorporated areas. While locations for such improvements have not been identified, because of the nature of these improvements, these would most likely occur near residential and commercial centers throughout the County. The size, scale, and location of these improvements is unknown.

Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to criteria air pollutants to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Air emissions from construction activities would result from use of heavy-duty equipment and vehicle travel including worker commute trips, vendor truck trips, and haul trips. Construction activities may include grading, clearing, and paving, but would not include construction of new buildings or structures. There would not be any operational emissions associated with these improvements, however, the improvements would involve activities to reduce vehicle use, reduce VMT, and increase alternative fuel use resulting in an overall reduction in County-wide air emissions. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, the air emissions associated with the construction of bike, pedestrian, and park-and-ride infrastructure improvements would be **potentially significant** and would result in a net increase of nonattainment criteria pollutants (**Impact AIR-9**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

The 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, impacts associated with increases in nonattainment criteria pollutants would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.3 of the 2011 GPU PEIR and described above. GHG reduction measures that would result in bike, pedestrian, and park-and-ride infrastructure improvements would also have a potentially significant impact associated with increasing nonattainment criteria air pollutants; therefore, the air emissions associated with the construction of bike, pedestrian, and park-and-ride infrastructure improvements **could result in a considerable contribution** to a significant cumulative impact associated with increasing nonattainment criteria air pollutants (**Impact AIR-10**).

### Direct Investment Program

Implementation of GHG Reduction Measure T-4.1 would require the County to implement direct investment of projects to offset carbon emissions. As described in detail in Chapter 2.7 and Appendix B of this Draft SEIR, there are a variety of projects that could result from implementation of this measure. See Chapter 2.7 for a detailed list.

Most direct investment projects would involve some level of construction and physical disturbance of the land. This analysis assumes that implementation of direct investment projects under GHG Reduction Measure T-4.1 would result in construction activities that could include: the use of heavy equipment for earthmoving, materials processing, or compost spreading; vehicle trips during construction/equipment replacement/monitoring activities; possible changes in land form and views; and installation or upgrades of mechanical equipment or facilities. Emissions that could result in an increase of nonattainment criteria air pollutants.

Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to criteria air pollutants to the extent feasible in compliance with CEQA Guidelines Section 15126.4. While feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with GHG Reduction Measure T-4.1 could still result in cumulatively considerable criteria air pollutants because projects would likely require the use of heavy construction equipment. At the programmatic level, it is not possible to determine with certainty that impacts related to criteria air pollutants from construction activities would be reduced below a level of significance. Therefore, the impacts related to nonattainment criteria air pollutants would be **potentially significant (Impact AIR-11)**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The methodology for determining the cumulative environment described in Chapter 1, Project

Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure T-4.1, would result in direct investment projects as described above. The 2011 GPU PEIR concluded that although cumulative impacts to criteria air pollutants resulting from the buildout associated with the General Plan would be reduced with implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable state and federal regulations, they would remain significant and unavoidable. Projects would be required to be evaluated under CEQA and to reduce and minimize impacts to the maximum extent feasible, as well as comply with existing federal, state, and local regulations that protect criteria air pollutant standards. However, because the exact location and nature of direct investment projects is not known, the potential for a contribution to a cumulatively significant impact remains. Therefore, implementation of direct investment projects **could result in a considerable contribution** to a significant cumulative impact related to nonattainment criteria air pollutants (**Impact AIR-12**).

#### Ground or Roof-Mounted Photovoltaic Solar, Small Wind Turbines, and other Building Retrofits

As described in detail in Section 2.3.3.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3, and E-2.4 could result in energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, upgraded mechanical systems, and other similar improvements on new developments. Specific locations for projects have not been identified.

As described on page 2.3-13 of the 2012 Wind Energy EIR, impacts related to criteria air pollutants from the implementation of small-scale wind turbines would be less than significant regarding construction and operation of the facilities because of the small amount of labor and equipment required.

As previously described, the installation of rooftop solar photovoltaic energy panels, generally does not require substantial construction activities, such as earth moving activities or operation of heavy-duty equipment. Rooftop solar photovoltaic energy panels also do not require substantial operational activities, only minor maintenance activities, such as regular inspections, repairs, and removing debris as necessary. Implementation of new mechanical equipment or new renewable energy equipment would be regulated by the County Zoning Ordinance Section 6952(b) and requires approval of a building permit to ensure County codes and requirements are met. In the cases of small photovoltaic energy systems, (under 500 square feet) or small wind turbines (up to 3 turbines allowed as accessory use), the County would not require a discretionary permit and would not require mitigation for air quality impacts. In these cases, the scale of the projects would not require large construction equipment, and would not violate air quality standards. Larger renewable energy systems would require County discretionary review and the County would be able to require mitigation if any air quality violations were identified. Therefore, net criteria air pollutants associated with

the implementation of small-scale ground or rooftop renewable energy systems and energy efficiency improvements would be **less than significant**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Small-scale rooftop solar photovoltaic energy panels, ground-mounted solar photovoltaic arrays, small wind turbines, and energy storage solutions generally do not require substantial construction activities or operational activities. While the County determined that significant and unavoidable cumulative air quality violations associated with net criteria air pollutants could result with buildout of the 2011 GPU, installation of renewable energy systems large enough to require heavy construction equipment or a substantial number of workers that may result in exceedance of criteria air pollutant standards would be required to mitigate identified impacts. Any emissions associated with these improvements would be minimal and temporary and would not contribute to criteria air pollutant violations. Therefore, measures that would result in small-scale renewable energy improvements and energy efficiency improvements **would not result in a considerable contribution** to a significant cumulative impact related to nonattainment criteria air pollutants.

### Large-Scale Renewable Energy Infrastructure

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, large-scale renewable energy systems, specifically wind, geothermal, and solar energy, require large, undeveloped land that are productive for generating renewable energy. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4.

As described in Section 2.3.4.1, large-scale renewable systems require the construction of multiple infrastructure components. Air emissions resulting from construction activities include products of combustion from heavy-duty equipment operation, vendor vehicles, haul trips, worker commute vehicles, and stationary sources such as generators. Operation of solar and wind farms typically requires a nominal increase in number of fulltime employees. Emissions of concern from operational activities include air emissions from maintenance activities include panel washing equipment operation, water trucks, and worker commute vehicles generated from site monitoring, inspections, and repair activities throughout the life of the solar or wind farm, helicopter inspections throughout the life of the solar farm, and stationary sources such as generators. Decommissioning activities would require disassembly of wind turbine generators, disassembly of solar facilities, demolition of any on-site buildings, removal of perimeter fencing, and restoration

of the site. Decommissioning impacts include air emissions from equipment and vehicle exhaust emissions, which would be similar to those generated by construction activities.

As described on page 2.3-15 of the 2012 Wind Energy EIR, the San Diego Air Basin is classified as a non-attainment basin for all criteria air pollutants except for carbon monoxide (San Diego County 2012). As part of the County's discretionary review process, all large-scale wind turbine projects would be evaluated under CEQA and required to implement the maximum feasible mitigation measures. Mitigation Measure M-AQ-1 was adopted as described above in Section 2.3.1.2. Additional mitigation was considered but rejected in the 2012 Wind Energy EIR for the same reasons as described above in Section 2.3.1.2. Ultimately, the 2012 Wind Energy EIR concluded that because there is no guarantee on a project-specific level that mitigation measures would reduce impacts to a level below significant, the project could result in a potentially significant net increase of criteria pollutants.

All large-scale renewable energy projects would be subject to discretionary review and required to obtain a MUP. As part of the discretionary review process, all projects would be evaluated under CEQA and required to minimize air quality impacts. However, there is no guarantee that a project-level air quality impacts would be mitigated to a level below significant. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of large-scale renewable projects would have a **potentially significant** impact associated with increasing nonattainment criteria air pollutants (**Impact AIR-13**).

### Cumulative Impacts

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described on page 2.3-20 of the 2012 Wind Energy EIR, some large wind turbine projects are expected to result in a cumulative net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (San Diego County 2012). Compliance with the County Grading Ordinance would ensure dust control measures are provided to reduce criteria pollutants such as PM<sub>10</sub> and PM<sub>2.5</sub> emissions that may result during construction. However, there is ultimately no guarantee that mitigation measures for all large wind turbines projects would reduce impacts to a level below significant. Therefore, impacts could be potentially significant for large wind turbine projects.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with increases in nonattainment criteria pollutants would not be reduced to

below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.3 of the 2011 GPU PEIR and described above. Large-scale renewable energy projects would have a potentially significant impact associated with increasing nonattainment criteria air pollutants; therefore, this measure **could result in a considerable contribution** to a significant cumulative impact associated with increasing nonattainment criteria air pollutants (**Impact AIR-14**).

#### Diversion of Solid Waste

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measure SW-1.1 would increase diversion of solid waste for the unincorporated County. This measure could result in construction of new, and expansion of existing organics processing facilities throughout the unincorporated areas. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of discretionary application and project-specific mitigation would minimize or eliminate impacts related to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Air emissions from these facilities would occur from construction activities including operation of heavy-duty equipment and vehicle travel by worker commute trips, material delivery, and haul trips. Construction activities would primarily consist of grading and clearing land and construction of small structures. The anaerobic decomposition of the waste would result in operational emissions of VOCs that would be analyzed during discretionary review of individual projects. The diversion of waste from landfills to processing facilities would reduce GHG emissions from decomposition of organic waste in landfills. This would be a project benefit. Generators used for aeration and powering water pumps would also generate air emissions, but these emissions are typically minimal.

Operation of new or expanded organics processing facilities would result in increased haul truck trips to and from the facility; however, it is anticipated that the haul truck trips to the organics processing facility would displace the haul truck trips that would be diverted from the landfill. Therefore, a net increase in the number of haul truck trips within the County is not anticipated. Similarly, increased construction and demolition waste recycling and collection of commercial food scraps and HHW is expected to displace trips already occurring to transport this waste to landfills. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, the implementation of new or expanded solid waste facilities would have a **potentially significant** impact associated with increasing nonattainment criteria air pollutants (**Impact AIR-15**).

#### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The

methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with increases in nonattainment criteria pollutants would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.3 of the 2011 GPU PEIR and described above. Therefore, implementation of measures that would result in new or expansion of existing solid waste facilities **could result in a considerable contribution** to a significant cumulative impact associated with increasing nonattainment criteria air pollutants **(Impact AIR-16)**.

#### Padre Dam Water and Wastewater Supporting Effort

As described in Chapter 1, Project Description, the CAP includes a Water and Wastewater Supporting Effort, that would support participation in the Padre Dam AWP project. The Padre Dam Municipal Water District MWD prepared the Padre Dam PEIR and that analysis is hereby incorporated by reference. As described on pages 4.2-11 through 4.2-17 of the Padre Dam PEIR, potentially significant direct and indirect impacts were identified for criteria air pollutants. However, all impacts were reduced to a level below significance with implementation of mitigation measure AIR-1 as described in the Padre Dam PEIR. Therefore, the impacts related to criteria air pollutants because of the Padre Dam AWP would be **less than significant**.

#### **Cumulative Impacts**

The Padre Dam PEIR evaluated the cumulative impacts related to criteria air pollutants for the project on page 6-13. As described therein, the AWP project would result in less-than-significant impacts to cumulative impacts related to criteria air pollutants and it **would not have a considerable contribution** to a significant cumulative impact

#### Agricultural Improvements

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures T-1.2, A-1.1, A-1.2, A-2.1, and A-2.2 would expand the amount of lands that may be preserved under the PACE program; encourage and support conversion of agricultural equipment to alternative fuels; and increase carbon sequestration by increasing tree canopy coverage in the unincorporated areas. Specific locations for projects have not been identified.

These measures could lead to temporary increases in air emissions because of minor emissions from replacement of pumps and conversion to electricity, onsite equipment use, and vehicle trips and water consumption for tree planting. In general, the activities that would be undertaken because of the measures described above would not require the use of heavy equipment. Conversion of agricultural equipment would rely on small hand-held

equipment, if any at all. Establishing a tree planting program would not require heavy equipment, but could result in small amount of air emissions because of distribution of trees, and watering at the beginning of the establishment period. Any emissions associated with these improvements would be minimal and temporary and would not contribute to air quality violations. Therefore, implementation of measures that would result in preservation of agricultural lands, conversion of agricultural equipment, and the establishment of a tree planting program would result in **less-than-significant** impacts related to nonattainment criteria air pollutants.

### Cumulative Impacts

Impacts would be cumulative in nature if the project, in combination with other cumulative development, would lead to a net increase of any nonattainment criteria pollutants. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts associated with increases in nonattainment criteria pollutants would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. The GHG reduction measures listed above that would result in preservation of agricultural land, agricultural equipment retrofits, and a tree planting program would not require the use of heavy construction equipment nor a substantial amount of vehicle trips. Therefore, implementation of these measures **would not have a considerable contribution** to a significant cumulative impact associated with increasing nonattainment criteria air pollutants.

### Impact Summary

Implementation of the above described 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce the project and cumulative impacts associated with GHG reduction measures that would result in small-scale renewable energy infrastructure, preservation of agricultural land, retrofits of agricultural equipment, and a tree planting program to **less than significant** and these measures **would not have a considerable contribution** to a significant cumulative impact associated with increasing nonattainment criteria air pollutants. The County's participation in the AWP project would result in **less-than-significant** impact related to criteria air pollutants, and **would not have a considerable contribution** to a significant cumulative impact to criteria air pollutants.

While implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2 would reduce the direct and cumulative impacts resulting from the cumulatively considerable net increase in criteria pollutants related to implementation of bicycle, pedestrian and park-and-ride facilities, direct investment

projects, solid waste diversion, and large-scale renewable energy systems, impacts may not be reduced to a less-than-significant level. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and mitigation measures, impacts associated with criteria air pollutants would not be reduced below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Therefore, project-related impacts resulting from new bike, pedestrian, park-and-ride facilities, direct investment projects, large-scale renewable energy systems, and diversion of waste would remain **potentially significant** and these measures **would have a considerable contribution** to a significant cumulative impact related to an increase in criteria air pollutants.

#### ***2.3.4.4 Issue 4: Impacts to Sensitive Receptors***

This section describes potential project and cumulative impacts to sensitive receptors with implementation of the project.

##### **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, which is reflective of the guidelines that were utilized in the 2011 GPU PEIR, the project would have a significant impact if it would expose sensitive receptors to substantial pollutant concentrations.

The County of San Diego defines sensitive receptors as schools (Preschool – 12<sup>th</sup> Grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely affected by changes in air quality. For CEQA purposes, the County of San Diego also includes residents as sensitive receptors. Two primary emissions of concern regarding impacts to sensitive receptors are CO and diesel particulate matter.

An air quality impact is considered significant if project emissions create a CO “hotspot” where either the 1-hour concentration of 20 ppm or 8-hour average of 9 ppm is exceeded. CO “hotspots” typically occur only at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips that for intersections exceeding 3,000 trips. Therefore, the project would result in a significant impact if it would result in a CO “hotspot.”

Air quality impacts relative to sensitive receptors are also considered significant if the project would result in exposure to toxic air contaminants (TACs) resulting in maximum incremental cancer risk greater than one in one million without application of Toxics-Best Available Control Technology (T-BACT), or a non-cancer acute or chronic health hazard index greater than 1.

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## **Impact Analysis**

### **2011 GPU PEIR Determination**

The 2011 GPU PEIR included a discussion of emissions that could contribute to impacts to sensitive receptors associated with future development consistent with the land use plan of the adopted 2011 GPU. The 2011 GPU PEIR concluded that the 2011 GPU under project and cumulative conditions would have significant impacts to sensitive receptors by exposing sensitive receptors to substantial concentrations of TACs from increased number of diesel truck trips, other vehicle trips, and other sources of diesel particulate emissions.

The 2011 GPU PEIR determined that the impacts to sensitive receptors would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; the adopted 2011 GPU policies; and mitigation measures identified in the 2011 GPU PEIR. However, even with these programs, implementation measures, and identified mitigation measures, the direct and cumulative impacts would remain significant and unavoidable because the mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR. The mitigation measures were found infeasible because they would have required the prohibition of all off-road diesel engines or for those engines to be equipped with filters. This was determined to be costly and difficult to enforce, and remains infeasible currently. The discussion of impacts related to air quality can be found in Chapter 2.3 Air Quality on pages 2.3-1 to 2.3-52, and is hereby incorporated by reference.

### **CAP Impact Analysis**

Implementation of the project would generate air emissions because of implementation of the GHG reduction measures that would preserve agricultural land, improve bicycle and pedestrian transportation infrastructure, construct park-and-ride facilities, result in direct investment projects, install small-scale renewable energy systems and other energy efficiency retrofits, construct large-scale renewable energy generation systems including wind, solar, and geothermal, construct new or expand existing solid waste facilities, implement agricultural equipment retrofits, and result in a tree planting program. These measures were not specifically evaluated within the 2011 GPU PEIR. The County's 2012 Wind Energy EIR evaluated impacts specifically related to the development of small and large-scale wind turbines and is summarized below and hereby incorporated by reference (San Diego County 2012).

The following section describes the potentially significant impacts to sensitive receptors that could result from implementation of the measures.

#### **Carbon Monoxide "Hotspots"**

The project would not introduce or change land use designations that would increase traffic or have the potential to result in CO hotspots. The project does not propose any residential development that would result in regional population increases. The goal of the CAP is to reduce GHG emissions in the County that would also have the co-benefit

of reducing air emissions in multiple cases. The project would not lead to an increase in vehicular emissions that cause CO hotspots. Therefore, the project would not contribute to a CO hotspot.

### Toxic Air Contaminants

The project may lead to emissions of TACs identified by the California Air Toxics Program. TACs are defined by the California Health and Safety Code as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or which may pose a potential hazard to human health. California Health and Safety Code section 39655 and subsection (b) of Section 112 of the federal Clean Air Act have identified approximately 192 TACs in California (CARB 2011). These TACs include acetaldehyde, benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, asbestos, and diesel particulate matter.

SDAPCD established two ambient TAC concentration monitoring sites in San Diego County: Chula Vista and El Cajon. Based on the data from the monitoring stations, the estimated cancer risks were 116 in one million for Chula Vista and 136 in one million for El Cajon in 2013. Diesel particulate matter also contributes significantly to ambient risk levels. Although a method to directly monitor diesel particulate concentrations does not exist, SDAPCD has calculated risk from diesel particulate matter based upon measurements taken at El Cajon, Escondido, and San Diego between August 2008 and June 2010. The measurements indicated diesel particulate emissions could add an additional 354 in one million to the ambient risk levels in San Diego County (SDAPCD 2017b).

### Bicycle, Pedestrian, and Park-and-Ride Infrastructure Improvements

As described in detail in Section 2.3.4.1, Conformance to the Regional Air Quality Strategy, the goal of GHG Reduction Measure T-2.1, and Supporting Efforts within the Built Environment and Transportation Category is to encourage a shift towards alternative modes of transportation and reduce single-occupancy vehicle trips. This measure would be implemented through projects that would include pedestrian and bicycle safety improvements, and construction of new and expansion of existing park-and-ride facilities within the unincorporated area.

The greatest potential for TAC emissions during construction would be diesel particulate emissions from construction equipment and heavy-duty truck trips. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to sensitive receptors to the extent feasible in compliance with CEQA Guidelines Section 15126.4.

Locations for such improvements have not been identified; however, because of the nature of these improvements, these would most likely occur near residential and commercial centers throughout the unincorporated areas. Therefore, sensitive receptors including residences, schools, and childcare facilities could be located near the project locations. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures

listed above would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of GHG reduction measures that would result in bicycle, pedestrian, and park-and-ride infrastructure would have a **potentially significant** impact associated impacts to sensitive receptors (**Impact AIR-17**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Construction of projects described above in combination with cumulative development could result in a temporary increase in truck trips and heavy-duty construction equipment operation, which could contribute to emissions of TACs and adverse impacts to sensitive receptors. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts to sensitive receptors would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR and described above. Therefore, GHG reduction measures that would result in bicycle, pedestrian, and park-and-ride infrastructure would also have a potentially significant impact associated with impacts to sensitive receptors. These measures **could result in a considerable contribution** to a significant cumulative impact to sensitive receptors (**Impact AIR-18**).

### Direct Investment Program

Implementation of GHG Reduction Measure T-4.1 would result in direct investment projects to offset carbon emissions. As described in detail in Chapter 2.7 and Appendix B of this Draft SEIR, there are a variety of projects that could result from implementation of this measure. See Chapter 2.7 for a detailed list.

Most direct investment projects would involve some level of construction and physical disturbance of the land. This analysis assumes that implementation of direct investment projects under GHG Reduction Measure T-4.1 would result in construction activities that could include: the use of heavy equipment for earthmoving, materials processing, or compost spreading; vehicle trips during construction/equipment replacement/monitoring activities; possible changes in land form and views; and installation or upgrades of mechanical equipment or facilities.

Because the variety of projects that may be approved and ultimately undertaken by the County under the Direct Investment Program is not known, it is not possible to speculate

upon the types of impacts that could occur and whether regulations or mitigation measures would be available to minimize potential environmental impacts. However, all projects would be required to comply with applicable existing federal, state, and local regulations. Specifically, projects would be evaluated for their consistency with 2011 GPU policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, County Resources Protection Ordinance regulations, etc. Future discretionary projects may also be required to undergo additional CEQA analysis to evaluate its project-specific impacts. If a determination is made that potentially significant impacts would result from implementation of direct investment projects, then all feasible mitigation would be required to be implemented in accordance with CEQA Guidelines Section 15126.4.

While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with GHG Reduction Measure T-4.1 could still result in impacts to sensitive receptors because projects would likely require the use of heavy construction equipment and the locations of specific projects is not known. At the programmatic level, it is not possible to determine with certainty that impacts related to sensitive receptors from construction activities would be reduced below a level of significance. Therefore, this would be a **potentially significant impact (Impact AIR-19)**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure T-4.1, would result in direct investment projects as described above. The 2011 GPU PEIR concluded that although cumulative impacts to sensitive receptors resulting from the buildout associated with the General Plan would be reduced with implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable state and federal regulations, they would remain significant and unavoidable. Projects would be required to be evaluated under CEQA and to reduce and minimize impacts to the maximum extent feasible, as well as comply with existing federal, state, and local regulations that protect sensitive receptors. However, because the exact location and nature of direct investment projects is not known, the potential for a contribution to a cumulatively significant impact remains. Therefore, implementation of direct investment projects **could result in a considerable contribution** to a significant cumulative impact (**Impact AIR-20**).

### Ground or Roof-Mounted Photovoltaic Solar, Small Wind Turbines, and other Building Retrofits

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3 and E-2.4 could

result in energy efficiency retrofits on existing residential and non-residential structures, including rooftop, ground-mounted solar photovoltaic arrays, small-scale wind turbines, energy storage solutions, upgraded mechanical systems, and other similar improvements. Specific locations for projects have not been identified.

As previously described, the installation of rooftop solar photovoltaic energy panels generally does not require substantial construction activities from operation of heavy-duty equipment. Rooftop solar photovoltaic energy panels do not require substantial operational activities, only minor maintenance activities are required, such as regular inspections, repairs, and removing debris as necessary.

As described on pages 2.3-14 through 2.3-15 of the 2012 Wind Energy EIR, impacts related to sensitive receptors from the implementation of small-scale wind turbines would be less than significant because of the minimal construction equipment used and nominal maintenance trips associated with the facilities.

Implementation of new mechanical equipment or new renewable energy equipment would generally occur in developed areas of the County, which could be near potential sensitive receptors. However, construction and operational impacts would be minimal. Implementation of GHG reduction measures that would result in the installation of small-scale renewable energy systems would result in **less-than-significant** impacts to sensitive receptors.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Rooftop solar energy panels generally do not require substantial construction or operational activities. Implementation of GHG reduction measures that would result in the installation of small-scale renewable energy systems would not result in significant impacts to sensitive receptors; therefore, these measures **would not have a considerable contribution** to a significant cumulative impact to sensitive receptors.

### Large-Scale Renewable Energy Infrastructure

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measure E-2.1 could result in new large-scale renewable energy systems. The greatest potential for TAC emissions during construction would be diesel particulate matter from construction equipment and heavy-duty truck trips. Operational TAC emissions would result from heavy-duty truck trips, solar panel cleaning equipment, water truck trips, and diesel generators. Although large-scale renewable energy infrastructure is generally located in areas that are undeveloped and that are not highly urbanized, sensitive receptors, such as residents, could be located nearby. Specific

locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to sensitive receptors to the extent feasible in compliance with CEQA Guidelines Section 15126.4.

As described on page 2.13-15 of the 2012 Wind Energy EIR, it was determined that some large wind turbine projects may result in emissions from construction activities, including diesel particulate matter (San Diego County, 2012). The emissions would be short term and would only occur during a fraction of the entire construction timeframe, after which project-related TAC emissions, such as diesel particulate matter, would cease. The 2012 Wind Energy EIR concluded that because of the temporary and minimal nature of TAC emissions related to large wind turbine projects, as well as required setbacks, the emissions were not anticipated to result in the exposure of sensitive receptors to substantial pollutant concentrations (San Diego County 2012). However, because the scale of future large wind turbine projects that may be required to satisfy increased demand related to Measure E-2.1 may be larger than the sample projects considered within the 2012 Wind Energy EIR, and because specific project locations are unknown, TAC emissions from these facilities could result in exposure of sensitive receptors to substantial pollutant concentrations.

All large-scale renewable energy projects would be subject to discretionary review and required to obtain a MUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and required to minimize impacts to sensitive receptors. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Implementation of GHG Reduction Measure E-2.1 associated with large-scale renewable projects would have a **potentially significant** impact associated with impacts to sensitive receptors (**Impact AIR-21**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Construction of cumulative projects could result in a temporary increase in heavy-duty truck trips and heavy-duty construction equipment. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts to sensitive receptors would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR and described above. GHG Reduction Measure E-2.1 associated with large-scale renewable projects would have a potentially significant impact associated with impacts to sensitive

receptors; therefore, this measure **could result in a considerable contribution** to a significant cumulative impact to sensitive receptors (**Impact AIR-22**).

### Diversion of Solid Waste

As described in detail in Section 2.3.4.1, Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measure SW-1.1 would increase diversion of solid waste from the unincorporated areas. This measure could result in construction of new, and expansion of existing organics processing facilities throughout the unincorporated area. Construction or expansion of these facilities would result in diesel particulate matter from construction equipment and heavy-duty truck trips. Operational TAC emissions are from air toxics (primarily hydrogen sulfide and ammonia) released as fugitives from the grinding system, anaerobic digester, boilers, diesel generators, flares, and organics processing operations. Specific locations for projects have not been identified.

Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of discretionary application and project-specific mitigation would minimize or eliminate impacts related to air quality standards to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Operation of new or expanded organics composting facilities would result in increased haul truck trips to and from the facility; however, it is anticipated that the haul trucks trips to the organics processing facility would displace the haul truck trips that would be diverted from the landfill. Therefore, a net increase in the number of haul truck trips within the County is not anticipated. Similarly, increased construction and demolition waste recycling and collection of commercial food scraps and HHW would be expected to displace trips already occurring to transport this waste to landfills. While adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures would require the implementation of mitigation to reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts to a less-than-significant level. Therefore, implementation of GHG Reduction Measure SW-1.1 that would result in new or expanded solid waste facilities would have a **potentially significant** impact associated with impacts to sensitive receptors (**Impact AIR-23**).

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Construction of cumulative projects would result in temporary increases in truck trips and heavy-duty construction equipment operation. In addition, permanent operational TAC emissions from organics processing operations would also result in TAC emissions. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts to

sensitive receptors would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR and described above. GHG Reduction Measure SW-1.1, would result in new or expanded solid waste facilities and would have a potentially significant impact associated with impacts to sensitive receptors; therefore, implementation of this measure **could result in a considerable contribution** to a significant cumulative impact to sensitive receptors (**Impact AIR-24**).

#### Padre Dam Water and Wastewater Supporting Effort

As described in Chapter 1, Project Description, the CAP includes a Water and Wastewater Supporting Effort, that would support participation in the Padre Dam AWP project. The Padre Dam Municipal Water District MWD prepared the Padre Dam PEIR and that analysis is hereby incorporated by reference. As described on page 4.2-17 of the Padre Dam PEIR, less-than-significant direct and indirect impacts were identified for sensitive receptors. Therefore, the impacts related to sensitive receptors because of the Padre Dam AWP would be **less than significant**.

#### **Cumulative Impacts**

The Padre Dam PEIR evaluated the cumulative impacts related to air quality standards for the project on page 6-15. As described therein, the AWP project would result in less-than-significant impacts to cumulative impacts related to sensitive receptors and it **would not have a considerable contribution** to a significant cumulative impact.

#### Agricultural Improvements

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures T-1.2, A-1.1, A-1.2, A-2.1 and A-2.2 would expand the amount of land that may be preserved under the PACE program; encourage conversion of agricultural equipment to alternative fuels; and increase carbon sequestration by increasing tree canopy coverage in the unincorporated areas. Specific locations for projects have not been identified.

These measures could lead to temporary increases in air emissions due to minor emissions from replacement of pumps and conversion to electricity, onsite equipment use, and vehicle trips and water consumption for tree planting.

In general, the activities that would be undertaken because of the measures described above would not require the use of heavy equipment. Conversion of agricultural equipment would rely on small hand-held equipment, if any at all. Establishing a tree planting program would not require heavy equipment, but could be attributed to a small amount of air emissions because of distribution of trees, and watering at the beginning of the establishment period. Any emissions associated with these improvements would be minimal and temporary and would not contribute to air quality violations. Therefore, implementation of measures that would result in preservation of agricultural lands,

conversion of agricultural equipment, and the establishment of a tree planting program would result in **less-than-significant** impacts related to sensitive receptors.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with cumulative development would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk, or acute or chronic health risks. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Construction of cumulative projects results in a temporary increase in truck trips and use of heavy-duty construction equipment. In addition, permanent operational TAC emissions from agricultural activities and heavy-duty equipment contribute to impacts. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures, impacts to sensitive receptors would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR and described above. The GHG reduction measures that would result in preservation of agricultural land, agricultural equipment retrofits, and a tree planting program would not require the use of heavy construction equipment nor a substantial amount of vehicle trips. Therefore, implementation of these measures **would not have a considerable contribution** to a significant cumulative impact to sensitive receptors.

### **Impact Summary**

Implementation of the above described 2011 GPU policies and 2011 GPU PEIR mitigation measures would reduce the project and cumulative impacts associated with GHG reduction measures that would result in ground or roof-mounted solar photovoltaic, small wind turbines and energy retrofits, preservation of agricultural land, retrofits of agricultural equipment, and a tree planting program to **less than significant** related to sensitive receptors and these measures **would not have a considerable contribution** to a significant cumulative impact. The County's participation in the AWP project would result in **less-than-significant** impact related to sensitive receptors, and **would not have a considerable contribution** to a significant cumulative impact to sensitive receptors.

While implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2 would reduce the direct and cumulative impacts related to sensitive receptors, because of the implementation of GHG reduction measures that would result in bicycle, pedestrian, and park-and-ride infrastructure, direct investment projects, solid waste diversion, and large-scale renewable energy systems it is possible that impacts may not be reduced to a less-than-significant level. As described above, the 2011 GPU PEIR determined that even with implementation of the adopted 2011 GPU policies and mitigation measures, impacts associated with sensitive receptors would not be reduced to below a level of significance because the full suite of these and other

mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above. Therefore, project-related impacts because of the implementation of GHG reduction measures that would result in bicycle, pedestrian, and park-and-ride infrastructure, direct investment projects, solid waste diversion, and large-scale renewable energy systems would remain **potentially significant** and these measures **would have a considerable contribution** to a significant cumulative impact related to sensitive receptors.

### ***2.3.4.5 Issue 5: Odor Impacts***

This section describes potential project and cumulative impacts related to odor resulting from the implementation of the project.

#### **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, which is reflective of the guidelines that were utilized in the 2011 GPU PEIR, the project would result in a significant impact if it would either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

SDAPCD Rule 51 (Public Nuisance) and California Health & Safety Code, 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. Projects required to obtain permits from SDAPCD, typically industrial and some commercial projects, are evaluated by SDAPCD staff for potential odor nuisance and conditions may be applied (e.g., control equipment requirement), where necessary to prevent occurrence of public nuisance.

Odor issues are subjective by the nature of odors themselves and their measurements are difficult to quantify. As a result, odor impact assessments are qualitative and each project would be reviewed on an individual basis, focusing on the existing and potential surrounding uses and location of sensitive receptors.

#### **Impact Analysis**

##### **2011 GPU PEIR Determination**

The 2011 GPU PEIR included a discussion of objectionable odors associated with the future development consistent with the land use plan of the adopted 2011 GPU. The 2011 GPU PEIR concluded that the 2011 GPU under project and cumulative conditions would result in less-than-significant impacts associated with objectionable odors.

The 2011 GPU PEIR also acknowledged that potential odor impacts would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; and the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2. The discussion of impacts related to odors can

be found in Chapter 2.3 Air Quality on pages 2.3-1 to 2.3-52, and is hereby incorporated by reference.

### **CAP Impact Analysis**

Implementation of the CAP could result in odors due to implementation of the GHG reduction measures that would preserve agricultural land, improve bicycle and pedestrian transportation infrastructure, construct park-and-ride facilities, result in direct investment projects, install small-scale renewable energy systems and other energy efficiency retrofits, construct large-scale renewable energy generation systems including wind, solar, and geothermal, construct new or expand existing solid waste facilities, implement agricultural equipment retrofits, and result in a tree planting program. The County's 2012 Wind Energy EIR evaluated odor impacts specifically related to the development of small and large-scale wind turbines and this analysis is summarized below and is hereby incorporated by reference (San Diego County 2012).

The following section describes the potentially significant odor impacts that could result from the implementation of the measures.

#### **Bicycle, Pedestrian, and Park-and-Ride Infrastructure Improvements**

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, the goal of GHG Reduction Measures T-2.1 and Supporting Efforts within the Built Environment and Transportation Category is to encourage a shift towards alternative modes of transportation and reduce single-occupancy vehicle trips. These efforts would be implemented through actions such as pedestrian and bicycle safety infrastructure within the unincorporated areas and construction of new and expansion of existing park-and-ride facilities within the unincorporated areas. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application. Potential odors may be emitted from equipment exhaust during construction activities. These emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Because odors would be temporary and would disperse rapidly with distance from source, construction-generated odors would not result in the frequent exposure of nearby receptors to objectionable odor emissions. Further, as described above, the 2011 GPU PEIR also acknowledged that potential odor impacts would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; and implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures. Overall, odor impacts associated with these measures would be **less than significant**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with cumulative development would create objectionable odors or place sensitive receptors next to existing objectionable odors. The methodology for determining the cumulative

environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Potential odor sources generated by construction activities are temporary, short-term, intermittent, and would cease upon completion of construction. No significant operational odor sources associated with these measures would occur. Cumulative objectionable odor impacts were determined to be less than significant in the 2011 GPU PEIR. Therefore, these measures **would not result in a considerable contribution** such that a new significant cumulative impact would occur.

### Direct Investment Program

Implementation of GHG Reduction Measure T-4.1 would result in direct investment of projects to offset carbon emissions. As described in detail in Chapter 2.7 and Appendix B of this Draft SEIR, there are a variety of projects that could result from implementation of this measure. See Chapter 2.7 and Appendix B for a detailed list.

Most direct investments projects would involve some level of construction and physical disturbance of the land. This analysis assumes that implementation of direct investment projects under GHG Reduction Measure T-4.1 would result in construction activities that could include: the use of heavy equipment for earthmoving, materials processing, or compost spreading; vehicle trips during construction/equipment replacement/monitoring activities; possible changes in land form and views; and installation or upgrades of mechanical equipment or facilities.

Because the variety of projects that may be approved and ultimately undertaken by the County under the Direct Investment Program is not known, it is not possible to speculate upon the types of impacts that could occur and whether regulations or mitigation measures would be available to minimize potential environmental impacts. However, all projects would be required to comply with applicable existing federal, state, and local regulations. Specifically, projects would be evaluated for their consistency with 2011 GPU policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, County Resources Protection Ordinance regulations, etc. Future discretionary projects may also be required to undergo additional CEQA analysis to evaluate project-specific impacts. If a determination is made that potentially significant impacts would result from implementation of direct investment projects, then all feasible mitigation would be required to be implemented in accordance with CEQA Guidelines Section 15126.4.

While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with GHG Reduction Measure T-4.1 could still result in odors because projects would likely require the use of heavy construction equipment. At the programmatic level, it is not possible to determine with certainty that impacts related to odors because of construction activities would be reduced below a level of significance. Therefore, the potential impact related to odors would be a **potentially significant (Impact AIR-25)**.

## Cumulative Impacts

Impacts would be cumulative in nature if the project in combination with cumulative development would create objectionable odors or place sensitive receptors next to existing objectionable odors. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Implementation of GHG Reduction Measure T-4.1, would result in direct investment projects as described above. The 2011 GPU PEIR concluded that cumulative impacts to odors resulting from the buildout associated with the General Plan would be less than significant with implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above and compliance with applicable state and federal regulations. Projects would be required to be evaluated under CEQA and to reduce and minimize impacts to the maximum extent feasible, as well as comply with existing federal, state, and local regulations that manage odors. However, because the exact location and nature of direct investment projects is not known, the potential for a contribution to a cumulatively significant impact remains. Therefore, implementation of direct investment projects **could result in a considerable contribution** to a new significant cumulative impact related to odors (**Impact AIR-26**).

### Ground or Roof-Mounted Photovoltaic Solar, Small Wind Turbines, and other Building Retrofits

As described in detail in Section 2.2.3.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3, and E-2.4 could result in energy efficiency retrofits on existing residential and non-residential structures, including rooftop, ground-mounted solar photovoltaic arrays, small wind turbines, energy storage solutions, upgraded mechanical systems, and other similar improvements. Specific locations for projects have not been identified.

As described on pages 2.3-16 and 2.3-17 of the 2012 Wind Energy EIR, impacts related to odors because of the implementation of small-scale wind turbines would be less than significant because the construction and operation of such facilities does not require heavy equipment or vehicles.

The installation of small rooftop solar photovoltaic energy panels or wind turbines generally do not require substantial construction activities, such as earth moving activities or operation of heavy-duty equipment. Small-scale renewable energy systems do not require substantial operational activities, only minor maintenance activities are required, such as regular inspections, repairs, and removing debris as necessary. No significant odor sources would be developed under these measures. With implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures, overall impacts would be **less than significant**.

## Cumulative Impacts

Impacts would be cumulative in nature if the project in combination with cumulative development would create objectionable odors or place sensitive receptors next to

existing objectionable odors. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Rooftop solar photovoltaic energy panels or wind turbines do not require substantial construction or operational activities that could generate offensive odors. Cumulative objectionable odor impacts were determined to be less than significant in the 2011 GPU PEIR, and these measures **would not result in a considerable contribution** such that a new significant cumulative impact would occur.

### Large-Scale Renewable Energy Infrastructure

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measure E-2.1 could result in construction of new large-scale solar photovoltaic and concentrator solar, geothermal systems, and/or wind turbines. As described in detail in Section 2.1, Aesthetics and Visual Resources, large-scale renewable energy infrastructure would generally be constructed in undeveloped locations that are productive for generating the renewable energy resource.

Development of large-scale renewable energy infrastructure does not typically result in the emission of objectionable odors. Potential odor sources may result from equipment exhaust during construction activities. These emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Because odors would be temporary and would disperse rapidly with distance from source, construction-generated odors would not result in the frequent exposure of nearby receptors to objectionable odorous emissions.

As described on page 2.3-17 of the 2012 Wind Energy EIR, the development of large-scale wind turbines would result in less-than-significant impacts related to odors because the use of heavy diesel-powered equipment would be short-term and intermittent.

All large-scale renewable energy projects would be subject to discretionary review and required to obtain a MUP. As part of the discretionary review process, all future projects would be evaluated under CEQA and be required to comply with County Code Sections 63.401 and 63.402, and SDAPCD Rule 51 (Public Nuisance) prohibiting emissions of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. With implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above, overall odor impacts for GHG Reduction Measure E-2.1 associated with large-scale renewable projects would be **less than significant**.

### **Cumulative Impacts**

Impacts would be cumulative in nature if the project, in combination with cumulative development, would create objectionable odors or place sensitive receptors next to existing objectionable odors. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Potential odor sources generated by construction activities are temporary, short-term, intermittent, and would cease upon completion of construction. Large-scale renewable energy infrastructure is not a typical source of odors. Cumulative objectionable odor impacts were determined to be less than significant in the 2011 GPU PEIR, and GHG Reduction Measure E-2.1 associated with large-scale renewable projects **would not result in a considerable contribution** such that a new significant cumulative impact would occur.

#### Diversion of Solid Waste

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measure SW-1.1 could result in the construction of new, and expansion of existing organics processing facilities throughout the County. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of discretionary application and project-specific mitigation would minimize or eliminate impacts related to odor management to the extent feasible in compliance with CEQA Guidelines Section 15126.4. Odors may result from construction and operations of organics waste facilities. Potential odor sources may result from equipment exhaust during construction activities. These emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Because construction odors would be temporary and would disperse rapidly with distance from source, construction-generated odors would not result in the frequent exposure of nearby receptors to objectionable odor emissions and these impacts would not be expected to result in significant emissions.

Organics processing techniques include open and enclosed configurations and have the potential to produce objectionable odors. Furthermore, organics processing facilities are a land use that is typically associated with emitting objectionable odors. While the 2011 GPU PEIR also acknowledged that potential odor impacts from implementation of the 2011 GPU would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; and the adopted 2011 GPU policies, it is possible that the expansion of existing solid waste facilities or construction of new facilities could result in odor generating- sources located near sensitive receptors. The specific location of these types of facilities and activities is not known. Therefore, implementation of GHG Reduction Measure SW-1.1 that would result in new or expanded solid waste processing facilities could result in a **potentially significant** impact associated with objectionable odors (**Impact AIR-27**).

#### **Cumulative Impacts**

Impacts would be cumulative in nature if the project in combination with other cumulative development would create objectionable odors or place sensitive receptors next to existing objectionable odors. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Potential odor sources generated by construction activities are temporary, short-term, intermittent, and would cease upon completion of construction. Organics processing facilities are a land use that is typically associated with emitting objectionable odors, and new or expanded organics processing facilities could be implemented and could be sited near sensitive receptors. While the 2011 GPU PEIR did not identify any significant project or cumulative odor impacts, the project could result in the generation of significant odors which could adversely affect nearby sensitive receptors. Therefore, implementation of GHG Reduction Measure SW-1.1 that would result in new or expanded solid waste facilities **could result in a considerable contribution** to a new significant impact associated with odors (**Impact AIR-28**).

#### Padre Dam Water and Wastewater Supporting Effort

As described in Chapter 1, Project Description, the CAP includes a Water and Wastewater Supporting Effort, that would support participation in the Padre Dam Advanced Water Purification (AWP) project. The Padre Dam Municipal Water District MWD prepared the Padre Dam PEIR and that analysis is hereby incorporated by reference. As described on page 4.2-18 through 4.2-20 of the Padre Dam PEIR, less-than-significant direct and indirect impacts were identified for odors. Therefore, the impacts related to sensitive receptors because of the Padre Dam AWP would be **less than significant**.

#### **Cumulative Impacts**

The Padre Dam PEIR evaluated the cumulative impacts related to odors for the project on page 6-15. As described therein, the AWP project would result in less-than-significant impacts to cumulative impacts related to odors and it **would not have a considerable contribution** to a new significant cumulative impact.

#### Agricultural Improvements

As described in detail in Section 2.3.4.1 Conformance to the Regional Air Quality Strategy, implementation of GHG Reduction Measures T-1.2, A-1.1, A-1.2, A-2.1, and A-2.2 would expand the amount of land that may be preserved under the PACE program; encourage and support conversion of agricultural equipment to alternative fuels; and increases in carbon sequestration by increasing tree canopy coverage in the unincorporated areas. Specific locations for projects have not been identified.

Agricultural land uses from livestock production and manure management are operations that are typically known for emitting objectionable odors. However, agricultural land uses would not be expected to intensify under the PACE Program above what was contemplated in the 2011 GPU. Other projects implemented under these measures would not result in significant equipment operation and would therefore, not generate odors. Therefore, overall impacts would be **less than significant**.

## Cumulative Impacts

Impacts would be cumulative in nature if the project in combination with other cumulative development would create objectionable odors or place sensitive receptors next to existing objectionable odors. The methodology for determining the cumulative environment described in Chapter 1, Project Description, summarized above in Section 2.3.4.1 above, applies for this cumulative discussion.

Potential odor sources generated by construction activities are temporary, short-term, intermittent, and would cease upon completion of construction. Agricultural land uses would not be expected to intensify under the PACE Program. These measures **would not result in a considerable contribution** such that a new significant cumulative odor impact would occur.

### Impact Summary

Implementation of the GHG reduction measures that would result in bicycle, pedestrian, and park-and-ride infrastructure, ground or roof-mounted solar photovoltaic and small-scale renewables, large-scale renewables, and agricultural improvements would not result in impacts related to odors. Therefore, no mitigation is necessary and the impact would be **less than significant**. The County's participation in the AWP project would result in **less-than-significant** impact related to odors, and **would not have a considerable contribution** to a new significant cumulative impact related to odors.

While implementation of the 2011 GPU policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2 would reduce the direct and cumulative impacts associated with odor management because of implementation of GHG Reduction Measures SW-1.1 and T-4.1 that would result in new or expanded solid waste facilities and direct investment projects, impacts may not be able to be fully mitigated to a less-than-significant level. Therefore, GHG Reduction Measures SW-1.1 and T-4.1 that would result in new or expanded solid waste facilities and direct investment projects would result in **potentially significant** project impacts related to odors and these measures **would have a considerable contribution** to a new significant cumulative odor impact.

## 2.3.5 Mitigation

### ***2.3.5.1 Issue 1: Conformance to the Regional Air Quality Strategy***

Project level impacts and contributions to cumulative impacts were determined to be less than significant; therefore, no mitigation measures in addition those identified in the 2011 GPU PEIR are required.

### ***2.3.5.2 Issue 2: Conformance to Federal and State Ambient Air Quality Standards***

The 2012 Wind Energy EIR included the following mitigation measure to minimize the potentially significant impacts related to large wind turbine projects:

**Mitigation Measure- M-AQ-1:** During the environmental review process for future discretionary permits for wind turbines, the County Guidelines for Determining Significance for Air Quality shall be applied. When impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures within the County Guidelines include: dust control efforts; grading or fuel use restrictions; use of modified equipment; and restrictions on vehicle idling time.

As described in Section 2.3.4.2, additional mitigation for wind turbine projects was considered, but rejected as infeasible through the 2012 Wind Energy EIR. Mitigation Measure M-AQ-1 shall be incorporated into the Mitigation Monitoring and Reporting Program for the CAP and shall be applied to all discretionary projects implemented under the CAP. As described during the impacts analysis, future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate air quality impacts to the extent feasible in compliance with CEQA Guidelines Section 15126.4. However, because of the uncertainty of the types, locations, and scale of future CAP implementation projects, it is not possible to guarantee that all impacts would be reduced to a level below significance. Mitigation Measure M-AQ-1 from the 2012 Wind Energy Ordinance EIR has been revised to include all CAP projects as follows:

**CAP Mitigation Measure- M-AQ-1:** During the environmental review process for future discretionary permits for projects implemented under the CAP, the County Guidelines for Determining Significance for Air Quality shall be applied. When impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures within the County Guidelines include: dust control efforts; grading or fuel use restrictions; use of modified equipment; and restrictions on vehicle idling time.

Additional mitigation was contemplated as part of this Draft SEIR that would implement a development cap upon large-scale renewable energy projects. This mitigation was rejected as infeasible because it may reduce the effectiveness of GHG Reduction Measure E-2.1 and achievement of the County's 2030 GHG emissions reduction target. It is unknown how many numbers and types of renewable large-scale renewable energy facilities would be required to meet the GHG reduction goals of the CAP because the design, siting, and economic feasibility characteristics of the options under consideration vary widely. No other additional feasible mitigation is available. Therefore, as described above in Section 2.3.4.2, even with implementation of the adopted 2011 GPU policies, 2011 GPU PEIR mitigation measures, and CAP Mitigation Measure M-AQ-1 above that protect air quality in conformance with federal, state, and local standards, project and cumulative impacts related to air quality violations could occur from implementation of the project. The County has taken action through its 2011 GPU to adopt all feasible mitigation that could reduce potential impacts associated with buildout of the 2011 GPU. However, the 2011 GPU PEIR concluded that impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above.

No other feasible project-related mitigation beyond existing federal and state permitting requirements and compliance with the County's adopted 2011 GPU policies or 2011 GPU PEIR mitigation measures is available and could be applied to the individual actions that would occur under the project. Where an individual action under the project would comply with existing regulations pertaining to air quality violations, it would reduce its project-specific impacts to a less-than-significant level and would reduce its contribution to cumulative impacts such that it would not be considerable. Moreover, the CAP includes GHG reduction measures that specifically target GHG emissions but would be expected to have the co-benefit of reducing air emissions as well. New projects subject to CEQA would be required to comply with these measures through the CAP Consistency Checklist. However, because the size, scale, and individual development characteristics of the variety of actions that could occur under the project are not known, some projects may result in air quality violations that cannot be reduced through mitigation, which would result in a **significant and unavoidable** project air quality impact. Further, overall significant and unavoidable cumulative impacts related to air quality violations would remain under the 2011 GPU, and the project's contribution to these impacts would be **considerable and unavoidable**.

### ***2.3.5.3 Issue 3: Nonattainment Criteria Pollutants***

The County shall implement the following mitigation measures to reduce nonattainment criteria air pollutant impacts associated with all discretionary projects implemented under the CAP:

**CAP Mitigation Measure AQ-1:** See description above.

**CAP Mitigation Measure AQ-2:** Coordinate with SDAPCD in implementing pending Rule 67.25 to reduce emissions and odors from composting operations. The rule is expected to establish best management practices for chipping and grinding of green waste to produce materials for composting or other uses, and to better manage stockpile operations to reduce emissions.

Additional mitigation was contemplated as part of this Draft SEIR that would implement a development cap upon large-scale renewable energy facilities and solid waste facilities. This mitigation was rejected as infeasible because it may reduce the effectiveness of GHG Reduction Measure E-2.1 and SW-1.1, implementation of the County's Solid Waste Reduction Strategy, and achievement of County's 2030 GHG emissions reduction target. As described above in Section 2.3.4.3, even with implementation of the adopted 2011 GPU policies, 2011 GPU PEIR mitigation measures, and CAP Mitigation Measures M-AQ-1 and AQ-2 that protect air quality in conformance with federal, state, and local standards, project and cumulative impacts related to increasing nonattainment criteria pollutants could occur from implementation of the project. The County has taken action through its 2011 GPU to adopt all feasible mitigation that could reduce potential impacts associated with buildout of the 2011 GPU. However, the 2011 GPU PEIR concluded that impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR

were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above.

As described in Section 2.3.5.2, no other feasible project-related mitigation beyond existing federal and state permitting requirements and compliance with the County's adopted 2011 GPU policies or 2011 GPU PEIR mitigation measures is available and could be applied to the individual actions that would occur under the project. Where an individual action under the project would comply with existing regulations pertaining to nonattainment criteria pollutants, it would reduce its project-specific impacts to a less-than-significant level and would reduce its contribution to cumulative impacts such that it would not be considerable. Moreover, the CAP includes GHG reduction measures that specifically target GHG emissions but would be expected to have the co-benefit of reducing air emissions as well. New projects subject to CEQA would be required to comply with these measures through the CAP Consistency Checklist. However, because the size, scale, and individual development characteristics of the variety of actions that could occur under the project are not known, some projects may result in increases in nonattainment criteria pollutants that cannot be reduced through mitigation, which would result in a **significant and unavoidable** project air quality impact. Further, overall significant and unavoidable cumulative impacts related to increases in nonattainment criteria pollutants would remain under the 2011 GPU, and the project's contribution to these impacts would be **considerable and unavoidable**.

#### ***2.3.5.4 Issue 4: Impacts to Sensitive Receptors***

As described above in Section 2.3.4.4, even with implementation of the adopted 2011 GPU policies and 2011 GPU PEIR mitigation measures that protect air quality in conformance with federal, state, and local standards, short-term project and cumulative impacts related to sensitive receptors' exposure to TACs could occur from implementation of the project. The County has taken action through its 2011 GPU to adopt all feasible mitigation that could reduce potential impacts associated with buildout of the 2011 GPU. However, the 2011 GPU PEIR concluded that impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the 2011 GPU PEIR were found to be infeasible by the County for the reasons given in Section 2.3.6.2 of the 2011 GPU PEIR and described above.

No other feasible project-related mitigation beyond existing federal and state permitting requirements and compliance with the County's adopted 2011 GPU policies or 2011 GPU PEIR mitigation measures is available and could be applied to the individual actions that would occur under the project. Where an individual action under the project would comply with existing regulations pertaining to sensitive receptors, it would reduce its project-specific impacts to a less-than-significant level and would reduce its contribution to cumulative impacts such that it would not be considerable. However, because the size, scale, and individual development characteristics of the variety of actions that could occur under the project are not known, some projects may result in short-term exposure of sensitive receptors to TACs that cannot be reduced through mitigation, which would result in a **significant and unavoidable** project air quality impact. Further, overall significant

and unavoidable cumulative impacts related to sensitive receptors would remain under the 2011 GPU, and the project's contribution to these impacts would be **considerable and unavoidable**.

### ***2.3.5.5 Issue 5: Odor Impacts***

The County shall implement the following mitigation measures to reduce odor impacts associated with solid waste-related GHG reduction measures:

**CAP Mitigation Measure AQ-1:** See description above.

**CAP Mitigation Measure AQ-2:** See description above.

**CAP Mitigation Measure AQ-3:** The County shall use the policies set forth in the CARB's Land Use and Air Quality Handbook as a guideline for siting new sources of odor related to solid waste.

**CAP Mitigation Measure AQ-4:** Require project applicants to conduct an odor impact analysis and incorporate control measures including but not limited to, rapid incorporation of food waste and biweekly turnover to maintain aerobic conditions for open systems, and wet or dry scrubbers or bioscrubber systems on enclosed structures to reduce impacts.

Additional mitigation was contemplated as part of this Draft SEIR that would implement a development cap upon solid waste facilities. This mitigation was rejected as infeasible because it may reduce the effectiveness of GHG Reduction Measure SW-1.1 and implementation of the County's Solid Waste Reduction Strategy. It is unknown how many solid waste facilities would be required to meet the GHG reduction goals of the CAP because the design, siting, and technology considerations vary widely. No other feasible project-related mitigation beyond existing federal and state permitting requirements and compliance with the County's adopted 2011 GPU policies or 2011 GPU PEIR mitigation measures is available and could be applied to the individual actions that would occur under the project. Implementation of these mitigation measures would reduce odor impacts from new solid waste facilities. However, because the size, scale, and individual development characteristics of the variety of actions that could occur under the project are not known, some projects may result in odor impacts that cannot be reduced through mitigation, which would result in a **significant and unavoidable** project air quality impact. Further, implementation of solid waste-related GHG reduction measures would result in a new significant cumulative odor impact and these measures would have a **considerable and unavoidable** contribution to this new cumulative impact.

**Table 2.2-1 Summary of Annual Air Quality Data (2014–2016)**

Ozone	2013	2014 <sup>1,2</sup>	2015 <sup>1</sup>
Maximum concentration (1-hour/8-hour, ppm)	0.095/0.082	0.099/0.081	0.097/0.084
Number of days state standard exceeded (1-hour/8-hour)	2	1	2
Number of days national standard exceeded (1-hour/8-hour)	24	28	30
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>2</sup>	2013	2014	2015
Maximum Concentration (µg/m <sup>3</sup> )	82.0	44.0	31.0
Number of days state standard exceeded (measured <sup>3</sup> )	1	0	0
Number of days national standard exceeded (measured <sup>3</sup> )	0	0	0
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>2</sup>	2013	2014	2015
Maximum Concentration (µg/m <sup>3</sup> )	56.3	77.5	29.4
Annual Average (µg/m <sup>3</sup> )	0	0	0
Number of days national standard exceeded (measured <sup>3</sup> )	1	1	0

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million; \* = Insufficient data to determine the value

<sup>1</sup> Data from the Alpine – 2300 Victoria Drive station

<sup>2</sup> Data from the Escondido– 600 East Valley Parkway station

<sup>3</sup> Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. The number of days above the standard is not necessarily the number of violations of the standard for the year.

Sources: CARB 2017

**Table 2.2-2 Ambient Air Quality Standards and Designations for San Diego County**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>	
		Standards <sup>2,3</sup>	Attainment Status <sup>4</sup>	Primary <sup>3</sup>	Attainment Status <sup>6</sup>
Ozone	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	N	–	A
	8-hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )	N
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	A	35 ppm (40 mg/m <sup>3</sup> )	A
	8-hour	9 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	
	8-hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		–	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	A	0.053 ppm (100 µg/m <sup>3</sup> )	A
	1-hour	0.18 ppm (339 µg/m <sup>3</sup> )		0.100 ppm (188 µg/m <sup>3</sup> )	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	–	A	0.030 ppm (80 µg/m <sup>3</sup> )	A
	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (365 µg/m <sup>3</sup> )	
	3-hour	–		0.5 ppm (1300 µg/m <sup>3</sup> ) <sup>5</sup>	
	1-hour	0.25 ppm (655 µg/m <sup>3</sup> )		0.075 ppm (196 µg/m <sup>3</sup> )	
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	N	–	U
	24-hour	50 µg/m <sup>3</sup>		150 µg/m <sup>3</sup>	

Pollutant	Averaging Time	California		National Standards <sup>1</sup>	
		Standards <sup>2,3</sup>	Attainment Status <sup>4</sup>	Primary <sup>3</sup>	Attainment Status <sup>6</sup>
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	N	12.0 µg/m <sup>3</sup>	A
	24-hour	–		35 µg/m <sup>3</sup>	
Lead <sup>7</sup>	30-day Average	1.5 µg/m <sup>3</sup>	A	–	A
	Calendar Quarter	–		1.5 µg/m <sup>3</sup>	
	Rolling 3-Month Avg	–		0.15 µg/m <sup>3</sup>	
Sulfates	24-hour	25 µg/m <sup>3</sup>	A	No National Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m <sup>3</sup> )	U		
Vinyl Chloride <sup>7</sup>	24-hour	0.01 ppm (26 µg/m <sup>3</sup> )	Not Available		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 mi or more	U		

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million

<sup>1</sup> National standards (other than ozone, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM<sub>10</sub> 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The PM<sub>2.5</sub> 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

<sup>2</sup> California standards for ozone, CO (except in the Lake Tahoe Basin), SO<sub>2</sub> (1- and 24-hour), NO<sub>2</sub>, PM, 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 (CAAQS) are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>3</sup> Concentration expressed first in units in which it was promulgated [i.e., parts per million (ppm) or micrograms per cubic meter (µg/m<sup>3</sup>)]. Equivalent units given in parentheses are based upon 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. Secondary national standards are also available from EPA.

<sup>4</sup> Unclassified (U): a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Attainment (A): a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a 3-year period.

Nonattainment (N): a pollutant is designated nonattainment if there was a least one violation of a state standard for that pollutant in the area. Nonattainment designations for ozone are classified as marginal, serious, severe, or extreme depending on the magnitude of the highest 8-Hour ozone design value at a monitoring site in a non-attainment area.

Nonattainment/Transitional (NT): is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

<sup>5</sup> Secondary Standard

<sup>6</sup> Nonattainment (N): any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Attainment (A): any area that meets the national primary or secondary ambient air quality standard for the pollutant.

Unclassifiable (U): any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Maintenance (M): any area previously designated nonattainment pursuant to the CAAA of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under Section 175A of the CAA, as amended.

<sup>7</sup> CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold 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.

Source: CARB 2015, EPA 2017, SDAPCD 2017a; data compiled by Ascent Environmental in 2017.

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