

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. Because this analysis is subsequent to the adopted 2011 GPU PEIR, the evaluation of impacts focuses on the potential for implementation of the CAP Update to result in new or substantially more severe impacts than presented in the 2011 GPU PEIR, given the changes to the General Plan proposed by the CAP Update and changes in environmental and regulatory conditions that have occurred since the certification of the 2011 GPU PEIR.

This section incorporates by reference the air quality setting and impact analysis from the 2011 GPU PEIR as it applies to the CAP Update and supplements with relevant setting conditions that have changed since certification of the 2011 GPU PEIR. In 2018, Appendix G of the State CEQA Guidelines was updated to combine two checklist items (related to air quality violations and nonattainment of criteria pollutants) into a single checklist item and amend the last checklist item to expand the question beyond objectionable odors. However, to distinguish impacts between these two issue areas, the analysis below uses the same separate checklist items used in the 2011 GPU PEIR.

Table 2.3-1 summarizes the impact conclusions reached in the 2011 GPU PEIR and identifies if a new or more severe significant impact would occur with implementation of the CAP Update. As indicated, implementation of the proposed project would not result in new or more severe significant impacts on air quality (with implementation of mitigation).

Table 2.3-1 Summary of Air Quality–Related Impacts

Issue Number	Issue Topic	Determination from 2011 GPU PEIR	CAP Update SEIR Determination	
			New or More Severe Significant Impact Prior to Mitigation	New or More Severe Significant Impact After Mitigation
1	Air Quality Plans	General Plan Only: Less-Than-Significant Impact	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Less-Than-Significant Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No
2	Air Quality Violations	General Plan Only: Significant and Unavoidable Impact	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Significant and Unavoidable Cumulative Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No

Issue Number	Issue Topic	Determination from 2011 GPU PEIR	CAP Update SEIR Determination	
			New or More Severe Significant Impact Prior to Mitigation	New or More Severe Significant Impact After Mitigation
3	Non-Attainment Criteria Pollutants	General Plan Only: Significant and Unavoidable Impact	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Significant and Unavoidable Cumulative Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No
4	Sensitive Receptors	General Plan Only: Significant and Unavoidable Impact	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Significant and Unavoidable Cumulative Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No
5	Odors	General Plan Only: Less-Than-Significant Impact	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Less-Than-Significant Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No

Notes: CAP = Climate Action Plan; GPU = General Plan Update; PEIR = Program Environmental Impact Report; SEIR = Supplemental Environmental Impact Report.

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No comments received during the Notice of Preparation (NOP) scoping process included specific concerns regarding air quality. However, several commenters provided suggestions for improvements that should be included in the CAP Update that would positively impact air quality such as increased alternative transportation infrastructure, complete streets, energy efficiency improvements, increased renewable energy, building electrification, and natural resource conservation. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A of this 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 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 County Air Pollution Control District (SDAPCD). Changes to the monitoring station concentration data, ambient risk levels in the county, and attainment designations for the county have been updated and

are provided below; however, this updated information does not substantially change the existing conditions described for air quality in the 2011 GPU PEIR, which are incorporated herein by reference.

Criteria Air Pollutants

The federal and state governments have established air quality standards for six criteria pollutants: ozone (O₃); carbon monoxide (CO); lead (Pb); nitrogen dioxide (NO₂); sulfur dioxide (SO₂); and particulate matter (PM), which consists of particulate matter 10 micrometers or less in diameter (PM₁₀) and particulate matter 2.5 micrometers or less in diameter (PM_{2.5}). O₃ is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as CO, NO₂, SO₂, and Pb are considered local pollutants that tend to accumulate in the air locally. PM is both a local and a regional pollutant. The primary criteria pollutants of concern generated by the project are O₃ precursors (volatile organic compounds [VOCs] and oxides of nitrogen [NO_x, CO, and PM].¹

All criteria pollutants can have human health and environmental effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment within an adequate margin of safety (Clean Air Act Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards.

Principal characteristics and possible health and environmental effects from exposure to the primary criteria pollutants generated by the project are provided in Table 2.3-2, presented at the end of this section.

Monitoring Station Data and Attainment Area Designations

SDAPCD operates and maintains nine regional 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 for O₃ and fine particulate matter (PM_{2.5}) concentrations downwind of the region's major metropolitan areas. The Escondido – 600 East Valley Parkway monitoring station closed in 2015 and has not yet been replaced. Monitoring data from the Escondido monitoring station was used in the 2011 GPU PEIR to establish existing conditions. The next closest monitoring station is the El Cajon – Lexington Elementary station, which is located within the City of El Cajon near unincorporated areas. The El Cajon – Lexington Elementary station reports O₃, respirable particulate matter (PM₁₀), and PM_{2.5} concentrations. Data from the El Cajon – Lexington Elementary station is included below. In general, the local ambient air quality measurements from these stations are representative of the air quality within the unincorporated county. Table 2.3-3, presented at the end of this section, summarizes the

¹ As discussed, there are also ambient air quality standards for SO₂, Pb, sulfates, hydrogen sulfide, vinyl chloride, and visibility particulates. However, these pollutants are typically associated with large stationary sources (such as manufacturing), which are not included as part of the project.

air quality data for the three most recent calendar years for which data are available (i.e., 2019–2021).

Both the California Air Resources Board (CARB) and US 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 2.3-4, presented at the end of this section, for each criteria air pollutant. As of the 2011 GPU PEIR, San Diego County was designated as a nonattainment area for the National Ambient Air Quality Standards (NAAQS), the California Ambient Air Quality Standards (CAAQS), or both for O₃ (NAAQS and CAAQS), PM₁₀ (CAAQS), and PM_{2.5} (CAAQS), as well as a maintenance area for CO (NAAQS). San Diego County remains a nonattainment area for O₃ (NAAQS and CAAQS), PM₁₀ (CAAQS), and PM_{2.5} (CAAQS), but is no longer considered a maintenance area for CO.

Toxic Air Contaminants

Toxic air contaminants (TACs) are pollutants that have no ambient standard but pose the potential to increase the risk of developing cancer or acute or chronic health risks. The most relevant TAC associated with the proposed project is diesel particulate matter (DPM). DPM was established as a TAC in 1998, while some of the chemicals in diesel exhaust, such as benzene and formaldehyde, had previously been identified as TACs and listed as carcinogens under either the state’s Proposition 65 or the federal hazardous air pollutants program.

For TACs like DPM that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Therefore, no NAAQS or CAAQS exist for TACs. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA). Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person’s reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among

the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant or a coffee roaster). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants. Odor sources of concern exist throughout the county.

2.3.2 Regulatory Framework

Air quality in the 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. 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 that are discussed in the 2011 GPU PEIR and are applicable to the project include the following:

2.3.2.1 Federal

- Federal Clean Air Act
- NAAQS
- New Source Performance Standards
- National Emissions Standards for Hazardous Air Pollutants Program
- New Source Review (NSR)
- Prevention of Significant Deterioration

2.3.2.2 State

- California Clean Air Act
- CAAQS
- California State Implementation Plan (SIP)
- California Air Toxics “Hot Spots” Information and Assessment Act (Assembly Bill 2588)

2.3.2.3 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.

Applicable local regulations that were not included in or were adopted after adoption of the 2011 GPU PEIR are described below.

Regional Air Quality Strategy and State Implementation Plan

CARB, SDAPCD, and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego RAQS outlines SDAPCD's plans and control measures designed to attain and maintain the state standards, while San Diego's portions of the SIP are designed to attain and maintain federal standards. The RAQS was initially adopted in 1991 and is updated on a triennial basis. The

RAQS was updated in 1995, 1998, 2001, 2004, 2009, 2016, and most recently in 2022 (SDAPCD 2023).

SDAPCD Rulemaking

SDAPCD Rule 1210 was first adopted in 1996 to establish public notification and risk reduction thresholds and procedures for San Diego County. Rule 1210 was amended in December 2021 to decrease the cancer risk reduction threshold from 100 in one million to 10 in one million. The intent of the regulation is to improve air quality by reducing cancer-causing air pollutants in the region.

2011 San Diego County General Plan

The General Plan policies addressing air quality that are applicable to the CAP Update 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.

2011 San Diego County GPU PEIR

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:

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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.

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

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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 VOC paints; and
- projects exceeding SLTs will require 10 percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, III, IV equipment. Equipment is certified if it meets emission standards established by the EPA for mobile non-road diesel engines of almost all types. Standards established for hydrocarbons, oxides of nitrogen (NO_x), 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) 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.

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

Adopted Mitigation Measure Air-2.7: Implement County Air Pollution Control District regulations for air emissions from all sources under its jurisdiction.

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

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

Adopted Mitigation Measure 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.

Adopted Mitigation Measure Air-2.11: Implement County RAQS to attain state air quality standards for ozone.

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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 Analysis of Effects and Significance Determinations

2.3.3.1 Significance Criteria

The analysis is informed by the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), which has not been updated since the 2011 GPU PEIR was prepared.

Per Appendix G of the State CEQA Guidelines and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), a project’s impact to air quality is considered significant if it would:

- conflict with or obstruct implementation of the applicable air quality plan,
- violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations,
- result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The County's Screening Level Thresholds (SLTs), as informed by SDAPCD's Trigger Levels in Rules 20.2 and 20.3, are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS. The NAAQS and CAAQS, in turn, are scientifically substantiated numerical concentrations of criteria air pollutants considered to be protective of human health. Using federal and state guidance pertaining to TACs, SDAPCD developed cancer risk thresholds for TAC exposure. Unlike criteria air pollutants, there are no known safe concentrations of TACs. Moreover, TAC emissions contribute to the deterioration of localized air quality because of the dispersion characteristics of TAC emissions that do not typically cause regional-scale air quality impacts. SDAPCD thresholds are designed to ensure that a source of TACs does not contribute to a localized, significant impact to existing or new receptors. These risk-based TAC thresholds have been incorporated into the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* analyses under CEQA.

2.3.3.2 Approach to Analysis

Impacts related to air quality were analyzed qualitatively based on a review of the CAP Update measures and actions and their potential to result in physical changes to the environment if the CAP Update is approved and implemented. Each issue area was analyzed in the context of existing laws and regulations, as well as policies adopted in the General Plan, and the extent to which these existing regulations and policies adequately address and minimize the potential for impacts associated with implementation of the CAP Update. Because this SEIR tiers from the 2011 GPU PEIR, all relevant adopted General Plan policies and 2011 GPU PEIR mitigation measures have been applied to the proposed project as needed to avoid or minimize project impacts and are considered part of the proposed CAP Update.

Scope of SEIR Impact Analysis

The impact analysis contained within this draft SEIR focuses on whether approval and implementation of the CAP Update would result in new or more severe impacts than were disclosed in the 2011 GPU PEIR, which is herein incorporated by reference. The CAP Update identifies overarching strategies, measures, and supporting actions (referred to

herein as measures and actions) to demonstrate progress toward the established GHG reduction targets. Because these measures and actions represent the components of the CAP Update that could result in physical environmental effects within the unincorporated county, this analysis focuses on the impacts of their implementation. Given the broad scope of the CAP Update (i.e., covering the entire unincorporated county) and its role as a planning document designed to guide future decision-making related to the reduction of GHG emissions within the unincorporated county, the study area for the CAP Update is the unincorporated area of the county within the County’s jurisdiction (i.e., excluding tribal lands, state and federally owned lands, and military installations).

The analysis in this draft SEIR is programmatic. Implementation of all CAP Update measures and actions were considered during preparation of this draft SEIR, to the degree specific information about their implementation is known. Because future projects that would be implemented under the CAP Update have yet to be specifically defined, this SEIR considers the types of impacts that could occur with implementation of future projects. Future discretionary projects would be required to be evaluated to determine if they are within the scope of this SEIR or if they would result in project-specific impacts additional to what is concluded in this analysis. If additional impacts would result, additional CEQA documentation would be required to evaluate impacts, determine mitigation, and conclude whether impacts are reduced to below a significant impact.

Proposed CAP Update Strategies

As described in Chapter 1, “Project Description,” the overarching strategies and associated measures and actions proposed in the CAP Update (see Table 1-2) have been grouped into categories for the purpose of analysis, based on the sector they target (e.g., solid waste, water/wastewater). CAP Update measures and actions with the potential to result in effects related to air quality are summarized below. CAP Update measures and actions that would involve development of policies and programs that would not result in direct physical effects or those that would result in limited physical improvements to existing development are not discussed further because these actions and measures would not have potential to result in new or more severe impacts related to air quality.

Solid Waste Measures and Actions. This category includes measures and actions intended to increase organic waste diversion, increase recycling, and increase gas capture. Within these measures are associated actions that would achieve the goals of the measures by implementing actions such as adopting a County operations zero waste policy to achieve zero waste (90 percent diversion) by 2030 (Action SW-1.1) and incentivizing the development of new composting/anaerobic digestion facilities and on-farm digesters (Action SW-4.1a).

Water and Wastewater Measures and Actions. This category includes measures and actions intended to increase water efficiency and conservation. Within these measures are associated actions that would update the County’s Water Efficiency Plan to require water-efficiency measures in new and existing County buildings/operations to reduce potable water use by 19 percent (Action W-1.1) and amend the County’s Code of Regulatory Ordinances to require Tier 2 California Green Building Standards Code

(CALGreen) water efficiency requirements (water efficiency and conservation requirements include installation of stormwater and greywater capture systems for irrigation) for existing development projects with qualifying improvements (Action W-2.2).

Agriculture and Conservation Measures and Actions. This category includes the acquisition and preservation of natural lands, improvements to land management practices to protect habitat and increase carbon storage, and the reduction of GHG emissions from agricultural operations. Within these measures are associated actions that would achieve the goals of the measures by implementing actions such as acquiring 11,000 acres of conservation lands by 2030 to preserve land in perpetuity (Action A-1.1), implementing the County's Landscaping Ordinance to require tree planting in single family residential development (Action A-2.2), and developing a Carbon Farming Program to increase carbon sequestration on 3,000 acres by 2030 (Action A-4.1). This category also includes an action that would evaluate opportunities for the construction of farmworker housing (Action A-4.1.b).

Energy Measures and Actions. This category includes increases to building energy efficiency, the development of renewable energy generation infrastructure, and increasing electrification. Specific measures and actions include implementing the County Facilities Zero Carbon Portfolio Plan to achieve 90 percent reduction in operational carbon emissions by 2030 (Action E-1.1), updating the Green Building Incentive program to include incentives for energy efficiency and conservation improvements (including installation of efficient energy-use equipment, insulation, and replacement of non-electrically powered equipment) for new and existing development (Action E-2.3), and developing a program to provide 100 percent renewable energy from San Diego Community Power to increase renewable energy use in the unincorporated area (Action E-3.3). Action E-3.3 may indirectly result in the construction of large-scale renewable energy infrastructure.

Built Environment and Transportation Measures and Actions. This category includes a shift towards alternative modes of transportation, the encouragement of alternative fuel use, and reduced single-occupancy vehicle trips. Within these measures are associated actions that would achieve the goals of the measures by implementing actions such as using alternative fuel and/or zero-emission construction equipment in County projects (Action T-1.1.a), developing a program to provide residents and businesses incentives for alternative fuel and/or zero-emission construction and landscaping equipment (Action T-2.1), developing a program to fund and/or construct 2,040 publicly available electric vehicle (EV) charging stations at County facilities and in the unincorporated area by 2028 (Action T-3.1), and amending the San Diego County Code of Regulatory Ordinances to require Tier 2 CALGreen EV charging infrastructure installations for new multi-family residential and non-residential construction (Action T-43.1).

2.3.3.3 Issue 1: Conflict with Air Quality Plans

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

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines as well as the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), which remains the most recent guidance for San Diego County, the project would have a significant impact if it would conflict with or obstruct the implementation of the San Diego RAQS and/or the SIP.

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O₃. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the O₃ 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 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, as well as mobile, area and all other source emissions to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. The RAQS is updated on a triennial basis with more current projections for population growth and the resulting effects of increased population on air quality in the region such as vehicle miles traveled (VMT), number of vehicle trips in the area, and electricity demand. The RAQS also details measures that, when enacted, are meant to improve air quality in the region. Each subsequent update of the RAQS provides current projections of the items above but maintains the underlying goal of improving air quality in the region. Therefore, the standards applied to the 2011 GPU PEIR are similar to those applied to the project, as the RAQS remains the applicable plan with updated projections being the primary difference. 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 General Plan would not conflict with or obstruct the implementation of the RAQS and/or the SIP because future development would be required to demonstrate compliance with the strategies and measures adopted as part of the RAQS and SIP during the County's environmental review process, as well as with the requirements of the County and/or air pollution control district (APCD) to reduce emissions of PM. It was determined that, based on the requirements for consistency with emission control strategies in the RAQS and SIP, the General Plan

would not conflict with or obstruct the implementation of the San Diego 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 incorporated by reference. Specific General Plan policies related to the protection of air quality are listed above in Section 2.3.2, “Regulatory Framework.” The 2011 GPU PEIR concluded that the General Plan would result in a less-than-significant impact associated with conflicts with applicable air quality plans.

CAP Update Impact Analysis

The following sections describe the potential for implementation of the proposed CAP Update measures and actions to result in conflicts with the RAQS and SIP.

Solid Waste Measures and Actions

Implementation of measures and actions within the solid waste group would increase organic waste diversion (Actions SW-1.1, SW-1.1a, and SW-1.1b), increase recycling (Actions SW-2.1, SW-2.1a, SW-2.1b, and SW-4.1b), and increase gas capture (Actions SW-3.1 and SW-4.1). Implementation of the measures within this group and their associated actions include solid waste diversion/recycling programs/incentives, development of new composting/anaerobic digestion facilities and on-farm digesters, and biogas capture at existing landfills (Borrego and Otay). Specific locations for projects have not been identified. Implementation of the measures within this group could result in or facilitate the construction of new facilities, which could result in new sources of temporary emissions. Regarding solid waste, operation of new or expanded organics processing facilities throughout the county would require a small increase in the number of full-time employees, and therefore a small increase in vehicle trips and associated vehicle emissions, to operate and maintain the facilities; however, these types of facilities are not substantial employment generators and would therefore not result in substantial population increases. Therefore, implementation of these measures and actions would not result in population growth that could obstruct the implementation of the San Diego RAQS and/or the SIP by exceeding the projected emissions associated with increases in population such as from vehicle trips, energy consumption, and waste generation. Construction of these projects would result in short-term increases in emissions of criteria pollutants associated with construction activities such as heavy equipment use, hauling trips, and worker commute trips. However, these activities would be temporary and would not likely result in prolonged emissions. Operation of these projects would likely result in improvements to air quality as the actions and measures identified above would collectively reduce the consumption of fossil fuels used for generating electricity by improving building efficiency, improve gas capture at solid waste and recycling facilities as well as on farms, and reduce emissions from decomposition by diverting waste from landfills. Additionally, since the CAP Update does not propose changes in land use types, the emissions that would be generated during construction have been previously accounted for in the 2011 GPU PEIR. Implementation of the measures within the solid waste group would result in a less-than-significant impact, consistent with the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

Implementation of measures and actions within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3.a, W-2.3.b, W-2.4, and W-3.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs. Specific locations for projects have not been identified. Implementation of the measures within this group would result in the installation of new greywater systems, smart irrigation, and stormwater capture systems, which could result in new sources of temporary emissions. The operation of these utilities would likely require small increases in full-time employees and would thus not substantially increase population. Therefore, implementation of these measures and actions would not result in population growth that could obstruct the implementation of the San Diego RAQS and/or the SIP by exceeding the projected emissions associated with increases in population such as from vehicle trips, energy consumption, and waste generation. Construction of these projects would result in short-term increases in emissions of criteria pollutants associated with construction activities, such as heavy equipment use, hauling trips, and worker commute trips. However, these activities would be temporary and would not likely result in prolonged emissions. Additionally, since the CAP Update does not propose changes in land use types, the emissions that would be generated during construction have been previously accounted for in the 2011 GPU PEIR. Implementation of the measures within the water and wastewater group would result in a less-than-significant impact, consistent with the 2011 GPU PEIR.

Agriculture and Conservation Measures and Actions

Implementation of agriculture and conservation measures and actions would result in the acquisition and preservation of natural lands (Action A-1.1) and would improve land management practices to protect habitat and increase carbon storage (Actions A-1.2, A-1.2.a, and A-3.1). Additionally, measures and actions in the group aim to reduce GHG emissions from agricultural operations (Action A-5.1 and Action A-5.1.a). Projects that could result from implementation of these measures could include creating agricultural programs, restoring natural/working lands, reducing on-farm anaerobic digesters, incentivizing manure composting, improving foraging/grazing lands, reducing agricultural water costs, implementing carbon farming programs, preparing open space/habitat restoration plans, planting trees, promoting low-carbon/zero emissions landscaping, and evaluating the potential for increasing farmworker housing. This list is not intended to be exhaustive but represents some of the types of projects that could be considered in the future.

Some measures within this group could involve some type of ground disturbing construction activity and would generate criteria pollutant emissions. For example, Action A-4.1.b would evaluate opportunities for increased farmworker housing, which could involve the subsequent construction of housing for farmworkers. Construction activities and project operations associated with these measures could result in air quality emissions. Implementation of these projects may result in a small number of new jobs,

specifically related to construction and maintenance services, but are not expected to result in new residents or growth in activity or development that would conflict with the RAQS or SIP. Therefore, implementation of these measures and actions would not result in population growth that could obstruct the implementation of the San Diego RAQS and/or the SIP by exceeding the projected emissions associated with increases in population, such as from vehicle trips, energy consumption and waste generation. Construction of these projects would result in short-term increases in emissions of criteria pollutants associated with construction activities such as heavy equipment use, hauling trips, and worker commute trips. However, these activities would be temporary and would not likely result in prolonged emissions. Additionally, since the CAP Update does not propose changes in land use types, the emissions that would be generated during construction have been previously accounted for in the 2011 GPU PEIR. All projects would be required to comply with applicable existing federal, state, and local regulations. Implementation of the measures within the agriculture and conservation group would result in a less-than-significant impact, consistent with the 2011 GPU PEIR.

Energy Measures and Actions

Implementation of measures and actions within the energy group would increase building energy efficiency and increase electrification in the unincorporated county (Measures E-1 and E-2) and develop policies and programs to increase use of renewable energy (Measure E-3). These measures and actions would result in investments in local job training and incentive programs and amendments to County codes regarding energy, among other initiatives. Other measures and actions could result in large-scale wind turbines and solar arrays, as well as energy-storage systems. Additional actions include energy efficiency retrofits on existing residential and non-residential structures, including small-scale rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, and incentivizing the use of renewable energy. Implementation of these measures would generally involve some type of ground-disturbing construction activity. Implementation of these projects would result in a small amount of new jobs, specifically related to construction services, but implementation of these projects is not expected to result in new residents or growth in activity or development that 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 adopted General Plan policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, and County Resources Protection Ordinance regulations.

Installation and operation of both large- and small-scale solar arrays, wind turbines, and energy storage solutions would not result in an increase in population in the county, and the growth in jobs would be minor and related primarily with construction services. Therefore, implementation of these measures would not result in population growth that could obstruct the implementation of the San Diego RAQS and/or the SIP by exceeding the projected emissions associated with increases in population, such as from vehicle trips, energy consumption, and waste generation. Further, increased renewable energy generation would result in decreased reliance on fossil fuels for energy consumption, which would improve air quality by reducing areawide emissions associated with the generation of electricity, consistent with the goals of the RAQS and SIP.

Construction of these projects would result in short-term increases in emissions of criteria pollutants associated with construction activities such as heavy equipment use, hauling trips, and worker commute trips. However, these activities would be temporary and would not likely result in prolonged emissions. Additionally, since the CAP Update does not propose changes in land use types, the emissions that would be generated during construction have been previously accounted for in the 2011 GPU PEIR. Implementation of the measures within the energy group would result in a less-than-significant impact, consistent with the 2011 GPU PEIR.

Built Environment and Transportation Measures and Actions

Implementation of these measures and actions would encourage a shift towards alternative modes of transportation (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, and T-5.1.b), encourage alternative fuel use (Action T-3.1.a), and reduce single-occupancy vehicle trips (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, T-5.1.b, and T-5.2). These measures and their associated actions would be implemented through activities such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing transportation demand management (TDM) programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing new bicycle and pedestrian projects as well as improving existing infrastructure.

Implementation of these measures and actions would generally involve some type of ground-disturbing construction activity and/or result in temporary or permanent change to air quality due to the installation of new transportation infrastructure features as well as upgrades to existing features. Because of the nature of the built environment and transportation measures and actions, projects anticipated to result from implementation of the CAP Update would most likely occur near existing residential and commercial areas throughout the unincorporated area. Emissions of criteria air pollutants during construction activities typically include emissions CO and O₃ precursors (VOCs and NO_x) from the use of heavy equipment, worker commutes, and delivery hauling trips, as well as emissions of PM₁₀ and PM_{2.5} from dust generated by material movement and the combustion of diesel fuels used to power heavy equipment and trucks. While construction-related emissions would be generated, these measures would be anticipated to reduce long-term emissions by reducing the amount of fossil fuels combusted primarily from reduced vehicle use trips, reduced VMT, and increased alternative fuel use. These measures would improve air quality by reducing fossil fuel combustion and reducing PM₁₀ and PM_{2.5} emissions associated with dust and diesel exhaust. Implementation of these measures would align with the goals of the San Diego RAQS and SIP.

Implementation of these measures and actions would not result in population growth beyond SANDAG's projections for the county. Population growth associated with project development is tied to the generation of emissions of criteria air pollutants from VMT, vehicle trip rates, energy demand, and waste generation. Because population growth would not be affected by implementation of the project, emissions related to these factors

affected by population also would not change. Construction of these projects would result in short-term increases in emissions of criteria pollutants associated with construction activities, such as heavy equipment use, hauling trips, and worker commute trips. However, these activities would be temporary and would not likely result in prolonged emissions. Additionally, since the CAP Update does not propose changes in land use types, the emissions that would be generated during construction have been previously accounted for in the 2011 GPU PEIR.

Accordingly, implementation of these measures and actions would not conflict with or obstruct the implementation of the RAQS and/or the SIP. Further, as described above, adopted General Plan policies would ensure that new development would minimize emissions consistent with County policies and requirements to comply with federal and state standards. Implementation of the measures within the built environment and transportation group would result in a less-than-significant impact, consistent with the 2011 GPU PEIR.

Summary

Implementation of the CAP Update would not conflict with or obstruct implementation of the RAQS or SIP. This impact would remain less than significant, as identified in the 2011 GPU PEIR. Therefore, there is **no new or more severe significant impact** related to obstruction of the implementation of the San Diego RAQS and/or applicable portion of the SIP.

2.3.3.4 Issue 2: Violate Any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation

This section describes potential project 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 State CEQA Guidelines as well as the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), which remains the most recent guidance for San Diego County, 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. County SLTs are established for both attainment-criteria pollutants (NO₂, SO₂, and CO), and nonattainment-criteria pollutants (O₃ precursors, PM₁₀, and PM_{2.5}). Specifically, the CAP Update would result in a significant impact if it would result in:

- emissions that exceed 250 pounds per day of NO_x, or 75 pounds per day of VOCs; and/or
- 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; and/or

- emissions that exceed 55 pounds per day of PM_{2.5}; and/or
- emissions of PM₁₀ that exceed 100 pounds per day and increase the ambient PM₁₀ concentration by 5 micrograms per cubic meter or greater at the maximum exposed individual; and/or
- expose sensitive receptors to a substantial incremental increase in TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater.

Because the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* remains the most recent guidance for San Diego County, the standards of significance described above remain consistent with those applied to the 2011 GPU PEIR analysis.

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 General Plan. The 2011 GPU PEIR concluded that buildout of the General Plan would exceed the SLTs for PM₁₀, PM_{2.5}, NO_x, and VOCs, primarily due to emissions resulting from vehicle trips.

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; adopted General Plan policies; and mitigation measures identified in the 2011 GPU PEIR. However, even with these programs and identified mitigation measures (Air-2.1 through Air-2.13), the direct impacts would remain significant and unavoidable because the mitigation measures deemed feasible would not be sufficient to reduce impacts associated with air quality violations below a significant level. Other mitigation measures were proposed but ultimately deemed infeasible because they would restrict new development in areas identified for growth, would require the use of new technology and would be more restrictive than the existing air quality regulations, and would require all applicants to provide on-site renewable energy systems. The discussion of impacts related to air quality can be found in Section 2.3, "Air Quality," of the 2011 GPU PEIR on pages 2.3-1 to 2.3-52 and is herein incorporated by reference. The 2011 GPU PEIR concluded that the General Plan would result in a significant and unavoidable impact associated with air quality violations.

CAP Update Impact Analysis

The following sections describe the potential for implementation of the proposed CAP Update measures and actions to result in conflicts with the state and federal ambient air quality standards.

Solid Waste Measures and Actions

Implementation of measures and actions within the solid waste group would increase organic waste diversion (Actions SW-1.1, SW-1.1a, and SW-1.1b), increase recycling (Actions SW-2.1, SW-2.1a, SW-2.1b, and SW-4.1b), and increase gas capture (Actions SW-3.1 and SW-4.1). Implementation of the measures within this group and their associated actions include solid waste diversion/recycling programs/incentives, development of new composting/anaerobic digestion facilities and on-farm digesters, and biogas capture at existing landfills (Borrego and Otay). Specific locations for projects have not been identified. Air emissions from new waste handling and recycling facilities (Actions SW-4.1.a and SW-4.1.b) could occur from construction activities, including operation of heavy-duty equipment, vehicle travel by worker commute trips, material delivery, and haul trips. Construction activities associated with these actions could result in construction-related air quality emissions and would, therefore, lead to a short-term increase in air emissions.

Regarding the operation of new waste handling and recycling facilities, the anaerobic decomposition of waste would result in operational emissions of VOCs. These organics processing facilities could generate additional VOC emissions that would be analyzed during discretionary review of individual projects. These types of projects were accounted for in the 2011 GPU PEIR as light- and medium-impact industrial development. These projects would be subject to additional review to ensure that emissions resulting from the project would be below applicable thresholds before a stationary source permit would be issued. Stationary source emissions are reported to the SDAPCD and are not anticipated to change unless new stationary sources are constructed. However, if new stationary sources were constructed, they would be subject to the SDAPCD's requirements for permitting and must demonstrate that they will not cause or contribute to a violation of an air quality standard. Organics processing can be conducted outdoors or in partially or fully enclosed facilities, which could result in variations of air quality emissions depending on the type of facility. 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 and would not result in increased emissions from hauling trips. 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 is expected to displace trips already occurring to transport this waste to landfills.

At the programmatic level, it is not possible to determine with certainty that impacts to air quality standards from construction activities would be reduced to a less-than-significant level. Additionally, emissions of VOCs resulting from operation of solid waste facilities could result in significant levels of VOC emissions. Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction emissions to a less-than-significant level. Adopted Mitigation Measures Air-2.1 through Air-2.13, as well as proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants

from construction equipment by requiring Tier 3 engines, would reduce emissions associated with project construction and operation. Additionally, at the programmatic level, VOC emissions from operations related to the measures and associated actions of the solid waste group cannot be estimated and it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce operations related VOC emissions to a level that would not exceed the local air quality threshold for VOCs. Therefore, implementation of the measures and actions within the solid waste group would result in significant and unavoidable impacts, consistent with buildout of the General Plan.

Water and Wastewater Measures and Actions

Implementation of measures and actions within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3a, W-2.3b, W-2.4, and W-3.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs. Specific locations for projects have not been identified. Implementation of the measures within this group would result in the installation of new greywater systems, smart irrigation, and stormwater capture systems, which could result in new sources of temporary emissions. Air emissions from the implementation of water and wastewater facilities and upgrades could occur from construction activities, including operation of heavy-duty equipment, vehicle travel by worker commute trips, and material delivery. Construction activities would primarily consist of the installation of small structures, such as stormwater capture systems, as well as the installation of new irrigation systems, which could involve some ground-disturbing activities. Operation of these facilities and structures would generate air quality emissions from maintenance trips, worker commute trips, and the use of electricity to power pumps. However, operation of these facilities does not typically require a substantial number of employees, and maintenance activities are typically infrequent and last for short periods of time. Regarding electricity demand, all projects would be required to comply with state building code requirements for energy efficiency.

At the programmatic level, it is not possible to determine with certainty that impacts to air quality standards from construction activities would be reduced to a less-than-significant level. Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Air-2.1 through Air-2.13), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would reduce the impacts related to construction emissions to a less-than-significant level.

Agriculture and Conservation Measures and Actions

Implementation of measures and actions within the agriculture and conservation group would acquire and preserve natural lands (Action A-1.1), as well as improve land management practices to protect habitat and increase carbon storage (Actions A-1.2, A-

1.2.a, and A-3.1). Additionally, actions in the group aim to reduce GHG emissions from agricultural operations (Actions A-5.1 and A-5.1.a). Projects that could result from implementation of these measures and actions could include creating agricultural programs, restoring natural/working lands, reducing on-farm anaerobic digesters, incentivizing manure composting, improving foraging/grazing lands, reducing agricultural water costs, implementing, carbon farming programs, developing open space/habitat restoration plans, planting trees, promoting low-carbon/zero emissions landscaping, and evaluating the potential for increasing farmworker housing. This list is not intended to be exhaustive but represents some of the types of projects that could be considered in the future.

Measures and actions within this group may involve some level of construction and physical disturbance of the land (e.g., Action A-4.1.b, which would create additional housing for farmers), as well as the combustion of fossil fuels for the delivery and planting of trees as stated in Actions A-2.1 and A-2.2. This analysis assumes that implementation of the measures and actions within this group 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 landform and views; and installation or upgrades of mechanical equipment or facilities. Construction activities associated with these measures could result in construction-related air quality emissions and would therefore lead to a short-term increase in air emissions to the extent that air quality thresholds may be exceeded.

It would be speculative to assume the precise impacts that could occur with implementation of the agriculture and conservation measures and actions in the CAP Update, or what new 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, as described above. Specifically, projects would be evaluated for their consistency adopted General Plan policies, 2011 GPU PEIR mitigation measures, County Grading Ordinance regulations, and County Resources Protection Ordinance regulations.

At the programmatic level, it is not possible to determine with certainty that impacts to air quality standards from construction and operations activities would be reduced to a less-than-significant level. Projects would be subject to additional review as part of the County's discretionary review process and all applicable feasible mitigation (Air-2.2, Air-2.4, Air-2.5, Air-2.6, Air-2.7, Air-2.9, Air-2.10, Air-2.11, Air-2.13, and CAP Air-2.1) would be applied at the project level as part of this process. However, construction of projects associated with the agriculture and conservation measures and actions could still adversely affect the attainment of air quality standards because they would likely require the use of heavy construction equipment and involve earth moving activities and the duration and intensity of these activities is unknown at the programmatic level. It is also unknown if the mitigation measures listed above would be sufficient in reducing operational impacts to a less-than-significant level. While adopted General Plan policies and 2011 GPU PEIR mitigation measures would likely reduce construction and operational emissions, these measures may not be able to fully mitigate the impacts. Therefore,

implementation of the measures and actions within the agriculture and conservation group would result in significant and unavoidable impacts, consistent with buildout of the General Plan.

Energy Measures and Actions

Implementation of measures and actions within the energy group would increase building energy efficiency (Measures E-1 and E-2), and develop policies and programs to increase use of renewable (Measure E-3). These measures and actions would result in investments in local job training and incentive programs and amendments to County codes regarding energy, among other initiatives. Other measures and actions could result in large-scale renewable energy development, such as wind turbines and solar arrays. Additional actions include energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, and incentivizing the use of renewable energy. Implementation of some of these measures and actions would involve some type of ground-disturbing construction activity.

Implementation of measures that result in the installation of new large- and small-scale rooftop wind turbines and solar panels (Actions E-1.1, E-2.2, E-3.2, and E-3.3) would produce emissions of criteria air pollutants related to construction. 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 associated with small-scale renewables would likely be relatively small in scale, occur intermittently, and last for only short periods of time. Therefore, emissions from construction activities would not be concentrated in one area for an extended period of time. Solar photovoltaic energy panels and small-scale wind turbines 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.

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 three 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 likely not violate air quality standards. In the case 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.

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 and assumes development of current, common renewable energy technologies.

Large-scale renewable energy systems, specifically wind and solar photovoltaic (PV) or concentrator solar, 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 be required to minimize or eliminate impacts to air quality standards to the extent feasible in compliance with State CEQA Guidelines Section 15126.4, as necessary. The large-scale production of energy from solar energy generation systems generally includes a variety of infrastructure components such as arrays, substation sites, battery storage, collection system, and overhead and underground transmission facilities. Large-scale wind turbine infrastructure generally includes wind turbines (300-500 feet to the topmost blade tip), substations, meteorological towers, overhead and underground collector cable systems, and overhead transmission lines.

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; and stationary sources such as generators. 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 operation of large-scale renewable energy systems would not directly produce substantial air emissions because no large emission-generating equipment would be operated. Operation would result in a minimal increase in the number of full-time 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. 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. Implementation of the measures and actions in the energy group generally would reduce the combustion of fossil fuels by incentivizing and developing electricity use as well as the generation and utilization of renewable energy. This would result in improvements in air quality in the region and would likely offset emissions of criteria pollutants generated during construction. Applicable regulatory requirements, General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Air-2.1 through Air-2.13), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would be applied to implementation

of the proposed measures and actions within this group. The operation of these projects is not expected to result in the emission of significant levels of criteria pollutants because, as noted above, implementation of the measures and actions in the energy group would reduce the combustion of fossil fuels by incentivizing and developing electricity use as well as the generation and utilization of renewable energy. However, at the programmatic level, it cannot be assured that construction projects associated with these measures would not exceed a local significance threshold at a project-level. While adopted General Plan policies and 2011 GPU PEIR mitigation measures would likely reduce construction and operational emissions, these measures may not be able to fully mitigate the impacts. Therefore, implementation of the measures and actions within the energy group would result in significant and unavoidable impacts, consistent with buildout of the General Plan.

Built Environment and Transportation Measures and Actions

Implementation of the built environment and transportation group would encourage a shift towards alternative modes of transportation (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, and T-5.1.b), encourage alternative fuel use (Action T-3.1.a), and reduce single-occupancy vehicle trips (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, T-5.1.b, and T-5.2). These measures and actions would be implemented through activities such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing TDM programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing new bicycle and pedestrian projects as well as improving existing infrastructure. While locations for such improvements have not been identified, it is assumed due to the nature and scale of these improvements that they would most likely occur near residential and commercial centers throughout the unincorporated areas.

Implementation of measures that would result in new hydrogen fueling and EV charging stations (Actions T-3.1 and T-3.1.a), as well as the implementation of transit-supportive roadway treatments and bicycle and pedestrian infrastructure (Actions T-5.1 and T-6.2), would generally involve some type of ground-disturbing construction activity and would therefore lead to a short-term increase in air emissions to the extent that air quality thresholds may be exceeded. Air emissions from construction activities would include fugitive dust from earth moving and grading activities, and emissions from heavy-duty equipment, 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 large structures (e.g., bridges, overpasses, parking structures), which could prolong the duration of construction activities and would potentially include more intense ground-disturbing activities such as excavation and would also increase haul truck and worker commute trips.

Operational emissions would be primarily from mobile sources. However, the proposed measures and their associated actions are anticipated to result in an overall decrease in long-term emissions by reducing the amount of fossil fuels combusted primarily from reduced vehicle use trips. It is reasonable to assume that implementation of the measures and actions which comprise the built environment and transportation group would result

in reductions in criteria air pollution because the improvements would involve activities to reduce vehicle use, reduce VMT, and increase alternative fuel use, resulting in an overall reduction in countywide air emissions. However, at the programmatic level, it cannot be assured that construction projects associated with these measures and actions would not exceed a local significance threshold at a project-level. While adopted General Plan policies, 2011 GPU PEIR mitigation measures (Air-2.1, Air-2.2, Air-2.3, Air-2.4, Air-2.5, Air-2.6, Air-2.7, Air-2.8, Air-2.9, Air-2.11, Air-2.12, and Air-2.13), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would reduce construction emissions, depending on the size of the facilities, these measures may not be able to fully mitigate the impacts. Therefore, implementation of the measures and actions within the built environment and transportation group would result in significant and unavoidable impacts, consistent with buildout of the General Plan.

Summary

Construction related to implementation of the GHG reduction measures and their associated actions could result in exceedances of local criteria air pollutant thresholds. Because of the programmatic nature of the CAP Update, it is not possible to determine the size and location of projects that would be built, nor the details of their construction typically used to estimate emissions, such as duration, equipment use, and intensity. Despite the potential for reductions in operational emissions to offset those related to construction, project-level emissions from construction and operations activities are addressed separately by the SDAPCD and are therefore subject to different numerical emissions thresholds. It is possible that emissions from individual projects could exceed one or more construction or operations emissions thresholds. Therefore, it cannot be determined that reductions in operational emissions would offset construction emissions on a project level. Despite Adopted Mitigation Measures Air-2.1 through Air-2.13 and proposed CAP Update Mitigation Measure Air-2.1 being applied to all projects, it is not possible at this level of analysis to determine that these mitigation measures would reduce impacts below a significant level. Therefore, this impact would be significant.

Additionally, it is also uncertain at this level of analysis if VOC emissions related to operation of solid waste facilities would exceed the local air quality threshold for this pollutant. Due to this uncertainty, this impact would also be significant. Implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Air-2.1 through Air-2.13) would lessen impacts related to air quality violations that could result from implementation of the measure groups described above. However, the 2011 GPU PEIR determined that even with implementation of the adopted General Plan policies and mitigation measures, impacts associated with air quality violations would not be reduced to a less-than-significant level because some mitigation measures were determined to be infeasible while the feasible mitigation measures were determined to be insufficient in reducing impacts to a less-than-significant level.

The types of projects that would result from implementation of the CAP Update are consistent with the scope and type of development evaluated in the 2011 GPU PEIR. As indicated in the 2011 GPU PEIR, construction and operational emissions would generally

be addressed with the application of adopted regulations, General Plan policies, and 2011 GPU PEIR mitigation measures. However, due to the programmatic nature of the General Plan and CAP Update, the potential that subsequent projects may result in emissions that cannot be reduced below established thresholds remains. Implementation of the CAP Update would not result in a new significant impact, and the impact would not be substantially more severe than the impact identified in the 2011 GPU PEIR. This impact would remain significant and unavoidable following mitigation. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed the 2011 GPU PEIR.

2.3.3.5 Issue 3: Result in a Cumulatively Considerable Net Increase of any Nonattainment Criteria Pollutant

This section describes potential project impacts due to release of criteria pollutants from implementation of the project.

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines as well as the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), which remains the most recent guidance for San Diego County, 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 that exceed the SLTs for O₃ precursors listed under Section 2.3.3.2). This is consistent with the guidelines for determination of significance applied in the 2011 GPU PEIR. The SDAB is currently classified as a nonattainment area for the NAAQS and CAAQS for O₃, which is caused by O₃ precursors NO_x and VOCs. The SDAB is also classified as a nonattainment area for the CAAQS for PM₁₀ and PM_{2.5}.

Therefore, impacts would occur if implementation of the CAP Update would generate:

- emissions that exceed 250 pounds per day of NO_x, or 75 pounds per day of VOCs; and/or
- emissions that exceed 55 pounds per day of PM_{2.5}; and/or
- emissions of PM₁₀ that exceed 100 pounds per day and increase the ambient PM₁₀ concentration by 5 micrograms per cubic meter or greater at the maximally exposed individual (MEI).

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 General Plan. The 2011 GPU PEIR concluded that the General Plan would generate a cumulatively

significant impact regarding PM₁₀, PM_{2.5}, NO_x, and VOCs. These emissions would primarily come from vehicles trips associated with new development under the General Plan, and equipment and construction materials used during construction of future development and infrastructure.

The 2011 GPU PEIR determined that the impacts related to nonattainment criteria pollutants would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; the adopted General Plan policies and mitigation measures (Air-2.1 through Air-2.13) identified in the 2011 GPU PEIR. However, even with these programs and identified mitigation measures meant to reduce emissions of criteria pollutants that would result from project construction and operation (Adopted Mitigation Measures Air-2.1 through Air-2.13), the direct impacts would remain significant and unavoidable because the mitigation measures deemed feasible would not be sufficient in reducing impacts associated with nonattainment air pollutant violations below a significant level. Other mitigation measures were proposed but ultimately deemed infeasible because they 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 Section 2.3, "Air Quality," of the 2011 GPU PEIR on pages 2.3-1 to 2.3-52 and is herein incorporated by reference. The 2011 GPU PEIR concluded that the General Plan would result in a significant and unavoidable impact associated with air quality violations.

CAP Update Impact Analysis

The following sections describe the potentially significant impacts related to criteria air pollutants for which the SDAB is not in attainment that could result from the implementation of the measures.

Solid Waste Measures and Actions

Implementation of measures within the solid waste group would increase organic waste diversion (Actions SW-1.1, SW-1.1.a, and SW-1.1.b), increase recycling (Actions SW-2.1, SW-2.1.a, SW-2.1.b, and SW-4.1.b), and increase gas capture (Actions SW-3.1 and SW-4.1). Implementation of the measures within this group and their associated actions include solid waste diversion/recycling programs/incentives, development of new composting/anaerobic digestion facilities and on-farm digesters, and biogas capture at existing landfills (Borrego and Otay). Specific locations for projects have not been identified.

Air emissions from new waste handling and recycling facilities (Actions SW-2.1.b, SW-4.1.a, SW-4.1.b) could occur from construction activities including operation of heavy-duty equipment, vehicle travel by worker commute trips, material delivery, and haul trips. Construction activities associated with these actions could result in construction-related air quality emissions and would, therefore, lead to a short-term increase in air emissions. These activities could result in exceedances of local thresholds NO_x from the use of heavy

equipment, VOCs from architectural coating applications, and PM₁₀ and PM_{2.5} from diesel exhaust and dust. This could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x, VOCs, PM₁₀ and PM_{2.5}.

Regarding the operation of new waste handling and recycling facilities, the anaerobic decomposition of the waste would result in operational emissions of VOCs. These organics processing facilities could generate additional VOC emissions that would be analyzed during discretionary review of individual projects. These types of projects were accounted for in the 2011 GPU PEIR as light- and medium-impact industrial development. These projects would be subject to additional review to ensure that emissions resulting from each project would be below applicable thresholds before a stationary source permit would be issued. Stationary source emissions are reported to the APCD and are not anticipated to change unless new stationary sources are constructed. However, if new stationary sources were constructed, they would be subject to the APCD's requirements for permitting and must demonstrate that they will not cause or contribute to a violation of an air quality standard. Organics processing can be conducted outdoors or in partially or fully enclosed facilities, which could result in variations of air quality emissions depending on the type of facility. It is possible that VOC emissions from operation of these facilities could contribute to the SDAB's nonattainment status for VOCs. 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 is expected to displace trips already occurring to transport this waste to landfills.

General Plan policies, 2011 GPU PEIR Mitigation Measures Air-2.1 through Air-2.13, and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would be applied to future projects that result from implementation of measures and actions in the CAP Update. However, at the programmatic level, it is not possible to determine with certainty that impacts related to nonattainment pollutants from construction activities would be reduced below a level of significance. Additionally, emissions of VOCs resulting from operation of solid waste facilities could result in significant levels of VOC emissions and contribute to the SDAB's nonattainment status for VOCs. Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction emissions of nonattainment pollutants to a less-than-significant level. Additionally, at the programmatic level, VOC emissions from operations related to the measures and associated actions of the solid waste group cannot be estimated and it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce operations related VOC emissions to a level that would not exceed the local air quality threshold for VOCs and therefore contribute to the SDAB's nonattainment status for VOCs. Implementation

of the measures within the solid waste group would result in a significant and unavoidable impact, consistent with the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

Implementation of measures within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3.a, W-2.3.b, W-2.4, and W-3.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs. Specific locations for projects have not been identified.

Action W-1.1 would implement the County's Water Efficiency Plan, which could involve utilities upgrades such as greywater systems, smart irrigation, and stormwater capture systems. Air emissions from water and wastewater infrastructure installation and upgrades could occur from construction activities including operation of heavy-duty equipment, vehicle travel by worker commute trips, and material delivery. Construction activities would primarily consist of the installation of small structures, such as stormwater and greywater capture systems, as well as the installation of new irrigation systems, which could involve ground-disturbing activities. These activities could result in emissions of NO_x from the use of heavy equipment, VOCs from architectural coating applications, and PM₁₀ and PM_{2.5} from diesel exhaust and dust. This could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x, VOCs, PM₁₀ and PM_{2.5}.

Operation of these facilities and structures would generate air quality emissions from maintenance trips, worker commute trips, and the use of electricity to power pumps and treatment facilities. However, operation of these facilities does not typically require a substantial number of employees, and maintenance activities are typically infrequent and last for short periods of time.

General Plan policies, 2011 GPU PEIR Mitigation Measures Air-2.1 through Air-2.13, and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would be applied to future projects implemented consistent with these measures and actions. However, at the programmatic level, it is not possible to determine with certainty that impacts related to nonattainment pollutants from construction activities would be reduced below a level of significance. Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction emissions of nonattainment pollutants to a less-than-significant level. Implementation of the measures within the water and wastewater group would result in a significant and unavoidable impact, consistent with the 2011 GPU PEIR.

Agriculture and Conservation Measures and Actions

Implementation of measures within the agriculture and conservation group would acquire and preserve natural lands (Action A-1.1), as well as improve land management practices to protect habitat and increase carbon storage (Actions A-1.2, A-1.2.a, and A-3.1). Additionally, measures in this group aim to reduce GHG emissions from agricultural operations (Actions A-5.1 and A-5.1.a).

Projects that could result from implementation of these measures and actions could include, but would not be limited to preservation of agricultural lands, carbon farming, natural/working lands restoration, on-farm anaerobic digesters, incentivizing manure composting, reducing agricultural water costs, carbon farming programs, open space/habitat restoration plans, tree planting, incentivizing transition to cleaner (e.g., renewable diesel and electric) agricultural equipment, and increasing farmworker housing.

Some measures within this group could involve some type of ground disturbing construction activity that would generate criteria pollutant emissions. For example, Action A-4.1.b would evaluate opportunities for increased farmworker housing, which could involve the subsequent construction of housing for farmworkers, while Actions A-2.1 and A-2.2 could result in the combustion of fossil fuels for the delivery and planting of trees. This analysis assumes that implementation of the measures within this group 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 landform and views; and installation or upgrades of mechanical equipment or facilities. These activities would result in criteria pollutant emissions and could result in exceedances of local thresholds NO_x from the use of heavy equipment and PM_{10} and $\text{PM}_{2.5}$ from diesel exhaust and dust from material movement. This could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x , PM_{10} and $\text{PM}_{2.5}$.

Regarding operations, all projects would be required to comply with applicable existing federal, state, and local regulations, as described above in Section 2.3.2, "Regulatory Framework." Specifically, projects would be evaluated for their consistency with General Plan policies, County Grading Ordinance regulations, and County Resources Protection Ordinance regulations. Additionally, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Air-2.2, Air-2.4, Air-2.5, Air-2.6, Air-2.7, Air-2.9, Air-2.10, Air-2.11, and Air-2.13) and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would be applied to future activities in this category of measures and actions to reduce impacts to the extent feasible. Furthermore, 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 one or more projects, then additional feasible mitigation would be required to be implemented in accordance with State CEQA Guidelines Section 15126.4. However, because the specifics of projects that may be approved and ultimately

undertaken by the County is not known, it is not possible to speculate on the specific impacts that could occur and whether implementation of regulatory requirements or mitigation measures would fully avoid or minimize potential environmental impacts relating to criteria pollutants for which the SDAB is in nonattainment.

Therefore, at the programmatic level, it is not possible to determine with certainty that impacts related to nonattainment pollutants from construction and operations activities would be reduced below a level of significance. While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction and operation of projects associated with the agriculture and conservation measures and their associated actions could still contribute to the nonattainment status of the SDAB because they would likely require the use of heavy construction equipment and involve earth moving activities. The duration and intensity of these activities is unknown at the programmatic level. It is also unknown if the mitigation measures listed above would be sufficient in reducing operational impacts to a less-than-significant level. While adopted General Plan policies and 2011 GPU PEIR mitigation measures (Air-2.2, Air-2.4, Air-2.5, Air-2.6, Air-2.7, Air-2.9, Air-2.10, Air-2.11, Air-2.13) would likely reduce construction and operational emissions, these measures may not be able to fully mitigate the impacts to a less-than-significant level. This impact would remain significant and unavoidable following mitigation, consistent with the 2011 GPU PEIR.

Energy Measures and Actions

Implementation of measures within the energy group would increase building energy efficiency (Measures E-1 and E-2) and develop policies and programs to increase use of renewable energy (Measure E-3). These measures and actions would result in investments in local job training and incentive programs and amendments to County codes regarding energy, among other initiatives. Other measures and actions could result in large-scale wind turbines and solar arrays. Additional actions include energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, and incentivizing the use of renewable energy. Implementation of these measures and their associated actions would generally involve some type of ground-disturbing construction activity.

Implementation of measures that promote use of renewable energy could indirectly result in installation of new large- and small-scale rooftop wind turbines and solar panels (Actions E-1.1, E-2.2, E-3.2, and E-3.3), which would produce emissions of criteria air pollutants related to construction. 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 and clearing but would not include construction of new buildings or structures. These activities could result in exceedances of local thresholds for NO_x from the use of heavy equipment, VOCs from architectural coating applications, and PM₁₀ and PM_{2.5} from diesel exhaust and dust. This could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x, VOCs, PM₁₀ and PM_{2.5}. Construction activities associated with small-scale renewables would likely be relatively small in scale, occur intermittently, and last for only short periods of time.

Therefore, emissions from construction activities would not be concentrated in one area for an extended period of time, but rather occur intermittently across a large area. Solar photovoltaic energy panels and small-scale wind turbines 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.

Large-scale renewable energy infrastructure would generally be constructed in undeveloped locations that are productive for generating renewable energy resources. 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 and assumes development of common current technologies.

Large-scale renewable energy systems 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 State CEQA Guidelines Section 15126.4. 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 turbine infrastructure generally includes wind turbines (300-500 feet to the topmost blade tip), substations, meteorological towers, overhead and underground collector cable systems, and overhead transmission lines.

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; and stationary sources such as generators. 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 activities could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x, VOCs, PM₁₀ and PM_{2.5}.

The operation of large-scale renewable energy systems including solar and wind 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 full-time 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. 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 for nonattainment pollutants are not anticipated to be violated.

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 three 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 likely not violate air quality standards for nonattainment pollutants. Overall, implementation of the measures and actions in the energy group would reduce the combustion of fossil fuels by incentivizing and developing electricity use as well as the generation and utilization of renewable energy. This would result in overall improvements in air quality in the region and would likely offset emissions of criteria pollutants generated during construction.

Applicable regulatory requirements, General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Air-2.1 through Air-2.13), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of criteria pollutants from construction equipment by requiring Tier 3 engines, would be applied to implementation of the proposed measures and actions within this group. The operation of these projects is not expected to result in the emission of significant levels of nonattainment pollutants because implementation of the measures and actions in the energy group would reduce the combustion of fossil fuels by incentivizing and developing electricity use as well as the generation and utilization of renewable energy. However, at the programmatic level, it cannot be assured that construction projects associated with these measures would not exceed a local significance threshold for one or more nonattainment pollutants at a project-level. While adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce construction emissions, these measures may not be able to fully mitigate the impacts to a less-than-significant level. This impact would remain significant and unavoidable following mitigation, consistent with the 2011 GPU PEIR.

Built Environment and Transportation Measures and Actions

Implementation of the measures and actions within the built environment and transportation group would encourage a shift towards alternative modes of transportation (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, and T-5.1.b), encourage alternative fuel use (Action T-3.1.a), and reduce single-occupancy vehicle trips (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, T-5.1.b, and T-5.2). These measures and their associated actions would be implemented through activities such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing TDM programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing

new bicycle and pedestrian projects as well as improving existing bicycle and pedestrian facilities.

Locations for such improvements have not been identified. Because of the nature of these improvements, they would most likely occur near residential and commercial centers throughout the unincorporated areas. The size, scale, and location of these improvements is unknown. As described above, the impacts of the proposed measures and actions are analyzed at a programmatic level.

Implementation of measures that would result in new hydrogen fueling and EV charging stations (Actions T-3.1 and T-3.1.a), as well as the implementation of transit-supportive roadway treatments and bicycle and pedestrian infrastructure (Actions T-5.1 and T-6.2) would generally involve some type of ground-disturbing construction activity and would, therefore, lead to short-term air emissions. 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. These activities could result in exceedances of the local thresholds for NO_x from the use of heavy equipment, VOCs from the application of paint to new or upgraded facilities (e.g., curbs, bike path striping, pavement markings), and PM₁₀ and PM_{2.5} from diesel exhaust and dust. This could contribute to the exceedance of air quality thresholds for these pollutants and therefore contribute to the SDAB's nonattainment status for NO_x, VOCs, PM₁₀, and PM_{2.5}. Emissions of criteria air pollutants, especially those for which the SDAB is in nonattainment, would primarily occur from mobile sources.

The measures and actions within the built environment and transportation group are anticipated to reduce long-term emissions of criteria air pollutants by reducing the amount of fossil fuels combusted, primarily from reduced vehicle use trips. Therefore, it is reasonable to assume that implementation of the measures and actions that comprise the built environment and transportation group would result in reductions in emissions of criteria air pollutants, including nonattainment pollutants, because the improvements would involve activities to reduce vehicle use, reduce VMT, and increase alternative fuel use resulting in an overall reduction in countywide air emissions.

Applicable General Plan policies and 2011 GPU PEIR mitigation measures (Air-2.1, Air-2.2, Air-2.3, Air-2.4, Air-2.5, Air-2.6, Air-2.7, Air-2.8, Air-2.9, Air-2.11, Air-2.12, and Air-2.13) would be applied to individual future actions implemented as a result of these measures and actions.

At the programmatic level, it cannot be assured that construction projects associated with these measures and actions would not exceed a local significance threshold for a nonattainment pollutant at a project-level and thereby contribute to its nonattainment. Therefore, while adopted General Plan policies and 2011 GPU PEIR mitigation measures (Air-2.1 through Air-2.13) 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. Despite the potential for reductions in operational emissions to offset

those related to construction, project-level emissions from construction and operations activities are addressed separately by the SDAPCD and are therefore subject to different numerical emissions thresholds. It is possible that emissions from individual projects could exceed one or more construction or operations emissions thresholds. Therefore, it cannot be determined that reductions in operational emissions would offset construction emissions on a project level. Despite application of Mitigation Measures Air-2.1 through Air-2.13 and proposed CAP Update Mitigation Measure Air-2.1 to all projects, it is not possible at this level of analysis to determine that these mitigation measures would reduce impacts below a significant level. This impact would remain significant and unavoidable with implementation of mitigation, consistent with the 2011 GPU PEIR.

Summary

Construction related to implementation of the measures and their associated actions listed and described above could result in exceedances of local criteria air pollutant thresholds for nonattainment pollutants (i.e., NO_x, VOCs, PM₁₀, and PM_{2.5}). Because of the programmatic approach of this analysis, it is not possible to determine the size and location of projects that would be built, nor the details of their construction typically used to estimate emissions, such as duration, equipment use, and intensity. Despite the potential for reductions in operational emissions to offset those related to construction, this impact would be potentially significant. Additionally, it is also uncertain at this level of analysis if VOC emissions related to operation of solid waste facilities would exceed the SLT for VOC emissions, and therefore contribute to the SDAB's nonattainment status for O₃. Due to this uncertainty, this would also be potentially significant. Implementation of the General Plan policies and 2011 GPU PEIR mitigation measures would lessen impacts related to potential violations of thresholds for nonattainment pollutants that could result from implementation of the measure groups described above. However, the 2011 GPU PEIR determined that even with implementation of the adopted General Plan policies and mitigation measures, impacts associated with air quality violations for nonattainment 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. This impact would remain significant and unavoidable following mitigation, consistent with the 2011 GPU PEIR. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

2.3.3.6 Issue 4: Expose Sensitive Receptors to Substantial Pollutant Concentrations

This section describes potential project impacts related to the exposure of sensitive receptors to TACs and CO.

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements*:

Air Quality (County of San Diego 2007), 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 to 12th 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 TACs.

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 E with peak-hour trips 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 TACs resulting in maximum incremental cancer risk greater than 10 in one million without application of Toxics-Best Available Control Technology, or a non-cancer acute or chronic health hazard index greater than 1. These TACs include acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and DPM. Some of these TACs are groups of compounds that contain many individual substances (e.g., copper compounds and polycyclic organic matter).

Impact Analysis

2011 GPU PEIR Determination

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

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 General Plan policies; and mitigation measures (Air-4.1) 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 either found to be infeasible by the County for the reasons given in Section 2.3.6.4 of the 2011 GPU PEIR or would not

be sufficient in reducing impacts below a significant level. 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 Section 2.3, “Air Quality,” of the 2011 GPU PEIR on pages 2.3-1 through 2.3-52 and is herein incorporated by reference.

CAP Update Impact Analysis

The following sections describe the potentially significant impacts to sensitive receptors that could result from implementation of the measure groups listed above and their associated actions.

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 Update is to reduce GHG emissions in the county and many of the measures would also have the co-benefit of reducing air emissions at the regional and local scale. The project would not lead to an increase in vehicular traffic or associated emissions that could cause CO hotspots because, while new trips may be generated as a result of the implementation of measures that would explore opportunities for the development of farmworker housing, such as Action A-4.1.b, the number of new vehicle trips would be minimal and distributed throughout the county. Therefore, the project would not contribute to a CO hotspot.

Toxic Air Contaminants

The 2011 GPU PEIR determined that the proposed land use designations and accompanying future development based on those designations would result in significant and unavoidable impacts related to the exposure of sensitive receptors to substantial amounts of TACs. The discussion of impacts related to exposure of sensitive receptors can be found in Section 2.3.3.4 of the 2011 GPU PEIR and is herein incorporated by reference.

The focus of the analysis of TACs for the CAP Update is DPM. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent, chromium, formaldehyde, and methylene chloride), they are primarily associated with industrial operations. The potential cancer risk from the inhalation of DPM outweighs the potential for all other health impacts (i.e., noncancer chronic risk and short-term acute risk) and health impacts from other TACs (CARB 2003). With regards to exposure of DPM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. According to OEHHA’s Air Toxics Hot Spots Program Risk Assessment Guidelines, exposure of

sensitive receptors to TAC emissions should be based on a 30-year exposure period for estimating cancer risk at the MEI, with 9- and 70-year exposure periods at the MEI as supplemental information. Furthermore, a 70-year exposure period is recommended for estimating cancer burden or providing an estimate of population-wide risk (OEHHA 2015).

Solid Waste Measures and Actions

Implementation of measures within the solid waste group would increase organic waste diversion (Actions SW-1.1, SW-1.1.a, and SW-1.1.b), increase recycling (Actions SW-2.1, SW-2.1.a, SW-2.1.b, and SW-4.1.b), and increase gas capture (Actions SW-3.1 and SW-4.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, solid waste diversion/recycling programs/incentives, and biogas at existing landfills. Specific locations for projects have not been identified.

Emissions of TACs from solid waste facilities and upgrades would occur from diesel exhaust during construction activities, including operation of heavy-duty equipment, vehicle travel by worker commute trips, material delivery, and haul trips. 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 is expected to displace trips already occurring to transport this waste to landfills. As stated above, the location of projects associated with the measures and actions of the solid waste group have not been identified. However, it is possible that construction and operations activities, such as hauling trips, could occur near residential areas.

Buildout of the projects within the solid waste group would require the implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1) to reduce emissions of TACs and minimize the exposure of sensitive receptors to TACs from project construction and operation. At a programmatic level, it is not possible to determine with certainty that impacts related to the exposure of sensitive receptors to TACs during construction activities would be reduced below a level of significance. Additionally, hauling trips related to operation of solid waste facilities could expose sensitive receptors to TAC emissions.

Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction-generated TACs to a less-than-significant level. Additionally, at the programmatic level, TAC emissions from operations related to the measures and associated actions of the solid waste group cannot be estimated and it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the exposure of sensitive receptors to TACs emitted during operation. Implementation of the measures

within the solid waste group would result in a significant and unavoidable impact, as identified in the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

Implementation of measures within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3.a, W-2.3.b, W-2.4, and W-3.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs. Specific locations for projects have not been identified.

Emissions of TACs from measures pertaining to water and wastewater facilities and upgrades would occur from diesel exhaust during construction activities, including operation of heavy-duty equipment, vehicle travel by worker commute trips, and material delivery. Construction activities would primarily consist of the installation of small structures, such as stormwater and greywater capture systems and water-efficient appliances, as well as the installation of new irrigation systems, which could involve ground-disturbing activities. The operation of these facilities and structures do not generally require the use of diesel equipment; therefore, it is not likely that operations would result in substantial emissions of TACs.

Buildout of the projects within the water and wastewater group would require the implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1), as well as proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of TACs from construction equipment by requiring Tier 3 engines, to reduce emissions of TACs and minimize the exposure of sensitive receptors to TACs from project construction and operation. At a programmatic level, it is not possible to determine with certainty that impacts related to the exposure of sensitive receptors to TACs during construction activities would be reduced below a level of significance.

Because the scale of physical development necessary to implement the above measures and actions is unknown, it cannot be assured that adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the impacts related to construction-generated TACs to a less-than-significant level. Implementation of the measures within the water and wastewater group would result in a significant and unavoidable impact, as identified in the 2011 GPU PEIR.

Agriculture and Conservation Measures and Actions

Measures A-1 and A-3 within the agriculture and conservation group would require the County to acquire and preserve natural lands, as well as develop programs to improve land management practices to protect habitat and increase carbon storage (Actions A-1.1, A-1.2, A-1.2.a, and A-3.1). Additionally, measures in the group aim to reduce GHG emissions from agricultural operations (Actions A-5.1 and A-5.1.a).

Projects that could result from implementation of these measures and actions could include, but would not be limited to: preservation of agricultural lands, carbon farming, natural/working lands restoration, on-farm anaerobic digesters, incentivizing manure composting, reducing agricultural water costs, carbon farming programs, open space/habitat restoration plans, tree planting, incentivizing transition to cleaner (e.g., renewable diesel and electric) agricultural equipment, and increasing farmworker housing.

Some measures within this group could involve some type of ground disturbing construction activity that could generate emissions of TACs. For example, Action A-4.1.b would evaluate opportunities for increased farmworker housing, which could involve the subsequent construction of housing for farmworkers, while Actions A-2.1 and A-2.2 could result in the combustion of diesel fuel for the delivery and planting of trees. This analysis assumes that implementation of the measures within this group 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 landform and views; and installation or upgrades of mechanical equipment or facilities. These activities could result in emissions of TACs. The greatest potential for TAC emissions during construction would be DPM emissions from construction equipment and heavy-duty truck trips. While activities related to the measures in the agriculture and conservation group, due to their nature, are not likely to occur near urban areas, it is not possible to determine at the programmatic level the exact scale and location of projects that would result from the implementation of these measures. Therefore, it is conservatively assumed that sensitive receptors could be exposed to emissions of TACs from construction activities associated with these measures.

Regarding operations, because the variety of projects that may be approved and ultimately undertaken by the County is not known, it is not possible to speculate on the specific impacts that could occur and whether regulations or mitigation measures would be available to minimize potential environmental impacts relating to TACs. 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 General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1), County Grading Ordinance regulations, and County Resources Protection Ordinance regulations.

Applicable General Plan policies, 2011 GPU PEIR mitigation measures, and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of TACs from construction equipment by requiring Tier 3 engines, would be applied to future projects that result from implementation of the GHG reductions measures and actions to avoid or minimize their impacts.

However, at the programmatic level, it is not possible to determine with certainty that impacts related to TACs emitted from construction and operations activities would be reduced below the County of San Diego threshold for maximum incremental cancer risk of greater than 10 in one million. 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 the agriculture and conservation measures and their associated actions could still expose sensitive receptors to TACs because they could require the use of heavy construction equipment and involve earth moving activities and the duration and intensity of these activities is unknown at the programmatic level. While adopted General Plan policies and 2011 GPU PEIR mitigation measures would likely reduce construction emissions, these measures may not be able to fully mitigate the impacts to a less-than-significant level. This impact would remain significant and unavoidable following mitigation, consistent with the 2011 GPU PEIR.

Energy Measures and Actions

Implementation of measures within the energy group would increase building energy efficiency (Measures E-1 and E-2) and develop policies and programs to increase use of renewable energy that could result in renewable energy generation infrastructure, including energy storage (Measure E-3). These measures and actions would result in investments in local job training and incentive programs and amendments to County codes regarding energy, among other initiatives. Other measures and actions could result in large-scale wind turbines and solar arrays, as well as energy-storage systems (Action E-3.2.b). Additional actions include energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, and incentivizing the use of renewable energy.

Implementation of measures that promote use of renewable energy could indirectly result in the installation of new large- and small-scale rooftop wind turbines and solar panels (Actions E-1.1, E-2.2, E-3.2, and E-3.3), the construction of which would produce emissions of TACs. 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 and clearing but would not include construction of new buildings or structures. These activities would result in emissions of TACs. The greatest potential for TAC emissions during construction would be DPM emissions from construction equipment and heavy-duty truck trips (such as those used to transport renewable systems components). Construction activities associated with small-scale renewables would likely be relatively small in scale, occur intermittently, and last for only short periods of time. Therefore, emissions from construction activities would not be concentrated in one area for an extended period of time, but rather would occur intermittently across a large area. However, it is likely that some construction would occur near residential areas and therefore has the potential to expose sensitive receptors to significant concentrations of TACs emitted from construction activities.

Solar photovoltaic energy panels and small-scale wind turbines 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. 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 three 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 likely not violate air quality standards. In the case 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. However, implementation of the measures and actions in the energy group would reduce the combustion of fossil fuels by incentivizing and developing electricity use as well as the generation and utilization of renewable energy.

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 and assumes development of common current renewable energy technologies.

Large-scale renewable energy systems, specifically wind 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 be required to minimize or eliminate impacts to air quality standards to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. 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), substations, meteorological towers, overhead and underground collector cable systems, and overhead transmission lines.

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 and clearing, but would not include construction of new buildings or structures. These activities would result in emissions of TACs. The greatest potential for TAC emissions during construction would be DPM emissions from construction equipment and heavy-duty truck trips (such as those used to transport renewable systems components). It is likely that some construction would occur near residential areas and therefore has the potential to expose sensitive receptors to significant concentrations of TACs emitted from construction activities.

Operation of large-scale renewable energy systems would not directly produce substantial TAC emissions because no large emission-generating equipment would be operated. Operation could result in a minimal increase in the number of full-time employees commuting to and from these facilities as well as the operation of stationary sources, such as generators. 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.

Buildout of the projects within the energy group would require the implementation of applicable General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of TACs from construction equipment by requiring Tier 3 engines, to reduce emissions of TACs and minimize the exposure of sensitive receptors to TACs from project construction and operation.

However, at the programmatic level, it cannot be assured that construction projects associated with these measures would not expose sensitive receptors to emissions of TACs, as it is likely that at least some construction would occur near residential areas. While adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce construction emissions, these measures may not be able to fully mitigate the impacts to a less-than-significant level. This impact would remain significant and unavoidable following mitigation, as consistent with the 2011 GPU PEIR.

Built Environment and Transportation Measures and Actions

Implementation of measures within the built environment and transportation group would encourage a shift toward alternative modes of transportation (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, and T-5.1.b), encourage alternative fuel use (Action T-3.1.a), and reduce single-occupancy vehicle trips (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, T-5.1.b, and T-5.2). These measures and their associated actions would be implemented through activities such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing TDM programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing new bicycle and pedestrian projects as well as improving existing ones.

The greatest potential for TAC emissions during construction would be DPM emissions from construction equipment and heavy-duty truck trips. Implementation of measures that would result in new hydrogen fueling and EV charging stations (Actions T-3.1 and T-3.1.a) as well as the implementation of transit-supportive roadway treatments and bicycle and pedestrian infrastructure (Actions T-5.1 and T-6.2) would generally involve the use of off-road construction equipment and haul trucks which would result in the emission of TACs and possibly expose sensitive receptors to these emissions.

Operational emissions would be primarily from diesel-powered mobile sources, but the proposed measures and their associated actions are anticipated to reduce long-term emissions by reducing the amount of fossil fuels combusted primarily from reduced vehicle use, reduced VMT, and increased alternative fuel use. Therefore, it is reasonable to assume that implementation of the measures that comprise the built environment and transportation group would result in reductions in emissions of TACs because the

improvements would involve activities to reduce vehicle use, reduce VMT, and increase alternative fuel use resulting in an overall reduction in countywide air emissions.

Buildout of the projects within the built environment and transportation group would require the implementation of applicable General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1), and proposed CAP Update Mitigation Measure Air-2.1, which would reduce emissions of TACs from construction equipment by requiring Tier 3 engines, to reduce emissions of TACs and minimize the exposure of sensitive receptors to TACs from project construction and operation. Additionally, 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 State CEQA Guidelines Section 15126.4.

The size, scale, and location of these improvements is unknown; however, given the nature of these improvements, they most likely would 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 General Plan 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 and their associated actions, described above, would have a significant and unavoidable impact following mitigation, consistent with the 2011 GPU PEIR.

Summary

Future projects related to implementation of the measures and their associated actions described above could result in the exposure of sensitive receptors to TACs. Because of the programmatic approach of this analysis, it is not possible to determine the location, size, and types of projects that would be built, nor the details of their construction typically used to estimate emissions of TACs and exposure to sensitive receptors, such as construction duration, equipment use, location and intensity. Additionally, it is also uncertain at this level of analysis if TAC emissions from hauling activities occurring during operation of solid waste facilities would occur at significant levels near sensitive receptors.

Implementation of the General Plan policies, 2011 GPU PEIR mitigation measures (Adopted Mitigation Measure Air-4.1), and proposed CAP Update Mitigation Measure Air-2.1 would lessen impacts related to the exposure of sensitive receptors to TACs that could result from implementation of the measure groups described above. However, the 2011 GPU PEIR determined that even with implementation of the adopted General Plan policies and mitigation measures, impacts associated with the exposure of sensitive receptors to TACs would not be reduced to a less-than-significant level because the mitigation measures considered and addressed in the 2011 GPU PEIR were found to either be infeasible by the County for the reasons given in the 2011 GPU PEIR or would not be sufficient in reducing impacts related to TACs to a less-than-significant level. This impact would remain significant and unavoidable following mitigation, consistent with the

2011 GPU PEIR. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

2.3.3.7 Issue 5: Result in Emissions of Odors Adversely Affecting a Substantial Number of People

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

Guidelines for Determination of Significance

Based on Appendix G of the State CEQA Guidelines and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality* (County of San Diego 2007), 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 that 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. Conditions may be applied (e.g., control equipment requirement), where necessary, to prevent the 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 General Plan. The 2011 GPU PEIR concluded that the General Plan 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 General Plan 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 Section 2.3, "Air Quality," on pages 2.3-1 to 2.3-52, and is herein incorporated by reference.

CAP Update Impact Analysis

The following sections describe the potentially significant impacts related odors that could result from the implementation of the measures.

Solid Waste Measures and Actions

Implementation of measures within the solid waste group would increase organic waste diversion (Actions SW-1.1, SW-1.1.a, and SW-1.1.b), increase recycling (Actions SW-2.1, SW-2.1.a, SW-2.1.b, and SW-4.1.b), and increase gas capture (Actions SW-3.1 and SW-4.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, solid waste diversion/recycling programs/incentives, and biogas at existing landfills.

Odors may result from construction of organics waste facilities and water/wastewater 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.

CAP Update Action SW-4.1.a would incentivize the development of new composting/anaerobic digestion facilities and on-farm digesters (e.g., amend zoning ordinance to pre-zone or permit land for composting/anaerobic digestion and provide technical assistance) to divert compostable waste from landfills in the unincorporated area. This action is also included in the General Plan as Policy COS-17.5, which promotes efficient methods for methane recapture in landfills and the use of composting facilities and anaerobic digesters and other sustainable strategies to reduce the release of GHG emissions from waste disposal or management sites and to generate additional energy such as electricity. Organics processing techniques include open and enclosed configurations and have the potential to produce objectionable odors. As stated in the 2011 GPU PEIR, potential odor impacts from implementation of the General Plan would be reduced through the implementation of the federal, state, and local regulations; existing County regulatory processes; and the adopted General Plan policies. While the specific location of these types of facilities and activities is not known, solid waste projects would be subject to the County odor policies enforced by the SDAPCD, including Rule 51 and County Code Sections 63.401 and 63.402, which prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Therefore, implementation of measures and their associated actions within the solid waste group that would result in the development of new composting/anaerobic digestion facilities and on-farm digesters would result in a less-than-significant impact associated with objectionable odors consistent with buildout of the General Plan, as evaluated in the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

Implementation of measures within the water and wastewater group would increase water efficiency and conservation (Actions W-1.1, W-2.1, W-2.2, W-2.3, W-2.3.a, W-2.3.b, W-2.4, and W-3.1). Implementation of the measures within this group and their associated actions include new building requirements, building retrofits, expansion of recycled water/greywater infrastructure, the installation of water-efficient appliances and smart irrigation systems, and water efficiency programs.

Odors may result from construction of water/wastewater 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.

The operation of water/wastewater facilities that handle grey water and stormwater, as is proposed in the project, does not typically result in the generation of odors. Additionally, these facilities are not typically associated with increased odor complaints. Therefore, the operation of facilities related to water and wastewater would have a less-than-significant impact related to odors. Therefore, implementation of the water and wastewater measures and actions would result in impacts consistent with buildout of the General Plan, as evaluated in the 2011 GPU PEIR.

Agriculture and Conservation Measures and Actions

Measures A-1 and A-3 within the agriculture and conservation group would require the County to acquire and preserve natural lands, as well as improve land management practices to protect habitat and increase carbon storage (Actions A-1.1, A-1.2, A-1.2.a, and A-3.1). Additionally, measures in the group aim to reduce GHG emissions from agricultural operations (Actions A-5.1 and A-5.1.a). Projects that could result from implementation of these measures could include creating agricultural programs, restoring natural/working lands, reducing on-farm anaerobic digesters, incentivizing manure composting, improving foraging/grazing lands, reducing agricultural water costs, implementing carbon farming programs, developing open space/habitat restoration plans, planting trees, promoting low-carbon/zero emissions landscaping, and increasing farmworker housing. This list is not intended to be exhaustive but represents some of the types of projects that could be considered in the future.

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. Additionally, it is likely that construction activities resulting from implementation of the measures and their associated actions within the agriculture and conservation group

would not occur near residential areas, due to their nature. 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 General Plan policies and 2011 GPU PEIR mitigation measures. Agricultural projects would also be subject to the County odor policies enforced by the SDAPCD, including Rule 51 and County Code Sections 63.401 and 63.402, which prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Overall, odor impacts associated with these measures would be less than significant, as identified in the 2011 GPU PEIR. Therefore, implementation of the agriculture and conservation measures and actions would result in impacts consistent with buildout of the General Plan, as evaluated in the 2011 GPU PEIR.

Energy Measures and Actions

Implementation of measures within the energy group would increase building energy efficiency (Measures E-1 and E-2) and develop policies and programs to increase use of renewable energy (Measure E-3). These measures and actions would result in investments in local job training and incentive programs and amendments to County codes regarding energy, among other initiatives. Other measures and actions could result in large-scale wind turbines and solar arrays, as well as energy-storage systems. Additional actions include energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic arrays or small wind turbines, and incentivizing the use of renewable energy. Implementation of these measures and their associated actions could involve some level of ground-disturbing construction activity. 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 and clearing but would not include construction of new buildings or structures. Development of 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. 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 General Plan policies and 2011 GPU PEIR mitigation measures, overall impacts would be less than significant, as identified in the 2011 GPU PEIR.

Built Environment and Transportation Measures and Actions

Implementation of measures within the built environment and transportation group would encourage a shift toward alternative modes of transportation (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, and T-5.1.b), encourage alternative fuel use (Action T-3.1.a), and reduce single-occupancy vehicle trips (Actions T-4.1, T-4.1.a, T-4.2, T-5.1, T-5.1.a, T-5.1.b, and

T-5.2). These measures and their associated actions would be implemented through activities, such as constructing EV charging stations, implementing transit-supportive roadway treatments (e.g., transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes), implementing TDM programs, improving roadways to encourage/expand multimodal transportation, incentivizing active transportation, and constructing new bicycle and pedestrian projects as well as improving existing infrastructure. Locations for such improvements have not been identified. Because of the nature of these improvements, they would most likely occur near residential and commercial centers throughout the unincorporated areas. The size, scale, and location of these improvements is unknown.

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 General Plan policies and 2011 GPU PEIR mitigation measures. Overall, odor impacts associated with these measures would be less than significant, as identified in the 2011 GP PEIR.

Summary

Implementation of the measure groups described above and their associated actions could result in impacts related to odors because measures within the solid waste measures and actions could result in the construction of new waste handling facilities that are typically associated with odor complaints. Implementation of the General Plan policies and 2011 GPU PEIR mitigation measures listed above in Section 2.3.2 would reduce impacts associated with odor management. Therefore, the solid waste measures group, which would include actions that could result in new or expanded solid waste facilities, would result in less-than-significant project impacts related to odors, consistent with the 2011 GPU PEIR. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

2.3.3.8 Cumulative Impacts

The cumulative impact analysis study area for air quality in the 2011 GPU PEIR was identified as the county and surrounding vicinity, including the San Diego region or the airshed for reactive air pollutants and surrounding vicinity for nonreactive or less reactive pollutants (as described on page 2.3-28 of the 2011 GPU PEIR). This analysis uses the same scope identified in the 2011 GPU PEIR. The scope and approach to the cumulative impact analysis are described in the “Cumulative Impact Assessment Overview” section in the introduction to this chapter.

Issue 1: Conflict with Air Quality Plans

The 2011 GPU PEIR concluded that the General Plan would not contribute to a significant cumulative impact because cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and state-managed lands, would be required to comply with the RAQS and SIP, while development in the county would be required to comply with the General Plan or would not be approved. Additionally, cumulative projects not included in the proposed General Plan would be required to show compliance with applicable air quality plans or would not be approved.

It remains true that, as discussed in the 2011 GPU PEIR, cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and state-managed lands, would still be required to comply with the RAQS and SIP. As discussed in Section 2.3.4.1, “Issue 1: Conflict with Air Quality Plans,” CAP Update implementation could lead to projects such as solid waste, water, and wastewater facilities development, transportation infrastructure improvements, agricultural improvements and land conservation, and energy infrastructure improvements, all of which would not result in significant direct impacts. Future discretionary projects would be required to comply with existing federal, state, and local regulations to ensure that conflicts with applicable air quality plans would not occur.

No significant cumulative impact related to conflicts with applicable air quality plans was identified in the 2011 GPU PEIR, and the project would not result in a new significant impact. Therefore, the project would not result in a substantial incremental effect that would result in a new significant cumulative impact. The impact would be less than significant. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Issue 2: Violate Any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation

The 2011 GPU PEIR concluded that, despite projects within the General Plan and other cumulative projects located in the unincorporated county and adjacent jurisdictions being required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval, air quality violations could potentially occur. In combination with other cumulative projects, the General Plan’s contribution to a significant cumulative impact was determined to be cumulatively considerable.

It remains true that projects within the unincorporated county are required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval and that feasible mitigation would be implemented to reduce impacts. As discussed in Section 2.3.4.2, “Issue 2: Conformance to Federal and State Air Quality Standards,” CAP Update implementation could lead to projects such as solid waste, water, and wastewater facility development; transportation infrastructure improvements; agricultural improvements and land conservation; and energy infrastructure improvements. As identified in Section 2.3.4.2 of this analysis, the project would result in a significant and unavoidable impact related to violations of federal and state air quality standards, primarily due to emissions of PM₁₀, PM_{2.5}, VOCs, and NO_x associated with construction activities.

Therefore, emissions resulting from the project would have a considerable contribution to an existing cumulative effect. Because the CAP Update does not propose changes to the land use types identified in the General Plan, emissions of criteria pollutants are not expected to be greater than those accounted for in the 2011 GPU PEIR. Therefore, the cumulative impact would be significant, consistent with the conclusion in the 2011 GPU PEIR. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Issue 3: Result in a Cumulatively Considerable Net Increase of any Nonattainment Criteria Pollutant

The 2011 GPU PEIR concluded that, despite projects within the General Plan and other cumulative projects located in the unincorporated county and adjacent jurisdictions being required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval, air quality violations pertaining to nonattainment pollutants (NO_x, VOCs, PM₁₀, and PM_{2.5}) could potentially occur. Emissions of these pollutants were identified to occur primarily from construction activities involving the use of heavy machinery and architectural coatings, as well as operational vehicle trips. In combination with other cumulative projects, the General Plan's contribution to a significant cumulative impact was determined to be cumulatively considerable.

It remains true that projects within the unincorporated county are required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval and that feasible mitigation would be implemented to reduce impacts. The SDAB also remains in nonattainment for NO_x, VOCs, PM₁₀, and PM_{2.5}. As discussed in Section 2.3.4.3, "Issue 3: Nonattainment Criteria Pollutants," CAP Update implementation could lead to projects such as solid waste, water, and wastewater facilities development; transportation infrastructure improvements; agricultural improvements and land conservation; and energy infrastructure improvements. As identified in Section 2.3.4.3 of this analysis, the project would result in a significant and unavoidable impact related to violations of federal and state air quality standards for PM₁₀, PM_{2.5}, VOCs, and NO_x primarily associated with construction activities and operational vehicle trips. Because the CAP Update does not propose changes to the land use types identified in the General Plan, emissions of nonattainment criteria pollutants are not expected to be greater than those accounted for in the 2011 GPU PEIR. Therefore, the project would result in a considerable contribution to an existing cumulative effect. The cumulative impact would be significant, consistent with the conclusion in the 2011 GPU PEIR. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Issue 4: Expose Sensitive Receptors to Substantial Pollutant Concentrations

The 2011 GPU PEIR stated that cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and state-managed lands would be required to comply with CARB's recommendations for siting new sensitive receptors, and stationary sources in the SDAB would be required to comply with emission thresholds for TACs or hazardous air pollutants. However, it was addressed that some cumulative projects are located outside of the SDAB and/or may not be subject to state and local

emissions regulations. It was determined that, because the General Plan would result in a potentially significant impact associated with sensitive receptors, its contribution to this significant cumulative impact would be cumulatively considerable.

As discussed in Section 2.3.4.4, “Issue 4: Toxic Air Contaminants and Carbon Monoxide Effects on Sensitive Receptors,” CAP Update implementation could lead to projects such as solid waste, water, and wastewater facilities development; transportation infrastructure improvements; agricultural improvements and land conservation; and energy infrastructure improvements. Because changes have not been made to the land use designations outlined in the 2011 GPU PEIR, the CAP Update would not change the potential for sensitive receptors to be located near sources of substantial pollutant concentrations. Cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and state-managed lands, would be required to comply with CARB’s recommendations for siting new sensitive receptors, and stationary sources in the SDAB would be required to comply with emission thresholds for TACs. However, as identified in the 2011 GPU PEIR, some cumulative projects are located outside of the SDAB and/or may not be subject to state and local emissions regulations.

The CAP Update would result in a considerable contribution to an existing cumulative effect. The cumulative impact would be significant, consistent with the conclusion in the 2011 GPU PEIR. Because the CAP Update does not propose changes to the land use types identified in the General Plan, the exposure of sensitive receptors to TACs and CO is not expected to be more severe than what was accounted for in the 2011 GPU PEIR. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Issue 5: Result in Emissions of Odors Adversely Affecting a Substantial Number of People

The 2011 GPU PEIR stated that land use types within the General Plan that are typically associated with odor complaints, such as agricultural operations and landfills, would be subject to County odor policies enforced by SDAPCD, including Rule 51 and County Code Sections 63.401 and 63.402, which prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. The 2011 GPU PEIR also cited the localized nature of odor impacts. For these reasons, it was determined that odors resulting from implementation of the General Plan would not combine to result in a cumulative odor impact and the General Plan would not contribute to a significant cumulative impact.

Land use types potentially affected by the CAP Update that are typically associated with odor complaints, such as agricultural operations and landfills, would similarly be subject to County odor policies enforced by SDAPCD, including Rule 51 and County Code Sections 63.401 and 63.402. As discussed in Section 2.3.4.5, “Issue 5: Objectionable Odors,” CAP Update implementation could lead to projects such as solid waste, water, and wastewater facilities development; transportation infrastructure improvements; agricultural improvements and land conservation; and energy infrastructure improvements, all of which would not result in significant direct impacts. No significant cumulative impact related to objectionable odors was identified in the 2011 GPU PEIR,

and the project would not result in a substantial incremental effect that would result in a new significant cumulative impact. The impact would be less than significant. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

2.3.4 Summary of New or More Severe Significant Impacts

Implementation of the CAP Update would not result in new or more severe significant impacts related to air quality.

2.3.5 Mitigation Measures

This section lists the mitigation measures from the 2011 GPU PEIR that are applicable to the proposed project as well as new mitigation measures that have been proposed to avoid or minimize air quality impacts resulting from the proposed project. 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:

Issue 1: Conflict with Air Quality Plans

No mitigation required.

Issue 2: Conformance to Federal and State Air Quality Standards

2011 General Plan PEIR Mitigation Measures

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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.

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

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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 VOC paints; and
- projects exceeding SLTs will require 10 percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, III, IV equipment. Equipment is certified if it meets emission standards established by the EPA for mobile non-road diesel engines of almost all types. Standards established for hydrocarbons, oxides of nitrogen (NO_x), 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.

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

Adopted Mitigation Measure Air-2.7: Implement County Air Pollution Control District regulations for air emissions from all sources under its jurisdiction.

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

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

Adopted Mitigation Measure 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.

Adopted Mitigation Measure Air-2.11: Implement County RAQS to attain state air quality standards for ozone.

Adopted Mitigation Measure 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.

Adopted Mitigation Measure 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.

2011 General Plan PEIR Infeasible Mitigation Measures

As part of the preparation of the 2011 GPU PEIR, the County determined that the following measures were infeasible. These measures have been reviewed and a discussion is provided related to the feasibility with respect to the reduction measures in the CAP Update that would reduce emissions related to conformance to federal and state air quality standards.

Infeasible measures related to construction equipment in the 2011 GPU PEIR were as follows:

- Require all construction activities to use equipment that is CARB certified Tier 3 or better. This measure could not be accomplished because it would require all construction contractors working within the county to turn over their existing equipment which remains usable and would require a more stringent emissions standard than implemented by CARB. The CARB is currently implementing regulations that will require turnover of equipment to meet its regulatory standards for large vehicle fleets. The measure would limit which construction contractors would be allowed to work within the county and could result in undue costs to project applicants.

The CAP Update includes measures to reduce emissions from construction equipment. For example, Action T-2.2 requires the County to develop an ordinance that would require the use of alternative fuel and/or zero-emission equipment, which will reduce VOC, NO_x, PM₁₀, and PM_{2.5} emissions from construction equipment. The goal of this measure is to require that 100 percent of all construction equipment used in County projects be zero emission by 2045. Although the emission reductions would be potentially substantial, it is not possible to quantify these reductions at this time given that specific construction timing and fleet mix are unknown. Because the CAP Update includes measures related to the reduction of emissions from construction equipment, no additional mitigation is feasible.

Infeasible measures related to locally sourced construction materials in the 2011 GPU PEIR were as follows:

- Require the use of locally made building materials for construction projects. This measure would not be feasible because it would severely limit development projects, as some specialized building materials for projects may not be available locally. The measure would also require the County to monitor and enforce building material purchases at construction projects within its jurisdiction, which it does not have the funding or staffing available to accomplish.

The CAP Update includes Action SW-1.1.a, which would revise the County's Environmentally Preferred Purchasing policy (B-67) to include a requirement for departments to use evaluation criteria for purchasing Environmentally Preferable Products to demonstrate compliance and increase the effectiveness and enforcement of the policy. This reduction measure included in the CAP Update would achieve the intent of the above infeasible mitigation measure by requiring that construction materials be acquired in a sustainable manner.

Infeasible measures related to on-road motor vehicles in the 2011 GPU PEIR were as follows:

- Prohibit new development that would result in emissions from new vehicle trips that would exceed the screening level thresholds. This measure would result in restrictions on future development in areas identified for increased growth in the General Plan because, with current vehicle emissions standards, it would severely limit development densities. This would conflict with the project's objective to support a reasonable share of projected regional population growth, because it would prohibit new development in the unincorporated county. In addition, if vehicle trips exceed screening level thresholds but a project is not proposing densities greater than what was expected by the General Plan, those trips are accounted for in the RAQS and does not automatically mean the actual ambient air quality standards will be exceeded.
- Encourage the construction of new development that would result in a reduction of vehicle trips because developers are able to demonstrate that they tie into an existing or planned alternative transportation network, such as transit (bus, train, trolley), bicycle network, walkways, and trails. This measure would result in restrictions on future development in areas identified for increased growth in the General Plan because not all areas of planned growth have an existing or planned alternative transportation network that new development could tie into. Implementation of this mitigation measure would conflict with the proposed project's objective to reinforce the vitality, local economy and individual character of existing communities by restricting future development to areas with existing alternative transportation networks, which excludes many rural areas.

The CAP Update includes measures to reduce emissions from on-road motor vehicles. For example, Action T-3.1 and Action T-3.1.a would collectively reduce emissions from the combustion of fossil fuels in on-road vehicles by increasing the use of alternative fuels

in on-road vehicles through the implementation of EV and hydrogen fueling infrastructure as well as the incentivization of EV purchases. Additionally, Action T-5.1 would implement the County's Active Transportation Plan pedestrian and bicycle network improvements to encourage alternative modes of transportation. This would reduce on-road vehicle emissions by replacing vehicle trips with alternative forms of transportation, such as walking and biking. These measures and actions would collectively reduce emissions resulting from on-road vehicle use and would therefore achieve the intent of the infeasible mitigation measures described above.

Infeasible measures related to renewable energy and energy efficiency were as follows:

- Require all applicants to provide on-site renewable energy systems, including solar, wind, geothermal, low-impact hydro power, biomass, and bio-gas. This measure would not be feasible because all applicants may not be able to provide renewable energy systems at all proposed locations. In addition, some energy systems may trigger additional regulatory requirements from the CPUC or CEC [California Energy Commission] that would make individual projects infeasible to construct. Implementation of this measure would potentially increase infrastructure costs, which would conflict with the proposed project's objective to minimize public costs of infrastructure and services. However, in circumstances where feasible, applicants will be encouraged to provide on-site renewable energy systems.

The CAP Update includes measures to incorporate renewable energy and energy efficiency in new development. For example, Action E-3.1 would amend the San Diego County Code of Regulatory Ordinances to require Tier 2 CALGreen renewable energy requirements for new residential and non-residential construction to increase renewable energy generation in new development. Additionally, Action 3.2.b would promote and support on-site renewable (wind and solar) energy generation and storage (microgrids, site-specific and/or community scale) to increase renewable energy generation and use in the unincorporated area, while Action E-3.2 would expand and implement the County's streamlined solar permitting process to install 5,002 kilowatts of renewable energy on existing development by 2030. Collectively, these measures and actions would achieve the intent of the infeasible mitigation measure described above by requiring and incentivizing the addition of renewable energy generation infrastructure to new and existing development.

Infeasible measures related to architectural coatings or other building materials that may in the 2011 GPU PEIR were as follows:

- Prohibit use of architectural coatings or other building materials that may result in emissions of VOCs. Only zero-VOC coatings and building materials would be allowed for use in the county. This measure would result in undue hardship on the entitlement process because most architectural coatings contain some VOCs and the measure would restrict the types of coatings that could be used to a limited type and number of formulations that may not be feasible for all applications. The VOC content in architectural coatings is regulated by the APCD, which has established a phase-in schedule for reduction of VOCs in accordance with the SIP

requirements. The measure would also require the county to monitor and enforce the use of architectural coatings at all construction projects within its jurisdiction, which it does not have the funding or staffing available to accomplish.

The CAP Update does not include any measures related to limiting the VOC content in architectural coatings. However, SDAPCD amended Rule 67.0 in 2021 which included changes to regulations regarding the VOC content of architectural coatings used in the county. With these recently updated regulations in place, VOC emissions from architectural coatings would be reduced to the extent feasible and would therefore require no additional mitigation.

New Mitigation Measures

CAP Update Mitigation Measure Air-2.1: Require construction contractors to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 3 or newer engine. Exemptions can be made for specialized equipment where Tier 3 engines are not commercially available within 200 miles of the proposed project location. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 2 engine.

Issue 3: Nonattainment Criteria Pollutants

The 2011 GPU PEIR mitigation measures and new mitigation measures identified above for Issue 2: Air Quality Violations would minimize impacts associated with non-attainment criteria pollutants.

Issue 4: Toxic Air Contaminants and Carbon Monoxide Effects on Sensitive Receptors

2011 General Plan PEIR Mitigation Measures

Adopted Mitigation Measure 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.

2011 General Plan PEIR Infeasible Mitigation Measures

As part of the preparation of the 2011 GPU PEIR, the County determined that the following measures were infeasible. These measures have been reviewed and a discussion is provided related to the feasibility with respect to the reduction measures in the CAP Update that would reduce TAC emissions resulting in effects on sensitive receptors.

Infeasible measures related to construction equipment in the 2011 GPU PEIR were as follows:

- Require that all off-road or non-road diesel engines, such as those associated with construction or extraction operations, be replaced by an alternative power source, such as electricity. This measure would limit which construction contractors would be allowed to work within the county because not all contractors have alternative power source equipment available and the measure could result in undue costs to the project applicant. Limiting the construction contractors allowed to work within the County would conflict with the proposed project's objective to reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment and recreational opportunities. In addition, the County cannot monitor and enforce all construction activities within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from off-road construction equipment.

The CAP Update includes measures to reduce emissions from construction equipment. For example, Measure T-1.1.a requires the use of alternative fuel and/or zero-emission equipment, which will reduce TAC emissions from construction equipment. The goal of this measure is to require that 100 percent of all construction equipment used in county projects be zero emission by 2045. Although the emission reductions would be potentially substantial, it is not possible to quantify these reductions at this time given that specific construction timing and fleet mix are unknown. Because the CAP Update includes measures related to the reduction of TAC emissions from construction equipment, no additional mitigation is feasible.

Infeasible measures related to diesel trucks in the 2011 GPU PEIR were as follows:

- Require all diesel trucks that travel on county roads to be equipped with filters or other devices that would limit diesel emissions to below a significant level. This measure is considered to be infeasible [because] the county cannot monitor all diesel traffic within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from vehicles. Implementing this measure would result in increased public costs, which would conflict with the proposed project's objective to minimize public costs of infrastructure and services.

The CAP Update includes measures to reduce emissions from diesel trucks. Measure T-4 supports the installation of EV charging stations and provides incentives for zero-emissions vehicles in the unincorporated county. Specific to trucks, Measure T-4.1 supports actions to install 2,040 publicly available EV charging stations by 2028 and require the electrification of loading docks and idling reduction in new commercial and industrial development, while Measure T-4.1a supports the transition to hydrogen fuel for medium- and heavy-duty vehicles by increasing access to hydrogen fueling infrastructure through streamlined permitting processes and other efforts.

Although the emission reductions would be potentially substantial, it is not possible to quantify these reductions at this time given that specific fleet mix and number of trucks are unknown. Because the CAP Update includes measures related to the reduction of TAC emissions from medium- and heavy-duty vehicles, no additional mitigation is feasible.

New Mitigation Measures

CAP Update Mitigation Measure Air-2.1: Require construction contractors to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 3 or newer engine. Exemptions can be made for specialized equipment where Tier 3 engines are not commercially available within 200 miles of the proposed project location. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 2 engine.

Issue 5: Odor Impacts

No mitigation required.

2.3.6 Significance Conclusion

Issue 1: Conflict with Air Quality Plans

The proposed CAP Update would not conflict with or obstruct implementation of the San Diego RAQS and/or applicable portion of the SIP. Therefore, there is no new significant impact related to obstruction of the implementation of the San Diego RAQS and/or applicable portion of the SIP and the impact is not substantially more severe than the impact identified in the 2011 GPU PEIR. This impact would remain **less than significant** and the project **would not result in a considerable contribution** to a significant cumulative impact. This **would not be a new or more severe impact** than identified in the 2011 GPU PEIR.

Issue 2: Conformance to Federal and State Air Quality Standards

Construction and operation of subsequent future projects may result in emissions of criteria pollutants that would exceed the SLTs for PM₁₀, PM_{2.5}, NO_x, and VOCs. Implementation of the 2011 GPU PEIR Mitigation Measures Air-2.1 through Air-2.13, 2011 General Plan policies, along with various CAP measures would reduce construction and operational emissions. While these measures and policies would result in a decrease in criteria pollutants during construction and operation, the impact related to conformance to federal and state air quality standards would be **significant and unavoidable** and the project **would result in a considerable contribution** to a significant cumulative impact. This **would not be a new or more severe impact** than identified in the 2011 GPU PEIR.

Issue 3: Nonattainment Criteria Pollutants

Construction and operation of subsequent future projects may result in a cumulatively considerable increase in nonattainment pollutants (PM₁₀, PM_{2.5}, NO_x, and VOCs). Implementation of the 2011 GPU PEIR Mitigation Measures Air-2.1 through Air-2.13, 2011 General Plan policies, along with various CAP Update measures would reduce construction and operational emissions. While these measures and policies would result in a decrease in nonattainment pollutants during construction and operation, the impact related to emissions of nonattainment criteria pollutants would remain **significant and unavoidable** and the project **would result in a considerable contribution** to a significant cumulative impact. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Issue 4: Toxic Air Contaminants and Carbon Monoxide Effects on Sensitive Receptors

Future projects related to implementation of the measures and their associated actions described above could result in the exposure of sensitive receptors to TACs. Because of the programmatic approach of this analysis, it is not possible to determine the location or size of projects that would be built, nor the details of their construction typically used to estimate emissions of TACs and exposure to sensitive receptors such as construction duration, equipment use, location and intensity.

Implementation of the 2011 GPU PEIR Mitigation Measure Air-4.1, 2011 General Plan policies, along with various CAP Update measures would reduce sensitive receptor exposure to TAC emissions. While these measures and policies would reduce sensitive receptor exposure to TAC emissions, the impact related to sensitive receptor exposure to TAC emissions would remain **significant and unavoidable**, and the project **would result in a considerable contribution** to a significant cumulative impact. This **would not be a new or more severe impact** than identified in the 2011 GPU PEIR.

Issue 5: Objectionable Odors

Implementation of the proposed CAP Update could result in impacts related to odors because measures and actions related to solid waste could result in the construction of new waste handling facilities that are typically associated with odor complaints. Additionally, the operation of new composting/anaerobic digestion facilities and on-farm digesters could result in new sources of odors within existing agricultural lands, which are often near residences.

SDAPCD rules, including Rule 51, along with and County Code Sections 63.401 and 63.402, prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Development of any waste handling, composting, or digester facilities would be required to comply with these regulations. Compliance with existing rules would ensure objectionable odors are not a nuisance on nearby receptors. Therefore, impacts would be **less than significant** at both the project and cumulative scale, as identified in the 2011 GPU PEIR, and the project **would not result in a**

considerable contribution to a significant cumulative impact. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

Table 2.3-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute ¹ Health Effects	Chronic ² Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO _x in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO _x results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO ₂)	Combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable particulate matter (PM ₁₀), Fine particulate matter (PM _{2.5})	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO ₂ and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/developmental effects (fetuses and children)	Numerous effects including neurological, endocrine, and cardiovascular effects

¹ "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

² "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Notes: NO_x = oxides of nitrogen; ROG = reactive organic gases.

Source: EPA 2023a.

Table 2.3-3 Summary of Annual Ambient Air Quality Data in San Diego County (2019-2021)

Pollutant	2019	2020	2021
Ozone (2015 standard)¹			
Maximum concentration (1-hr/8-hr avg, ppm)	0.110/0.085	0.105/0.090	0.099/0.080
Number of days state standard exceeded (1-hr/8-hr)	2/18	5/28	2/15
Number of days national standard exceeded (8-hr)	16	24	15
Fine Particulate Matter (PM_{2.5})²			
Maximum concentration (24-hour µg/m ³)	25.7	41.6	31.5
Annual Average (µg/m ³)	8.5	11.6	10.4
Number of days national standard exceeded (measured)	0	2	0
Respirable Particulate Matter (PM₁₀)²			
Maximum concentration (24-hour µg/m ³)	38.7	-	-
Number of days state standard exceeded	0	-	-
Number of days national standard exceeded (estimated days)	0.0	-	-

Notes: µg/m³ = micrograms per cubic meter; ppm = parts per million; - = data not available

¹ Data from the Alpine – 2300 Victoria Drive station

² Data from the El Cajon – Lexington Elementary School station

Source: CARB 2023.

Table 2.3-4 Ambient Air Quality Standards and Attainment Status for the San Diego Air Basin

Pollutant	Averaging Time	California (CAAQS)		National (NAAQS)	
		Standards	Attainment Status	Standards – Primary	Attainment Status
Ozone (O ₃)	1-hour	0.090 ppm (180 µg/m ³)	Nonattainment	—	—
	8-hour	0.070 ppm (137 µg/m ³)	Nonattainment	0.070 ppm (137 µg/m ³)	Nonattainment
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
	8-hour	9 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	Attainment	53 ppb (100 µg/m ³)	Attainment
	1-hour	0.18 ppm (339 µg/m ³)	Attainment	100 ppb (188 µg/m ³)	Attainment
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	Attainment	—	—
	3-hour	—	Attainment	—	—
	1-hour	0.25 ppm (655 µg/m ³)	Attainment	75 ppb (196 µg/m ³)	Attainment
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	Attainment	—	—
	24-hour	50 µg/m ³	Nonattainment	150 µg/m ³	Unclassified/ Attainment
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	Nonattainment	12 µg/m ³	Unclassified/ Attainment
	24-hour	—	—	35 µg/m ³	Unclassified/ Attainment
Lead	Calendar quarter	—	—	1.5 µg/m ³	Attainment
	30-Day average	1.5 µg/m ³	Attainment	—	—
	Rolling 3-Month Average	—	—	0.15 µg/m ³	Attainment
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	Unclassified	No national standards	
Sulfates	24-hour	25 µg/m ³	Attainment		
Vinyl chloride	24-hour	0.01 ppm (26 µg/m ³)	Unclassified		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km	Unclassified		

Notes: µg/m³ = micrograms per cubic meter; km = kilometers; mg/m³ = milligrams per cubic meter; ppb = parts per billion; ppm = parts per million (by volume).

Sources: EPA 2023b; SDAPCD n.d.