2.10 Hydrology and Water Quality

This section describes the existing conditions for hydrology and water quality, including groundwater resources, surface water resources, stormwater drainage systems, groundwater quality, surface water quality, and flooding and dam inundation areas within the county, and evaluates the potential for implementation of the CAP Update to result in impacts on these resources. 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 the certification of the 2011 GPU PEIR.

This section incorporates by reference the existing setting and impact analysis for hydrology and water quality 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 2.10-1 summarizes the impact conclusions reached in the 2011 GPU PEIR for hydrology and water quality and identifies if a new or more severe significant impact would occur with implementation of the CAP Update. The evaluation of water quality-related impacts 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 surface water and groundwater quality. Similarly, the evaluation of hydrology- and drainage-related impacts, including erosion or siltation, flooding and flood hazards, stormwater capacity, and seiche, tsunami, and mudflow hazards, have been consolidated into one discussion for the sake of brevity because the physical changes resulting from implementation of the CAP Update measures and actions would result in generally the same discussion for all issue areas. Accordingly, the issue topics in Table 2.10-1 are different than those in the 2011 GPU PEIR. As indicated in Table 2.10-1, implementation of the CAP Update would not result in a new or more severe impact on hydrology and water quality.

Table 2.10-1 Summary of Hydrology and Water Quality–Related Impacts

Issue Number	Issue Topic	Determination from 2011 GPU PEIR	CAP Update SEIR Determination	
			Potential New or More Severe Significant Impact Prior to Mitigation	New or More Severe Significant Impact After Mitigation
1	Surface Water and Groundwater Quality	General Plan Only: Significant and Unavoidable	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Cumulatively Considerable Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No

Issue Number	Issue Topic	Determination from 2011 GPU PEIR	CAP Update SEIR Determination	
			Potential New or More Severe Significant Impact Prior to Mitigation	New or More Severe Significant Impact After Mitigation
2	Groundwater Supply and Recharge	General Plan Only: Significant and Unavoidable	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Cumulatively Considerable Impact	CAP Update Cumulative Contribution: No	CAP Update Cumulative Contribution: No
3	Surface Hydrology and Drainage	General Plan Only: Less than Significant with Mitigation	CAP Update Only: No	CAP Update Only: No
		General Plan Cumulative Contribution: Not Cumulatively Considerable	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.

No comments related to water quality and hydrology were received by the County during the Notice of Preparation (NOP) scoping process. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A of this ~~draft~~ SEIR.

2.10.1 Existing Conditions

The 2011 GPU PEIR includes a discussion of existing conditions of the unincorporated county related to hydrology and water quality in Section 2.8, “Hydrology and Water Quality.” No substantial changes to the existing conditions for hydrology and water quality have been identified that would alter the conclusions or require a supplemental discussion of the existing conditions as described in the 2011 GPU PEIR. Therefore, the existing conditions in the 2011 GPU PEIR remain applicable and are herein incorporated by reference. A summary of the existing conditions, as described on pages 2.8-1 through 2.8-25 of the 2011 GPU PEIR, is provided below.

- The county overlies a complex groundwater resource consisting of various aquifer types that may experience shortages from large groundwater users.
- The county spans two hydrologic regions, which are further subdivided into 16 hydrologic units in unincorporated county, that contain various surface waters, including estuaries, lagoons, bays, lakes, reservoirs, rivers, and creeks.
- Most of the unincorporated county consists of rural land that does not support or require stormwater drainage facilities. However, urban areas primarily within the western part of the unincorporated county are supported by a stormwater conveyance system.

- Urbanization has contributed to increased pollutants and impervious surfaces in the watershed. Because the stormwater conveyance system is not connected with the sanitary sewer system, urban runoff is not treated before being discharged to surface waters.
- The San Diego Regional Water Quality Control Board (RWQCB) has adopted the San Diego Basin Water Quality Control Plan (San Diego Basin Plan), which designates beneficial uses for water bodies in the San Diego Region and establishes water quality objectives and implementation plans to protect those beneficial uses. Water quality contaminants within the unincorporated county include metals, nutrients (phosphorus and nitrogen), petroleum products (gasoline, diesel, oil, and grease), pathogens (bacteria and viruses), pesticides and herbicides, radioactive elements, sediments, and total dissolved solids.
- The potential for flooding is high in the unincorporated county. Major storm events have produced floods that have resulted in property losses and extensive damage to public infrastructure throughout the unincorporated county.

2.10.2 Regulatory Framework

Section 2.8, “Hydrology and Water Quality,” of the 2011 GPU PEIR, pages 2.8-25 through 2.8-30, describes the regulatory framework related to hydrology and water quality and is herein incorporated by reference. Specific regulations discussed in the 2011 GPU PEIR that may be applicable to the CAP Update include the following:

2.10.2.1 Federal

- Clean Water Act (CWA)
- National Flood Insurance Act
- National Flood Insurance Reform Act

2.10.2.2 State

- Porter-Cologne Water Quality Control Act
- Cobey-Alquist Floodplain Management Act of 1965
- National Pollutant Discharge Elimination System (NPDES) Permits
- California Groundwater Rights
- California Water Code
- Assembly Bill 3030 – Sustainable Groundwater Management Act

In addition to the above, the following state laws, regulations, and policies have been adopted or updated since certification of the 2011 GPU PEIR.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act, effective January 1, 2015, requires local public agencies in certain groundwater basins throughout the state to sustainably manage groundwater resources, and authorizes State Water Resources Control Board (SWRCB) intervention in areas where local agencies are unable or unwilling to do so. The long-term planning required by the act is designed to provide a buffer against drought and climate change and contribute to reliable water supplies regardless of weather patterns in the state. Within the county, the San Pasqual Valley, San Luis Rey Valley – Upper San Luis Rey Valley, and Borrego Valley – Borrego Springs basins are identified as medium- and high-priority basins. These basins are required by the Sustainable Groundwater Management Act to develop groundwater sustainability agencies and groundwater sustainability plans and manage groundwater for long-term sustainability.

State Water Resources Control Board Construction General Permit

Construction activities that disturb 1 acre or more of land must obtain coverage under the SWRCB Construction General Permit (Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ). Under the terms of the permit, applicants must file complete and accurate Notice of Intent and Permit Registration Documents with the SWRCB. Applicants must also demonstrate conformance with applicable construction best management practices (BMPs) and prepare a construction Storm Water Pollution Prevention Plan (SWPPP) containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site.

Future development projects occurring within the county would be required to comply with the Construction General Permit if more than 1 acre would be disturbed during construction.

Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems

On June 19, 2012, the SWRCB adopted Resolution No. 2012-0032, the Onsite Wastewater Treatment Systems (OWTS) Policy, which establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS. In accordance with California Water Code Section 13290 et seq., the OWTS Policy sets standards for OWTS that are constructed or replaced, that are subject to a major repair, that pool or discharge waste to the surface of the ground, and that have affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking water or other uses, or cause a health or other public nuisance condition. The OWTS Policy also includes minimum operating requirements for OWTS that may include siting, construction, and performance requirements; requirements for OWTS near certain waters listed as impaired under Section 303(d) of the CWA; requirements authorizing local agency implementation of the requirements; corrective action requirements; minimum monitoring

requirements; exemption criteria; requirements for determining when an existing OWTS is subject to major repair; and a conditional waiver of waste discharge requirements.

The SWRCB approved the San Diego RWQCB's Nitrate/OWTS Policy Basin Plan amendment on November 17, 2015. The Office of Administrative Law approved the RWQCB's Nitrate/OWTS Policy Basin Plan amendment on May 17, 2016. An OWTS Policy Update was subsequently issued on April 17, 2018, which includes a renewal for the conditional waiver in the OWTS Policy that expired on May 13, 2018, and an amendment to the total maximum daily load list included in the OWTS Policy.

2.10.2.3 Local

- San Diego Basin Plan
- Colorado River Basin Plan
- San Diego County Board of Supervisors (BOS) Policy I-45, Definition of Watercourses in the Subject of Flood Control
- San Diego County BOS Policy I-68, Proposed Projects in Floodplains with Defined Floodways
- San Diego County BOS Policy I-73, Hillside Development Policy
- County of San Diego Code of Regulatory Ordinances Section 91.1.105.10, Flood Damage Prevention Ordinance
- 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 67.801–67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO)
- San Diego County Code of Regulatory Ordinances Sections 67.701–67.703, 67.710–67.711, 67.720–67.722, Groundwater Ordinance
- San Diego County Code of Regulatory Ordinances Sections 87.101–87.804, Grading Ordinance

In addition to the above, the following local laws, regulations, and policies have been adopted/updated since certification of the 2011 GPU PEIR.

Water Quality Control Plan for the San Diego Basin

The Basin Plan was most recently amended in May 2016 and designates water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. The intent of the amended Basin Plan remains consistent with that described in Section 2.9.2.2, "Local," of the 2011 GPU PEIR.

County of San Diego Jurisdictional Runoff Management Program

The County's Jurisdictional Runoff Management Program (JRMP), approved on July 26, 2015, and updated in 2019, was prepared in response to regulatory requirements adopted by the RWQCB (County of San Diego 2019). The purpose of the JRMP document is to guide implementation of programs and strategies to reduce pollutants discharged from the County's storm drain system to receiving waters.

The goal of the JRMP is to establish a programmatic framework for the implementation of stormwater management activities in accordance with Water Quality Improvement Plan strategies and other jurisdictional plans, design standards, and ordinances. By providing and implementing programs for new land development and redevelopment projects, impacts on receiving waters and other environmental resources are minimized. The JRMP also complies with federal and state laws.

County of San Diego Best Management Practices Design Manual

Adopted in February 2016 and last updated in September 2020, the County's BMP Manual guides land development and public improvement projects in the unincorporated area to reach compliance with the Regional Municipal Separate Storm Sewer System (MS4) Permit and reduce the discharge of pollutants in stormwater to the maximum extent practicable (MEP) (County of San Diego 2020). The BMP Manual is focused on project design requirements and related post-construction requirements. Specifically, the BMP Manual provides guidance on which stormwater management requirements apply to a given project; defines the performance standards for source control and site design BMPs, stormwater pollution control BMPs, and hydromodification management BMPs based on the Regional MS4 Permit; outlines the required steps to the comprehensive stormwater management design process; contains the source control and site design requirements applicable to all development; outlines the process of determining which category of on-site pollution control BMP or combination of BMPs is most appropriate for a given project and how those BMPs should be designed; provides guidance for meeting the performance standards for the two components of hydromodification management (i.e., protection of critical coarse sediment yield areas and flow control for post-project runoff); and describes the long-term maintenance requirements for structural BMPs.

The BMP Manual establishes the minimum BMP requirements applicable to all development projects, regardless of size or type. These measures include general BMP siting, source control BMPs, and site design BMPs. The County's 2013 MS4 Permit requires co-permittees to impose additional requirements on those projects considered Priority Development Projects (PDPs), which are required to comply with structural BMP performance requirements specified in the BMP Manual. These additional requirements focus on retention of the 85th percentile storm event. If on-site retention is not feasible, other alternatives are available, including partial retention and biofiltration. PDPs are also required to comply with hydromodification management BMP requirements, as specified in the BMP Manual, which address flow duration impacts and critical sediment yield areas. All projects must meet the following general requirements:

- on-site BMPs must be located so as to remove pollutants from runoff prior to its discharge to any receiving waters, and as close to the source as possible;
- structural BMPs must not be constructed within waters of the United States; and
- on-site BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors (e.g., mosquitos, rodents, or flies).

All projects must complete a Storm Water Intake Form to determine if they are a development project and to assess their priority and project type. The Storm Water Intake Form determines which type of Stormwater Quality Management Plan (SWQMP) Form is required for each development project.

The MS4 Permit establishes separate performance standards for (1) source control and site design practices, (2) stormwater pollutant control BMPs, and (3) hydromodification management BMPs. Each development project must be designed to satisfy any of several potentially applicable performance standards. Performance standards are specific design objectives to be achieved through the implementation of BMPs.

Baseline Source Control and Site Design BMPs must be implemented for all development projects wherever it is applicable and feasible to do so. These BMPs help to prevent the on-site generation of pollutants and flows and to keep them from leaving the site. The following source control BMPs must be implemented at all development projects where applicable and feasible:

- Prevention of illicit discharges into the MS4;
- Storm drain system stenciling or signage;
- Protection of outdoor material storage areas from rainfall, run-on, runoff, and wind dispersal;
- Protection of materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal;
- Protection of trash storage areas from rainfall, run-on, runoff, and wind dispersal; and
- Use of any additional BMPs determined to be necessary by the County of San Diego to minimize pollutant generation at each project.

The following site design practices must be implemented at all Development Projects, where applicable and feasible:

- Maintenance or restoration of natural storage reservoirs and drainage corridors (including topographic depressions, areas of permeable soils, natural swales, and ephemeral and intermittent streams);

- Buffer zones for natural water bodies (where buffer zones are technically infeasible, require project applicant to include other buffers such as trees, access restrictions, etc.);
- Conservation of natural areas within the project footprint, including existing trees, other vegetation, and soils;
- Construction of streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided public safety is not compromised;
- Minimization of the impervious footprint of the project;
- Minimization of soil compaction to landscaped areas;
- Disconnection of impervious surfaces through distributed pervious areas;
- Landscaped or other pervious areas designed and constructed to effectively receive and infiltrate, retain, and/or treat runoff from impervious areas, prior to discharging to the MS4;
- Small collection strategies located at, or as close as possible to, the source (i.e., the point where stormwater initially meets the ground) to minimize the transport of runoff and pollutants to the MS4 and receiving waters;
- Use of permeable materials for projects with low traffic areas and appropriate soil conditions;
- Landscaping with native or drought tolerant species; and
- Harvesting and using precipitation.

An Enhanced Site Design BMP is any site design BMP used specifically to reduce the Design Capture Volume (DCV) within a Drainage Management Area. This can be achieved either by adjusting the impervious runoff factor of one or more surfaces or by implementing BMPs that receive and mitigate a portion of the DCV. Because DCV reduction is not required, this performance standard is optional.

However, implementation of Enhanced Site Design BMPs is strongly encouraged for all PDPs as a means of reducing or eliminating the need for other, more complex or costly BMPs needed to satisfy Structural Performance Standards for the remaining DCV.

Structural Performance Standards are numeric design standards for reducing or eliminating stormwater flows and pollutant loads from PDP sites. They specifically address the remaining volume of runoff within a Drainage Management Area (either the DCV or a greater volume) after the application of all other site design and source control BMPs described above. Storm Water Pollutant Control BMPs for PDPs must meet the following performance standards:

1. Each PDP shall implement BMPs designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) on site the pollutants contained in the volume of stormwater runoff produced from a 24-hour, 85th percentile storm event (DCV).

a. If it is not technically feasible to implement retention BMPs for the full DCV on site for a PDP, then the PDP shall utilize biofiltration BMPs for the remaining volume not reliably retained. Biofiltration BMPs must be designed as described in Appendix F of the BMP Manual to have an appropriate hydraulic loading rate to maximize stormwater retention and pollutant removal, as well as to prevent erosion, scour, and channeling within the BMP, and must be sized to:

    i. Treat 1.5 times the DCV not reliably retained on site, or

    ii. Treat the DCV not reliably retained on site with a flow-thru design that has a total volume, including pore spaces and pre-filter detention volume, sized to hold at least 0.75 times the portion of the DCV not reliably retained on site.

b. If biofiltration BMPs are not technically feasible, then the PDP shall utilize flow-thru treatment control BMPs (selected and designed per Appendix J.5 of the BMP Manual) to treat runoff leaving the site, and participate in offsite alternative compliance to mitigate for the pollutants from the DCV not reliably retained onsite pursuant to Section 2.2.1.(b). Flow-thru treatment control BMPs must be sized and designed to:

    i. Remove pollutants from storm water to the MEP (defined by the MS4 Permit) by following the guidance in Appendix J.5 of the BMP Manual; and filter or treat either: 1) the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event, or 2) the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity (for each hour of a storm event), as determined from the local historical rainfall record, multiplied by a factor of two (both methods may be adjusted for the portion of the DCV retained on site as described in Appendix J.5 of the BMP Manual), and

    ii. Meet the flow-thru treatment control BMP treatment performance standard described in Appendix J.5 of the BMP Manual.

2. A PDP may be allowed to participate in an offsite alternative compliance program in lieu of fully complying with the performance standards for storm water pollutant control BMPs on site.

For many PDP sites, additional BMPs may be needed to preserve the supply of critical coarse sediment to water bodies. Any PDP that is not exempt from hydromodification management requirements must either comply with critical coarse sediment requirements or demonstrate that they do not apply.

County of San Diego Low Impact Development Handbook

The County's Low Impact Development Handbook: Stormwater Management Strategies (County of San Diego 2014) was created in 2007 and updated in July 2014 by a multidisciplinary Technical Advisory Committee. The goal of the County's low impact development (LID) program is to protect water quality by preserving and mimicking natural hydrologic functions through the use of stormwater planning and management techniques on a project site. The purpose of the LID Handbook is to provide a comprehensive list of LID planning and stormwater management techniques for developers, builders, contractors, planners, landscape architects, engineers, and government employees as guidance to reference before developing a project site. The document serves as a guidance document for the planning, application, design, and maintenance of LID BMPs. LID feasibility and applicability criteria and specific LID requirements are specified in the BMP Manual.

County of San Diego Code of Regulatory Ordinances, Sections 67.801–67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance

The current WPO was adopted in March 2008 and amended in January 2016. The stated purposes of this ordinance are to protect the health, safety, and general welfare of county residents; to protect water resources and improve water quality; to cause the use of management practices by the County and its citizens that will reduce the adverse effects of polluted runoff discharges on waters of the state; to secure benefits from the use of stormwater as a resource; and to ensure the County of San Diego is compliant with applicable state and federal law. The WPO contains discharge prohibitions and requirements that vary depending on the type of land use activity and location in the county. The WPO defines the requirements legally enforceable by the County in its unincorporated areas.

In accordance with the WPO, the County requires the development of an SWQMP to be submitted with discretionary and ministerial permit applications. The purpose of the SWQMP is to mitigate stormwater impacts by identifying effective permanent BMPs for implementation. The SWQMP review process considers the project location, receiving water quality, anticipated project impacts and associated pollutants, and mitigation for impacts with the selection of BMPs. The SWQMP provides needed information to address both stormwater and non-stormwater issues. The Preliminary Grading Plan and Preliminary Hydrology/Drainage Study are an integral part of the SWQMP and provide the technical basis for the SWQMP. The SWQMP requires, but is not limited to, the following elements:

- Water quality pollutants of concern, treatment volume based on water quality design storm, site plans and adjacent land use, and soil characteristics;
- Mitigation measures to protect water quality, pollution prevention BMPs (MEP Based), site design BMPs, source control BMPs, LID BMPs, and structural treatment BMPs;

- Mitigation measures to prevent increases in downstream erosion to MEP, site design BMPs, source control BMPs, LID BMPs, and structural treatment BMPs;
- Any infiltration BMPs proposed for use on site; and
- Agreements, easements, licenses relating to proposed BMP construction, location, maintenance, or changes in drainage character.

As defined in the WPO, each proposed project is required to implement measures to ensure that (1) pollutant discharges and runoff flows from development are reduced to the MEP, (2) receiving water quality objectives are not violated throughout the life of the project, and (3) runoff flows from development are managed to reduce erosive forces that may impact surface water beneficial use and/or habitat.

The WPO also contains LID requirements. LID is a stormwater management approach that maintains the natural hydrologic character of a site or region by using design techniques that infiltrate, filter, store, evaporate, and detain runoff on site. A LID Handbook was developed in December 2007 by the County of San Diego Department of Public Works to provide the development community with guidance on implementing LID strategies and practices (County of San Diego 2014). The WPO has incorporated LID site design BMP requirements in Section 67.806, General Best Management Practice Requirements, to be applicable to all development projects with the potential to add pollutants to stormwater or to affect the flow rate or velocity of stormwater runoff. This requirement defines the general standard for LID site design. The more explicit LID site design requirements for PDPs have been included in Section 67.810/67.811, Additional Planning, Design and Post-Construction Requirements for Development Projects. The BMP Manual includes a discussion of LID Site Design requirements.

All construction sites determined to be a land disturbance activity, as defined in the WPO, are required to meet General BMP Requirements (Attachment 2.2 of Section 67.806) and the Additional BMP Requirements for Construction Projects (Section 67.809). Section 67.806 (Attachment 2.2) of the WPO includes the list of general BMP requirements applicable to all dischargers. Section 67.809 (Attachment 2.2) of the WPO includes the list of additional BMPs to be implemented and maintained for construction projects. At a minimum, the County has determined that the following pollution control practices be adequately implemented and maintained year-round on all non-exempt projects:

- Project Planning
- Good Site Management “Housekeeping,” including waste management
- Non-stormwater Management
- Erosion Control
- Sediment Control
- Run-on and Run-off Control
- Active/Passive Sediment Treatment Systems, where applicable

- Any other construction BMPs suggested by the applicable Water Quality Improvement Plan and deemed to be effective at controlling erosion and sedimentation.

Disturbed soil areas are considered active whenever soil-disturbing activities have occurred, continue to occur, or will occur during the ensuing 14 days. Non-active areas must be protected within 14 days of cessation of soil-disturbing activities or prior to the onset of precipitation, whichever occurs first.

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 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 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), location 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 General Plan

The General Plan policies related to hydrology and water quality that are applicable to the CAP Update include the following:

> Policy LU-6.5: Sustainable Stormwater Management. Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development techniques as well as a combination of site design, source control,

and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

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 a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

Policy LU-6.10: Protection from Hazards. Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

Policy LU-6.12: Flooding. Document and annually review areas within floodways and 100- and 200-year floodplains to ensure areas subject to flooding are accurately mapped in accordance with AB 162 (enacted January 1, 2008). (See also Policy S-9.1)

Policy LU-8.1: Density Relationship to Groundwater Sustainability. Require land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.

Policy LU-8.2: Groundwater Resources. Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:

- In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.
- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

Policy LU-13.1: Adequacy of Water Supply. Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.

Policy LU-13.2: Commitment of Water Supply. Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

Policy LU-14.1: Wastewater Facility Plans. Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans.

Policy LU-14.2: Wastewater Disposal. Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

Policy LU-14.3: Wastewater Treatment Facilities. Require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency. Coordinate the planning and design of such facilities with the appropriate agency to be consistent with applicable sewer master plans.

Policy LU-14.4: Sewer Facilities. Prohibit sewer facilities that would induce unplanned growth. Require sewer systems to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive, except:

- When necessary for public health, safety, or welfare;
- When within existing sewer district boundaries;
- When necessary for a conservation subdivision adjacent to existing sewer facilities; or
- Where specifically allowed in the community plan.

Policy LU-16.1: Location of Waste Management Facilities. Site new solid waste management facilities identified in the San Diego County Integrated Waste Management Plan, in a manner that minimizes environmental impacts and prevents groundwater degradation, and in accordance with applicable local land use policies.

Policy LU-16.3: New Waste Management Facilities. Encourage the establishment of additional recycling and resource recovery facilities in areas with Industrial land use designations or other appropriate areas based on the type of recycling.

Policy COS-4.1: Water Conservation. Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.

Policy COS-4.2: Drought-Efficient Landscaping. Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.

Policy COS-4.3: Stormwater Filtration. Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater,

where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

Policy COS-4.4: Groundwater Contamination. Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.

Policy COS-5.1: Impact to Floodways and Floodplains. Restrict development in floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element.

Policy COS-5.2: Impervious Surfaces. Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

Policy COS-5.3: Downslope Protection. Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.

Policy COS-5.4: Invasive Species. Encourage the removal of invasive species to restore natural drainage systems, habitats, and natural hydrologic regimes of watercourses.

Policy COS-5.5: Impacts of Development to Water Quality. Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.

Policy S-9.1: Landslide Risks. Direct development away from areas with high landslide, mudslide, or rock fall potential when engineering solutions have been determined by the County to be infeasible.

Policy S-9.2: Risk of Slope Instability. Prohibit development from causing or contributing to slope instability.

Policy S-10.1: Floodplain Data. Maintain and expand floodplain data and information throughout the County, to better understand current and future floodplain conditions and changes associated with development activities and mitigation projects.

Policy S-10.2: Floodplain Maps. Manage development based on federal floodplain maps. County maps shall also be referred to, and in case of conflict(s) between the County floodplain maps and the federal floodplain maps, the more stringent of restrictions shall apply.

Policy S-10.3: Development in Floodplains. Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements,

and other flood control facilities. Require development to conform to federal floodproofing standards and siting criteria to prevent flow obstruction.

Policy S-10.4: Development in Flood Hazard Areas. Require development within mapped flood hazard areas to be sited and designed to minimize on and off-site hazards to health, safety, and property due to flooding.

Policy S-10.5: Development in Villages. Allow new uses and development within the floodplain fringe (land within the floodplain outside of the floodway) only when environmental impacts and hazards are mitigated. This policy does not apply to floodplains with unmapped floodways. Require land available outside the floodplain to be fully utilized before locating development within a floodplain. Development within a floodplain may be denied if it will cause significant adverse environmental impacts or is prohibited in the community plan. Channelization of floodplains is allowed within villages only when specifically addressed in community plans.

Policy S-10.6: Development in the Floodplain Fringe. Prohibit development in the floodplain fringe when located on Semi-Rural and Rural Lands to maintain the capacity of the floodplain, unless specifically allowed in a community plan. For parcels located entirely within a floodplain or without sufficient space for a building pad outside the floodplain, development is limited to a single-family home on an existing lot or those uses that do not compromise the environmental attributes of the floodplain or require further channelization.

Policy S-10.7: Development in Dam Inundation Areas. Prohibit development in dam inundation areas that may interfere with the County's emergency response and evacuation plans.

Policy S-11.1: Land Uses within Floodways. Limit new or expanded uses in floodways to agricultural, recreational, and other such low intensity uses and those that do not result in an increase in flood levels during the occurrence of the base flood discharge, do not include habitable structures, and do not substantially harm, and fully offset impacts to, the environmental values of the floodway area. This policy does not apply to minor renovation projects, improvements required to remedy an existing flooding problem, legal sand or gravel mining activities, or public infrastructure.

Policy S-11.2: Use of Natural Channels. Require the use of natural channels for County flood control facilities except where necessary to protect existing structures from a current flooding problem and where natural channel use is deemed infeasible. The alternative must achieve the same level of biological and other environmental protection, such as water quality, hydrology, and public safety.

Policy S-11.3: Flood Control Facilities. Require flood control facilities to be adequately sized, constructed, and maintained to operate effectively.

Policy S-11.4: Stormwater Management. Require development to incorporate low impact design, including site design, source control, and other measures to minimize stormwater impacts on drainage and flood control facilities and promote groundwater recharge, where feasible. In addition, require projects that are classified as Priority Development Projects to also incorporate pollutant control and hydromodification management measures.

Policy S-11.5: Development Site Improvements. Require development to provide necessary on- and off-site improvements to stormwater runoff and drainage facilities.

Policy S-11.6: Stormwater Hydrology. Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.

2011 San Diego County GPU PEIR

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

Adopted Mitigation Measure Hyd-1.1: Update and implement the County of San Diego's Jurisdictional Urban Runoff Management Program (JURMP).

Adopted Mitigation Measure Hyd-1.2: Implement and revise as necessary the Watershed Protection Ordinance to reduce the adverse effects of polluted runoff discharges on waters and to encourage the removal of invasive species and restore natural drainage systems.

Adopted Mitigation Measure Hyd-1.3: Establish and implement low impact development (LID) standards for new development to minimize runoff and maximize infiltration.

Adopted Mitigation Measure Hyd-1.4: Revise and implement the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources.

Adopted Mitigation Measure Hyd-1.5: Utilize the County Guidelines for Determining Significance for Surface Water Quality, Hydrology, and Groundwater Resources to identify adverse environmental effects.

Adopted Mitigation Measure Hyd-2.1: Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water districts. Also implement and revise as necessary Board Policy G-15 to conserve water at County facilities.

Adopted Mitigation Measure Hyd-2.2: Implement the Groundwater Ordinance to balance groundwater resources with new development. Also revise the Ordinance Relating to Water Conservation for Landscaping (currently Zoning Ordinance

Sections 6712 through 6725) to further water conservation through the use of recycled water.

Adopted Mitigation Measure Hyd-2.3: Establish a water credits program between the County and the Borrego Water District to provide a streamlined and consistent process for the permanent cessation of outdoor water intensive uses such as irrigated agricultural or golf course land.

Adopted Mitigation Measure Hyd-2.4: Coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and enhancement of water conservation programs.

Adopted Mitigation Measure Hyd-2.5: Implement and revise as necessary the Resource Protection Ordinance and Policy I-68 Proposed Projects in Flood Plains / Floodways to restrict development in flood plains / floodways.

Adopted Mitigation Measure Hyd-3.1: Implement, and revise as necessary, ordinances to require new development to be located down and away from ridgelines, conform to the natural topography, not significantly alter dominant physical characteristics of the site, and maximize natural drainage and topography when conveying stormwater.

Adopted Mitigation Measure Hyd-3.2: Implement, and revise, as necessary the Resource Protection Ordinance to limit development on steep slopes. Also incorporate Board Policy I-73, the Hillside Development Policy, into the Resource Protection Ordinance to the extent that it will allow for one comprehensive approach to steep-slope protections.

Adopted Mitigation Measure Hyd-3.3: Implement the Grading, Clearing and Watercourses Ordinance to protect development sites against erosion and instability.

Adopted Mitigation Measure Hyd-4.1: Implement the Flood Damage Prevention Ordinance to reduce flood losses in specified areas.

Adopted Mitigation Measure Hyd-4.2: Implement the Grading, Clearing and Watercourses Ordinance to limit activities affecting watercourses.

Adopted Mitigation Measure Hyd-4.3: Implement and revise as necessary Board Policies such as: Policy I-68, which establishes procedures for projects that impact floodways; Policy I-45, which defines watercourses that are subject to flood control; and Policy I-56, which permits, and establishes criteria for, staged construction of off-site flood control and drainage facilities by the private sector when there is a demonstrated and substantial public, private or environmental benefit.

Adopted Mitigation Measure Hyd-6.1: Implement the Resource Protection Ordinance to prohibit development of permanent structures for human habitation

or employment in a floodway and require planning of hillside developments to minimize potential soil, geological and drainage problems.

Adopted Mitigation Measure Hyd-8.2: Review discretionary projects for dam inundation hazards through application of the County's Guidelines for Determining Significance for Hydrology and Guidelines for Determining Significance for Emergency Response Plans.

2.10.3 Analysis of Effects and Significance Determinations

2.10.3.1 Significance Criteria

Based on Appendix G of the State CEQA Guidelines, the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021), and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2007a), the proposed project would result in a significant impact on hydrology and water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;[1]
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - result in substantial erosion or siltation on- or off-site;
    - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - impede or redirect flood flows;
- in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; or[2]
- result in substantial erosion or the loss of topsoil.

[1] This threshold has been revised from the County's format to be consistent with the updated Appendix G checklist.
[2] This threshold has been revised from the County's format to be consistent with the updated Appendix G checklist.

2.10.3.2 Approach to Analysis

Impacts related to hydrology and water quality are analyzed qualitatively based on a review of CAP Update measures and actions and their potential to result in physical changes to the environment if the CAP Update is approved and implemented. Each issue area was analyzed in the context of existing laws and regulations as well as policies adopted in the General Plan, and the extent to which these existing regulations and policies adequately address and minimize the potential for hydrology and water quality impacts associated with the 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 established GHG reduction targets. Because these measures and actions represent the components of the CAP Update that could result in physical environmental effects within the unincorporated county, this analysis focuses on the impacts of their implementation. Given the broad scope of the CAP Update (i.e., covering the entire 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 the CAP Update is the unincorporated area of the county within the County's jurisdiction (i.e., all unincorporated lands excluding tribal lands, state and federally owned lands, and military installations).

The analysis in this ~~draft~~ SEIR is programmatic. Implementation of all CAP Update measures and actions were considered during preparation of this ~~draft~~ SEIR, to the degree specific information about their implementation is known. Because future projects associated with the CAP Update have yet to be specifically defined, this SEIR considers the types of impacts that could occur with implementation of the proposed GHG reduction measures and actions. The County would evaluate future discretionary projects 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 are reduced to below a significant level.

Proposed CAP Update Strategies

As described in Chapter 1, "Project Description," the overarching strategies, measures, and actions proposed in the CAP Update (see Table 1-2) have been grouped into subcategories for the purpose of analysis, based on the sector they target. CAP Update measures that would have the potential to result in new or more severe impacts, as

compared to the conclusions of the 2011 GPU PEIR, related to hazards and hazardous materials are summarized below. CAP Update measures and actions that would involve development of policies and programs that would not result in direct physical effects or those that would result in limited physical improvements to existing development are not discussed further because these actions and measures would not have potential to result in new or more severe impacts related to hydrology and water quality.

Solid Waste Measures and Actions. This category includes strategies to increase solid waste diversion and availability of sustainable solid waste facilities in County operations and within the unincorporated county. Key actions with potential to result in new or more severe impacts related to hydrology and water quality include those that could result in new or expanded composting and recycling facilities (Actions SW-1.1, SW-2.1, SW-4.1a, and SW-4.1b).

Water and Wastewater Measures and Actions. This category includes strategies to decrease potable water consumption and increase stormwater collection, water pumping, and wastewater treatment in County operations and the unincorporated county. Key actions with potential to result in new or more severe impacts related to hydrology and water quality include those that could result in the construction of new greywater capture systems and new stormwater capture, treatment, and reuse infrastructure (Actions W-1.1 W-2.2, W-2.3, and W-2.4).

Agriculture and Conservation Measures and Actions. This category includes strategies to preserve natural and agricultural lands, improve land management practices protect habitat and increase carbon storage, and support climate-friendly farming practices. This category also includes exploration of opportunities for construction of farmworker housing. Key actions with potential to result in new or more severe impacts related to hydrology and water quality include those that involve habitat restoration (Actions A-1.2 and A-4.1).

Energy Measures and Actions. This category includes strategies to increase building energy efficiency, renewable energy, and electrification in County operations and the unincorporated county. Key actions with potential to result in new or more severe impacts related to hydrology and water quality include those that could result in the construction and operation of renewable energy infrastructure (Actions E-3.2 and E-3.3). 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 County's vehicle fleet, support active transportation, and reduce single-occupancy vehicle trips. Key actions with potential to result in new or more severe impacts related to hydrology and water quality include those that could result in the construction of new electric vehicle charging, hydrogen fueling infrastructure, and pedestrian and bicycle infrastructure (Actions T-4.1, T-4.2, T-4.3, T-4.6, and T-6.1).

2.10.3.3 Issue 1: Degrade Surface Water and Groundwater Quality

This analysis describes the potential for implementation of the CAP Update to result in impacts on surface water and groundwater quality.

Guidelines for Determination of Significance

The *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021) and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2007a), which are reflective of the guidelines that were utilized in the 2011 GPU PEIR, provide guidance for addressing the following significance criteria listed in Appendix G of the State CEQA Guidelines:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Note that the analysis of the CAP Update's potential to conflict with or obstruct implementation of sustainable groundwater management plan as it relates to groundwater supplies is provided in Section 2.10.3.4, "Issue 2: Decrease Groundwater Supply and Interfere with Groundwater Recharge."

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts on surface water and groundwater quality resulting from the adoption of the goals and policies contained within the General Plan and anticipated development of the land use map through the planning horizon. The 2011 GPU PEIR determined that development under the General Plan would contribute both point and non-point source pollutants that would have the potential to violate water quality standards or waste discharge requirements, or otherwise degrade surface water quality. In addition, the 2011 GPU PEIR determined that development of General Plan land uses would result in potentially significant impacts on water quality from proposing land uses in groundwater dependent areas that are currently experiencing groundwater contamination, which may also exacerbate existing groundwater quality impacts. The placement of groundwater dependent land uses in areas with water quality constituents at concentrations above Primary Federal or State Maximum Contaminant Levels would violate water quality standards, such as those for nitrates, naturally occurring radionuclides, leaking underground fuel tanks, and other constituents of concern. The

2011 GPU PEIR determined that the impacts could be reduced through a combination of the following:

- Complying with a combination of federal, state, and local regulations and permits and existing County regulatory processes related to maintaining water quality standards (e.g., NPDES Construction General Permit, JRMP, WPO, BOS Policy I-84).
- Implementing General Plan goals and policies related to protection of water quality, including LU-6.5, LU-6.9, LU-14.1, LU-14.2, LU-14.3, LU-14.4, COS-4.2, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.5.
- Implementing Mitigation Measures Hyd-1.1 through Hyd-1.10 identified in the 2011 GPU PEIR related to protection of water quality.

Although the General Plan policies and 2011 GPU PEIR mitigation measures would reduce the potential for impacts on surface water and groundwater quality, the 2011 GPU PEIR determined that these policies and mitigation measures would not reduce the impact to a less-than-significant level because smaller construction activities (i.e., less than 1 acre) would have the potential to contribute pollutants in quantities that would exceed water quality standards or otherwise significantly degrade water quality. In addition, the 2011 GPU PEIR determined that impacts associated with groundwater quality would not be mitigated to below a level of significance because land uses would still be proposed in areas that are currently experiencing groundwater contamination, thereby exacerbating groundwater quality impacts. Therefore, the 2011 GPU PEIR concluded that impacts on surface water and groundwater quality would be significant and unavoidable.

Additional mitigation for groundwater quality impacts would have required water to be imported from outside the area where groundwater was contaminated, required the construction of water treatment systems to reduce constituents in groundwater impaired areas, or placed a moratorium on building permits and development applications in groundwater constrained areas. However, these measures were rejected as infeasible. Specific General Plan policies related to groundwater quality are listed above under Section 2.10.2, “Regulatory Framework,” and 2011 GPU PEIR mitigation measures are listed in Section 2.10.5, “Mitigation Measures.”

The discussion of impacts can be found in Section 2.8, “Hydrology and Water Quality” (pages 2.8-30 through 2.8-36), of the 2011 GPU PEIR and is incorporated by reference.

CAP Update Impact Analysis

The following sections describe the potential for implementation of the proposed CAP Update measures to result in impacts on surface water and groundwater quality.

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. Implementation of 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 would include development of zero waste policies which may result in new or expanded composting and recycling facilities to divert solid waste from landfills.

Although specific locations for any new or expanded recycling and composting facilities have not been identified, because of the nature of these improvements, they would most likely occur near industrial and commercial areas throughout the unincorporated county and in accordance with the General Plan. For example, Policy LU-16.3 encourages the establishment of new recycling and resource recovery facilities in areas with industrial land use designations or other appropriate areas based on the type of recycling.

The construction of new or expanded recycling and composting facilities associated with implementing the CAP Update could involve the use of heavy equipment, paving, ground disturbance, and other typical construction activities that could adversely affect water quality standards or waste discharge requirements where projects are located near waterways or discharge runoff to stormwater drainage systems. These violations could result in conflicts with existing water quality control plans. Furthermore, construction activities could risk the release of pollutants in areas that are subject to inundation. Pollutants associated with construction activities typically include soils, debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. These pollutants would degrade water quality if they were carried by stormwater or other runoff into surface waters.

These potential construction-related water quality impacts are similar to those identified in the 2011 GPU PEIR, which determined that development would have the potential to result in substantial additional sources of polluted runoff that would have short-term impacts on surface water quality from construction activities. Similar to what was described in the 2011 GPU PEIR, construction sites of 1 acre or more in size are required to prepare a SWPPP pursuant to the NPDES permit program. The SWPPP would identify BMPs that must be implemented to reduce the potential for pollutants from construction to degrade water quality. In compliance with the NPDES permit program, the construction of new or expanded solid waste facilities that are 1 acre or more in size would be required to implement BMPs that minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff. However, similar to what was described in the 2011 GPU PEIR, potential water quality impacts could occur if new or expanded solid waste facilities would involve less than 1 acre of construction because these projects would not be subject to the NPDES permit program, and therefore would still have the potential to contribute pollutants such as soils, debris and other materials in quantities that would exceed water quality standards and otherwise significantly degrade water quality.

Following construction of any new or expanded solid waste facilities, operation of these facilities could have the potential to degrade water quality through non-point source pollution into surface water and groundwater bodies. Development of these facilities could

result in new impervious surfaces that would increase urban runoff containing oil, grease, metals, pathogens, total dissolved solids, sediments, or toxic chemicals, which could degrade water quality if they enter surface water or groundwater bodies. Additionally, if new or expanded solid waste facilities are developed in proximity to CWA Section 303(d) impaired water bodies, they could contribute both point and non-point source pollutants to these water bodies that could violate water quality standards. Lastly, the development of new or expanded solid waste facilities in groundwater dependent areas that are currently experiencing groundwater contamination would have the potential to contribute to the continued degradation of these existing water quality impacted areas.

Several federal, state, and local regulations exist that reduce the potential for projects to violate water quality standards. These include, but are not limited to the CWA, which establishes water quality standards for all waters of the United States; Porter-Cologne Water Quality Control Act, which requires region-specific basin plans; NPDES, which regulates point source and nonpoint source discharges to surface waters of the United States; San Diego Basin Plan, which sets water quality objectives for the San Diego Basin; Colorado River Basin Plan, which sets water quality objectives for the Colorado River Basin; WPO, which protects water resources and improves water quality; and LID requirements, which establish stormwater management techniques.

In addition, it is assumed that the development of new or expanded solid waste facilities would occur in accordance with the General Plan and its policies to reduce the potential for surface water and groundwater quality impacts. General Plan Policies LU-6.5 and LU-6.9 would ensure that development implements sustainable stormwater management techniques and conforms with natural topography to limit grading. Policies COS-4.3 and COS-4.4 require maximizing stormwater filtration and minimizing groundwater contamination from certain land uses. Policies COS-5.2, COS-5.3, and COS-5.4 require development projects to minimize impervious surfaces, be appropriately sited and incorporate measures to retain natural flow regimes, and avoid impacts to the water quality in local reservoirs, groundwater resources, recharge areas, watersheds, and other local water sources.

In addition to the regulations and General Plan policies described above, the following 2011 GPU PEIR mitigation measures also would be applied to the CAP Update to minimize water quality impacts: Mitigation Measure Hyd-1.1, which requires implementation of the County's JRMP; Mitigation Measure Hyd-1.2, which requires implementation of the WPO to reduce the adverse effects of polluted runoff discharges on waters; Mitigation Measure Hyd-1.3, which requires implementation of LID standards for new development to minimize runoff and maximize infiltration; Mitigation Measure Hyd-1.4, which requires implementation of the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources; and Mitigation Measure Hyd-1.5, which requires utilization of the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*.

Implementation of these 2011 GPU PEIR mitigation measures, along with the General Plan policies and regulatory requirements described above, would reduce the potential for new or expanded solid waste facilities to degrade surface water or groundwater quality. However, the effectiveness of mitigation cannot be determined with certainty at a programmatic level. Therefore, the impacts related to water quality issues would be significant, consistent with the conclusions in the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

The CAP Update includes strategies to decrease potable water consumption and increase stormwater collection, water pumping, and wastewater treatment in County operations and the unincorporated county. Implementation of CAP Update Actions W-1.1, W-2.2, W-2.3, and W-2.4 could result in the construction of new greywater capture systems and new stormwater capture, treatment, and reuse infrastructure within the unincorporated county. Specifically, these actions would require existing and new development to meet water efficiency and conservation requirements through small-scale improvements with limited physical footprints, such as installing greywater capture systems for irrigation, installing recycled water pipelines, replacing existing landscaping with water-efficient landscaping, and installing rain barrels to collect stormwater.

The construction of new recycled water and stormwater capture and reuse infrastructure would occur in conjunction with existing or proposed development and would not result in significant water quality impacts. Rather, these measures and actions would facilitate water efficiency and conservation for existing development and new development as it is approved, which would reduce the amount of stormwater runoff that could contribute to degraded water quality. Accordingly, these actions could improve water quality compared to existing conditions. As such, implementation of these actions is not anticipated to degrade surface water or groundwater quality. The impact would be less than significant.

Agriculture and Conservation Measures and Actions

Implementation of Measures A-1 through A-4 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. These measures would result in the preservation of natural and agricultural lands in the unincorporated county. Therefore, implementation of these measures would generally benefit water quality.

However, implementation of Action A-4.1.b would have the potential to result in new farmworker housing in the unincorporated county if opportunities to increase farmworker housing in the unincorporated area are identified. It is anticipated that new farmworker housing would be low density and in proximity to existing agricultural operations, which are generally in more rural areas of the unincorporated county. The development of new farmworker housing would have the potential to result in similar construction and operation-related water quality impacts described above and in the 2011 GPU PEIR. Construction-related impacts could occur from the use of heavy equipment, paving, ground disturbance, and other typical construction activities that generate pollutants such

as debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. Additionally, new farmworker housing would result in new impervious surfaces that could increase urban runoff that contains pollutants and impact surface water and groundwater quality.

Similar to what was described in the 2011 GPU PEIR, construction of new farmworker housing would be subject to the federal, state, and local regulations described above that reduce the potential for projects to degrade surface water and groundwater quality, and would likely be required to undergo subsequent CEQA analysis. New farmworker housing would also be required to implement adopted General Plan goals and policies related to water quality, including Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4, as described above. Lastly, 2011 GPU PEIR Mitigation Measures Hyd-1.1 through Hyd-1.5 require implementation of the County's JRMP and WPO, implementation of LID standards to minimize runoff and maximize infiltration, implementation of the Stormwater Standards Manual, and utilization of the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*. Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would reduce the potential for new farmworker housing associated with the CAP Update to degrade surface water or groundwater quality. However, the effectiveness of mitigation cannot be determined with certainty at a programmatic level. Therefore, the impacts related to water quality issues would be significant, consistent with the conclusions in the 2011 GPU PEIR.

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-2 and Measure E-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 photovoltaic solar arrays or small wind turbines, energy storage systems, upgraded mechanical systems, and other similar improvements. Potential solar photovoltaic, 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.

Rooftop photovoltaic solar energy panels and upgraded mechanical systems generally do not involve construction that would have the potential to impact water quality. However, the development of renewable energy projects such as ground-mounted photovoltaic solar arrays or small wind turbines would have the potential to result in similar construction-related water quality impacts described above and in the 2011 GPU PEIR.

These construction-related impacts could occur from the use of heavy equipment, paving, ground disturbance, and other typical construction activities that generate pollutants such as debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. Once operational, small wind turbines would use small amounts of lubricating oils and hydraulic fluids for ongoing operations. It is not anticipated that the development of renewable energy projects would result in new impervious surfaces that could increase urban runoff.

Similar to what was described in the 2011 GPU PEIR, construction of new renewable energy projects would be subject to the same federal, state, and local regulations described above that reduce the potential for projects to degrade surface water and groundwater quality. Additionally, wind turbines of all sizes are regulated by the County's Wind Energy Ordinance Sections 6950–6952. Section 6591(a)(1)(ii)(b) of the Wind Energy Ordinance prohibits any part of the wind turbine from being located closer than 300 feet or five times the turbine height, whichever is greater, from blue line watercourses or water bodies as identified on the current US Geological Survey Topographic Map as posted on the agency's website. Section 6591(a)(2) limits the area of ground disturbance (including grading, clearing, brushing, and grubbing) during installation to more than a 25-foot radius around the base of the tower and no more than 4 feet wide for the access path to the tower. Compliance with these sections of the Wind Energy Ordinance would further reduce the potential for small wind turbines to impact water quality.

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 technologies such as photovoltaic solar and concentrated solar, and wind turbines. Because the amount of demand generated by such a program and the mix of renewable energy types that would be constructed to satisfy demand is unknown, this ~~draft~~ SEIR evaluates the potential for impacts at the program level and assumes that common current technologies for wind and solar would be utilized. The potential for construction of large-scale renewable energy infrastructure was not evaluated in the 2011 GPU PEIR, but potential wind energy impacts were evaluated in the 2012 Wind Energy Ordinance EIR and are incorporated by reference as applicable.

Large-scale renewable energy infrastructure would generally 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.

Large-scale renewable solar systems can range in size from 2 to several thousand acres. The location of large-scale photovoltaic 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 be less than 10 acres would be required to obtain an Administrative Permit in accordance with the County's Zoning Ordinance Section

6954(b)(1). These projects would be required to comply with County development requirements, ordinances, and permitting procedures in addition to compliance with federal, state, and local regulations and policies (e.g., CWA, NPDES permits, WPO) described in Section 2.10.2, "Regulatory Framework," that are in place to protect water quality in the county. Future discretionary large-scale renewable energy projects would also be required to be evaluated for project-specific impacts under CEQA at the time of application and project-specific mitigation would be implemented to minimize or eliminate impacts related to surface water and groundwater quality.

Large-scale wind energy projects could also be developed under proposed CAP Update Action E-3.3. 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. Additionally, all large wind turbine projects would be required to obtain an MUP in accordance with the County's Wind Energy Ordinance Section 6592 and would also be evaluated under CEQA. Furthermore, as described on pages 3.1.2-14 and 3.1.2-15 of the 2012 Wind Energy Ordinance EIR, the large-scale production of energy from wind turbines would not result in significant impacts on water quality because all future large wind turbine projects would be required to comply with the Grading Ordinance, WPO, LID requirements, and MUP process prior to approval. The potential development of large-scale wind turbine farms under the CAP Update would be similar to those evaluated in the 2012 Wind Energy Ordinance EIR.

In addition to the regulatory requirements described above, implementation of adopted General Plan goals and policies (Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4) and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.1 through Hyd-1.5) related to water quality would further reduce project impacts on surface water and groundwater quality by requiring implementation of the County's JRMP and WPO, implementation of LID standards to minimize runoff and maximize infiltration, implementation of the Stormwater Standards Manual, and utilization of the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*. Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would reduce the potential for implementation of CAP Update energy measures and actions to degrade surface water or groundwater quality. While the 2012 Wind Energy EIR determined that water quality impacts from small- and large-scale wind energy projects would be less than significant, the effectiveness of mitigation for other energy projects that could occur under the CAP Update (e.g., large-scale solar systems) cannot be determined with certainty at a programmatic level. Therefore, the impacts related to water quality issues would be significant, consistent with the conclusions in the 2011 GPU PEIR.

Built Environment and Transportation Measures and Actions

The CAP Update includes measures and actions to decarbonize the County's vehicle fleet, support active transportation, and reduce single-occupancy vehicle trips. Actions T-

4.1 and T-4.2 would result in programs to reduce emissions from County employee commutes; improvements to pedestrian, bicycle, and transit networks; programs to encourage active modes of transportation and reduce single occupancy vehicle trips; and the incorporation of Transportation Demand Management strategies. Because of the nature of such improvements (i.e., limited size and within existing transportation corridors), 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.

Construction associated with these improvements would result in similar water quality impacts described above and in the 2011 GPU PEIR, and could involve the use of heavy equipment, paving, ground disturbance, and other typical construction activities that generate pollutants such as debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. Following construction, operation of these infrastructure improvements would not have the potential to degrade water quality because it is anticipated that they would be located in existing developed areas and therefore would not introduce new impervious surfaces that could increase urban runoff.

However, similar to what was described in the 2011 GPU PEIR, implementation of these infrastructure improvements would be subject to the same federal, state, and local regulations described above that reduce the potential for projects to degrade surface water and groundwater quality. The development of these infrastructure improvements would also be required to implement adopted General Plan goals and policies related to water quality, including Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4, as described above. Lastly, 2011 GPU PEIR Mitigation Measures Hyd-1.1 through Hyd-1.5 require implementation of the County's JRMP and WPO, implementation of LID standards to minimize runoff and maximize infiltration, implementation of the Stormwater Standards Manual, and utilization of the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* and *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*. Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would reduce the potential for implementation of the built environment and transportation measures and actions of the CAP Update to degrade surface water or groundwater quality. However, the effectiveness of mitigation cannot be determined with certainty at a programmatic level. Therefore, the impacts related to water quality issues would be significant, consistent with the conclusions in the 2011 GPU PEIR.

Summary

As detailed in the GPU PEIR 2011, although compliance with existing regulations and the implementation of General Plan policies and 2011 GPU PEIR mitigation measures would reduce impacts on surface water and groundwater quality, these impacts would not be reduced to a less-than-significant level because smaller construction activities (i.e., less than 1 acre) would have the potential to contribute pollutants in quantities that would exceed water quality standards or otherwise significantly degrade water quality. In

addition, the 2011 GPU PEIR determined that impacts associated with groundwater quality would not be mitigated to below a level of significance because land uses would still be proposed in areas that are currently experiencing groundwater contamination, thereby exacerbating groundwater quality impacts.

Future projects implemented under the CAP Update would be required to comply with existing federal, state, and local regulations and implement adopted General Plan policies (Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4) and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.1 through Hyd-1.5). While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with the CAP Update could still adversely affect water quality because the exact location and nature of projects is not known. At the programmatic level, it is not possible to determine with certainty that impacts on surface water and groundwater quality would be reduced to below a level of significance. Therefore, the impacts related to water quality issues would be potentially significant, consistent with the conclusions in the 2011 GPU PEIR. However, implementation of the CAP Update **would not result in new or more severe impacts** compared to the 2011 GPU PEIR.

2.10.3.4 Issue 2: Decrease Groundwater Supply and Interfere with Groundwater Recharge

This analysis describes the potential for implementation of the CAP Update to result in impacts related to groundwater supply and recharge.

Guidelines for Determination of Significance

The *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2007a), which are reflective of the guidelines that were utilized in the 2011 GPU PEIR, provide guidance for addressing the following significance criteria listed in Appendix G of the State CEQA Guidelines:

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts related to groundwater supply and recharge resulting from the adoption of the goals and policies contained within the General Plan and anticipated development of the land use map through the planning horizon. The 2011 GPU PEIR determined that development anticipated through the planning horizon would

result in an exacerbation of groundwater supply impacts that are already being experienced in parts of the unincorporated county. Maximum development of the land uses proposed in the General Plan would cause impacts in four geographic areas: (1) areas that experience a 50-percent reduction in groundwater storage; (2) areas that may be currently impacted by the combined drawdown of existing wells; (3) areas that experience a high frequency of low well yield; and (4) Borrego Valley.

The 2011 GPU PEIR determined that impacts would be reduced with implementation of the adopted General Plan policies and 2011 GPU PEIR mitigation measures, as well as compliance with applicable regulations related to groundwater supply and recharge. General Plan policies that would address groundwater supplies include Policy LU-8.1, which requires land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley; Policy LU-8.2, which requires development to identify adequate groundwater resources in groundwater dependent areas; Policy LU-13.1, which requires coordination of water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water and requires new development to include water conservation measures; Policy LU-13.2, which requires new development to identify adequate water resources; Policy COS-4.1, which requires development to reduce the waste of potable water through use of efficient technologies and conservation efforts supply; as well as Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4 described above. In addition, the 2011 GPU PEIR identified Mitigation Measures Hyd-1.1 through Hyd-1.5 and Mitigation Measures Hyd-2.1 through Hyd-2.5 to address groundwater supply impacts.

However, the 2011 GPU PEIR concluded that groundwater supply impacts would remain significant and unavoidable because even with mitigation measures in place, implementation of the General Plan would allow land uses and development to occur in areas that are already experiencing groundwater supply impacts, thereby worsening the unsustainable use of groundwater supplies.

In addition, additional mitigation for groundwater supply impacts was considered that would have required all projects to share well water, secure water contracts to import groundwater from other non-impacted groundwater basins, or place a moratorium on building permits and development applications. However, these measures were rejected as infeasible. Specific General Plan policies related to groundwater supply are listed above under Section 2.10.2, “Regulatory Framework,” and 2011 GPU PEIR mitigation measures are listed in Section 2.10.5, “Mitigation Measures.”

The discussion of impacts can be found in Section 2.8, “Hydrology and Water Quality” (pages 2.8-30 through 2.8-42), and is incorporated by reference.

CAP Update Impact Analysis

The following discussion describes the potential for implementation of the proposed CAP Update measures to result in effects related to groundwater supply and recharge.

Solid Waste Measures and Actions

The CAP Update includes strategies to increase solid waste diversion and availability of sustainable solid waste facilities in County operations and within the unincorporated county. Key actions with potential to result in new or more severe impacts related to groundwater supplies and recharge include those that would result in the development of new or expanded recycling and composting facilities (e.g., Actions SW-1.1, SW-2.1, SW-4.1.a, and SW-4.1.b).

Implementation of these CAP Update measures and actions could result in the construction of new or expanded solid waste facilities. For example, Actions SW-1.1 and SW-2.1 include development of zero waste policies that would result in new or expanded composting and recycling facilities to divert solid waste from landfills. Because of the nature of these improvements, it is anticipated that they would be developed near industrial and commercial areas throughout the unincorporated county and in accordance with the General Plan. For example, Policy LU-16.3 encourages the establishment of new recycling and resource recovery facilities in areas with industrial land use designations or other appropriate areas based on the type of recycling.

Although new or expanded solid waste facilities would likely be located near developed industrial and commercial areas, because no specific locations have been identified, there is a potential that development of these facilities could occur on or in the vicinity of groundwater aquifers. The development of new or expanded solid waste facilities could result in new impervious surfaces that would have the potential to interfere with groundwater recharge and decrease the availability of groundwater supplies. The development of new or expanded solid waste facilities would have the potential to result in similar impacts on groundwater supply and recharge described in the 2011 GPU PEIR. The development of new or expanded solid waste facilities in areas of the unincorporated county that are currently experiencing groundwater supply issues would contribute to worsening an already unsustainable groundwater supply. This includes areas that experience a 50 percent reduction of groundwater in storage; areas that may be currently impacted by the combined drawdown of existing wells; areas that experience a high frequency of low well yield; and the Borrego Valley.

Several federal, state, and local regulations exist that reduce impacts to groundwater supplies and recharge. These include, but are not limited to the: Porter-Cologne Water Quality Control Act, which requires region-specific Basin Plans; San Diego Basin Plan, which sets water quality objectives for the San Diego Basin; Colorado River Basin Plan, which sets water quality objectives for the Colorado River Basin; WPO, which protects water resources and improves water quality; and the County Groundwater Ordinance, which is intended to mitigate potential groundwater impacts of discretionary projects.

Through the County's Groundwater Ordinance and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*, projects are currently reviewed on a case-by-case basis when proposing to use groundwater. Pump tests and modeling are typically required to demonstrate a viable water supply. These requirements are described in greater detail in

these documents. In addition, specific guidance and mitigation is provided in the groundwater guidelines for all projects in Borrego since they all rely on its aquifer for water. It should also be noted that groundwater in Borrego Valley is currently managed through local water agencies (Borrego Water District and Borrego Springs Park Community Services District). Management efforts aimed at addressing the overdraft condition of the Borrego aquifer include groundwater preservation fees; irrigated agricultural land purchases; tiered water rates; water recycling; artificial recharge; monitoring and data gathering; importation from other nearby basins or districts; and potential water storage and recovery efforts.

Additionally, it is assumed that the development of new or expanded solid waste facilities would occur in accordance with the General Plan and its policies to reduce the potential for groundwater supply and recharge impacts. General Plan policies that would address groundwater supplies include Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4 described above, as well as Policy LU-8.1, which requires land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley; Policy LU-8.2, which requires development to identify adequate groundwater resources in groundwater dependent areas; Policy LU-13.1, which requires coordination of water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water and requires new development to include water conservation measures; Policy LU-13.2, which requires new development to identify adequate water resources; and Policy COS-4.1, which requires development to reduce the waste of potable water through use of efficient technologies and conservation efforts supply.

In addition to the regulations and General Plan policies described above, the following 2011 GPU PEIR mitigation measures also would be applied to the CAP Update to minimize water quality impacts: Mitigation Measure Hyd-2.1, which requires implementation of BOS Policy I-84 requiring that discretionary project applications include commitments from available water districts; Mitigation Measure Hyd-2.2, which requires implementation of the Groundwater Ordinance to balance groundwater resources with new development; Mitigation Measure Hyd-2.4, which requires the County to coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and enhancement of water conservation programs; Mitigation Measure Hyd-2.5, which requires implementation of the RPO and BOS Policy I-68 “Proposed Projects in Flood Plains/Floodways” to restrict development in flood plains/floodways; and Mitigation Measures Hyd-1.1 through Hyd-1.5 described above.

Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would reduce potential impacts on groundwater supply and recharge from new or expanded solid waste facilities. However, the effectiveness of mitigation cannot be determined with certainty at a programmatic level. Therefore, the impacts related to groundwater supply and recharge would be potentially significant, consistent with the conclusions in the 2011 GPU PEIR.

Water and Wastewater Measures and Actions

The CAP Update includes measures and actions to decrease potable water consumption and increase stormwater collection, water pumping, and wastewater treatment in County operations and the unincorporated county. Implementation of CAP Update Actions W-1.1, W-2.2, W-2.3, and W-2.4 would involve construction of new recycled water and stormwater capture and reuse infrastructure within the unincorporated county. Specifically, these actions would require existing and new development to meet water efficiency and conservation requirements through small-scale improvements with limited physical footprints, such as installing greywater capture systems for irrigation, installing recycled water pipelines, replacing existing landscaping with water-efficient landscaping, and installing rain barrels to collect stormwater.

The construction of new recycled water and stormwater capture and reuse infrastructure would occur in conjunction with existing or proposed development and would not result in significant groundwater supply or recharge impacts. Rather, these measures and actions would facilitate water efficiency and conservation for existing development and new development as it is approved, which would reduce the demand on groundwater supplies from development. Accordingly, these actions could be beneficial to groundwater supplies and recharge compared to existing conditions. As such, implementation of these actions is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The impact would be less than significant.

Agriculture and Conservation Measures and Actions

Implementation of Measures A-1 through A-4 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. These measures would result in the preservation of natural and agricultural lands in the unincorporated county. Therefore, implementation of these measures would not decrease groundwater supply or interfere with groundwater recharge.

Implementation of Action A-4.1.b would have the potential to result in new farmworker housing in the unincorporated county, if opportunities to increase farmworker housing in the unincorporated area are identified. It is anticipated that new farmworker housing would be low density and in proximity to existing agricultural operations, which are generally in more rural areas of the unincorporated county that are dependent on groundwater. Additionally, new farmworker housing would potentially result in new impervious surfaces that could interfere with groundwater recharge. The development of new farmworker housing would have the potential to result in similar impacts on groundwater supply and recharge described in the 2011 GPU PEIR. The development of new farmworker housing in areas of the unincorporated county that are currently experiencing groundwater supply issues would contribute to worsening an already unsustainable groundwater supply. This includes areas that experience a 50 percent reduction of groundwater in storage; areas that may be currently impacted by the combined drawdown of existing wells; areas that experience a high frequency of low well yield; and the Borrego Valley.

Several federal, state, and local regulations exist that reduce impacts to groundwater supplies and recharge. These include, but are not limited to the: Porter-Cologne Water Quality Control Act, which requires region-specific Basin Plans; San Diego Basin Plan, which sets water quality objectives for the San Diego Basin; Colorado River Basin Plan, which sets water quality objectives for the Colorado River Basin; WPO, which protects water resources and improves water quality; and the County Groundwater Ordinance, which is intended to mitigate potential groundwater impacts of discretionary projects.

Through the County's Groundwater Ordinance and the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*, projects are currently reviewed on a case-by-case basis when proposing to use groundwater. Pump tests and modeling are typically required to demonstrate a viable water supply. These requirements are described in greater detail in these documents. In addition, specific guidance and mitigation is provided in the groundwater guidelines for all projects in Borrego since they all rely on its aquifer for water. It should also be noted that groundwater in Borrego Valley is currently managed through local water agencies (Borrego Water District and Borrego Springs Park Community Services District). Management efforts aimed at addressing the overdraft condition of the Borrego aquifer include groundwater preservation fees; irrigated agricultural land purchases; tiered water rates; water recycling; artificial recharge; monitoring and data gathering; importation from other nearby basins or districts; and potential water storage and recovery efforts.

Additionally, it is assumed that the development of new farmworker housing would occur in accordance with the General Plan and its policies to reduce the potential for groundwater supply impacts. General Plan policies that would address groundwater supplies include Policies LU-6.5, LU-6.9, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4 described above, as well as Policy LU-8.1, which requires land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley; Policy LU-8.2, which requires development to identify adequate groundwater resources in groundwater dependent areas; Policy LU-13.1, which requires coordination of water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water and requires new development to include water conservation measures; Policy LU-13.2, which requires new development to identify adequate water resources; and Policy COS-4.1, which requires development to reduce the waste of potable water through use of efficient technologies and conservation efforts supply.

In addition to the regulations and General Plan policies described above, the following 2011 GPU PEIR mitigation measures also would be applied to the CAP Update to minimize groundwater supply impacts: Mitigation Measure Hyd-2.1, which requires implementation of Board Policy I-84 requiring that discretionary project applications include commitments from available water districts; Mitigation Measure Hyd-2.2, which requires implementation of the Groundwater Ordinance to balance groundwater resources with new development; Mitigation Measure Hyd-2.4, which requires the County to coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and

enhancement of water conservation programs; Mitigation Measure Hyd-2.5, which requires implementation of the RPO and BOS Policy I-68 “Proposed Projects in Flood Plains/Floodways” to restrict development in flood plains/floodways; and Mitigation Measures Hyd-1.1 through Hyd-1.5 described above.

Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would reduce potential impacts on groundwater supply and recharge from new farmworker housing. However, the effectiveness of mitigation cannot be determined with certainty at a programmatic level. Therefore, the impacts related to groundwater supply and recharge would be potentially significant, consistent with the conclusions in the 2011 GPU PEIR.

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-2 and Measure E-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 photovoltaic solar arrays or small wind turbines, upgraded mechanical systems, energy storage systems, and other similar improvements. Potential solar photovoltaic, 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. The construction and operation of these types of renewable energy projects are not anticipated to require the use of groundwater, nor would they result in new impervious surfaces that could substantially interfere with groundwater recharge. Therefore, implementation of these actions is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge.

Additionally, implementation of CAP Update Action E.3.3 could result in the construction of new large-scale renewable energy infrastructure including photovoltaic solar, concentrator solar, and wind turbines. The potential for the construction of large-scale renewable energy infrastructure was not evaluated in the 2011 GPU PEIR but potential wind energy impacts were evaluated in the 2012 Wind Energy EIR, and a summary of that analysis is provided below and is herein incorporated by reference.

Large-scale renewable energy infrastructure would generally be constructed in undeveloped locations that are productive for generating the renewable energy source. 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 which relies upon large amounts of land unencumbered by buildings or shadowed by buildings or trees.

Water consumption from renewable energy resources varies considerably depending on the type of technology and cooling features used. There are currently two types of centralized solar power generating facilities: concentrator solar power plants (CSPs) and photovoltaic power plants. CSP facilities face challenges focused on water consumption because of the large amounts of water required for cooling and steam generation. The result is that water consumption at CSP facilities are comparable to water-intensive, traditional thermal power technologies (Mielke et al. 2010: 36). Solar photovoltaic systems, meanwhile, do not require significant quantities of water during normal operation (US Department of Energy 2006). Concentrated solar photovoltaic systems require more water than traditional solar photovoltaic technologies, but in amounts that are still less than traditional, nonrenewable thermal power plants (Mielke et al. 2010: 37). Solar photovoltaic technology has the potential to offset negative water consumption trends associated with nonrenewable energy resources. However, depending on the mix of new solar technologies that may be developed, if they favor CSP facilities, there could be significant and unavoidable impacts related to groundwater consumption.

The 2012 Wind Energy EIR evaluated impacts on groundwater resources associated with the development of large-scale wind turbine facilities on pages 3.2-16 to 3.2-17. All projects would be subject to discretionary review and would be required to obtain an MUP. As part of the County's discretionary review process, all large wind projects would be evaluated under CEQA and would be required to implement measures to minimize impacts on groundwater resources, as necessary. MUPs are subject to the county Groundwater Ordinance, WPO, and other local or regional plans, policies, or regulations. The 2012 Wind Energy EIR concluded on page 3.1.2-35 that there would be no significant impacts on groundwater resources and, therefore, no mitigation would be required.

Depending on the type and scale of large-scale renewable energy projects that would be developed under the CAP, there could be an increase in the overall quantity of groundwater drawn from local groundwater basins. Future discretionary 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 to groundwater resources to the extent feasible in compliance with State CEQA Guidelines Section 15126.4. In addition, MUPs are subject to the county Groundwater Ordinance, WPO, and other local or regional plans, policies, or regulations implemented to reduce impacts on groundwater resources. However, additional water consumption needed for large-scale renewable energy projects, especially in the large quantities required for CSP facilities, could substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Therefore, the impacts related to groundwater supply and recharge would be potentially significant, consistent with the conclusions in the 2011 GPU PEIR.

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 Plan (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 decrease groundwater supplies or substantially interfere with groundwater recharge.

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. None of these improvements would require the use of groundwater for construction or operation, and therefore would not substantially decrease groundwater supplies. Additionally, because these improvements would likely be in existing developed areas, they would not introduce new impervious surfaces that could substantially interfere with groundwater recharge. Therefore, implementation of these actions is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The impact would be less than significant.

Summary

As detailed in the GPU PEIR 2011, although compliance with existing regulations and the implementation of General Plan policies and 2011 GPU PEIR mitigation measures would reduce impacts on groundwater supply and recharge, these impacts would not be reduced to a less-than-significant level because implementation of the General Plan would allow land uses and development to occur in areas that are already experiencing groundwater supply impacts, thereby worsening the unsustainable use of groundwater supplies. In addition, additional mitigation for groundwater supply impacts was considered that would have required all projects to share well water, secure water contracts to import groundwater from other non-impacted groundwater basins, or place a moratorium on building permits and development applications. However, these measures were rejected as infeasible.

Future projects implemented under the CAP Update would be required to comply with existing federal, state, and local regulations and implement adopted General Plan policies (Policies LU-6.5, LU-6.9, LU-8.1, LU-8.2, LU-13.1, LU-13.2, COS-4.1, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.4) and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.1 through Hyd-1.5 and Hyd-2.1 through Hyd-2.5).

While all feasible mitigation would be applied at the project level as part of the County's discretionary review process, construction of projects associated with the CAP Update could still adversely affect groundwater supplies and recharge because of the location and nature of projects. Furthermore, additional water consumption needed for large-scale renewable energy projects, especially in the large quantities required for CSP facilities, could substantially decrease groundwater supplies or interfere substantially with groundwater recharge. At the programmatic level, it is not possible to determine with certainty that impacts on groundwater supplies and recharge would be reduced below a level of significance. Therefore, the impacts related to groundwater supply and recharge would be potentially significant, consistent with the conclusions in the 2011 GPU PEIR. However, implementation of the CAP Update **would not result in a new or more severe impact** compared to the 2011 GPU PEIR.

2.10.3.5 Issue 3: Surface Hydrology and Drainage

This following discussion describes the potential for implementation of the proposed CAP Update measures to result in effects related to surface hydrology and drainage.

Guidelines for Determination of Significance

The *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* (County of San Diego 2021), which are reflective of the guidelines that were utilized in the 2011 GPU PEIR, provide guidance for addressing the following significance criteria listed in Appendix G of the State CEQA Guidelines:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
- result in substantial erosion or siltation on- or off-site;
- substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- impede or redirect flood flows.

Impact Analysis

2011 GPU PEIR Determination

The 2011 GPU PEIR evaluated impacts related to surface hydrology and drainage from the adoption of the goals and policies contained within the General Plan and anticipated development of the land use map through the planning horizon. The 2011 GPU PEIR determined that ground disturbing construction activities and new development would have the potential to alter drainage patterns and increase the rate and amount of surface runoff that could cause potentially significant impacts related to erosion and siltation, flooding,

stormwater drainage system capacity, polluted runoff, and flood flows. The 2011 GPU PEIR determined that anticipated development under the General Plan would result in potentially significant impacts related to surface hydrology and drainage.

The 2011 GPU PEIR concluded that impacts related to surface hydrology and drainage would be reduced to a less-than-significant level with implementation of the General Plan policies and 2011 GPU PEIR mitigation measures, as well as compliance with applicable regulations related to site drainage, including the National Flood Insurance Act, National, Flood Insurance Reform Act, Cobey-Alquist Floodplain Management Act; BOS Policy I-45; County Flood Damage Prevention Ordinance; County Grading, Clearing, and Watercourse Ordinance; and RPO. General Plan policies that would address surface hydrology and drainage include Policies LU-6.5, LU-6.10, LU-6.12, COS-5.1, S-8.1, S-8.2, S-9.1, S-9.2, S-9.3, S-9.4, S-9.5, S-9.6, S-10.1, S-10.2, S-10.3, S-10.4, S-10.5, and S-10.6. In addition, the 2011 GPU PEIR identified Mitigation Measures Hyd-1.2 through Hyd-1.5, Hyd-2.5, Hyd-3.1, Hyd-3.2, Hyd-3.3, Hyd-4.1 through Hyd-4.3, Hyd-6.1, Hyd-8.1, and Hyd-8.2 to address potential impacts on surface hydrology and drainage. Enforcement of existing regulations and implementation of General Plan policies and 2011 GPU PEIR mitigation measures would reduce impacts on surface hydrology and drainage to less than significant.

The discussion of impacts can be found in Section 2.8, “Hydrology and Water Quality” (pages 2.8-42 through 2.8-50), of the 2011 GPU PEIR and is incorporated by reference. The full text of the specific policies related to surface hydrology and drainage is provided above in Section 2.10.2, “Regulatory Framework,” while the full text of applicable 2011 GPU PEIR mitigation measures is provided below in Section 2.10.5, “Mitigation Measures.”

CAP Update Impact Analysis

Solid Waste Measures and Actions

The CAP Update includes strategies to increase solid waste diversion and availability of sustainable solid waste facilities in County operations and within the unincorporated county. Key actions with potential to result in new or more severe impacts related to hazardous materials and sites include those that would result in the development of new or expanded recycling and composting facilities (e.g., Actions SW-1.1, SW-2.1, SW-4.1a, and SW-4.1b). Implementation of these CAP Update measures and actions could result in the construction of new or expanded solid waste facilities. For example, Actions SW-1.1 and SW-2.1 include development of zero waste policies that would result in new or expanded composting and recycling facilities to divert solid waste from landfills.

The construction of new and expanded solid waste facilities could involve the use of heavy equipment, paving, ground disturbance, and other typical construction activities that could contribute to temporary changes in drainage patterns. Development of these projects could also permanently alter local drainage characteristics of individual sites and influence erosion and siltation, flooding, stormwater drainage system capacity, polluted runoff, and flood flows. Compliance with regulations relating to grading and drainage would limit these

effects for projects that are subject to the requirements of the County grading ordinance. In areas where new construction for projects would take place, the peak flow and volume of storm water runoff generated from such areas would be affected by development through conversion of vegetated or otherwise pervious surfaces to impervious surfaces (e.g., roads, roofs, driveways, walkways) and by the development of drainage systems that might more effectively connect these impervious surfaces to water bodies. The travel time of runoff originally traveling as overland sheet flow could be reduced when routed into constructed conveyance systems directly from impervious surfaces. Soil compaction from activities at energy facilities could also reduce the local permeability of natural surfaces. Overall, an increase in impervious surfaces could increase the rate and volume of runoff and eliminate some natural storage and infiltration capacity along drainage paths. Consequently, sites could be subject to onsite ponding, or onsite or offsite flooding, especially during the wet season or during storm events. An increase in impervious surfaces could also increase the amount of polluted runoff that enters existing stormwater drainage systems.

Although specific locations for any new and expanded facilities have not been identified, any facilities would be sited outside of flood hazard zones in accordance with applicable federal, state, and local regulations. These regulations include the National Flood Insurance Act, which establishes flood-risk zones within floodplain areas; National Flood Insurance Reform Act, which reduces the risk of flood damage to properties; Cobey-Alquist Floodplain Management Act, which protects people and property from flooding hazards; BOS Policy I-45, which identifies procedures to use when proposed projects impact floodways; County Flood Damage Prevention Ordinance, which regulates development within all areas of special flood hazards and areas of flood-related erosion hazards and establishes policies that minimize public and private losses due to flood conditions; the County Grading, Clearing and Watercourses Ordinance, which requires the lowest floor of structures to be elevated to or above the level of the 100-year flood; County Subdivision Ordinance, which requires mapping and drainage easements to avoid certain drainages; and RPO, which prohibits development of permanent structures for human habitation in a floodway.

Compliance with these regulations would similarly address impacts on surface hydrology and drainage. The configuration of individually proposed new projects would be designed to address onsite ponding and discharges to offsite waterways. While development projects would divert stormwater flows differently from the current pattern of drainage on both developed and undeveloped land, new drainage systems would be designed in a manner to minimize erosion, sedimentation, and flooding in compliance with local and state laws and regulations. In addition, projects would be required to incorporate post-construction BMPs and LID strategies that are designed to treat polluted runoff associated with new impervious surfaces before entering stormwater drainage systems.

Additionally, new or expanded solid waste facilities would be required to implement General Plan policies that address surface hydrology and drainage. These include General Plan Policy LU-6.5 described above, as well as Policy LU-6.10, which requires development to be located and designed to protect property and residents from the risks of natural and man-induced hazards; Policy COS-5.1, which restricts development in

floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element; Policy S-9.1, which directs development away from areas with high landslide, mudslide, or rock fall potential; Policy S-9.2, which prohibits development from causing or contributing to slope instability; Policy S-~~9.3~~10.4, which requires development within mapped flood hazard areas be sited and designed to minimize on-site and off-site hazards; Policy S-~~9.4~~10.5, which allows new uses and development within the floodplain fringe (land within the floodplain outside of the floodway) only when environmental impacts and hazards are mitigated; Policy S-~~9.5~~10.6, which prohibits development in the floodplain fringe when located on Semi-Rural and Rural Lands to maintain the capacity of the floodplain; Policy S-~~9.6~~10.7, which prohibits development in dam inundation areas that may interfere with the County's emergency response and evacuation plans; Policy S-~~10.1~~11.1, which limits new or expanded uses in floodways to agricultural, recreational, and other such low-intensity uses and that do not meet certain criteria identified in the policy; Policy S-~~10.2~~11.2, which would require the use of natural channels for County flood control facilities; Policy S-~~10.3~~11.3, which would require flood control facilities to be adequately sized, constructed, and maintained to operate effectively; Policy S-~~10.4~~11.4, which would require new development to incorporate measures to minimize storm water impacts; Policy S-~~10.5~~11.5, which would require new development to provide necessary on-site and off-site improvements to storm water runoff and drainage facilities; and Policy S-~~10.6~~11.6, which would ensure new development maintains the existing hydrology of the area.

In addition to the regulations and General Plan policies described above, the following 2011 GPU PEIR mitigation measures also would be applied to the CAP Update to minimize impacts on surface hydrology and drainage: Mitigation Measures Hyd-1.2 through Hyd-1.3, as described above; Mitigation Measure Hyd-2.5, as described above; Mitigation Measure Hyd-3.1, which requires the County to implement ordinances that require new development to be located down and away from ridgelines, conform to the natural topography, not significantly alter dominant physical characteristics of the site, and maximize natural drainage and topography when conveying stormwater; Mitigation Measure Hyd-3.2, which requires the County to implement the RPO to limit development on steep slopes; Mitigation Measure Hyd-3.3, which requires implementation of the Grading, Clearing and Watercourses Ordinance to protect development sites against erosion and instability; Mitigation Measure Hyd-4.1, which requires the County to implement the Flood Damage Prevention Ordinance (Regulatory Code 91.1.105.10) to reduce flood losses in specified areas; Mitigation Measure Hyd-4.2, which requires the County to implement the Grading, Clearing and Watercourses Ordinance to limit activities affecting watercourses; Mitigation Measure Hyd-4.3, which requires the County to implement specific BOS policies that relate to impacts on floodways and flood-control measures; Mitigation Measure Hyd-6.1, which requires that the County implement the RPO to prohibit development of permanent structures for human habitation or employment in a floodway and require planning of hillside developments to minimize potential soil, geological and drainage problems; and Mitigation Measure Hyd-8.2, which requires the County to review discretionary projects for dam inundation hazards through application of the *County of San Diego Guidelines for Determining Significance: Hydrology and Water Quality* and *County of San Diego Guidelines for Determining Significance: Emergency Response Plans*.

Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would ensure that new or expanded solid waste facilities associated with the CAP Update would not alter surface hydrology or drainage. The impact would be less than significant with mitigation.

Water and Wastewater Measures and Actions

The CAP Update includes measures and actions to decrease potable water consumption and increase stormwater collection, water pumping, and wastewater treatment in County operations and the unincorporated county. Implementation of CAP Update Actions W-1.1, W-2.2, W-2.3, and W-2.4 would involve construction of new recycled water and stormwater capture and reuse infrastructure within the unincorporated county. Specifically, these actions would require existing and new development to meet water efficiency and conservation requirements through small-scale improvements with limited physical footprints, such as installing greywater capture systems for irrigation, installing recycled water pipelines, replacing existing landscaping with water-efficient landscaping, and installing rain barrels to collect stormwater.

The construction of new recycled water and stormwater capture and reuse infrastructure would not result in potential impacts on surface hydrology and drainage. Rather, these measures actions would facilitate water efficiency and conservation for existing development and new development as it is approved, which would reduce the amount of stormwater runoff that could alter local drainage characteristics of individual sites and influence erosion and siltation, flooding, stormwater drainage system capacity, polluted runoff, and flood flows. Accordingly, these actions could be beneficial to surface hydrology and drainage. Additionally, any new or expanded physical structures associated with implementing water conservation measures and actions would be ancillary to existing or proposed development and would be relatively minor in size and scale, and therefore would not alter surface hydrology or drainage. As such, implementation of these actions is not anticipated to alter surface hydrology or drainage. The impact would be less than significant.

Agriculture and Conservation Measures and Actions

Implementation of Measures A-1 through A-4 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. These measures would result in the preservation of natural and agricultural lands in the unincorporated county. Therefore, implementation of these measures would generally benefit surface hydrology and drainage.

However, implementation of Action A-4.1.b would have the potential to result in new farmworker housing in the unincorporated county if opportunities to increase farmworker housing in the unincorporated area are identified. It is anticipated that new farmworker housing would be low density and in proximity to existing agricultural operations, which are generally in more rural areas of the unincorporated county. The development of new farmworker housing would have the potential to result in similar construction and

operation-related impacts on surface hydrology and drainage described above and in the 2011 GPU PEIR. These impacts could include temporary changes in drainage patterns from construction as well as permanent alterations to local drainage characteristics of individual sites, which could influence erosion and siltation, flooding, stormwater drainage system capacity, polluted runoff, and flood flows.

Similar to what was described in the 2011 GPU PEIR, construction of new farmworker housing would be subject to the same federal, state, and local regulations described above that reduce the potential for projects to alter surface hydrology and drainage. New farmworker housing would also be required to implement adopted General Plan goals and policies related to surface hydrology and drainage, including Policies LU-6.5, LU-6.10, LU-6.12, COS-5.1, ~~S-8.1, S-8.2, S-9.1, S-9.2, S-9.3, S-9.4, S-9.5, S-9.6,~~ S-10.1, S-10.2, S-10.3, S-10.4, S-10.5, ~~and~~ S-10.6, and 11.1 through 11.6 as described above. Lastly, new farmworker housing would be required to implement 2011 GPU PEIR Mitigation Measures Hyd-1.2 through Hyd-1.3, Hyd-2.5, Hyd-3.1, Hyd-3.2, Hyd-3.3, Hyd-4.1 through Hyd-4.3, Hyd-6.1, and Hyd-8.2, as described above.

Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would ensure that new farmworker housing associated with the CAP Update would not alter surface hydrology and drainage. The impact would be less than significant with mitigation.

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-2 and Measure E-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 photovoltaic solar arrays or small wind turbines, energy storage systems. upgraded mechanical systems, and other similar improvements. Potential solar photovoltaic, 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. Construction of these types of new renewable energy projects is not anticipated to require substantial ground-disturbing activities that could alter drainage patterns. Rather, it is anticipated that construction activities would only require minor ground disturbance such as trenching for wires and piping.

However, implementation of CAP Update Action E.3.3 could result in the construction of new large-scale renewable energy infrastructure including photovoltaic solar, concentrator solar, and wind turbines. The potential for the construction of large-scale renewable energy infrastructure was not evaluated in the 2011 GPU PEIR but potential

wind energy impacts were evaluated in the 2012 Wind Energy EIR and a summary of that analysis is provided below and is herein incorporated by reference.

The use of heavy equipment, paving, ground disturbance, and other typical construction activities associated with new large-scale renewable energy infrastructure could adversely affect water quality standards where projects are located near waterways or discharges runoff to stormwater drainage systems. Development of these projects could alter local drainage characteristics of individual sites and influence onsite or offsite flooding. Compliance with regulations relating to grading and drainage would limit these effects for projects that are subject to the requirements of the County's Grading Ordinance. In areas where new construction for projects would take place, the peak flow and volume of storm water runoff generated from such areas would be affected by development through conversion of vegetated or otherwise pervious surfaces to impervious surfaces (e.g., roads, roofs, driveways, walkways) and by the development of drainage systems that might more effectively connect these impervious surfaces to water bodies. The travel time of runoff originally traveling as overland sheet flow could be reduced when routed into constructed conveyance systems directly from impervious surfaces. Soil compaction from activities at large-scale renewable energy facilities could also reduce the local permeability of natural surfaces. Overall, an increase in impervious surfaces could increase the rate and volume of runoff and eliminate some natural storage and infiltration capacity along drainage paths. Consequently, sites could be subject to onsite ponding, or onsite or offsite flooding, especially during the wet season or during storm events.

All discretionary projects would be required to comply with the WPO, the Flood Damage Prevention Ordinance, the Grading Ordinance and the RPO. The configuration of individually proposed new projects would be designed to address onsite ponding and discharges to offsite waterways. While large-scale renewable energy projects could divert stormwater flows differently from the current pattern of drainage on both developed and undeveloped land, new drainage systems would be designed in a manner to minimize hydrology and drainage effects in compliance with local and state laws and regulations.

The 2012 Wind Energy EIR evaluated impacts relating to hydrology and drainage associated with the development of large-scale wind turbine facilities on pages 3.2-17 to 3.2-20 and determined impacts to be less than significant. All large-scale renewable energy projects would be required to obtain a grading permit as part of the MUP discretionary review process and comply with the County's Grading Ordinance. Projects would also be required to prepare and implement a SWQMP, which would contain construction and post-construction BMPs, and LID strategies for erosion and flood control. Additionally, PDPs are required to have a Major SWQMP and are subject to hydromodification control requirements. The criteria that define PDPs commonly apply to large-scale renewable energy facilities (non-residential and 1 acre in size or greater; hillside development greater than 1 acre; new paved surfaces that are greater than 5,000 square feet and intended for transportation).

The MUP review process also requires the submittal of pre-project and post-project drainage information to ensure that drainage patterns are not substantially altered with

implementation of the project. All large-scale renewable energy projects are subject to obtaining an MUP, which would require compliance with all applicable local, state, and federal regulations that address flood hazards. Moreover, because these improvements would generally occur in existing developed areas, they would not be sited in flood hazards areas in accordance with applicable federal, state, and local regulations, including National Flood Insurance Act; National Flood Insurance Reform Act; Cobey-Alquist Floodplain Management Act; BOS Policy I-45; County Flood Damage Prevention Ordinance; the County Grading, Clearing and Watercourses Ordinance; County Subdivision Ordinance; and RPO. Additionally, new renewable energy projects would be required to implement adopted General Plan goals and policies related to surface hydrology and drainage, including Policies LU-6.5, LU-6.10, LU-6.12, COS-5.1, ~~S-8.1, S-8.2, S-9.1, S-9.2,~~ ~~S-9.3, S-9.4, S-9.5, S-9.6,~~ S-10.1, S-10.2, S-10.3, S-10.4, S-10.5, ~~and~~ S-10.6, and 11.1 through 11.6 as described above. Lastly, renewable energy projects would be required to implement 2011 GPU PEIR Mitigation Measures Hyd-1.2 through Hyd-1.3, Hyd-2.5, Hyd-3.1, Hyd-3.2, Hyd-3.3, Hyd-4.1 through Hyd-4.3, Hyd-6.1, and Hyd-8.2, as described above.

Compliance with existing regulations and implementation of applicable General Plan policies and 2011 GPU PEIR mitigation measures would ensure that new renewable energy projects associated with the CAP Update would not alter surface hydrology and drainage. The impact would be less than significant with mitigation.

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 (Measure T-1.1) and Active Transportation Plan (Measure T-5.1). Other measures and actions would affect the design of existing and planned roadways. Measure 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. Measure 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 alter surface hydrology or drainage.

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. None of these improvements would have the potential to alter surface hydrology or drainage because any physical changes would be relatively minor and would likely be located in existing developed areas, and therefore would not be located in flood hazard areas. Therefore, implementation of these actions is not anticipated to alter surface hydrology or drainage. The impact would be less than significant.

Summary

With compliance with existing federal, state, and local regulations and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.2 through Hyd-1.3, Hyd-2.5, Hyd-3.1, Hyd-3.2, Hyd-3.3, Hyd-4.1 through Hyd-4.3, Hyd-6.1, and Hyd-8.2), implementation of the CAP Update would not result in a new or substantial increase in magnitude of impacts related to surface hydrology and drainage compared to the 2011 GPU PEIR. Therefore, impacts related to surface hydrology and drainage associated with implementation of the solid waste, water and wastewater, agriculture and conservation, energy, and built environment and transportation measures and actions in the CAP Update would remain less than significant with mitigation**,** consistent with the conclusions in the 2011 GPU PEIR. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

2.10.3.6 Cumulative Impact Analysis

The cumulative impact analysis study area for hydrology and water quality in the 2011 GPU PEIR was identified as drainage basins, watersheds, water bodies or groundwater basins, depending on the location of the potential impact and its tributary area (as described on page 2.8-58 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: Surface Water and Groundwater Quality

This section describes potential cumulative impacts related to surface water and groundwater quality with implementation of the CAP Update. Impacts would be cumulative in nature if the project, in combination with cumulative development, would contribute to degraded water quality within drainage basins, watersheds, water bodies or groundwater basins.

The 2011 GPU PEIR determined that cumulative development would result in a potentially significant cumulative impact on water quality. Although required regulations would minimize the cumulative impact of projects in the United States, watersheds or receiving waters that receive runoff from projects in Mexico would not be protected by the same requirements. The 2011 GPU PEIR concluded that cumulative impacts on surface water and groundwater quality from development anticipated through the planning horizon would be reduced with implementation of the General Plan policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable federal, state, and local regulations; however, the impacts would remain significant and unavoidable.

Implementation of the CAP Update measures would include components that could degrade surface water and groundwater quality. Specifically, the construction of new or expanded solid waste facilities, new farmworker housing, and renewable energy projects

could degrade surface water and groundwater quality. As discussed in Section 2.10.3.3, "Issue 1: Degrade Surface Water and Groundwater Quality," compliance with existing federal, state, and local regulations and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.1 through Hyd-1.5) would reduce potential impacts. However, because the exact location and nature of projects is not known, the potential for projects implemented under the CAP Update to contribute to a cumulatively significant impact would remain. Therefore, the project, in combination with other reasonably foreseeable projects in the region, would result in a considerable contribution to an existing cumulative effect. The cumulative impact would be significant, consistent with the conclusion in the 2011 GPU PEIR. This **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

Issue 2: Groundwater Supply and Recharge

This section describes potential cumulative impacts related to groundwater supply and recharge with implementation of the CAP Update. Impacts would be cumulative in nature if the project, in combination with cumulative development, would contribute to decreased groundwater supplies or substantially interfere with groundwater recharge within the groundwater dependent areas of the unincorporated county and the immediately adjacent jurisdictional areas that share groundwater basins with county areas.

The 2011 GPU PEIR concluded that cumulative impacts to groundwater supplies resulting from the development anticipated through the planning horizon would be reduced with implementation of the General Plan policies and 2011 GPU PEIR mitigation measures listed above, and compliance with applicable federal, state, and local regulations; however, the impacts would remain significant and unavoidable.

Implementation of the CAP Update measures would include components that could decrease groundwater supplies and interfere with groundwater recharge. Specifically, the construction of new or expanded solid waste facilities, new farmworker housing, and large-scale renewable energy projects could impact groundwater resources. As discussed in Section 2.10.3.4, "Issue 2: Decrease Groundwater Supply and Interfere with Groundwater Recharge," compliance with existing federal, state, and local regulations and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.1 through Hyd-1.5 and Hyd-2.1 through Hyd-2.5) would reduce potential impacts. However, because the exact location and nature of projects is not known, the potential for projects implemented under the CAP Update to contribute to a cumulatively significant impact would remain. Therefore, the project, in combination with other reasonably foreseeable projects in the region, would result in a considerable contribution to an existing cumulative effect. The cumulative impact would be significant, consistent with the conclusions in the 2011 GPU PEIR. This **would not result in a new or more severe impact** compared to the 2011 GPU PEIR.

Issue 3: Surface Hydrology and Drainage

This section describes potential cumulative impacts related to surface hydrology and drainage with implementation of the CAP Update. Impacts would be cumulative in nature

if the project, in combination with cumulative development, would contribute to altered surface hydrology and drainage within drainage basins, watersheds, water bodies or groundwater basins.

The 2011 GPU PEIR determined that cumulative projects would result in less-than-significant cumulative impacts on surface hydrology and drainage with compliance with the federal, state, and local regulations. The 2011 GPU PEIR concluded that cumulative impacts on surface hydrology and drainage from implementation of the General Plan would not be significant with compliance with applicable federal, state, and local regulations and implementation of the General Plan policies and 2011 GPU PEIR mitigation measures listed above.

Implementation of the CAP Update measures would include components that could alter surface hydrology and drainage. Specifically, the construction of new or expanded solid waste facilities, new farmworker housing, and renewable energy projects could result in potential impacts on surface hydrology and drainage. However, as discussed in Section 2.10.3.5, “Issue 3: Surface Hydrology and Drainage,” compliance with federal, state, and local regulations and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures (Adopted Mitigation Measures Hyd-1.2 through Hyd-1.3, Hyd-2.5, Hyd-3.1, Hyd-3.2, Hyd-3.3, Hyd-4.1 through Hyd-4.3, Hyd-6.1, and Hyd-8.2) would reduce potential impacts to less than significant.

The 2011 GPU PEIR did not identify an existing cumulative effect related to surface hydrology and drainage from cumulative projects. Cumulative growth projected in the 2021 Regional Plan is not anticipated to generate additional effects on hydrology and drainage in the cumulative condition. Similar to the conclusions of the 2011 GPU PEIR, implementation of the CAP Update would not result in a substantial incremental effect that would result in a new significant cumulative impact. Implementation of the CAP Update **would not result in new or more severe impacts** than disclosed in the 2011 GPU PEIR.

2.10.4 Summary of New or More Severe Significant Impacts

Implementation of the CAP Update would not result in new or more severe significant impacts on surface water and groundwater quality, groundwater supply and recharge, or surface hydrology and drainage.

2.10.5 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 hydrology and water quality impacts resulting from the proposed project.

2.10.5.1 Issue 1: Surface Water and Groundwater Quality

The mitigation measures applicable to surface water and groundwater quality that were adopted as a part of the 2011 GPU PEIR and are applicable to the project include the following:

> Adopted Mitigation Measure Hyd-1.1: Update and implement the County of San Diego's Jurisdictional Runoff Management Program (JRMP).[3]
>
> Adopted Mitigation Measure Hyd-1.2: Implement and revise as necessary the Watershed Protection Ordinance to reduce the adverse effects of polluted runoff discharges on waters and to encourage the removal of invasive species and restore natural drainage systems.
>
> Adopted Mitigation Measure Hyd-1.3: Establish and implement low impact development (LID) standards for new development to minimize runoff and maximize infiltration.
>
> Adopted Mitigation Measure Hyd-1.4: Revise and implement the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources.
>
> Adopted Mitigation Measure Hyd-1.5: Utilize the County *Guidelines for Determining Significance for Hydrology and Water Quality*[4] and *Groundwater Resources* to identify adverse environmental effects.

2.10.5.2 Issue 2: Groundwater Supply and Recharge

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

> Adopted Mitigation Measure Hyd-2.1: Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water districts. Also implement and revise as necessary Board Policy G-15 to conserve water at County facilities.
>
> Adopted Mitigation Measure Hyd-2.2: Implement the Groundwater Ordinance to balance groundwater resources with new development. Also revise the Ordinance Relating to Water Conservation for Landscaping (currently Zoning Ordinance Sections 6712 through 6725) to further water conservation through the use of recycled water.

[3] This mitigation measure has been updated to reflect the current name of the program.
[4] This mitigation measure has been updated to reflect the latest version of the County's *Guidelines for Determining Significance: Hydrology and Water Quality*, which was last updated in August 2021.

Adopted Mitigation Measure Hyd-2.3: Establish a water credits program between the County and the Borrego Water District to provide a streamlined and consistent process for the permanent cessation of outdoor water intensive uses such as irrigated agricultural or golf course land.

Adopted Mitigation Measure Hyd-2.4: Coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and enhancement of water conservation programs.

Adopted Mitigation Measure Hyd-2.5: Implement and revise as necessary the Resource Protection Ordinance and Policy I-68 Proposed Projects in Flood Plains / Floodways to restrict development in flood plains / floodways.

2.10.5.3 Issue 3: Surface Hydrology and Drainage

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

Adopted Mitigation Measure Hyd-3.1: Implement, and revise as necessary, ordinances to require new development to be located down and away from ridgelines, conform to the natural topography, not significantly alter dominant physical characteristics of the site, and maximize natural drainage and topography when conveying stormwater.

Adopted Mitigation Measure Hyd-3.2: Implement, and revise, as necessary the Resource Protection Ordinance to limit development on steep slopes. Also incorporate Board Policy I-73, the Hillside Development Policy, into the Resource Protection Ordinance to the extent that it will allow for one comprehensive approach to steep-slope protections.

Adopted Mitigation Measure Hyd-3.3: Implement the Grading, Clearing and Watercourses Ordinance to protect development sites against erosion and instability.

Adopted Mitigation Measure Hyd-4.1: Implement the Flood Damage Prevention Ordinance to reduce flood losses in specified areas.

Adopted Mitigation Measure Hyd-4.2: Implement the Grading, Clearing and Watercourses Ordinance to limit activities affecting watercourses.

Adopted Mitigation Measure Hyd-4.3: Implement and revise as necessary Board Policies such as: Policy I-68, which establishes procedures for projects that impact floodways; Policy I-45, which defines watercourses that are subject to flood control; and Policy I-56, which permits, and establishes criteria for, staged construction of off-site flood control and drainage facilities by the private sector when there is a demonstrated and substantial public, private or environmental benefit.

Adopted Mitigation Measure Hyd-6.1: Implement the Resource Protection Ordinance to prohibit development of permanent structures for human habitation or employment in a floodway and require planning of hillside developments to minimize potential soil, geological and drainage problems.

Adopted Mitigation Measure Hyd-8.2: Review discretionary projects for dam inundation hazards through application of the County's Guidelines for Determining Significance for Hydrology and Guidelines for Determining Significance for Emergency Response Plans.

2.10.6 Significance Conclusions

2.10.6.1 Issue 1: Surface Water and Groundwater Quality

The CAP Update would result in the development and redevelopment of infrastructure throughout the unincorporated county. Although compliance with existing federal, state, and local regulations related to surface water and groundwater quality and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce project-level and cumulative impacts, these impacts would not be reduced to a less-than-significant level because of the uncertainty of the types, locations, and scale of projects implemented under the CAP Update. Therefore, similar to the conclusions in the 2011 GPU PEIR, the CAP Update would have a **significant and unavoidable impact** and **would result in a considerable contribution** to a significant cumulative impact on surface water and groundwater quality. However, this **would not be a new or more severe impact** compared to the 2011 GPU PEIR.

2.10.6.2 Issue 2: Groundwater Quality and Supply

The CAP Update would result in the development and redevelopment of infrastructure throughout the unincorporated county. Although compliance with existing federal, state, and local regulations related to groundwater supply recharge and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures would reduce project-level and cumulative impacts, these impacts would not be reduced to a less-than-significant level because of the uncertainty of the types, locations, and scale of projects implemented under the CAP Update. Therefore, similar to the conclusions in the 2011 GPU PEIR, the CAP Update would have a **significant and unavoidable impact** and **would result in a considerable contribution** to a significant cumulative impact on groundwater supply and recharge. However, this **would not be a new or more severe impact** compared to the 2011 GPU PEIR.

2.10.6.3 Issue 3: Surface Hydrology and Drainage

The CAP Update would result in the development and redevelopment of infrastructure throughout the unincorporated county. Although there is a potential for some types of projects to alter surface hydrology and drainage, compliance with existing federal, state, and local regulations and implementation of adopted General Plan policies and 2011 GPU PEIR mitigation measures would ensure that project-level and cumulative impacts on surface hydrology and drainage would remain **less than significant** and **would not result in a considerable contribution** such that a new significant cumulative impact would occur. Implementation of the CAP Update **would not result in a new or more severe impact** not discussed in the 2011 GPU PEIR.