Groundwater level trends, groundwater storage capacity, groundwater in storage, and groundwater budget for this basin are unknown (DWR, 2003a). In addition, the DWR has not assessed overdraft conditions for the Kelso Lander Valley Groundwater Basin. However, an assessment of water supply in this groundwater basin conducted in 2011 (Wood Rodgers, 2011) suggests that the basin is not in overdraft conditions and that sufficient water supply is available to meet the requirements of project construction and operation. This study is further discussed under Impact 4.9-2 (Substantially Deplete Groundwater Supplies or Interfere with Groundwater Recharge Such that There Would Be a Net Deficit in Aquifer Volume or a Lowering of the Local Groundwater Table Level).

In the Kelso Lander Valley Groundwater basin, the character of groundwater quality varies, with predominant cations typically represented by calcium and sodium with the predominant anions typically bicarbonate and sulfate. Groundwater in this basin is marginal to inferior for domestic use because of elevated fluoride concentrations; however, it is suitable for most irrigation uses. (DWR, 2003a)

**Fremont Valley Groundwater Basin (DWR #6-46).** The Fremont Valley Groundwater Basin underlies 523 square miles of alluvial valley in eastern Kern County and northwestern San Bernardino County. The basin is bounded on the northwest by the Garlock fault zone against impermeable crystalline rocks of the El Paso Mountains and the Sierra Nevada. This basin is bounded on the east by crystalline rocks of the Summit Range, Red Mountain, Lava Mountains, Rand Mountains, Castle Butte, Bissel Hills, and Rosamond Hills. The basin is bounded on the southwest by the Antelope Valley Groundwater Basin along a groundwater divide approximated by a line connecting the mouth of Oak Creek through Middle Butte to exposed basement rock near Gem Hill (DWR, 2003b).

Natural recharge of the Fremont Valley Groundwater Basin includes the percolation of ephemeral streams that flow from the Sierra Nevada. The general groundwater flow direction is toward Koehn Lake at the center of the valley. There is no appreciable quantity of groundwater flowing out of the basin (DWR, 2003b).

The water-bearing materials of the Fremont Valley Groundwater Basin are dominated by Quaternary alluvium and lacustrine deposits. Groundwater in the alluvium is generally unconfined, although locally confined conditions occur near Koehn Lake (DWR, 2003b).

The total storage capacity of the basin is calculated to be approximately 4,800,000 acre feet. Hydrographs indicate that groundwater elevations declined in the southwestern part of the basin by approximately nine feet between 1957 and 1999 (DWR, 2003b). Overdraft conditions for the Fremont Valley Groundwater Basin are not known.

In the Fremont Valley Groundwater basin, no primary Maximum Contaminant Levels are exceeded. However, groundwater in parts of the basin has high concentrations of Total Dissolved Solids, including fluoride and sodium (DWR, 2003b).

### 4.9.3 Regulatory Setting

Construction of the project would be subject to County, State, and federal water quality regulations, as discussed below. Additional regulations related to water quality impacts are presented in Sections 4.4 (Biological Resources), 4.6 (Geology and Soils), and 4.8 (Hazards and Hazardous Materials).
Federal

Clean Water Act (CWA)

The CWA (33 United States Code (USC) Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States (U.S.). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the U.S., and has given the Environmental Protection Agency (EPA) the authority to implement pollution control programs. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. The project is within the jurisdiction of the South Lahontan RWQCB.

Section 401, Water Quality Certification. Section 401 of the CWA requires that any activity, including river or stream crossing during road, pipeline, or transmission line construction, which may result in discharges into a State waterbody, must be certified by the RWQCB. This certification ensures that the proposed activity does not violate State and/or federal water quality standards. The limits of non-tidal waters extend to the Ordinary High Water (OHW) line, defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. The United States Army Corps of Engineers (USACE) may issue either individual, site-specific permits or general, nationwide permits for discharge into U.S. waters.

Section 402, National Pollutant Discharge Elimination System (NPDES). Section 402 of the CWA authorizes the California SWRCB to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the “General Construction Permit”. Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs.

For the project, NPDES regulations are administered by the South Lahontan RWQCB. Projects that disturb one or more acres, including the project, are required to obtain NPDES coverage under the Construction General Permits.

Section 404, Discharge of Dredged or Fill Materials. Section 404 of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. A Water Quality Certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the South Lahontan RWQCB. When an application for a Section 404 permit is made the applicant must show it has:
• Taken steps to avoid impacts to wetlands or waters of the U.S. where practicable;
• Minimized unavoidable impacts on waters of the U.S. and wetlands; and
• Provided mitigation for unavoidable impacts.

Section 404 of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. A Water Quality Certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the South Lahontan RWQCB. Project activities would adhere to State and federal water quality standards and would be in compliance with Sections 401 and 404 of the CWA.

**Section 303, Water Quality Standards and Implementation Plans.** Section 303(d) of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify “impaired” water bodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA for review and approval. An affected waterbody, and associated pollutant or stressor, is then prioritized in a list of impaired water bodies known as the 303(d) List. The Clean Water Act further requires the development of a Total Maximum Daily Load (TMDL) for each water body listed as impaired. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements. No water bodies in the project area are listed as impaired on the current 2007 303(d) List, which was approved by the USEPA on June 28 (SWRCB, 2007).

**National Flood Insurance Program (NFIP)**

The National Flood Insurance Program (NFIP), implemented by the Congress of the United States in 1968, enables participating communities to purchase flood insurance. Flood insurance rates are set according to flood-prone status of property as indicated by Flood Insurance Rate Maps (FIRM) developed by the Federal Emergency Management Agency. FIRMs identify the estimated limits of the 100-year floodplain for mapped watercourses, among other flood hazards. As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage for new development through such measures as flood proofing, elevation on fill, or floodplain avoidance. Kern County participates in the NFIP, and FIRM number 06029C2475E represents the project area.

**State**

**Department of Water Resources (DWR)**

The California DWR major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources; planning, designing, constructing, operating, and maintaining the State Water Resources Development System; regulating dams; providing flood protection; assisting in emergency management to safeguard life and property; educating the public; and serving local water needs by providing technical assistance. In addition, DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

**Senate Bill 610**

Senate Bill 610 (SB610) was passed on January 1, 2002, amending California state law to require detailed analysis of water supply availability for large development projects. The primary purpose of SB610 is to improve the linkage between water and land use planning by ensuring greater
communication between water providers and local planning agencies, and ensuring that land use decisions for certain large development projects are fully informed as to whether sufficient water supplies are available to meet project demands. SB610 requires the preparation of a Water Supply Assessment (WSA) for a project that is subject to the California Environmental Quality Act (CEQA) and meets certain requirements; each of these requirements is discussed below with regards to the project.

1. Is the project subject to CEQA under Water Code Section 10910?

   Yes. As presented in this EIR, the project requires issuance of permits by a public agency and is, therefore, subject to CEQA.

2. Is the project a “Project” under Water Code Section 10912?

   A project would meet the definition of “Project” per Water Code Section 10912 if it is:
   • A proposed residential development of more than 500 dwelling units;
   • A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
   • A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
   • A proposed hotel or motel, or both, having more than 500 rooms;
   • A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
   • A mixed-use project that includes one or more of the projects specified in this subdivision; or
   • A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project (DWR, 2003c).

   Based on the definitions of “Project” listed above, the proposed North Sky River Wind Energy Project and Jawbone Wind Energy Project do not meet the intent of the SB 610 definition. While the project would be an industrial facility, it would not be an “industrial plant” with more than 1,000 persons or an “industrial park” planned to house more than 1,000 persons. The project would not include any structures or units characterized as residential, shopping, business, commercial, manufacturing, processing, or mixed-use. Kern County, as the CEQA Lead Agency for the project, has determined that the project does not meet the definition of “Project” per SB610; however, the applicant has prepared a WSA for the purposes of this EIR. This decision is not an authoritative interpretation of the types of projects that should be required per SB 610; other Lead Agencies may choose to make different decisions on similar projects, with regards to the applicability of SB610.

3. Is there a public water system that will service the project?

   Due to the remote location of the project area, there is no existing domestic water delivery system or public water system located within the project site. As described below under item 5, water may be obtained from the Tehachapi-Cummings County Water District and imported to the site via trucks, but this water would not be delivered to the site via Tehachapi-Cummings County Water District infrastructure or connections.
4. Is there a current Urban Water Management Plan (UWMP) that accounts for the project demand?

The project site is located adjacent to the north/northwest of the service area for the Antelope Valley-East Kern (AVEK) Water Agency’s 2008 UWMP, as shown in Appendix E of the UWMP (AVEKWA, 2008). However, the Kelso Lander Valley Groundwater Basin, which underlies the project site and could be used to meet water supply requirements for the project, is not within the service area for the AVEK 2008 UWMP. Therefore, it cannot be assumed that water requirements associated with the project are accounted for in the AVEK 2008 UWMP.

5. Is groundwater a component of the supplies for the project?

During construction of the project, water would be pumped from the Kelso Lander Valley Groundwater Basin, which underlies the northwestern portion of the project site. As described in the water supply assessment prepared for the project, sufficient groundwater supplies are anticipated to be available to meet the project’s construction and operations water requirements under varying climatic conditions for the lifetime of the project (Wood Rogers, 2011). Water would be pumped from one of two existing groundwater wells on the project site. If use of these wells is not available or if the wells are determined to be unsuitable to meet the project’s water supply requirements, water would be imported from the Tehachapi-Cummings County Water District via truck. Water for the Operation and Maintenance (O&M) facility operations would either be obtained from a well on the property or trucked in.

**Porter-Cologne Water Quality Control Act**

The California SWRCB regulates water quality through the Porter-Cologne Water Quality Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the State. On the regional level, the project falls under the jurisdiction of the Lahontan RWQCB, Region 6, which is responsible for the implementation of State and federal water quality protection statutes, regulations and guidelines. The Lahontan RWQCB has developed a Water Quality Control Plan for the Lahontan Region (Basin Plan) to show how the quality of the surface and ground waters in the Lahontan Region should be managed to provide the highest water quality reasonably possible. The Basin Plan lists the various beneficial uses of water within the region, describes the water quality which must be maintained to allow those uses, describes the programs, projects, and other actions which are necessary to achieve the standards established in this plan, and summarizes plans and policies to protect water quality. The project would be expected to not disrupt current or designated beneficial uses of surface waters.

**Streambed Alteration Agreement (California Fish and Game Code)**

Section 1602 of the California Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake designated by the California Department of Fish and Game (CDFG) in which there is, at any time, any existing fish or wildlife resources, or benefit for the resources. Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State, and requires any person, State or local governmental agency, or public utility to notify the CDFG before beginning any activity that will:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

During final engineering and design of the project, if it is determined that any project-related actions would have the potential to necessitate a Streambed Alteration Agreement, then such an agreement would be prepared and implemented prior to construction of the project, thus maintaining compliance with Section 1602 of the California Fish and Game Code. A Streambed Alteration Agreement is required if the CDFG determines the activity could substantially adversely affect an existing fish and wildlife resource. The agreement includes measures to protect fish and wildlife resources while conducting the project. The CDFG must comply with the CEQA before it may issue a final Lake or Streambed Alteration Agreement; therefore, the CDFG must wait for the lead agency to fully comply with the CEQA before it may sign the draft Lake or Streambed Alteration Agreement, thereby making it final.

**California Water Code §13260**

California Water Code §13260 requires that any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State, other than into a community sewer system, must submit a report of waste discharge to the applicable RWQCB; the project is within the jurisdiction of the Lahontan RWQCB. Any actions related to the project that would be applicable to California Water Code §13260 would be reported to the South Lahontan RWQCB.

**California Water Code §13751**

California Water Code §13751 requires a Report of Well Completion to be filed with the DWR within 60 days of well completion. New wells must comply with DWR Well Standards as described in Water Resources Bulletins 74-81 and 74-90.

**NPDES General Construction Permit**

The NPDES was established per 1972 amendments to the federal Water Pollution Control Act, in order to control discharges of pollutants from point sources (Section 402). As described above, under “Federal,” 1987 amendments to the Clean Water Act created a new section of the act devoted to storm water permitting (Section 402(p)), with individual States designated for administration and enforcement of the provisions of the Clean Water Act and the NPDES permit program. The SWRCB issues both General Construction Permits and individual permits under this program.

Projects disturbing more than one acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. The project proponent must control measures that are consistent with the State General Permit. A SWPPP must be developed and implemented for each site covered by the General Permit. A SWPPP describes BMPs the discharger will use to protect stormwater runoff and reduce potential impacts to surface water quality through the construction period. The SWPPP must contain the following: a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (SWRCB, 2006). The area that would be disturbed under the proposed project exceeds one acre and; therefore, the project would be required to comply with the General Permit.
Local

Kern County General Plan (KCGP)
The policies, goals, and implementation measures in the KCGP for hydrology and water quality applicable to the project are provided below. The KCGP, originally adopted on June 15, 2004 and last amended on September 22, 2009, contains additional policies, goals, and implementation measures that are more general in nature and not specific to the project; these are not listed below but are incorporated by reference.

Chapter 1. Land Use / Conservation / Open Space Element
1.3 Physical and Environmental Constraints

Policies

- **Policy 1.** Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained (Map Code 2.1 [Seismic Hazard], Map Code 2.2 [Landslide], Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard], Map Codes from 2.6 – 2.9, Map Code 2.10 [Nearby Waste Facility], and Map Code 2.11 [Burn Dump Hazard]) to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.

- **Policy 6.** Regardless of percentage of slope, development on hillsides will be sited in the least obtrusive fashion, thereby minimizing the extent of topographic alteration required and reducing soil erosion while maintaining soil stability.

- **Policy 7.** Ensure effective slope stability, wastewater drainage, and sewage treatments in areas with steep slopes are adequate for development.

- **Policy 8.** Encourage the preservation of the floodplain’s flow conveyance capacity, especially in floodways, to be open space/passive recreation areas throughout the County.

- **Policy 9.** Construction of structures that impede water flow in a primary floodplain will be discouraged.

- **Policy 10.** The County will allow lands which are within flood hazard areas, other than primary floodplains, to be developed in accordance with the General Plan and Floodplain Management Ordinance, if mitigation measures are incorporated so as to ensure that the proposed development will not be hazardous within the requirements of the Safety Element (Chapter 4) of this General Plan.

- **Policy 11.** Protect and maintain watershed integrity within Kern County.

Implementation Measures

- **Implementation Measure E.** Development proposed in areas with steep slopes will be reviewed for conformity to the adopted Hillside Development Ordinance to ensure that appropriate soil stability, drainage, and sewage treatment will result.

- **Implementation Measure F.** The County will comply with the Colbey-Alquist Floodplain Management Act in regulating land use within designated floodways.

- **Implementation Measure H.** Development within areas subject to flooding, as defined by the appropriate agency, will require necessary flood evaluations and studies.

- **Implementation Measure I.** Designated flood channels and water courses, such as creeks, gullies, and riverbeds, will be preserved as resource management areas or in the case of urban areas, as linear parks whenever practical.
- **Implementation Measure J.** Compliance with the Floodplain Management Ordinance prior to grading or improvement of land for development or the construction, expansion, conversion or substantial improvements of a structure is required.

- **Implementation Measure N.** Applicants for new discretionary development should consult with the appropriate Resource Conservation District and the California RWQCB regarding soil disturbances issues.

1.9 Resources

**Policies**

- **Policy 11.** Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood protection ordinances.

1.10.6 Surface Water and Groundwater

**Policies**

- **Policy 34.** Ensure that water quality standards are met for existing users and future development.

- **Policy 40.** Encourage utilization of community water systems rather than the reliance on individual wells.

- **Policy 41.** Review development proposals to ensure adequate water is available to accommodate projected growth.

- **Policy 43.** Drainage shall conform to the Kern County Development Standards and the Grading Ordinance.

- **Policy 44.** Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by the CEQA, to prevent the degradation of the watershed to the extent practical.

- **Policy 46.** In accordance with the Kern County Development Standards, tank truck hauling of domestic water for land developments or lots within new land developments is not permitted.

**Implementation Measures**

- **Implementation Measure Y.** Promote efficient water use by utilizing measures such as:
  
  i. Requiring water-conserving design and equipment in new construction.
  
  ii. Encouraging water-conserving landscaping and irrigation methods.
  
  iii. Encouraging the retrofitting of existing development with water conserving devices.

**Kern County Ordinances**

The Wind Energy (WE) Combining District (Chapter 19.64) contains development standards and conditions (Section 19.64.140) that would be applicable to the siting and operation of wind turbine generators (WTGs). The following provisions apply to hydrology and water quality issues related to the project.

**Zoning Ordinance**

**Chapter 19.64 WE Combining District**

In 1986, the WE Combining District was adopted as Chapter 19.64 of the Kern County Zoning Ordinance. The WE Combining District promotes the development of wind energy in Kern County. The WE Combining District (Chapter 19.64) contains development standards and conditions
(Section 19.64.140) that would be applicable to the siting and operation of WTGs. The following provision applies to hydrology and water quality issues related to the project:

Section 19.64.140.K. Prior to issuance of any grading permit, a plan for the mitigation of potential soil erosion and sedimentation shall be prepared by a registered civil engineer or other professional and submitted for approval by the Director of the Engineering, Surveying, and Permit Services Department. The soil erosion and sedimentation control plan shall be consistent with the applicable requirements of the California SWRCB pertaining to the preparation and approval of SWPPPs (in compliance with the federal CWA, described above). Notwithstanding the foregoing, the revegetation portion of the soil erosion and sedimentation plan shall be prepared by a professional biologist or other professional approved, in advance, by the Engineering, Surveying, and Permit Services Department.

The plan shall include a timetable for full implementation, estimated costs, and a surety bond or other security as approved by the Engineering, Surveying, and Permit Services Department in an amount determined by that department to guarantee plan implementation. The soil erosion and sedimentation control plan, including the revegetation plan and security instrument, shall be submitted to, and approved by, the Floodplain Management Section of the Engineering, Surveying, and Permit Services Department prior to the issuance of any grading permit. The security shall remain on file with the Engineering, Surveying, and Permit Services Department until that department has verified that the plan has been successfully implemented.

**Chapter 19.70 Floodplain Combining District**

Section 19.70.040 of the Kern County Zoning Ordinance prohibits the following uses in the Floodplain (FP) Combining District:

A. All uses prohibited by the base district with which the FP District is combined.

B. All uses that will likely increase the flood hazard or affect the water-carrying capacity of the floodplain beyond the limits resulting from encroachment as specified in Section 19.70.130 of this chapter.

C. Dumping, stockpiling, or storage of floatable substances or other materials which, in the opinion of the Kern County Engineering, Surveying, and Permit Services Department, will add to the debris loads of the stream or watercourse, unless protected by flood control devices approved by the Kern County Engineering, Surveying, and Permit Services Department and constructed in accordance with Section 19.70.130 of this chapter.

D. Storage of junk or salvage operations.

E. Oil storage tanks or processing equipment, unless floodproofed or sufficiently elevated above the Base Flood Elevation, as determined by the Kern County Engineering, Surveying, and Permit Services Department.

F. Individual sewage disposal systems (e.g., septic tank systems), unless protected by flood control devices approved by the Kern County Engineering, Surveying, and Permit Services Department and constructed in accordance with the requirements of the Kern County Health Department so as to minimize infiltration of floodwaters into the systems and discharges from the systems into the floodwaters.

G. Sources of water supply (e.g., wells, springs) unless protected by flood control devices approved by the Kern County Engineering, Surveying, and Permit Services Department and constructed in accordance with the requirements of the Kern County Health Department so as to minimize infiltration of floodwaters.
H. Any use which endangers the temporary safeguards erected for flood protection.

**Building and Construction Ordinance**

*Chapter 17.28 Kern County Grading Code*

Requirements of the Kern County Grading Code will be implemented. A grading permit will be obtained prior to commencement of construction activities. Of particular note with respect to hydrology and water quality is Section 17.28.140, Erosion Control, as discussed in Section 4.6 (Geology and Soils).

*Chapter 17.48 Kern County Floodplain Management*

Any construction that takes place within areas of special flood hazards, areas of flood-related erosion hazards, and areas of mudslide (i.e., mudflow) hazards within the jurisdiction of unincorporated Kern County will comply with the requirements and construction design specifications of this ordinance. Any required development permits will be obtained prior to commencement of construction activities.

**4.9.4 Impacts and Mitigation Measures**

**Methodology**

This section describes the potential hydrology and water quality impacts associated with development of the North Sky River Wind Energy Project and Jawbone Wind Energy Project (project). This analysis first established baseline conditions for the affected environment relevant to hydrology and water quality, as presented above in Section 4.9.2. These baseline conditions were evaluated based on their potential to be affected by construction activities as well as O&M activities for the project. Sections 3.7 (Construction), 3.8 (Operation and Maintenance Activities), and 3.9 ( Decommissioning and Repowering) of this EIR describe the activities that are reasonably expected to occur over the lifetime of the project (anticipated to be approximately 30 years), including construction and installation of WTGs, operation and maintenance, and decommissioning. The predicted interactions between the affected environment and project activities are evaluated based on the significance criteria defined below.

**Thresholds of Significance**

The Kern County CEQA Implementation Document and Kern County Environmental Checklist state that a project would normally be considered to have a significant impact if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on site or off site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site 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;