3.2.6 Utilities and Service Systems

This section assesses utilities and service systems including wastewater treatment, imported water supply, and solid waste within the County of San Diego (County), and it identifies potential impacts that could result from implementation of the proposed project.

3.2.6.1 Wastewater Treatment

Within the unincorporated communities of the County, wastewater treatment services are provided by the County's Department of Public Works, as well as other wastewater agencies as described in the County General Plan. Typically these agencies are also responsible for maintaining sewer lines, pump stations, force mains, and several treatment plants for the unincorporated areas. From the time wastewater enters any of the treatment facilities, it (influent) undergoes physical, biological, and chemical treatment for many hours before the treatment process is complete. Treated water is discharged via controlled irrigation or percolation processes.

A significant impact to wastewater services would occur if the project would exceed wastewater treatment requirements of the applicable Water Quality Control Board; require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effect; or result in a determination by the wastewater provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

3.2.6.2 Imported Water Supply

The San Diego County Water Authority (SDCWA) is the public agency responsible for the administration of the region's Colorado River rights. The SDCWA sells water to 24 municipal water departments and water districts (member agencies), which in turn deliver the water to individual homes and businesses mostly throughout the coastal zone of the County. The County's 2.7 million residents typically rely on imported water for 90% of their total supply in a typical year (SDCWA 2009). The remaining portion of the County, east of the SDCWA jurisdictional boundary line, encompasses approximately 65% of the total area of the County and is totally dependent on groundwater resources. Groundwater provides the only source of water for approximately 41,000 residents within the County (County of San Diego 2010). The wind resources areas are mostly located outside of SDCWA's jurisdiction.

The SDCWA maintains five large pipelines that extend in a north–south direction through the County and carry water to the region from the Colorado River and the State Water Project in

Northern California. Pipelines 1 and 2 are also known as the First Aqueduct, while Pipelines 3, 4, and 5 are known as the Second Aqueduct. Four additional, shorter pipelines run east and west connecting the two aqueducts. The east–west pipelines also deliver water to member agencies. Twenty-four surface reservoirs are maintained by member agencies within the SDCWA service area to ensure that the County has sufficient water supplies to endure a prolonged interruption of its imported water supply.

The County adopted the San Diego County Groundwater Ordinance in 1991, which establishes regulations for the protection, preservation, and maintenance of groundwater resources. The purpose of the ordinance is to ensure that development will not occur in groundwater-dependent areas of the County unless adequate supplies are available to serve both existing and proposed uses (County of San Diego 1991). While some community water systems reliant on groundwater resources keep records of well production, there are very few wells metered to quantify production. Therefore, it is difficult to estimate the overall quantity of the groundwater being used. The County's General Plan Update Groundwater Study, dated April 2010, provides the first County-wide assessment of impacts to groundwater resources within groundwater-dependent portions of the County; refer to Section 2.6.1 of this EIR for further information regarding groundwater.

A significant impact would result if sufficient water supplies are not available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.

3.2.6.3 Solid Waste and Recycling

All solid waste facilities, including landfills, require solid waste facility permits to operate. In San Diego County, the San Diego Solid Waste Local Enforcement Agency issues solid waste facility permits with concurrence from the California Integrated Waste Management Board under the authority of the California Public Resources Code (Sections 44001–44018) and 27 CCR 21440 et seq. There are five permitted active landfills in the County with remaining capacity.

Significant impacts would result if the proposed project would not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs or would not comply with federal, state, and local statutes and regulations related to solid waste.

3.2.6.4 Analysis of Project Effects

Small Turbine(s) and MET Facilities

The proposed project would allow small wind turbines and Meteorological Testing (MET) facilities in the unincorporated portions of the County over which the County has land use jurisdiction, subject to specified standards and limitations. The proposed project does not involve

any uses that will discharge wastewater to a sanitary sewer or on-site wastewater system (septic). The project does not include new or expanded wastewater treatment facilities. In addition, future small wind turbines would not require the construction or expansion of wastewater treatment facilities. Operation of future wind turbines will not significantly increase the amount of impermeable surface and runoff on the project site and therefore will not require new or expanded stormwater drainage facilities. If a project involves the construction of new buildings and/or landform modification or grading, adequacy of stormwater drainage facilities will be evaluated during review of the building or grading permit and expansion required by the County if determined to be necessary. Any stormwater facility expansion would be reviewed for environmental impacts. Therefore, the proposed project would not require any construction of new or expanded facilities that could cause significant environmental effects. Additionally, the project would not exceed any wastewater treatment requirements or interfere with any wastewater treatment providers' service capacity.

Some wind turbines may use small amounts of water for cleaning the equipment on site, such as rotor blades. The purpose of blade cleaning is to eliminate dust and insect buildup, which otherwise deforms the shape of the airfoil and degrades performance. As illustrated in Table 3.1.2-3, the American Wind Energy Association estimates that water consumption for a wind turbine is approximately 0.001 gallon/kilowatt-hour (kWh)[1]. These small amounts of water usage are allowed in these areas, and are the same as a residential property would use for cleaning or watering. Therefore, the proposed project would not impact water supplies.

Additionally, some future wind turbines or MET facilities may require water service from a water district, while others may need to make a new connection. Before a future wind turbine or MET facility can connect to a district water system, water district approval must be obtained, and the district must assure that there are adequate water resources and entitlements available to serve the requested water resources before any permit approval is granted. Therefore, the proposed project will have sufficient water supplies available to serve future wind turbines, and no impacts would result.

Wind turbines and temporary MET facilities are not anticipated to generate any solid waste nor place any burden on the existing permitted capacity of any landfill or transfer station within the County. If construction activities ultimately require disposal in a landfill, there are numerous solid waste disposal facilities throughout the County. Future wind turbines and temporary MET facilities will be required to deposit all solid waste at a permitted solid waste facility and therefore will comply with federal, state, and local statutes and regulations related to solid waste. Impacts associated with solid waste would be less than significant.

[1] American Wind Energy Association estimate assumes a 250-kW turbine operating at .25 capacity factor, with blades washed four times annually (AWEA 2010).

Small wind turbines and MET facilities **would not result in significant impacts** to utilities such as wastewater treatment, imported water supply, or solid waste and recycling.

Large Turbine(s)

The proposed project amends certain provisions of the County's Zoning Ordinance related to large turbine(s). These updates are necessary to address advancements in technology that have obviated many of the current provisions. The proposed amendments related to large wind turbines consist of updated definitions and requirements related to setbacks, noise, height, and locations where large turbines are permissible. All future large turbine projects will be subject to discretionary review and required to obtain a Major Use Permit. As part of the County's discretionary review process, all future projects would be evaluated under the California Environmental Quality Act (CEQA) and would be required to implement measures to minimize impacts to utilities, as necessary. Similar to small wind turbines and MET facilities, future large wind turbine projects would require minimal water and would not generate solid waste. Some large wind turbine projects may require the expansion of storm drain facilities, which would be analyzed under the Major User Permit discretionary review process for environmental impacts. Therefore, due to the Major Use Permit discretionary review process required for all future large wind turbine projects, the proposed project would result in **less-than-significant impacts** to utilities from the development of large wind turbines.

3.2.6.5 Cumulative Impact Analysis

Cumulative impacts may result from an increase in wastewater treatment or water demand that exceeds existing requirements, entitlements and resources, substantial depletion of groundwater resources, or insufficient capacity to accommodate solid waste disposal needs. The geographic scope for this cumulative analysis is the San Diego region, which encompasses the entire County, including both incorporated and unincorporated areas, as well as surrounding counties, and tribal and public agency lands.

Cumulative projects within the region would result in an increase in residential, commercial, and industrial development that would require water and wastewater treatment and solid waste services. Compliance with regulations such as the Federal Water Pollution Control Act, California Water Code, Porter-Cologne Water Quality Control Act, Water Conservation Projects Act, Department of Environmental Health regulations, specific jurisdictional ordinances, and CEQA would reduce cumulative impacts related to water and wastewater treatment to below a significant level.

Cumulative projects would result in an increase in impervious surfaces that would increase stormwater runoff volumes. The construction or expansion of stormwater drainage facilities may

be required. However, most future stormwater drainage facilities would be required to conduct environmental review pursuant to CEQA or the National Environmental Policy Act (NEPA). In addition, regulations previously listed such as the Federal Water Pollution Control Act, California Water Code, and Porter-Cologne Water Quality would reduce the potential for a significant cumulative impact to occur relative to stormwater drainage facilities.

Cumulative projects would also have the potential to increase the demand for potable water. Although regulations such as the California Water Code, SB 610, SB 221, Urban Water Management Planning Act, Water Conservation Projects Act, and San Diego Groundwater Ordinance are intended to reduce impacts to water supply, cutbacks in water imports and multiple dry years in the Colorado River Basin may contribute to cumulative impacts.

As discussed in Section 3.2.6.4, the proposed project would not impact utilities and service systems including wastewater treatment, imported water supply, and solid waste within the County. Therefore, the proposed project **would not contribute to a cumulative impact** that would adversely affect utilities and service systems.

3.2.6.6 Mitigation Measures

The proposed project will not result in any significant impacts to utilities and service systems, and no mitigation measures are required.

3.2.6.7 Conclusion

The proposed project would not involve any uses that would generate wastewater or require the construction of new water or wastewater treatment facilities or expansion of existing facilities. Additionally, the project would not propose uses that require new or expanded stormwater drainage facilities. Wind turbines and temporary MET facilities are not anticipated to generate any solid waste nor place any burden on the existing permitted capacity of any landfill or transfer station within the County. Therefore, the proposed project would not result in significant adverse impacts to utilities and service systems.

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