2.1 Aesthetics

This section describes the existing conditions in the unincorporated county related to aesthetics and the potential effects that implementation of the CAP Update may have on aesthetic resources. Specifically, this section evaluates the potential for the CAP Update to result in impacts on scenic vistas and resources, visual character and quality, and light and glare. Because this analysis is subsequent to the certified 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 certification of the 2011 GPU PEIR.

This section incorporates by reference the aesthetic setting and impact analysis from the 2011 GPU PEIR as it applies to the CAP Update and supplements with updates to setting conditions since certification of the 2011 GPU PEIR.

Table 2.1-1 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 result in new or more severe significant impacts on aesthetic resources.

Table 2.1-1 Summary of Aesthetics-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	Scenic Vistas and Scenic Resources	General Plan Only: Less-Than-Significant Impact after Mitigation	CAP Update Only: Yes	CAP Update Only: Yes
		General Plan Cumulative Contribution: Less-Than-Significant Impact after Mitigation	CAP Update Cumulative Contribution: Yes	CAP Update Cumulative Contribution: Yes
2	Visual Character or Quality	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
3	Light and Glare	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

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

Source: Compiled by Ascent Environmental in 2023.

The evaluation of scenic vistas and scenic resources has been consolidated into one discussion because the physical changes resulting from implementation of the CAP Update measures and actions would result in a similar potential to affect both scenic vistas and resources.

The County did not receive comments related to aesthetics during the Notice of Preparation (NOP) scoping process. A copy of the NOP and comment letters received in response to the NOP are included in Appendix A of this ~~draft~~ SEIR.

2.1.1 Existing Conditions

The 2011 GPU PEIR includes a discussion of existing conditions of the unincorporated county related to aesthetics in Section 2.1, "Aesthetics."

Open space within the county, including areas that the County has designated resource conservation areas due to attributes that include aesthetic quality, coastal wetlands, native wildlife habitats, astronomical dark skies areas, scenic geologic formations, and significant archaeological and historical sites is an important scenic resource in the county, contributing to scenic vistas and contributing to the county's visual character and quality. Many of these resources can be viewed from transportation corridors throughout the county. Two state-designated scenic highways are also located in the unincorporated county: State Route (SR) 78 through the Anza-Borrego Desert State Park and SR 125 between Interstate (I-) 8 and SR 94. Eligible scenic highways include portions of I-5, I-15, SR 94, I-8, SR 79, SR 78, and SR 76 within the unincorporated county. The County has identified additional roads as scenic in its County Scenic Highway System Priority List. Recreational areas available for public use throughout the county include parks, open space preserves and reserves, and public trails. Additionally, the county contains publicly owned land that provides open space and visual relief from the human-made environment, including Cleveland National Forest in the Peninsular Ranges region and the Anza-Borrego Desert State Park in the Desert region.

Since certification of the 2011 GPU PEIR, there have been no newly designated visual resources or resource conservation areas. Similarly, there have been no newly identified scenic highways (California Department of Transportation 2023) or premier astronomical sites[1] within the unincorporated county. Therefore, the existing conditions described by the 2011 GPU PEIR adequately reflect baseline conditions and are hereby incorporated by reference.

2.1.2 Regulatory Framework

Section 2.1, "Aesthetics," of the 2011 GPU PEIR (pages 2.1-27 through 2.1-32), describes the regulatory framework related to aesthetics and visual resources and is

[1] Premier astronomical sites are high-quality astronomical research sites meeting the following five criteria: elevation over 5,000 feet above sea level; clear, cloud-free night sky; proximity to the Pacific Ocean; distance from urban areas; and freedom from nearby sources of light, dust, and smoke.

hereby incorporated by reference. Specific regulations discussed in the 2011 GPU PEIR that are applicable to the CAP Update include the following:

2.1.2.1 State

- State Scenic Highways Program

2.1.2.2 Local

- San Diego County Board of Supervisors Policy I-73, Hillside Development Policy
- Community Plans
- County Community Right-of-Way Development Standards
- Design Review Guidelines
- I-15 Corridor: Scenic Preservation Guidelines
- County of San Diego Code of Regulatory Ordinances Sections 86.601–86.608, Resource Protection Ordinance (RPO)
- County of San Diego Code of Regulatory Ordinances Sections 59.101–59.115, Light Pollution Code (aka, Dark Sky Ordinance)
- Multiple Species Conservation Program (MSCP) and the County of San Diego Code of Regulatory Ordinances Sections 86.501–86.509, Biological Mitigation Ordinance (BMO)
- San Diego County Scenic Highway Program
- San Diego County Zoning Ordinance pertaining to aesthetic character and resources

The regulatory framework discussed in the 2011 GPU PEIR regarding aesthetic and visual resources has not changed since certification of the 2011 GPU PEIR and continues to apply to the unincorporated county.

San Diego County Zoning Ordinance, Renewable Energy Regulations

Sections 6950–6959 of the County Zoning Ordinance prescribe reasonable standards and procedures for the installation and operation of solar energy systems and wind turbines.

Photovoltaic (PV) solar energy systems for on-site use are allowed as an accessory use in all zones upon approval of a building permit unless the property is subject to a Special Area Designator or is governed by a Discretionary Permit. Setback and height requirements are established in Section 6954(a).

Ordinance 10261 amended the San Diego County Zoning Ordinance to update and streamline provisions related to small wind energy turbines. This ordinance is consistent with state laws that encourage the construction of small wind energy turbines. The amendments made by this ordinance are intended to set forth reasonable standards and procedures for the installation and operation of small wind turbines to improve and

enhance public welfare and safety, and to implement the Energy Element of the San Diego County General Plan. The amendments to Section 6951 allow a maximum of three small wind turbines on a legal lot as an accessory use to the primary use of the lot in accordance several requirements, including height restrictions (the wind turbine height may exceed the height limit of the zone in accordance with Section 4620.j, but shall not exceed 80 feet), lighting restrictions (a small wind turbine shall not include any exterior lights unless required by law), locations restrictions (a small wind turbine tower shall not be located on a ridgeline, and the turbine blades shall not exceed the height of the ridgeline in an area within 150 feet of the ridgeline), and design guidelines (which prohibit use of trellis towers and guy wires and require that power lines connecting turbine towers to structures are installed underground). Installation of a small wind turbine requires approval of a Building Permit to ensure the turbine meets current Uniform Building Code and approval of a Zoning Verification Permit to ensure the turbine complies with County zoning regulations.

2011 San Diego County General Plan

The General Plan policies related to aesthetics that are applicable to the CAP Update include the following:

> Policy LU-6.6: Integration of Natural Features into Project Design. Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.
>
> Policy LU-6.9: Development Conformance with Topography. Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of the site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.
>
> Policy LU-10.2: Development Environmental Resource Relationship. Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.
>
> Policy LU-11.2: Compatibility with Community Character. Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.
>
> Policy LU-12.4: Planning for Compatibility. Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.

Policy COS-11.1: Protection of Scenic Resources. Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

Policy COS-11.3: Development Siting and Design. Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning;
- Integration of natural features into the project;
- Appropriate scale, materials, and design to complement the surrounding natural landscape;
- Minimal disturbance of topography;
- Clustering of development to preserve a balance of open space vistas, natural features, and community character; and
- Creation of contiguous open space networks.

Policy COS-11.5: Collaboration with Private and Public Agencies. Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, wherever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.

Policy COS-11.7: Underground Utilities. Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

Policy COS-12.2: Development Location on Ridges. Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

Policy COS-13.1: Restrict Light and Glare. Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.

Policy COS-13.2: Palomar and Mount Laguna. Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

Policy COS-13.3: Collaboration to Retain Night Skies. Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.

Policy H-2.1: Development that Respects Community Character. Require that development in existing residential neighborhoods be well-designed so as not to degrade or detract from the character of surrounding development consistent with the Land Use Element.

2011 San Diego County GPU PEIR

The following mitigation measures from the 2011 GPU PEIR are applicable to the CAP Update:

Adopted Mitigation Measure Aes-1.2: Protect sensitive biological habitats and species through regulations that require avoidance and mitigation of impacts. Existing programs include the County MSCP and associated BMOs, RPO, and California Environmental Quality Act (CEQA) Guidelines. While protecting biological resources, these programs also preserve natural open space that contributes to the quality of many of the County's scenic vistas.

Adopted Mitigation Measure Aes-1.6: Require that project approvals with significant potential to adversely affect the scenic quality of a community require community review and specific findings of community compatibility. Examples can be found in the Zoning Ordinance with the numerous special uses or exceptions allowed pursuant to Administrative and Use Permits, and Site Plans. This practice has been proven useful for reducing impacts to aesthetic resources and their usefulness will increase as community plans and design guidelines are updated pursuant to Aes-1.3 and Aes-1.4.

Adopted Mitigation Measure Aes-1.7: Develop and implement programs and regulations that preserve agricultural lands. Agricultural lands are often key components of scenic vistas and community character. Therefore, preservation of these lands will help to minimize potential impacts to scenic resources.

Adopted Mitigation Measure Aes-1.8: Continue to develop and implement programs and regulations that minimize landform alteration and preserve ridgelines and steep slopes where appropriate. Examples include the County's Grading Ordinance, RPO, and CEQA Guidelines.

Adopted Mitigation Measure Aes-1.9: Work with communities and other stakeholders to identify key scenic vistas, viewsheds of County scenic road and highways, and other areas of specific scenic value. Apply Resource Conservation Area designations or other special area designators, guidelines, and tools to guide future development of parcels within these viewsheds to avoid impacts to the scenic vistas.

Adopted Mitigation Measure Aes-4.1: County to coordinate with communities and stakeholders to review light pollution controls and consider amendments or expansions to those controls as determined necessary to reduce impacts to dark skies that are important to community character. This will ensure that potential artificial lighting impacts from development are monitored and controlled as needed to preserve community character.

Adopted Mitigation Measure Aes-4.2: County to maintain light and glare regulations that minimize impacts to adjacent properties, sensitive areas, community character, observatories, and dark skies. These regulations are currently found in the Light Pollution Code and Zoning Ordinance. Additional reviews are implemented on discretionary projects in accordance with CEQA and the County's CEQA guidelines. These efforts will help protect the existing unincorporated area and surrounding environment from excessive artificial lighting impacts.

2.1.3 Analysis of Effects and Significance Determinations

2.1.3.1 Significance Criteria

Based on guidance provided in Appendix G of the State CEQA Guidelines, the *County of San Diego Guidelines for Determining Significance: Visual Resources* (County of San Diego 2007), and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare* (County of San Diego 2009), except as provided in CEQA Section 21099, the proposed project would result in a significant impact if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- in non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surrounding, and in urbanized areas, conflict with applicable zoning and other regulations governing scenic quality;
- create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

2.1.3.2 Approach to Analysis

Impacts related to aesthetics are 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 is 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 2011 GPU PEIR mitigation measures are applicable 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 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 strategies, measures, and supporting actions (referred to herein as measures and actions) to demonstrate progress toward the 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 unicorporated county) and its role as a programmatic planning document designed to guide future decision-making related to the reduction of GHGs within the unincorporated county, the study area for aesthetics is the unincorporated area of the county within the County's jurisdiction (i.e., all unincorporated lands excluding tribal lands, state and federal 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 associated with the CAP Update have yet to be specifically defined, this SEIR considers the types of impacts that could occur with implementation of h the proposed GHG reduction measures and actions. Future discretionary projects would be evaluated by the County to determine if they are within the scope of this SEIR or if they result in project-specific impacts additional to what is concluded in this analysis. If additional impacts would result, subsequent CEQA documentation would be required to evaluate impacts, determine mitigation, and conclude whether impacts would be reduced to a less-than-significant level.

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 that would have the potential to affect aesthetics are summarized below.

CAP Update actions and measures 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 aesthetics.

Solid Waste Measures and Actions. This category includes strategies, measures, and implementing actions aimed at achieving zero solid waste in County operations and within the unincorporated county. Key measures and actions with potential to result in new or more severe impacts related to aesthetics include Measures SW-1 through SW-4, which have the potential to result in the construction of new or expanded solid waste facilities to

meet waste diversion targets, and increase the prevalence of composting, anaerobic digestion, recycling throughout the county.

Water and Wastewater Measures and Actions. This category includes strategies to decrease water consumption and increase wastewater and stormwater treatments, which would not be anticipated to result in substantial changes to the physical environment. Key measures and actions with potential to result in new or more severe impacts related to aesthetics include Measures W-1 through W-3, which would involve development of policies and programs to encourage water conservation and increase water and wastewater efficiency.

Agriculture and Conservation Measures and Actions. This category includes strategies to preserve natural land and agricultural land, planting and protecting trees, and providing incentive to encourage carbon farming. Key measures and actions with potential to result in new or more severe impacts related to aesthetics include Measures A-1 through A-2. Implementation of Action A-4.1b would have the potential to result in new farmworker housing in unincorporated county, if opportunities to increase farmworker housing in the unincorporated area are identified.

Energy Measures and Actions. This category includes strategies to develop policies and programs to increase energy efficiency and renewable energy use. Key measures and actions with potential to result in new or more severe impacts related to aesthetics include Action E-1.1 and Action E-3.2, which could result in energy efficiency retrofits on existing residential and non-residential structures and County facilities. Through Action E-3.2.b, the County would work with partners to 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, which would be regulated by existing County ordinances and policies. Action E-3.3 would require the County to develop a program to provide the unincorporated area with 100 percent renewable energy from San Diego Community Power by 2030. This action may indirectly result in the construction of large-scale renewable energy infrastructure.

Built Environment and Transportation Measures and Actions. This category includes strategies to decarbonize the vehicle fleet, install electric vehicle charging stations, incentivize the use of alternative fuels and landscaping practices, and to promote and support transit and ridesharing to reduce single-occupancy vehicle use. Key measures and actions with potential to result in new or more severe impacts related to aesthetics include Actions T-1.1, T-3.1, T-3.1.a, T-5.1, and T-6.2.

2.1.3.3 Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources

This section describes potential project impacts on scenic vistas and scenic resources, including resource conservation areas, with implementation of the project. As noted above the evaluation of scenic vistas and scenic resources has been consolidated into one discussion because the physical changes resulting from implementation of the CAP Update would result in similar effects on both scenic vistas and resources.

Guidelines for Determination of Significance

The following analysis is based on the sample questions provided in Appendix G of the State CEQA Guidelines and the *County of San Diego Guidelines for Determining Significance: Visual Resources* (County of San Diego 2007), which provides supplemental guidance for determination of significance. Based on these guidelines, the CAP Update would result in a significant impact if it would:

- obstruct, interrupt, or detract from a scenic vista that is visible from a:
  - public road,
  - trail within an adopted County or state trail system,
  - scenic vista or highway, or
  - recreational area.
- result in the removal or substantial adverse change in one or more features that contribute to the valued scenic resources in the unincorporated county including, but not limited to, the following:
  - designated landmarks
  - historic resources or unique structures
  - County public trails
  - public views of bays, lagoons, canyons, trees, rock outcroppings, established native vegetation, or agricultural lands in the Coastal Plain region
  - public views of water resources (e.g., reservoirs) and extensive open space including County reserves and parks in the Peninsular Ranges
  - public views supporting unique or memorable landforms, native habitat, and desert valleys

These thresholds are consistent with the guidelines for determination of significance applied in the 2011 GPU PEIR.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts to scenic vistas and visual resources related to the adoption of the goals and policies contained within the plan and development anticipated throughout the planning horizon. The evaluation determined that anticipated development under the General Plan would result in potentially significant project impacts to scenic vistas and visual resources in the unincorporated county.

The 2011 GPU PEIR determined that implementation of the General Plan would result in potentially significant impacts to scenic vistas and scenic resources due to future development consistent with the land use designations established in the General Plan land use map. These impacts would be reduced to a less-than-significant level by:

- Complying with a combination of federal, state, and local regulations and existing County regulatory processes that would require design review for future development and preservation of scenic vistas and resources, including but not limited to:
    - County Zoning Ordinance Sections 5200–5212 (Scenic Area Regulations)
    - County Zoning Ordinance Section 5749, Adopted 7-29-92 (Specific Historic Districts)
    - County Zoning Ordinance Sections 5750–5758 (Community Design Review Area Regulations)
    - County Zoning Ordinance Sections 5900–5910, Adopted 11-18-81 (Design Review Area Regulations)
    - County Zoning Ordinance Sections 5700–5749 (Historic/Archaeological Landmark and District Area Regulations)
    - County Zoning Ordinance Section 6320, Amended by Ord. No 9620 (New Series), Adopted 12-10-03 (Humidity, Heat, Cold, and Glare)
    - County Zoning Ordinance Section 6322, Amended by Ord. No. 7110 (New Series), Adopted 4-02086 (Outdoor Lighting)
    - County Zoning Ordinance Section 6324, Amended by Ord. No. 9690 (New Series), Adopted 12-15-04 (Lighting Permitted in Required Yard)
    - County Zoning Ordinance Section 6980, Adopted 4-30-03 (Wireless Telecommunications Facilities)
- Implementing the General Plan goals and policies to protect scenic vistas and resources (e.g., Policies LU 6.2 to LU 6.4, M-2.3, and COS-11.1 through COS-11.3); and
- Implementing the mitigation measures (Adopted Mitigation Measures Aes-1.1 through Aes-1.11) identified in the 2011 GPU PEIR.

The General Plan includes Policies LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, LU-6.8, and LU-10.2 that direct development away from undeveloped areas with intact sensitive natural resources and set requirements for the design of new development that includes contiguous open space and conformance to natural topography. Policies in the Conservation and Open Space Element require the protection of scenic vistas and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes. The discussion of impacts related to scenic vistas and scenic resources can be found in 2011 GPU PEIR Section 2.1, “Aesthetics” (pages 2.1-32 through 2.1-37 and pages 2.1-54 through 2.1-55), and is incorporated by reference. Specific policies related to the protection of scenic vistas and visual resources are listed above in Section 2.1.2, “Regulatory Framework.”

CAP Update Impact Analysis

The following sections describe the effects on scenic vistas and scenic resources that could result from the implementation of the measures and actions proposed in the CAP Update.

Solid Waste Measures and Actions

Implementation of the CAP Update would include implementation of measures and actions to increase solid waste diversion and availability of solid waste facilities in County operations and more generally in the unincorporated county. Implementing CAP Update measures and actions could result in potential construction of new or expanded solid waste facilities. For example, Actions SW-1.1 and SW-2.1 include development of zero waste policies which may result in new or expanded composting and recycling facilities to divert solid waste from landfills. Specific locations for new and expanded facilities have not been identified. Therefore, these improvements are analyzed at a programmatic level.

Construction of new facilities in rural or semi-rural areas would have the potential to affect views of scenic vistas and scenic resources. The county contains visual resources providing opportunities for scenic vistas in every community. The CAP Update would apply to the entire unincorporated county. New or expanded solid waste facilities could be sited in areas close to scenic resources and would have the potential to result in the obstruction, interruption, or detraction of a scenic vista, or to remove or change a feature that contributes to a valued scenic resource. Implementation of the CAP Update solid waste measures and actions would result in similar impacts related to scenic vistas and scenic resources as identified in the 2011 GPU PEIR through future development that could affect views of important scenic vistas (e.g., canyons, natural vegetation, and agricultural lands) and that could result in removal of features contributing to the valued character of scenic resources (e.g., State Scenic Highway, historic structures, and public view of open space).

The following 2011 GPU PEIR mitigation measures would be applied to reduce this impact: Aes-1.2 requires avoidance and mitigation of impacts to natural open space that contributes to the quality of the county's scenic vistas; Aes-1.6 requires community review on projects that would significantly affect scenic quality of a community; Aes-1.7 requires the preservation of agricultural lands; Aes-1.8 requires the preservation of ridgelines and steep slopes; and, Aes-1.9 requires working with communities to identify areas of specific scenic value for preservation.

Consistent with the 2011 GPU PEIR determinations, development of new or expanded solid waste facilities would be required to comply with the County zoning ordinances related to design review and scenic resources protection, implement adopted General Plan goals and policies related to scenic vistas and scenic resources protection, and implement mitigation measures identified in the 2011 GPU PEIR (Adopted Mitigation Measures Aes-1.2, Aes-1.6, Aes-1.7, Aes-1.8, and Aes-1.9, described above), which would minimize impacts related to scenic vistas and resources. With implementation of adopted 2011 GPU PEIR mitigation measures and compliance with adopted General Plan policies and existing regulations, implementation of the CAP Update measures and actions would result in less-than-significant impacts to scenic vistas and resources.

Water and Wastewater Measures and Actions

Implementation of CAP Update Measures W-1 through W-3 and associated implementing actions would involve development of policies and programs to encourage water

conservation and increase water and wastewater efficiency. Measures W-1 and W-2 include implementing actions to develop policies and programs to increase water efficiency. Implementation of these measures would generally result in installation of water efficient appliances, smart irrigation systems, and stormwater and grey water capture systems. Implementation of Measure W-3 would have the potential to result in installation of stormwater and wastewater treatment systems on-site, so that the stormwater and greywater would be treated and reused for landscaping. Implementation of these measures would not result in impacts to scenic vistas and scenic resources because any new or expanded physical structures associated with implementing water conservation measures and actions would be ancillary to existing or proposed development and consistent with the character of the area.

Agriculture and Conservation Measures and Actions

Implementation of Measures A-1 through A-2 and associated implementing actions would involve acquiring and managing conservation lands, preserving natural and agricultural lands, planting and protecting trees, and providing incentive to encourage carbon farming. Natural vegetation and agricultural lands are considered aesthetic resources in the county. Therefore, implementation of these measures would contribute to the preservation of aesthetic resources in the unincorporated county.

Implementation of Action A-4.1.b would have the potential to result in new farmworker housing in unincorporated county, if opportunities to increase farmworker housing in the unincorporated area are identified. Development of farmworker housing would be required to comply with County policies and ordinances related to design review and scenic resources protection and to implement adopted General Plan goals and policies related to scenic vistas and scenic resources protection. In addition, 2011 GPU PEIR Mitigation Measure Aes-1.2 requires avoidance and mitigation of impacts to natural open space that contributes to the quality of the county's scenic vistas and Mitigation Measure Aes-1.6 requires community review on projects that would significantly affect scenic quality of a community. Implementation of adopted Mitigation Measures Aes-1.2 and Aes-1.6 would substantially reduce the potential for adverse effects to scenic resources. With implementation of adopted 2011 GPU PEIR mitigation measures and compliance with adopted General Plan policies and existing regulations, implementation of the CAP Update measures and actions would result in less-than-significant impacts to scenic vistas and resources.

Energy Measures and Actions

Implementation of CAP Update energy measures and actions would involve implementation of policies, programs, and other mechanisms to increase building energy efficiency, increase the use of renewable energy, and increase electrification in the unincorporated county and County operations. These policies and programs could have the potential to result in the development of various renewable energy projects.

Implementation of CAP Update Measure E-3, Action E-3.2.b, and Action E-3.3 could result in energy efficiency retrofits on existing residential and non-residential structures

and County facilities. These retrofits could include rooftop or ground-mounted PV solar arrays or small wind turbines, upgraded mechanical systems, and other similar improvements. The addition of energy infrastructure may be required to support implementation of some measures; these projects have the potential to alter existing views. However, while the location of improvements associated with potential future projects is unknown, it is likely that retrofits would occur in areas of existing development. Further, because of the small scale and nature of the energy measures, building retrofits generally would not be expected to result in perceptible changes to a scenic vista or scenic resource.

Renewable energy projects, including on-site renewable energy generation supported through proposed CAP Update Action E-3.2.b, would be regulated by existing County ordinances and policies. The placement of small-scale PV solar renewable energy equipment on new and existing buildings is regulated by the existing County Renewable Energy Zoning Ordinance Section 6954(a) that regulates the height and scale of these facilities. Rooftop PV solar energy panels generally do not involve construction that would substantially change roof lines or add substantial massing or height such that the altered buildings would result in the potential to substantially alter or obstruct views. The County's Renewable Energy Zoning Ordinance Section 6954(a) requires the height of on-site PV solar energy systems be no taller than the height designator of the zone, except for on-site energy use systems that may extend no more than 5 feet above the roofline.

Additionally, installation operation of small-scale wind turbines would be regulated by the County's Wind Energy Ordinance Sections 6950–6952. A small wind turbine is defined as a wind turbine, with or without a tower, which has a rated capacity of not more than 50 kilowatts; is consistent with the requirements of existing Zoning Ordinance Sections 6156 and 6951; and generates electricity primarily for use on the same lot on which the wind turbine is located. These turbines would be allowed as an accessory use in all zones, provided the turbine complies with the Renewable Energy Regulations in Zoning Ordinance Section 6950 and the turbine proponent obtains a Zoning Verification Permit prior to issuance of a building permit. Small wind turbines are limited to a height of no more than 80 feet (but not more than the height designator of the Zoning District in which they are located) and have relatively small blades on a vertical or horizontal axis. In addition, these structures cannot include guy wires for structural support or aboveground power lines and cannot be located on prominent ridgelines. Therefore, although these facilities may introduce a new vertical element within the viewshed of a scenic vista that would have the potential to interrupt or detract from a visual resource that previously did not include infrastructure or development, the limited, on-site renewable energy development supported by the CAP Update would not be anticipated to substantially obstruct, interrupt, or detract from a scenic vista that is visible from a: public road, trail within an adopted County or state trail system, scenic vista or highway, or recreational area. Further, the energy measures and actions would not result in the removal or substantial adverse change in one or more features that contribute to the valued scenic resources in the unincorporated county, including designated landmarks and key public views. Similarly, CAP Update implementation may result in construction of microgrids to support on-site and community scale energy storage to support adjacent development. Microgrids would appear similar to existing power infrastructure and would not result in unique effects to scenic vistas or scenic resources not evaluated in the 2011 GPU PEIR.

In addition, the adopted General Plan policies pertaining to visual resources would further limit project impacts to scenic vistas and scenic resources. Additionally, the following 2011 GPU PEIR mitigation measures also would be applied to a project to minimize impacts to scenic vistas and resources: Mitigation Measure Aes-1.6, which requires community review and specific finding of community compatibility for project with significant impacts on scenic quality; Mitigation Measure Aes-1.7, which requires preservation of agricultural lands; and Mitigation Measure Aes-1.8, which requires preservation of ridgelines and steep slopes. Implementation of these 2011 GPU PEIR mitigation measures would ensure protection of sensitive scenic resources and limit the potential for obstruction of scenic vistas.

Implementation of proposed CAP Update Action E-3.3 could result in the construction of new large-scale renewable energy systems, including large-scale solar and wind turbines. It is unknown at this time what type of solar technology will be used in future development. The following analysis is based on the two main types of solar technologies: concentrator solar and PV solar. Because the amount of demand generated by such a program and the mix of renewable energy types that would be constructed to satisfy demand is unknown, this ~~draft~~ SEIR evaluates the potential for impacts at the program level. The potential for construction of large-scale renewable energy infrastructure was not evaluated in the 2011 GPU PEIR, but potential wind energy impacts were evaluated in the 2013 Wind Energy Ordinance EIR and are incorporated by reference as applicable.

Large-scale renewable energy infrastructure generally would be constructed in primarily undeveloped locations that are productive for generating renewable energy. Specific locations that may be chosen for these large-scale utility projects are unknown; however, it is likely that suitable locations would include areas that are not highly developed with residential and commercial uses because of the size, massing, coverage, and scale of this type of infrastructure that relies upon large amounts of land unencumbered by buildings or shadowed by buildings or trees. Typical construction activities associated with large-scale renewable energy systems would require the use of trucks for transport of materials, staging areas for supplies and equipment, parking for workers, and signage and grading. All construction activities would be temporary effects of the construction process and would not likely result in permanent significant impacts to scenic vistas and scenic resources.

The types of infrastructure and facilities that would likely accompany large-scale PV solar or concentrator solar renewable energy systems include the following:

- PV arrays or concentrated solar on ground-mounted posts, or systems that track the sun;
- A collector substation site, including concrete pad and switchgear, and battery storage;
- A direct-current underground collection system and an overhead and underground transmission system that steps up the voltage to alternating current, linked to the substation;

- An operations and maintenance site (unless remotely monitored), including concrete pad with building(s);
- Transmission lines;
- Water tanks;
- Internal and external access roads; and
- Security and open space fencing.

Large-scale renewable solar systems can range in size from 2 to several thousand acres. The location of large-scale PV solar systems is limited by the County's Zoning Ordinance Section 6954(b)(3), which requires a Major Use Permit (MUP) for projects over 10 acres. Projects that would require less than 10 acres would be required to obtain an Administrative Permit in accordance with the County's Zoning Ordinance Section 6954(b)(1). If PV solar systems are utilized, the dark panels that absorb sunlight are mounted to fixed or tracking systems. Fixed-tilt mounted PV solar panels are oriented towards the sun as it rises and sets. Tracking systems allow the panels to move as the sun moves. If concentrator solar panels are used, the system utilizes curved and mirrored panels mounted on a tracker, which allows direct sunlight to be concentrated and captured at higher efficiencies. A typical size for trackers is approximately 50 feet wide and 25 feet tall. At the maximum height during the day, the trackers would not exceed approximately 30 feet at grade. However, many systems, especially fixed-mounted PV solar arrays are as low as 8 to 12 feet above grade.

Both PV solar and concentrator solar systems could result in direct impacts to scenic vistas and scenic resources. Any solar system that would result in the operation of curved panels of solar trackers or fixed tilt-mounted arrays in pastures, meadows, or desert environments could interrupt and degrade existing views of scenic vistas available to motorists along public roads or scenic highways, to persons utilizing County or state trails, or to recreational areas as they pass the large arrays and associated components. Depending on the proximity to roadways, trails, or recreational areas, motorists and recreationists could be drawn visually to the solar farm sites because of the juxtaposition of the solar elements against the natural landscape. The degree of interruption would vary depending on the height and width of trackers (horizontal with the earth to nearly vertical) as the trackers move with the sun during the day, or the degree of reflectivity that accompanies the solar systems. As a result, solar systems would be apparent from some distance away. While implementation of adopted General Plan policies (e.g., Policies LU-10.2, LU-12.4, COS-11.1 and COS-11.3) and 2011 GPU PEIR mitigation measures (e.g., Mitigation Measures Aes-1.6, Aes-1.7, and Aes-1.9) would require new development to conserve and protect unique and sensitive visual features and the scenic quality of the environment, the size and magnitude of the development associated with these solar energy generation systems may make it infeasible for future individual projects to fully mitigate impacts to scenic vistas and scenic resources to a less-than-significant level.

Large-scale wind energy systems generally include the following components:

- Wind turbines ranging in height from approximately 200 to 330 feet to the wind turbine hub, and approximately 300 feet to 500 feet to the topmost blade tip;

- An overhead and underground collector cable system linking the wind turbines to the collector substation;
- A collector substation site and an operations and maintenance building (unless remotely monitored) with battery storage;
- Several permanent meteorological towers and one sonic detecting and ranging unit or one light detecting and ranging unit;
- An overhead transmission line running from the collector substation to the nearest substation;
- Water tanks;
- Internal and external access roads; and
- Security and open space fencing.

As described on pages 2.1-9 to 2.1-10, "Scenic Vistas – Large Turbines," and pages 2.1-11 to 2.1-12, "Scenic Resources – Large Turbines," of the 2013 Wind Energy Ordinance EIR, large-scale production of energy from wind turbines could result in direct impacts related to scenic vistas and scenic resources (County of San Diego 2013). The size of large-scale wind turbine farms can range from 30 acres to several hundred or thousand acres. However, wind turbines are spaced in a linear fashion and often require less direct acreage compared to solar systems. The location of large-scale wind turbine farms would be limited by the County's Wind Energy Ordinance which sets forth requirements related to setbacks, noise, height, and locations where large turbines are allowed. All large wind turbine projects would be required to obtain an MUP and undergo CEQA review. In addition, all large wind turbine projects would also be required to implement measures to minimize visual impacts to the extent feasible as part of the County's discretionary review process. However, the Wind Energy Ordinance reduced the required setbacks (changed from four and eight times to 1.1 times the wind turbine height) and increase allowable height (changed from maximum 80 feet to Federal Aviation Administration [FAA] height requirements) for large wind turbines installation. The setback reduction and increased height could block scenic vistas and/or viewsheds that were previously available for viewing and or previously undisturbed. Therefore, development of large wind turbine projects may result in a potentially significant adverse impact to a scenic vista or scenic resource because it could potentially introduce tall vertical elements near viewsheds of a scenic vista or scenic resource.

The 2013 Wind Energy Ordinance EIR identified Mitigation Measure M-AES-1 to reduce potentially significant impacts to scenic vistas and scenic resources, which requires that all new large-scale wind turbine projects apply the *County of San Diego Guidelines for Determining Significance: Visual Resources* (County of San Diego 2007) and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare* (County of San Diego 2009) through the MUP discretionary review process. When aesthetic impacts are determined to be significant, these projects are required to implement feasible and appropriate project-specific mitigation measures. However, the County determined that implementation of Mitigation Measure M-AES-1 would not reduce impacts to a less-than-significant level.

Mitigation Measure M-AES-1 has been modified and incorporated into CAP Update Mitigation Measure Aes-1, which requires that all large-scale renewable energy projects (including both solar and wind projects) apply the *County of San Diego Guidelines for Determining Significance: Visual Resources* (County of San Diego 2007) and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare* (County of San Diego 2009) through the MUP discretionary review process. In addition, CAP Update Mitigation Measure Aes-1 would require that feasible and appropriate project-specific mitigation measures shall be incorporated to mitigate aesthetic impacts. However, it is still not possible to guarantee that all projects and cumulative impacts to scenic vistas and scenic resources would be reduced to a less-than-significant level due to uncertainty of the type of technology, locations, and scale of future renewable energy projects. Therefore, impacts to scenic vistas and scenic resources would be significant and unavailable.

In summary, implementation of CAP Update energy measures and actions would result in less than significant impacts to scenic vistas and scenic resources with the exception of Action E-3.3 which would result in the potential development of large-scale renewable energy projects. Because of the size and magnitude of the development associated with large-scale solar and wind energy projects, it may not be feasible for future individual projects to fully mitigate impacts to scenic vistas or scenic resources to a less-than-significant level. Therefore, impacts to scenic vistas or scenic resources would remain significant with mitigation incorporated.

Built Environment and Transportation Measures and Actions

These measures and actions would implement existing County programs, such as the County's 2019 Electric Vehicle Roadmap and 2023 Green Fleet Action Plan (Action T-1.1) and Active Transportation Program (Action T-5.1). Other measures and actions would affect the design of existing and planned roadways. Action T-6.2 would Implement transit-supportive roadway treatments such as signal communication and curb extensions along County-maintained roadways to optimize traffic flow for transit and pedestrians. Action T-3.1 would result in the installation of publicly available electric vehicle charging stations. Action T-3.1.a would support the transition to clean hydrogen fuel for medium- and heavy-duty vehicles by increasing access to hydrogen fueling infrastructure through streamlined permitting processes and other efforts that could facilitate future infrastructure construction. Several measures and actions would further support alternative modes of transportation without resulting in physical changes that could affect scenic vistas and scenic resources.

Because of the nature of such improvements (i.e., limited size, along existing roadways, not accompanied by tall or expansive buildings), it is likely that most infrastructure improvements would occur within existing developed residential and commercial centers throughout the county or as part of new development as it is approved. These improvements would not result in substantial changes to the visual landscape compared to that contemplated under the General Plan in the 2011 GPU PEIR. All future development projects would be required to follow County development requirements,

including compliance with regulatory requirements, ordinances, and applicable permitting procedures related to protection of scenic vistas and scenic resources.

In addition, as explained in the 2011 GPU PEIR, implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures pertaining to visual resources located in Section 2.1, "Aesthetics" (pages 2.1-32 through 2.1-36), of the 2011 GPU PEIR, including Mitigation Measure Aes-1.2 (protecting sensitive habitats), Mitigation Measure Aes-1.6 (requiring community review on projects adversely affecting the scenic quality), Mitigation Measure Aes-1.7 and Aes-1.8 (requiring preservation of scenic resources and minimizing landform alteration), and Mitigation Measure Aes-1.9 (requiring identification of scenic vistas and viewsheds) would reduce project impacts to scenic vistas and scenic resources. Adopted General Plan Policies LU-6.6, LU-6.9, LU-10.2, LU-11.2, LU-12.4, COS-11.3, and COS-12.2 require future development to conform to the natural environment and to protect scenic resources. Applicable 2011 GPU PEIR Mitigation Measures Aes-1.2, Aes-1.6, Aes-1.7, Aes-1.8, and Aes-1.9 require protection of scenic resources (e.g., sensitive habitat and agricultural lands), minimization of landform alteration, community review, and identification of scenic vistas and viewshed. Implementation of the General Plan policies and the 2011 GPU PEIR mitigation measures would ensure that new development would conserve and protect unique and sensitive visual features and the scenic quality of the environment. The impact would remain less than significant.

Summary

As explained in the 2011 GPU PEIR, implementation of adopted General Plan Policies LU-6.6, LU-6.9, LU-10.2, LU-11.2, LU-12.4, COS-11.3, and COS-12.2 and adopted 2011 GPU PEIR mitigation measures would ensure that new development would conserve and protect unique and sensitive visual features and the scenic quality of the environment. Adopted General Plan policies require future development to conform to natural environment and to protect scenic resources. Applicable 2011 GPU PEIR Mitigation Measures Aes-1.2, Aes-1.6, Aes-1.7, Aes-1.8, and Aes-1.9 require protection of scenic resources (e.g., sensitive habitat and agricultural lands), minimization of landform alteration, community review, and identification of scenic vistas and viewshed.

With implementation of adopted General Plan policies, 2011 GPU PEIR mitigation measures, CAP Update Mitigation Measure Aes-1, and additional regulatory requirements, implementation of the CAP Update solid waste, water and wastewater, agriculture and conservation, and built environment, and transportation measures and actions would not result in new or substantial increase in magnitude of impacts related to scenic vistas and scenic resources compared to the 2011 GPU PEIR. However, as described above, implementation of the CAP Update Action E-3.3 has the potential to result in development of large-scale renewable energy systems (including, PV solar, concentrated solar, and wind turbines). While development of large-scale renewable energy systems is subject to the County's renewable energy ordinances, MUP, Administrative Permit, and/or discretionary environmental review, it is not possible to ensure that impacts related to scenic vistas or scenic resources would be reduced to a less-than-significant level. Therefore, implementation of CAP Update Action E-3.3 would result in a potentially significant impact to scenic vistas and scenic resources **(Impact**

Aes-1). Implementation of the CAP Update **would result in a new significant impact** not disclosed in the 2011 GPU PEIR.

2.1.3.4 Issue 2: Substantially Degrade Visual Character or Quality

This section describes potential for implementation of the proposed CAP Update measures and actions to result in effects to visual character or quality.

Guidelines for Determination of Significance

Appendix G of the State CEQA Guidelines establishes the following guidelines for determining significance of effects to visual character or quality:

- In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surrounding.
- In urbanized areas, conflict with applicable zoning and other regulations governing scenic quality.

In addition, the *County of San Diego Guidelines for Determining Significance: Visual Resources* provides the following direction:

- Implementation of the project would result in a significant impact if it would substantially degrade the existing visual character or quality of the site and its surroundings through the following:
  - introducing features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or
  - being inconsistent with applicable design guidelines.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts to visual character related to the adoption of the goals and policies contained within the plan and the development anticipated throughout the planning horizon. The discussion of impacts related to visual character and quality can be found in Section 2.1, “Aesthetics” (pages 2.1-37 through 2.1-49 and page 2.1-55), and is incorporated by reference. The 2011 GPU PEIR determined that anticipated development under the General Plan would result in increased development densities in the unincorporated county that would have the potential to degrade the existing visual character or quality of a community. Therefore, the 2011 GPU PEIR determined that implementation of the General Plan would result in potentially significant project impacts on visual character or quality in the unincorporated county.

The 2011 GPU PEIR determined that the impacts to visual character and quality would be reduced through the implementation of a combination of federal, state, and local

regulations; existing County regulatory processes; General Plan goals and policies; and mitigation measures identified in the 2011 GPU PEIR. General Plan policies that would protect the visual character and quality of the unincorporated county include Policy LU-1.4 limiting expansion of the villages; Policy LU-2.1 requiring maintenance of community plans; Policy LU-2.2 related to development densities and lot sizes; Policy LU-2.4 to identify an maintain greenbelts; Policies LU-4.1 through LU-4.4 related to regional planning and compatibility with adjacent jurisdictions; and Policies LU-11.2, LU-12.4, and H-2.1 regarding compatibility of development and infrastructure with community character. In addition, Mitigation Measures Aes-1.1 through Aes-1.11 would be implemented, as well as Mitigation Measure Aes-3.1 related to improving road standards and design guidelines related to elements including road design, parking, and landscaping. However, even with these policies and identified mitigation measures, implementation of the General Plan could substantially degrade the existing visual character or quality of the unincorporated county. This impact was to be found significant and unavoidable.

The 2011 GPU PEIR considered the following additional mitigation that was found to be infeasible: incorporating revised goals and policies into community plans that would severely limit the potential for development growth in order to maintain the existing visual character or quality of each community; comprehensive expansion of the Zoning Ordinance to specifically dictate the exact development type and design allowed in the various areas of the county to avoid impacts to community character; and approving only development that is comparable in size, scope, and use as existing development in order to avoid impacts to the visual character and quality of the county's communities. These mitigation options were rejected by the County for the following reasons: (1) restrictions on development would conflict with goals to provide housing, (2) restrictions on future development in areas identified for increased growth in the General Plan and/or areas where existing land uses are not the same as the land uses proposed by the General Plan would be inconsistent with the General Plan, and (3) the preparation of detailed plans for all development within the county to match existing community character would be infeasible. Mitigation rejected as infeasible within the 2011 GPU PEIR is described in detail in Section 2.1.6.1 of the 2011 GPU PEIR.

CAP Update Impact Analysis

The following sections describe the potential for implementation of the proposed CAP Update measures and actions to affect visual character and quality.

Solid Waste Measures and Actions

Implementation of CAP Update Measures SW-1 through SW-4 and associated implementing actions have the potential to result in the construction of new or expanded solid waste facilities. These facilities could be located in rural areas or in proximity to developed communities. New or expanded solid waste facilities would not generally result in a degradation of visual character or quality through introducing incompatible uses, bulk, scale, or materials to the area. Construction activities would introduce features (e.g., construction trucks, equipment, and materials) that may detract from or contrast with the

existing visual character and/or quality of an established community. However, construction-related impacts would be temporary. Development of new or expanded solid waste facilities would be required to comply with regulations that relate to the built form of a community, such as design guidelines and design review. Additionally, the Zoning Ordinance contains development standards that relate to visual characteristics, such as density, size, and building materials requirements. Future development of solid waste facilities would be required to comply with design review guidelines that would ensure future structures would complement both the site and surrounding areas of existing development; therefore, the impacts to visual character or quality of an established community would be less than significant.

Potential projects resulting from implementation of CAP Update solid waste measures and actions would not generate new impacts to visual character and quality that is substantially more severe than is evaluated in the 2011 GPU PEIR. Development of new or expanded solid waste facilities would be required to comply with County development requirements, including local policies and ordinances related to design review and protection of visual character and quality. Accordingly, implementation of the CAP Update solid waste measures and actions would not result in a new or substantial increase in magnitude of impacts related to visual character or quality compared to what was analyzed in the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

Implementation of CAP Update Measures W-1 through W-3 and associated implementing actions would involve development of policies and programs to encourage water conservation and increase water and wastewater efficiency. Implementation of CAP Update Measures W-1 and W-2 would have the potential to result in installation of water efficient appliance, smart irrigation system, and stormwater and greywater capture systems. Implementation of CAP Update Measure W-3 would have the potential to result in installation of stormwater and wastewater treatment systems on-site, so that the stormwater and greywater would be treated and reused for landscaping. The water efficient appliance, irrigation systems, and stormwater and wastewater treatment systems would generally be installed indoor or on ground level, which would result in minimal physical impacts. Accordingly, implementation of the CAP Update water and wastewater measures and actions would not result in new or substantial increase in magnitude of impacts related visual character or quality compared to what was analyzed in the 2011 GPU PEIR. This impact would be less than significant.

Agriculture and Conservation Measures and Actions

Implementation of CAP Update Measures A-1 through A-2 and associated implementing actions would involve acquiring and managing conservation lands, planting and protecting trees, providing incentive to encourage carbon farming, and developing a program to incentivize transition to cleaner fuels. These measures would result in new conservation lands, preservation of existing natural and agricultural lands, new trees, and the use of cleaner fuels in the unincorporated county. The CAP Update would result in increased conservation of natural and agricultural lands in the unincorporated county. These lands

are key components of scenic vistas and community character. Therefore, implementing agriculture and conservation measures and actions would result in beneficial impacts to existing visual character and quality.

Implementation of Action A-4.1b would result in evaluation of opportunities to increase affordable farmworker housing in the unincorporated county. This action has potential to indirectly result in the development of farmworker housing to reduce emissions from farmworker transportation. If development of new farmworker housing results from opportunities identified through implementation of this action, such development would introduce features (e.g., construction trucks, equipment, and materials) during construction that may detract from or contrast with the existing visual character and/or quality of an established community. However, construction-related impacts would be temporary. The new farmworker housing would be designed in accordance with the Zoning Ordinance, which includes development standards that relate to visual character, such as density, size, and building materials requirements. For the purpose of this evaluation, it is assumed that any such development would be consistent with the General Plan and reflected in the buildout conditions evaluated in the 2011 GPU PEIR. The agriculture and conservation measures would have a less-than-significant impact on visual character and quality.

Energy Measures and Actions

Implementation of the CAP Update would generally result in energy efficiency retrofits on existing residential and non-residential structures and County facilities. Through Action E-3.2.b, the County would work with partners to 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.

As described above in Section 2.1.3.3, “Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources,” the project would include retrofits of mechanical equipment and the installation of rooftop or ground-mounted solar arrays or small wind turbines on new or existing buildings. The placement of small-scale PV solar renewable energy equipment on new and existing buildings is regulated by the existing County Renewable Energy Zoning Ordinance Section 6954(a) which limits the height and scale of these facilities. Rooftop PV solar energy panels generally do not involve construction that would substantially change roof lines or add substantial massing or height such that the altered buildings would have the potential to substantially affect visual character or quality. The County’s Renewable Energy Zoning Ordinance Section 6954(a) requires the height of on-site PV solar energy systems be no taller than the height designator of the zone, except for on-site energy use systems that may extend no more than 5 feet above the roofline.

Potential PV solar, small-scale wind turbines, and other building retrofits and improvements would occur in areas of existing development, and in association with new development, which would include energy-efficient mechanical equipment at the time of construction. Implementation of new mechanical equipment or new renewable energy equipment would be regulated by existing County codes and policies and would be consistent with the existing visual character of the area. In addition, the General Plan policies and 2011 GPU PEIR mitigation measures pertaining to scenic resources

(Adopted Mitigation Measures Aes-1.2, Aes-1.6, and Aes-1.8) would further limit the project impacts to visual character and quality by preserving natural open space that contributes to the quality of scenic vistas, requiring review for projects that would adversely impact scenic quality, and developing programs to preserve ridgelines and steep slopes.

Furthermore, wind turbines of all sizes are regulated by the County's Wind Energy Ordinance Sections 6950–6952 and would be required to comply with regulations specific to size and scale of the turbines. Small wind turbines that meet the zoning verification requirements would be limited to a height of no more than 80 feet for small turbines, would have relatively small blades on a vertical or horizontal axis, and would be prohibited on ridgelines. In addition, these structures cannot include guy wires for structural support or aboveground power lines. Small wind turbines could result in increased visual contrasts, view blockage, or skylining (showing the outline of the facilities) from sensitive viewing locations (County of San Diego 2013).

The County's Wind Energy Ordinance establishes requirements related to the design and placement of small wind turbines. Due to the nature and scale of the infrastructure, small scale wind turbines would be noticeable additions to the skyline. On-site renewable energy development supported by the CAP Update would not be expected to conflict with important visual elements or the quality of an area in a manner that would substantially degrade existing visual character or quality. Similarly, the CAP update could result in construction of microgrids to support on-site and community scale energy storage to support adjacent development. Microgrids would appear similar to existing power infrastructure and would not result in unique effects to visual character or quality not anticipated with buildout of the General Plan. These facilities would support a discrete parcel (in the case of energy generation facilities) or community (microgrids). At the program level, promotion and support for on-site renewable energy generation would not be expected to substantially increase the potential for buildout of the General Plan to degrade visual character or quality.

As described in detail in Section 2.1.3.3, "Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources," implementation of CAP Update Action E-3.3 could result in new large-scale renewable energy systems including PV solar, concentrator solar, and wind turbines. Because the amount of demand generated by such a program and mix of renewable energy types that would be constructed to satisfy demand is unknown, this SEIR evaluates the potential for impacts at the program level. As previously noted, large-scale renewable energy infrastructure would generally be constructed in primarily undeveloped locations that are productive for generating renewable energy. Specific locations for projects have not been identified. Also, it is likely that suitable locations would include areas that are not highly developed with residential and commercial uses because of the size, massing, coverage, and scale of this type of infrastructure that relies upon large amounts of land unencumbered by buildings or shadowed by buildings or trees. However, because of the size of large-scale renewable energy infrastructure, impacts related to visual character or quality could be potentially significant. In remote areas of the unincorporated county, there are land uses that are considered sensitive to visual changes to their settings, which include residential areas; designated park areas,

recreation (including off-highway vehicle staging and use), and natural areas; major transportation systems; and designated and eligible state historic routes and scenic highways.

Similar to the description of impacts described in detail in Section 2.1.3.3, permanent impacts could result from the alteration of the visual landscape with the introduction of, for example, large buildings for equipment, wind turbines, and PV arrays. If feasible based on location and height, screening, and landscaping of the facilities as suggested by the *County of San Diego Guidelines for Determining Significance: Visual Resources* would provide some visual relief from some aspects of the facilities including accessory buildings; however, large-scale renewable energy facilities would likely remain visible from varying distances.

Typical construction activities associated with development of renewable energy systems would require the use of trucks, staging areas for supplies and equipment, parking for workers, and grading. These construction activities could result in temporary disruption of visual character or quality of the area. All large-scale renewable energy 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 related to visual character and quality to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. However, it may be infeasible to fully mitigate the impacts to a less-than-significant level because of the size of the development associated with these systems.

As described on page 2.1-13 of the 2013 Wind Energy Ordinance EIR, all large-scale wind turbine projects would be required to obtain an MUP. As part of the County's discretionary review process, all large wind turbine projects would also be subject to environmental review and would be required to implement measures to minimize visual impacts to the extent feasible. However, because of the allowable height, direct or indirect effects may occur related to increased visual contrasts, view blockage, or skylining (showing the outline of the facilities) from sensitive viewing locations. The 2013 Wind Energy Ordinance EIR identified Mitigation Measure M-AES-1, as described below in Section 2.1.5, which would require compliance with the *County of San Diego Guidelines for Determining Significance: Visual Resources* and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare*. The County determined that Mitigation Measure M-AES-1 would not reduce impacts to a less-than-significant level. Mitigation Measure M-AES-1 has been modified and incorporated into CAP Update Mitigation Measure Aes-1 which applies to all large-scale renewable energy projects, including solar and wind projects. Large-scale solar systems would have similar results to visual character or quality with implementation of CAP Update Mitigation Measure Aes-1.

While all large-scale renewable energy projects would be required to obtain an MUP, undergo a discretionary review, evaluate project-specific impacts under CEQA, and mitigate to the extent feasible, it is not possible to ensure that impacts related to visual character and quality would be reduced to less-than-significant level. Projects would be required to implement the adopted General Plan policies, 2011 GPU PEIR mitigation measures listed in Section 2.1.2.2, and CAP Update Mitigation Measure Aes-1, which

would require new development to protect visual character and quality. However, because of the size and magnitude of the development associated with these systems it may be infeasible to fully mitigate the impact to visual character and quality from future individual projects to a less-than-significant level. Therefore, implementation of CAP Update Action E-3.3 would result in a potentially significant impact to visual character or quality.

Built Environment and Transportation Measures and Actions

The built environment and transportation measures and actions would implement existing County programs, such as the County's 2019 Electric Vehicle Roadmap and 2023 Green Fleet Action Plan (Action T-1.1) and Active Transportation Program (Action T-5.1). Other measures and actions would affect the design of existing and planned roadways. Action T-6.2 would implement transit-supportive roadway treatments such as signal communication and curb extensions along County-maintained roadways to optimize traffic flow for transit and pedestrians. Action T-3.1 would result in the installation of publicly available electric vehicle charging stations. Action T-3.1.a would support the transition to clean hydrogen fuel for medium- and heavy-duty vehicles by increasing access to hydrogen fueling infrastructure through streamlined permitting processes and other efforts that could facilitate future infrastructure construction. Several measures and actions would further support alternative modes of transportation without resulting in physical changes that could affect visual character or quality.

Where CAP Update measures and actions result in physical changes to the environment, these improvements would be located throughout the county and would occur in areas that are developed with existing residential and commercial uses. While these improvements may alter the visual quality or character of a community, these alterations would not generally result in a degradation of visual character or quality through introducing incompatible uses, bulk, scale, or materials to the area. The construction and maintenance of this infrastructure is within the scope of the development evaluated in the 2011 GPU PEIR.

Furthermore, all future development projects would be required to comply with County development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to protection of visual character. In addition, as explained in the 2011 GPU PEIR, implementation of the General Plan policies listed above in Section 2.1.2, "Regulatory Framework," and implementation of 2011 GPU PEIR Mitigation Measure Aes-1.2 (protecting sensitive biological habitats), Mitigation Measure Aes-1.6 (requiring community review on projects adversely affecting the scenic quality), and Mitigation Measure Aes-1.8 (minimizing landform alteration and preserving ridgelines and steep slopes) would conserve and protect natural resources that contribute to the county's scenic resources and protect visual character or quality of an existing community. The built environment and transportation measures would have a less-than-significant impact on visual character and quality.

Summary

The CAP Update would further existing programs and provide new and modified infrastructure in new and established communities to reduce GHG emissions. Implementation of adopted General Plan policies, 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measure Aes-1 would reduce the project impacts associated with the deterioration of visual character and quality. Although the locations of most projects that would be constructed to achieve the targets of the CAP Update are not known because they would be driven by implementation and participation in CAP Update programs, it is reasonable to assume that development would be consistent with applicable design guidelines and generally consistent with the visual character of the county. Impacts related to visual character and quality associated with implementation of the solid waste, water and wastewater, agriculture and conservation, and built environment and transportation measures and actions in the CAP Update would be less than significant with mitigation.

However, even with implementation of 2011 General Plan policies, 2011 GPU PEIR mitigation measures, and 2013 Wind Energy Ordinance EIR Mitigation Measure M-AES-1, and CAP Update Mitigation Measure Aes-1, impacts related to large-scale renewable energy facilities could result in significant impacts to visual character and/or quality. Implementation of the CAP Update **would not result in new significant impacts than** disclosed in the 2011 GPU PEIR.

2.1.3.5 Issue 3: Adversely Affect Views due to New Light and Glare

This section describes the potential for implementation of the proposed CAP Update measures and actions to result from light or glare effects.

Guidelines for Determination of Significance

Appendix G of the State CEQA Guidelines establishes the following guidelines for determining significance of effects related to light and glare:

- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

In addition, the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare* provides the following direction:

- The project will generally be considered to have a significant effect if it proposes any of the following features, absent specific evidence to the contrary:
    - The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempt pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.

- The project will operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.
- The project will generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property.
- The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.
- The project does not conform to applicable federal, state, or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

Conversely, if a project does not propose any of the above features, it will generally not be considered to have a significant effect on dark skies or from glare, absent specific evidence of such an effect.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts from light and glare related to the adoption of the goals and policies within the general plan and development anticipated through the planning horizon. The General Plan would allow for additional growth that would result in increased light and glare in the county, which would adversely affect day or nighttime views. Therefore, the 2011 GPU PEIR determined that anticipated development under the General Plan would result in potentially significant impacts related to light and glare.

The 2011 GPU PEIR determined that the impacts from light and glare would be reduced through the implementation of a combination of federal, state, and local regulations; existing County regulatory processes; adopted General Plan policies CO-13.1 (restricting outdoor lighting and glare from development in semi-rural and rural areas), CO-13.2 (maintaining dark skies to the maximum extent feasible around the Palomar Mountain and Mount Laguana observatories), and CO-13.3 (coordinating with adjacent agencies to minimize light pollution); and the 2011 GPU PEIR Mitigation Measure Aes-4.1 (coordinating with communities and stakeholder to review and amend light pollution controls), Mitigation Measure Aes-4.2 (maintaining light and glare regulation), and Mitigation Measure Aes-4.3 (Participating in regional planning and agencies planning). However, even with these programs in place, the impacts would not be reduced to a less-than-significant level. The 2011 GPU PEIR Mitigation Measures Aes-4.1 through Aes-4.3 require the County to coordinate with communities and stakeholders to review light pollution controls and maintain light and glare regulations. This impact was found significant and unavoidable.

Additional mitigation considered to reduce light and glare impacts would create more stringent lighting standards in the unincorporated county that would include a nighttime

lighting curfew of 10:00 p.m. for certain areas and a prohibition of development requiring any light in other areas. This mitigation was found to be infeasible by the County because the measures would have required restrictions on future development identified in the General Plan because lighting is necessary for safety and other reasons. Mitigation rejected as infeasible within the 2011 GPU PEIR is described in detail in Section 2.1.6.4 of the 2011 GPU PEIR. The discussion of impacts related to light or glare can be found in Section 2.1, "Aesthetics" (pages 2.1-49 through 2.1-53 and pages 2.1-55 through 2.1-56) of the 2011 GPU PEIR, and it is incorporated by reference.

CAP Update Impact Analysis

The following sections describe the potentially significant impacts related to light and glare that could result from the implementation of the proposed CAP Update measures and actions.

Solid Waste Measures and Actions

The CAP Update includes zero waste policies that exceed the state's diversion targets and implementation of landfill gas capture systems that exceed state requirements (Actions SW-1.1, SW-1.1.b, SW-2.1 and SW-2.1.c). In addition, Action SW-4.1.a would incentivize the development of new composting/anaerobic digestion facilities and on-farm digesters. Implementation of the measures and actions in this group may result in the need for new or expanded facilities to process the waste and result in the development of new or expanded solid waste facilities. The new or expanded facilities would require the use of lighting during construction and operation. Development of new or expanded solid waste facilities would result in similar light and glare impacts as those discussed in the 2011 GPU PEIR (pages 2.1-49 through 2.1-53). Solid waste facilities could include the use of reflective building materials and include new lighting sources during construction and operation.

Development of new or expanded solid waste facilities would be required to comply with the San Diego County Light Pollution Code for outdoor light fixtures standards to minimize impacts on the dark skies and on astronomical observatories, comply with General Plan Policies COS-13.1 and COS-13.2 to restrict outdoor light and glare from development projects and minimize impact on dark skies surrounding Palomar and Mount Laguna observatories, and implement 2011 GPU PEIR Mitigation Measures Aes-4.1 and Aes-4.2 to reduce impacts to dark skies and adjacent properties and communities.

Water and Wastewater Measures and Actions

Implementation of CAP Update Measures W-1 through W-3 would involve development of policies and programs to encourage water conservation and increase water and wastewater efficiency. Implementation of Measures W-1 and W-2 would generally result in installation of water efficient appliance, smart irrigation systems, and stormwater and grey water capture systems. Implementation of Measure W-3 would have the potential to result in installation of stormwater and wastewater treatment systems on-site, so that the stormwater and greywater would be treated and reused for landscaping. Installation of

water efficient appliances, irrigation systems, stormwater and grey water capture systems, and stormwater and wastewater treatment systems would not require new lighting sources and would not require the use of highly reflective materials. Therefore, no new lighting or glare sources would occur from implementing water and wastewater measures and actions. There would be no impact.

Agriculture and Conservation Measures and Actions

Implementation of CAP Update Measures A-1 through A-2 would involve acquiring and managing conservation lands, preserving natural and agricultural lands, planting and protecting trees, and incentivizing carbon farming. Implementation of Action A-4.1.b would have the potential to identify opportunities for increased farmworker housing in the unincorporated county. Acquisition of conservation lands, preserving natural and agricultural lands, planting and protecting trees, and implementing carbon farming would not require installation of substantial new lighting or the use of highly reflective materials. However, subsequent development of new farmworker housing would result in new lighting in the unincorporated county. Development of farmworker housing would be required to comply with adopted General Plan Policy COS-13.1 to restrict outdoor light and glare in semi-rural and rural areas and Policy COS-13.2 to minimize light and glare impacts on the dark skies surrounding Palomar and Mount Laguna observatories, and the 2011 GPU PEIR Mitigation Measure Aes-4.2 to maintain light and glare regulations, such as the Light Pollution Code and Zoning Ordinance, to minimize light and glare impacts. Furthermore, such development would be required to undergo subsequent CEQA analysis once projects have been defined and located. Therefore, no new lighting or glare sources would occur from implementing agriculture and conservation measures and actions and there would be no impact.

Energy Measures and Actions

Implementation of CAP Update energy measures and actions could result in energy efficiency retrofits on existing residential and non-residential structures and County facilities, and the project could include rooftop or ground-mounted solar arrays or small wind turbines, modern mechanical systems, and other similar improvements.

Retrofits to mechanical equipment would not be anticipated to introduce a new source of light or glare. PV solar arrays that could be installed on the ground or mounted on rooftops for on-site energy use would be relatively small and are regulated by height, scale, and placement by the County's Zoning Ordinance Section 6954(a). In addition, while in certain situations the glass surfaces of PV solar systems can produce glint (a momentary flash of bright light) and glare (a reflection of bright light for a longer duration), light absorption is central to the function of a PV solar panel rather than reflection. PV solar panels are constructed of dark-colored materials and are coated with anti-reflective coatings. Modern PV solar panels reflect as little as 2 percent of incoming sunlight, which is about the same as water and less than soil or wood shingles (DOE 2014). Additionally, small wind turbines would not require FAA obstruction lighting and are required to comply with the County Light Pollution Code. The code addresses and minimizes the impact of new sources of light pollution on nighttime views.

As a result, implementation of retrofits and new mechanical equipment, which would be integrated into an existing developed setting, would not result in new substantial sources of light or glare. Impacts would be further minimized with application of adopted General Plan policies, including Policy COS-13.1, which restricts outdoor light and glare in semi-rural and rural lands; Policy COS-13.2, which requires minimizing impact on the dark skies surrounding Palomar and Mount Laguna observatories; and Policy COS-13.3, which requires coordination with other agencies to retain the night skies quality. Additionally, applicable 2011 GPU PEIR mitigation measures would be applied to the project, including Mitigation Measure Aes-4.1, which requires coordination with communities and stakeholders to review or amend light pollution controls; Mitigation Measure Aes-4.2, which requires maintaining light and glare regulations, such as Light Pollution Code and Zoning Ordinance, to minimize light and glare impacts; and Mitigation Measure Aes-4.3, which requires participating in regional planning and other planning effort to review and comment on potential light or glare impacts resulting from new development. Compliance with County light and glare regulations and adopted General Plan policies, as well as implementation of applicable 2011 GPU PEIR mitigation measures would ensure that light and glare impacts associated with the CAP Update would be minimized.

As described above in Section 2.1.3.3, “Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources,” implementation of CAP Update Action E.3.3 could result in the construction of new large-scale renewable energy infrastructure including PV solar, concentrator solar, and wind turbines. Specific locations for projects have not been identified. Future discretionary projects would be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would minimize or eliminate impacts to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. Large-scale renewable energy infrastructure would be constructed in primarily undeveloped locations that are productive for generating wind and solar energy. Also, it is likely that suitable locations would include areas that are not highly urbanized because of the size, massing, coverage, and scale of this type of infrastructure rely upon large amounts of land unencumbered by buildings or shadowed by buildings or trees. The exact locations of new infrastructure are unknown; however, wind turbines, solar concentrators, and PV solar arrays are typically a source of light and glare.

Concentrator solar systems utilize curved mirrors mounted on a tracker, which allow direct sunlight to be concentrated and captured at higher efficiencies; however, these systems may result in instances of glare. PV solar panels are typically dark in color, coated to be non-reflective, and designed to be highly absorptive of all light that strikes their glass surfaces. It is not likely that these panels would emit significant amounts of glare. However, solar energy systems have other components such as steel support structures and steel containers that house battery storage systems, as well as minimal amounts of glare that could be caused by transmission lines.

As noted above, future solar energy projects would be required to obtain an MUP, undergo a discretionary review, evaluate project-specific impacts under CEQA, and mitigate to the extent feasible. Future large-scale solar projects could also orient PV solar panels and supporting structures away from highways, roads, or trails where potential impacts from glare could be experienced by motorists and recreationists. Though it is

unlikely that PV solar panels would emit glare because they are designed to be efficient and absorb all the light that strikes their surface, it is possible that other components of renewable energy systems could emit some glare. Future discretionary projects would be required to mitigate their impacts from glare to the extent feasible, such as by painting reflective supporting components to reduce glare. Mitigation Measures CAP Aes-1 and Aes-2 require incorporation of mitigation to reduce significant aesthetic impacts and preparation of a Lighting Mitigation Plan for all large-scale renewable energy to reduce light and glare impacts. However, it is not possible to ensure that impacts would be reduced to a less-than-significant level at this program level and would be highly speculative at this stage of analysis.

As described on pages 2.1-15 to 2.1-16 of the 2013 Wind Energy Ordinance EIR, most large wind turbines would meet FAA height regulations and would be subject to the obstruction lighting or other forms of aviation impact avoidance including markers and paint colors or patterns (County of San Diego 2013). Nighttime lighting at these facilities could be visible to residents in rural and undeveloped areas because of a lack of existing nighttime lighting in the area. Lighting may also be visible to motorists in the general area. Also, the height of wind turbines and the repetitive flashing of FAA-required safety lighting may result in a strong, constant source of highly visible light, and nighttime views for area residents may be affected. Large wind turbine projects may be prone to causing shadow flicker, which is commonly defined as alternating changes in light intensity at a given stationary location, if sensitive receptors are within 2,000 meters (6,562 feet) of the proposed turbines. The 2013 Wind Energy Ordinance EIR identified Mitigation Measures M-AES-2 and M-AES-3 described below in Section 2.1.5. Mitigation Measures M-AES-2 and M-AES-3 have been incorporated into this SEIR as CAP Update Mitigation Measures Aes-2 and Aes-3, which require a Lighting Mitigation Plan and Shadow Flicker Study at the time of discretionary review. Additional mitigation, which would require an Obstacle Collision Avoidance System, was considered but rejected as infeasible because the technology is not widely available. Therefore, even though large wind turbine projects would be required to comply with the County's Light Pollution Code, and the projects would be required to minimize the impact of new sources of light pollution, potential impacts would remain significant. Solar energy systems would not require significant sources of nighttime lighting, as they only require minimal perimeter security lighting.

Therefore, while all large-scale renewable energy projects would be required to obtain an MUP, undergo a discretionary review, evaluate project-specific impacts under CEQA, and mitigate to the extent feasible, it is not possible to ensure that impacts related to light and glare would be reduced to a less-than-significant level because it would be infeasible to fully mitigate the impacts of light and glare as described above. Therefore, implementation of CAP Update Action E-3.3 would result in potentially significant light and glare impacts**.**

Built Environment and Transportation Measures and Actions

These measures and actions would implement existing County programs, such as the County's 2019 Electric Vehicle Roadmap and 2023 Green Fleet Action Plan (Action T-1.1) and Active Transportation Program (Action T-5.1). Other measures and actions would affect the design of existing and planned roadways. Action T-6.2 would Implement transit-

supportive roadway treatments such as signal communication and curb extensions along County-maintained roadways to optimize traffic flow for transit and pedestrians. Action T-3.1 would result in the installation of publicly available electric vehicle charging stations. Several measures and actions would further support alternative modes of transportation without resulting in physical changes that could affect visual character or quality.

Additional nighttime lighting may be required for security purposes with implementation of these measures and actions, but these lighting sources would be generally smaller in scale and provide less illumination than typical lighting on streetscape. If required, new lighting would be installed within or adjacent to already urbanized corridors where street and building lighting is already present. New lighting would not substantially increase nighttime lighting levels or glare in the area to an extent that would affect views.

In addition, future development would be required to comply with the San Diego County Light Pollution Code for outdoor light fixtures standards to minimize impacts on the dark skies and on astronomical observatories, comply with General Plan Policies COS-13.1 and COS-13.2 to restrict outdoor light and glare from development projects, and implement 2011 GPU PEIR Mitigation Measure Aes-4.1 (coordinating with communities and stakeholders to review or amend light pollution controls) and Mitigation Measure Aes-4.2 (maintaining light and glare regulations) to reduce impacts to dark skies and adjacent properties and communities. Design modifications to existing and planned transportation infrastructure is not anticipated to generate substantial sources of light or glare due to use of outdoor light fixtures that do not conform to the San Diego County Light Pollution Code, use of highly reflective materials, or other features that do not conform to applicable federal, state, or local statute or regulation related to dark skies or glare.

Summary

Implementation of the CAP Update solid waste, water and wastewater, agriculture and conservation, and built environment and transportation measures and actions may result in limited development with the potential to introduce new sources of light or glare. Implementation of these projects would be within the scope of the lighting and nighttime views evaluated in the 2011 GPU PEIR. Based on the type of subsequent projects anticipated, implementation of these measures and actions is not expected to generate substantial sources of light or glare due to use of outdoor light fixtures that do not conform to the San Diego County Light Pollution Code, use of highly reflective materials, or other features that do not conform to applicable federal, state, or local statute or regulation related to dark skies or glare.

As defined in the 2011 GPU PEIR, premier astronomical sites are high-quality astronomical research sites meeting the following five criteria: elevation over 5,000 feet above sea level; clear, cloud-free night sky; proximity to the Pacific Ocean; distance from urban areas; and freedom from nearby sources of light, dust, and smoke. These sites are defined in the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Dark Skies and Glare*. No new sites have been added since 2009 and the CAP Update would not result in the potential for new sources of light

and glare that could result in effects to these sites that are substantially greater than disclosed in the 2011 GPU PEIR.

Development that occurs as part of implementation of the CAP Update solid waste, water and wastewater, agriculture and conservation, and built environment and transportation measures and actions would be required to comply with adopted General Plan Policy COS-13.1, which restricts outdoor light and glare in semi-rural and rural lands; Policy COS-13.2, which requires minimizing impact on the dark skies surrounding Palomar and Mount Laguna observatories; and Policy COS-13.3, which requires coordination with other agencies to retain the night skies quality. In addition, 2011 GPU PEIR Mitigation Measure Aes-4.1 requires coordination with communities and stakeholders to review or amend light pollution controls; Mitigation Measure Aes-4.2 requires maintaining light and glare regulations, such as Light Pollution Code and Zoning Ordinance, to minimize light and glare impacts. Compliance with the adopted General Plan policies and implementation of applicable 2011 GPU PEIR mitigation measures would ensure that new development would conform to the County's light and glare regulations to protect the scenic values of the county and minimize light and glare impacts. Light and glare from new and expanded facilities would be less than significant with mitigation. However, implementation of CAP Update Action E-3.3, which would result in the development of large-scale renewable energy systems, could result in significant light and glare impacts even with implementation of CAP Update Mitigation Measures Aes-1 through Aes-3 as discussed above. Implementation of the CAP Update **would not result in new or more severe impacts** than discussed in the 2011 GPU PEIR.

2.1.3.6 Cumulative Impact Analysis

The cumulative impact analysis study area for aesthetic and visual resources in the 2011 GPU PEIR was identified as the immediate vicinity of view corridors, viewsheds, or scenic resources in the county, as well as areas near existing community development, and areas surrounding the two astronomical observatory sites (as described on page 2.1-53 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: Change or Obstruct Scenic Vistas and Scenic Resources

Project impacts would be cumulative in nature if the project in combination with cumulative development, would contribute to the loss or impairment of scenic vistas or scenic resources in the county. The 2011 GPU PEIR concluded that cumulative impacts to scenic vistas and scenic resources would be less than significant with implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures listed in Section 2.1.2, "Regulatory Framework," and Section 2.1.5, "Mitigation Measures."

Implementation of the CAP Update solid waste, water and wastewater, agriculture and conservation, energy, and built environment and transportation measures and actions would have the potential to result in construction of new or expanded solid waste, renewable energy, and transportation facilities in the unincorporated county. As discussed

in Section 2.1.3.3, “Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources,” new facilities would be required to implement applicable General Plan policies and 2011 GPU PEIR Mitigation Measures Aes-1.2 and Aes-1.6 through Aes-1.9, which would reduce the effects of solid waste, renewable energy, and transportation facilities. However, project impacts related to implementation of CAP Update Action E-3.3 could result in the development of large-scale renewable energy systems that would remain potentially significant even with implementation of the adopted General Plan policies, 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measure Aes-1.

The 2011 GPU PEIR did not identify a cumulative impact related to scenic vistas or scenic resources, and the project, in combination with other reasonably foreseeable projects in the unincorporated county, could result in a new significant impact due to development of large-scale renewable energy infrastructure. The 2013 Wind Energy Ordinance EIR concluded that wind turbines would potentially contribute to a significant cumulative impact to scenic vistas and scenic resources, and the proposed project would contribute to that significant impact. Therefore, the project would result in a considerable contribution to an existing cumulative effect. Implementation of the CAP Update **would result in a new impact** not disclosed in the 2011 GPU PEIR **(Impact-C-Aes-1)**.

Issue 2: Substantially Degrade Visual Character or Quality

This section describes potential cumulative impacts on visual character or quality with implementation of the project. Impacts would be cumulative in nature if the project in combination with cumulative development would substantially degrade the existing visual character or quality of the site and its surroundings by introducing features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area.

The 2011 GPU PEIR concluded that cumulative impacts to visual character or quality would be significant and unavoidable even with implementation of General Plan policies and 2011 GPU PEIR mitigation measures. Further mitigation measures that would place restrictions on development were determined to be infeasible because they would conflict with goals to provide housing and the character of some communities will change as they continue to grow regardless of the amount of zoning regulation and design review that is imposed.

Implementation of the CAP Update would result in small and dispersed infrastructure improvements within the unincorporated county that are not substantially different than the type of development anticipated with buildout of the General Plan in the 2011 GPU PEIR. All development proposals resulting from implementation of the CAP Update measures and actions would be required to undergo review by the County and comply with applicable local and state regulations, as well as adopted General Plan policies and 2011 GPU PEIR Mitigation Measures Aes-1.2, Aes-1.6, and Aes-1.8 that would protect visual resources, resulting in the mitigation of impacts associated with General Plan buildout. However, even with implementation of General Plan policies, 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measure Aes-1, new large-scale renewable energy facilities could result in a substantial effect related to visual character or quality.

Therefore, a significant cumulative impact related to changes in visual character and quality may result from cumulative development within the unincorporated county. Given the nature of the large-scale renewable energy projects that are anticipated to result from renewable energy measures in the CAP Update and the fact that impacts resulting from the proposed CAP Update Action E.3.3 would result in the substantial changes to visual character or quality, the project would result in a considerable contribution to a significant cumulative impact. The cumulative impact would be significant, as identified in the 2011 GPU PEIR. Implementation of the CAP Update **would not result in a new or more severe impact** than discussed in the 2011 GPU PEIR.

Issue 3: Adversely Affect Views due to New Light and Glare

This section describes potential cumulative impacts resulting from light or glare effects with implementation of the project. Cumulative projects would have the potential to result in a cumulative impact related to light and glare if, in combination, they would introduce a new source of substantial light or glare that would adversely affect day or nighttime views in the unincorporated county or that specifically would result in a lighting impact to the dark skies and on astronomical observatories.

Cumulative light and glare impacts were determined to be significant and unavoidable in the 2011 GPU PEIR. Implementation of CAP Update would result in the following improvements in the unincorporated county: new or expanded solid waste facilities, water efficient appliances, smart irrigation systems, stormwater and grey water treatment systems, mechanical retrofits, small-scale renewable energy infrastructure (ground and roof-mounted PV solar panels and small wind turbines), and new or expanded pedestrian and bicycle infrastructure. As discussed in Section 2.1.3.5, “Issue 3: Adversely Affect Views due to New Light and Glare,” implementation of these improvements would be required to comply with the adopted General Plan policies (Policies COS-13.1 through COS-13.3) and to implement the 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Aes-4.1 and Aes-4.2), which would minimize light and glare impacts and ensure that the CAP Update would not result in a new substantial source of light or glare that would adversely affect day or nighttime views in the area and would not create a lighting impact to the Palomar Mountain and Mount Laguna observatories. However, even with implementation of General Plan policies, 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measures AES-1 through AES-3, could result in a substantial effect related to light and glare.

Therefore, a significant cumulative impact related to light and glare may result from cumulative development within the unincorporated county. It is foreseeable that future projects proposed in the unincorporated county would be required to comply with the same General Plan policies and 2011 GPU EIR mitigation measures, resulting in the mitigation of impacts associated with General Plan buildout. However, given the nature of the large-scale renewable energy projects that are anticipated to indirectly result from implementation of the CAP Update and the fact that impacts resulting from the proposed CAP Update Action E.3.3 would result in the substantial effects related to light and glare, implementation of CAP Update would have a considerable contribution to a significant cumulative impact. 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.

2.1.4 Summary of New or More Severe Significant Impacts

Implementation of the CAP Update would result in new or more severe significant impacts and would have considerable contribution to a new significant cumulative impact related to scenic vistas and scenic resources (**Impact Aes-1 and Impact-C-Aes-1**). Impacts related to visual character and quality, and light and glare would be consistent with the 2011 GPU PEIR.

2.1.5 Mitigation Measures

The following section lists the mitigation measures from the 2011 GPU PEIR that are applicable to the proposed project. No new mitigation measures have been proposed to avoid or minimize aesthetic impacts resulting from the proposed project.

2.1.5.1 Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources

The mitigation measures applicable to aesthetic and visual resources that were adopted as a part of the 2011 GPU PEIR and are applicable to the project include the following:

> Adopted Mitigation Measure Aes-1.2: Protect sensitive biological habitats and species through regulations that require avoidance and mitigation of impacts. Existing programs include the County MSCP and associated BMOs, RPO, and California Environmental Quality Act (CEQA) Guidelines. While protecting biological resources, these programs also preserve natural open space that contributes to the quality of many of the County's scenic vistas.
>
> Adopted Mitigation Measure Aes-1.6: Require that project approvals with significant potential to adversely affect the scenic quality of a community require community review and specific findings of community compatibility. Examples can be found in the Zoning Ordinance with the numerous special uses or exceptions allowed pursuant to Administrative and Use Permits, and Site Plans. This practice has been proven useful for reducing impacts to aesthetic resources and their usefulness will increase as community plans and design guideline are updated pursuant to Aes-1.3 and Aes-1.4.
>
> Adopted Mitigation Measure Aes-1.7: Develop and implement programs and regulations that preserve agricultural lands. Agricultural lands are often key components of scenic vistas and community character. Therefore, preservation of these lands will help to minimize potential impacts to scenic resources.
>
> Adopted Mitigation Measure Aes-1.8: Continue to develop and implement programs and regulations that minimize landform alteration and preserve

ridgelines and steep slopes where appropriate. Examples include the County's Grading Ordinance, RPO, and CEQA Guidelines.

Adopted Mitigation Measure Aes-1.9: Work with communities and other stakeholders to identify key scenic vistas, viewsheds of County scenic road and highways, and other areas of specific scenic value. Apply Resource Conservation Area designations or other special area designators, guidelines, and tools to guide future development of parcels within these viewsheds to avoid impacts to the scenic vistas.

The 2013 Wind Energy Ordinance included the following mitigation measure to minimize the potentially significant impacts related to large wind turbine projects:

Adopted Mitigation Measure-M-AES-1: During the environmental review process for future Major Use Permits for wind turbines, the County Guidelines for Determining Significance for Visual Resources and Dark Skies and Glare shall be applied. When aesthetic impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures within the County Guidelines include: siting/location considerations; minimizing development and grading of steep slopes; natural screening and landscaping; undergrounding utilities; inclusion of buffers; and lighting restrictions.

As described in Section 2.1.3.3, additional wind turbine mitigation was considered but rejected as infeasible through the Wind Energy EIR. Mitigation Measure M-AES-1 shall be incorporated into the Mitigation Monitoring and Reporting Program for the CAP Update and shall be applied to all large-scale renewable energy projects including but not limited to PV solar, concentrator solar, and wind turbines systems during the discretionary review process which would be implemented as a condition of receiving an MUP. As described in the impact analysis, future large-scale renewable energy projects would be required to be evaluated for project-specific impacts under CEQA at the time of discretionary review and project-specific mitigation would minimize or eliminate impacts to scenic vistas and scenic resources to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. Mitigation Measure M-AES-1 from the 2013 Wind Energy Ordinance EIR has been revised to include all large-scale renewable energy projects as follows:

CAP Update Mitigation Measure Aes-1: During the environmental review process for future Major Use Permits for all large-scale renewable energy projects, the County Guidelines for Determining Significance for Visual Resources and Dark Skies and Glare shall be applied. When aesthetic impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated. Examples of standard mitigation measures within the County Guidelines include: siting/location considerations; minimizing development and grading of steep slopes; natural screening and landscaping; undergrounding utilities; inclusion of buffers; and lighting restrictions.

CAP Update Mitigation Measure Aes-1 would reduce the potential for significant impacts related to scenic vistas and scenic resources; however, it is not possible to guarantee that all projects and cumulative impacts to scenic vistas and scenic resources would be reduced to a less-than-significant level because of the uncertainty of the types, locations, and scale of future renewable energy projects. Additional mitigation was contemplated as part of this ~~draft~~ SEIR that would implement a development cap upon large-scale renewable energy projects. However, this potential mitigation measure was rejected as infeasible because it may reduce the effectiveness of CAP Update Action E-3.3 and diminish the potential for the County to achieve the 2030 GHG emissions reduction target established by the CAP Update. It is unknown how many individual projects and specific type of large-scale renewable energy systems would be required to meet the GHG reduction goals of the CAP Update because the design, siting, and economic feasibility characteristics of the options under consideration vary widely. No other additional feasible mitigation is available.

2.1.5.2 Issue 2: Substantially Degrade Visual Character or Quality

The mitigation measures applicable to aesthetic and visual resources that were adopted as a part of the 2011 GPU PEIR and are applicable to the project include the following:

> Adopted Mitigation Measure Aes-1.2: Protect sensitive biological habitats and species through regulations that require avoidance and mitigation of impacts. Existing programs include the County MSCP and associated BMOs, RPO, and California Environmental Quality Act (CEQA) Guidelines. While protecting biological resources, these programs also preserve natural open space that contributes to the quality of many of the County's scenic vistas.
>
> Adopted Mitigation Measure Aes-1.6: Require that project approvals with significant potential to adversely affect the scenic quality of a community require community review and specific findings of community compatibility. Examples can be found in the Zoning Ordinance with the numerous special uses or exceptions allowed pursuant to Administrative and Use Permits, and Site Plans. This practice has been proven useful for reducing impacts to aesthetic resources and their usefulness will increase as community plans and design guideline are updated pursuant to Aes-1.3 and Aes-1.4.
>
> Adopted Mitigation Measure Aes-1.8: Continue to develop and implement programs and regulations that minimize landform alteration and preserve ridgelines and steep slopes where appropriate. Examples include the County's Grading Ordinance, RPO, and CEQA Guidelines.

As described above in Section 2.1.5.1, the 2013 Wind Energy Ordinance EIR identified Mitigation Measure M-AES-1 (described above) which would be implemented at the discretionary review process for large wind turbines.

Also, as described above in Section 2.1.3.4, additional wind turbine mitigation was considered but rejected as infeasible through the Wind Energy EIR. CAP Update

Mitigation Measure Aes-1 shall be incorporated into the Mitigation Monitoring and Reporting Program for the CAP Update and shall be applied to all large-scale renewable energy projects including but not limited to PV solar, concentrator solar, and wind turbines systems during the discretionary review process which would be implemented as a condition of receiving an MUP. As described in the impact analysis, future large-scale renewable energy projects would be required to be evaluated for project-specific impacts under CEQA at the time of a discretionary review application and project-specific mitigation would minimize or eliminate impacts to visual character and quality to the extent feasible in compliance with State CEQA Guidelines Section 15126.4.

CAP Update Mitigation Measure Aes-1 would reduce the potential for significant impacts related to visual character and quality; however, it is not possible to guarantee that all projects and cumulative impacts to visual character and quality would be reduced to a less-than-significant level because of the uncertainty of the types, locations, and scale of future renewable energy projects. Additional mitigation was contemplated as part of this ~~draft~~ SEIR that would implement a development cap upon large-scale renewable energy projects. However, this potential mitigation measure was rejected as infeasible because it may reduce the effectiveness of CAP Update Action E-3.3 and diminish the potential for the County to achieve the 2030 GHG emissions reduction target established by the CAP Update. This mitigation would also be infeasible because it would conflict with the County's goal for expanding renewable energy resources. It is unknown how many individual projects and specific type of large-scale renewable energy systems would be required to meet the GHG reduction goals of the CAP because the design, siting, and economic feasibility characteristics of the options under consideration vary widely. No other additional feasible mitigation is available.

2.1.5.3 Issue 3: Adversely Affect Views due to New Light and Glare

The mitigation measures applicable to light and glare that were adopted as a part of the 2011 GPU PEIR and are applicable to the project include the following:

> Adopted Mitigation Measure Aes-4.1: County to coordinate with communities and stakeholders to review light pollution controls and consider amendments or expansions to those controls as determined necessary to reduce impacts to dark skies that are important to community character. This will ensure that potential artificial lighting impacts from development are monitored and controlled as needed to preserve community character.
>
> Adopted Mitigation Measure Aes-4.2: County to maintain light and glare regulations that minimize impacts to adjacent properties, sensitive areas, community character, observatories, and dark skies. These regulations are currently found in the Light Pollution Code and Zoning Ordinance. Additional reviews are implemented on discretionary projects in accordance with CEQA and the County's CEQA guidelines. These efforts will help protect the existing unincorporated area and surrounding environment from excessive artificial lighting impacts.

The 2013 Wind Energy Ordinance EIR identified Mitigation Measure M-AES-1 (described above). In addition, Mitigation Measures M-AES-2 and M-AES-3 would be implemented at the discretionary review process for large wind turbines.

> Adopted Mitigation Measure-M-AES-2: Require that a Lighting Mitigation Plan be prepared as part of the MUP discretionary review process. The Lighting Mitigation Plan would demonstrate that the design and installation of all permanent lighting for large wind turbine ancillary facilities is such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. The Lighting Mitigation Plan would demonstrate consistency with the Light Pollution Code (Section 59.100 et al.) and Sections 6322 and 6324 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized.
>
> Adopted Mitigation Measure-M-AES-3: Require that a Shadow Flicker Study be prepared as part of the MUP discretionary review process. The Shadow Flicker Study would utilize a shadow flicker model run to determine the potential shadow flicker that could occur at sensitive receptors within 2,000 meters (6,562 feet) of the proposed turbines. Due to the fact that some receptors may lie within 60° due north of the turbines, outside of the sun's path at any given point in the year, those receptors may be excluded from the study. Beyond 2,000 meters, the human eye would not be able to discern a shadow cast from a wind turbine. The modeling should utilize many different inputs, including:
>
> 1) Real Data
>
> - Actual coordinates of turbines
> - Actual coordinates of receptors
> - Actual topographic data
>
> 2) Conservative Assumptions
>
> - Specifications of the turbines being considered with the highest hub height and longest rotor diameter
> - 100 percent turbine operation
> - No vegetative screening
> - Receptors can be impacted from all directions (i.e., "greenhouse mode")
>
> 3) Realistic Features
>
> - Actual wind data from a local meteorological tower to account for the percentage of time wind blows from each direction
> - National Weather Service sunshine probability data to approximate average cloud cover.

As described in Section 2.1.3.5, additional wind turbine mitigation was considered but rejected as infeasible through the 2013 Wind Energy Ordinance EIR. An Obstacle Collision Avoidance Systems was considered and would alert pilots if their aircraft is in immediate danger of flying into an obstacle by using ground-based radar to provide detection and tracking of an aircraft's proximity to an obstacle. This capability allows the visual warning lights to remain passive until an aircraft is detected and known to be tracking on an unsafe heading. However, this mitigation was determined to be infeasible because the technology is not widely available.

As described in the impact analysis, future large-scale renewable energy projects would be required to be evaluated for project-specific impacts under CEQA at the time of a discretionary review application and project-specific mitigation would minimize or eliminate impacts to light and glare to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. Mitigation Measure M-AES-1 from the 2013 Wind Energy Ordinance EIR has been revised to include all large-scale renewable energy projects as described above. Mitigation Measure M-AES-2 from the 2013 Wind Energy Ordinance also EIR has been revised to include all large-scale renewable energy projects as follows:

> CAP Update Mitigation Measure Aes-2: Require that a Lighting Mitigation Plan be prepared as part of the MUP discretionary review process for all large-scale renewable energy projects. The Lighting Mitigation Plan shall demonstrate that the design and installation of all permanent lighting for large wind turbines is such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. The Lighting Mitigation Plan shall demonstrate consistency with the Light Pollution Code (Section 59.100 et al.) and Sections 6322 and 6324 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized.

Mitigation Measure M-AES-3 from the 2013 Wind Energy Ordinance EIR has been incorporated into this ~~draft~~ SEIR as follows:

> CAP Update Mitigation Measure Aes-3: Require that a Shadow Flicker Study be prepared as part of the MUP discretionary review process for large-scale wind turbine projects. The Shadow Flicker Study shall utilize a shadow flicker model run to determine the potential shadow flicker that could occur at sensitive receptors within 2,000 meters (6,562 feet) of the proposed turbines. Due to the fact that some receptors may lie within 60 degrees due north of the turbines, outside of the sun's path at any given point in the year, those receptors may be excluded from the study. Beyond 2,000 meters, the human eye would not be able to discern a shadow cast from a wind turbine. The modeling shall utilize many different inputs, including:
>
> 1) Real Data
>
> - Actual coordinates of turbines
> - Actual coordinates of receptors

- Actual topographic data

2) Conservative Assumptions

- Specifications of the turbines being considered with the highest hub height and longest rotor diameter
- 100 percent turbine operation
- No vegetative screening
- Receptors can be impacted from all directions (i.e., “greenhouse mode”)

3) Realistic Features

- Actual wind data from a local meteorological tower to account for the percentage of time wind blows from each direction
- National Weather Service sunshine probability data to approximate average cloud cover

CAP Update Mitigation Measures Aes-1, Aes-2, and Aes-3 would reduce the potential for significant impacts related to light and glare; however, it is not possible to guarantee that all projects and cumulative impacts to light and glare would be reduced to a less-than-significant level because of the uncertainty of the types, locations, and scale of all future renewable energy projects. Additional mitigation was contemplated as part of this SEIR that would implement a development cap upon large-scale renewable energy projects. However, this potential mitigation measure was rejected as infeasible because it may reduce the effectiveness of CAP Update Action E-3.3 and diminish the potential for the County to achieve the 2030 GHG emissions reduction target established by the CAP Update. This mitigation would also be infeasible because it would conflict with the County’s goal for expanding renewable energy resources. It is unknown how many individual projects and specific type of large-scale renewable energy systems would be required to meet the GHG reduction goals of the CAP Update because the design, siting, and economic feasibility characteristics of the options under consideration vary widely. No additional feasible mitigation is available.

2.1.6 Significance Conclusions

2.1.6.1 Issue 1: Change or Obstruct Scenic Vistas and Scenic Resources

The CAP Update would result in the development and redevelopment of infrastructure throughout the unincorporated county. There is a potential for large-scale renewable energy projects to detract from views of a scenic vista from a public viewing location. Even with compliance with existing regulations related to scenic vistas and scenic resources and implementation of adopted General Plan policies, 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measure Aes-1, impacts from large-scale renewable energy projects could remain significant. No other feasible project-related mitigation beyond compliance with the County’s adopted General Plan policies, 2011 GPU PEIR mitigation measures, and MUP discretionary process is available and

could be applied to large-scale renewable energy projects. Therefore, the project's impacts related to scenic vistas and scenic resources from development of new small wind turbines and large-scale renewable energy facilities would remain **significant and unavoidable** and the project **would result in a considerable contribution** such that a new significant cumulative impact to scenic vistas and resources could occur. This **would be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

2.1.6.2 Issue 2: Substantially Degrade Visual Character or Quality

The CAP Update would further existing programs and provide new and modified infrastructure in new and established communities to reduce GHG emissions. Implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce the project impacts associated with the deterioration of visual character and quality. Even with implementation of the adopted General Plan policies and 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measure Aes-1 that reduce impacts to visual character, impacts could remain significant. No other feasible project-related mitigation beyond compliance with the County's adopted General Plan policies or 2011 GPU PEIR mitigation measures is available and could be applied to large-scale renewable energy projects. Therefore, the project's impacts related to visual character or quality from development of small wind turbines and large-scale renewable energy facilities would remain **significant and unavoidable** and the project **would result in a considerable contribution** to an existing significant and unavoidable cumulative impact. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.

2.1.6.3 Issue 3: Adversely Affect Views due to New Light and Glare

Implementation of the CAP Update may result in limited development with the potential to introduce new sources of light or glare. Implementation of these projects would be within the scope of the changes to the day and nighttime views evaluated in the 2011 GPU PEIR. Based on the type of subsequent projects anticipated, implementation of the CAP Update is not expected to generate substantial sources of light or glare due to use of outdoor light fixtures that do not conform to the San Diego County Light Pollution Code, use of highly reflective materials, or other features that do not conform to applicable federal, state, or local statute or regulation related to dark skies or glare.

With implementation of the adopted General Plan policies and 2011 GPU PEIR mitigation measures, impacts related to light and glare resulting from CAP Update implementation would be reduced. Even with implementation of the adopted General Plan policies and 2011 GPU PEIR mitigation measures, and CAP Update Mitigation Measures Aes-1 through Aes-3 that reduce light and glare impacts, impacts could remain significant and unavoidable. No other feasible project-related mitigation beyond compliance with the County's adopted General Plan policies or 2011 GPU PEIR mitigation measures is available and could be applied to large-scale renewable energy projects. Therefore, the project's light and glare impacts from large scale renewable energy facilities would remain **significant and unavoidable** and the project **would result in a considerable contribution** to an existing significant cumulative impact. This **would not be a new or more severe impact** than disclosed in the 2011 GPU PEIR.