Kern County Hazardous Waste Management Plan. In response to the growing public concern regarding hazardous waste management, State Assembly Bill 2948 (Kern County Planning Department, 2009) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within the local government’s jurisdiction.

The Kern County and Incorporated Cities Hazardous Waste Management Plan (Hazardous Waste Plan) was first adopted by Kern County and each incorporated city before September 1988 and was subsequently approved by the State Department of Health Services. The Hazardous Waste Plan was updated and incorporated by reference into the Kern County General Plan in 2004 as permitted by Health and Safety Code Section 25135.7(b), and thus must be consistent with all other aspects of the Kern County General Plan.

The Hazardous Waste Plan provides policy direction and action programs to address current and future hazardous waste management issues that require local responsibility and involvement in Kern County. In addition, the Hazardous Waste Plan discusses hazardous waste issues and analyzes current and future waste generation in the incorporated cities, County, and State and federal lands. The purpose of the Hazardous Waste Plan is to coordinate local implementation of a regional action to effect comprehensive hazardous waste management throughout Kern County. The action program focuses on development of programs to equitably site needed hazardous waste management facilities; to promote on-site source reduction, treatment, and recycling; and to provide for the collection and treatment of small quantity hazardous waste generators. An important component of the Hazardous Waste Plan is the monitoring of hazardous waste management facilities to ensure compliance with federal and State hazardous waste regulations. The siting criteria and any subsequent environmental documentation required pursuant to the California Environmental Quality Act (CEQA) would also ensure the mitigation of adverse impacts associated with the siting of any new hazardous waste facility.

4.8.4 Impacts and Mitigation Measures

This section analyzes the impacts associated with implementation of the proposed project related to the risk of upset due to potential hazardous substances, including hazardous materials and/or hazardous waste within the project area and the vicinity, as well as other hazards to public safety. The impact analysis describes the methods used to determine the project’s impacts and lists the thresholds used to conclude the significance of an impact. Measures to mitigate (avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as required.

Methodology

The existing hazardous materials sites analyzed for the proposed project are those located within ½ mile of the project boundary that have known environmental contamination, those that have underground storage tanks (USTs), or those that store, use, or dispose of hazardous materials with reported incidents of spills or violations. These are sites with the potential to have resulted in environmental contamination on the proposed project properties.
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:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;
-Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands; and
- Would implementation of the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste. Specifically, would the project exceed the following qualitative threshold:
The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of the vectors:
  i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and
  ii. Are associated with design, layout, and management of project operations; and
  iii. Disseminate widely from the property; and
  iv. Cause detrimental effects on the public health or well being of the majority of the surrounding population.

As discussed in Appendix A (Notice of Preparation/Initial Study [NOP/IS]), the proposed project was determined to have no impact with regard to the following impact thresholds:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school;
• Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

• For a project located within the adopted Kern County Airport Land Use Compatibility Plan or within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area;

• Would the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste.

These issues are not discussed further in this EIR, except for the issues regarding creating a safety hazard as a result of being located near a public airport or within the vicinity of a private airstrip, and generating vectors. With respect to public airports, this issue is re-evaluated in the EIR because it was determined after circulation of the NOP/IS that the project site falls inside the boundaries of the Special Use Airspace of the Joint Service Restricted R-2508 Complex, and therefore would potentially create a hazard to air navigation due to the height of structures at the site. With respect to generating vectors, this issue is re-evaluated in the EIR because the project would involve construction and operations that could result in standing water, trash piles, or open containers that could provide breeding areas for mosquitoes, flies, or rodents.

**Project Impacts**

**Impact 4.8-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials**

As described in Section 3.5, *Proposed Project Characteristics – Equipment and Chemical Storage*, hazardous and potentially hazardous chemicals used during construction of the proposed project and its associated linear facilities would include gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint, and paint thinner. The quantities of hazardous materials located on site during construction would be similar to the quantities used during operation. Due to the remote location of the proposed project site, it is expected that one 5,000-gallon temporary diesel storage tank would be installed on site to serve construction vehicles. The tank would be located in a bermed area within one of the staging areas.

Small oil spills may also occur during on-site refueling. The potential environmental effects from fueling operations are expected to be limited to small areas of contaminated soil. If a fuel spill were to occur on soil, it would be cleaned up and removed in accordance with applicable regulations. During construction of the project and linear facilities, regulated substances, as defined in California’s Health and Safety Code, Section 25531, would not be used.

During operations, hazardous and potentially hazardous chemicals (for example, oil, grease, and ethylene glycol) would be used to lubricate and cool the WTGs and ancillary facilities; a radiator would dissipate heat and would contain a water and ethylene mixture that would be tested annually. The gearbox would contain approximately 70 gallons of oil that would not be routinely renewed. The WTGs would be equipped with leak-proof gaskets. Possible leakage or spillage during operations and/or maintenance of the WTGs would be confined within the towers. A supply of chemicals would be stored on site in the maintenance yard. Due to the remote location of the site, it is expected that two 500-gallon diesel storage tanks would be installed on site to serve Operation and Maintenance (O&M) vehicles. To minimize the potential for harmful releases through spills or
contaminated runoff, chemicals would be stored in tanks or drums located within secondary containment areas. Use of extremely hazardous materials as part of the proposed project is not anticipated.

As noted above, construction or operation of the proposed project would result in a potentially significant hazard to the public or personnel if a hazardous material spill or leak were to occur. In accordance with the California Health and Safety Code and Kern County regulations, the project proponent would prepare a Hazardous Materials Business Plan (HMBP) and submit it to the Kern County Environmental Health Services Department for review and approval. The HMBP would delineate storage areas for hazardous material and hazardous waste; describe proper handling, storage, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. Implementation of the HMBP would ensure that materials are handled in a safe manner and would minimize the risk of accidental releases of hazardous materials. Mitigation Measure (MM) 4.8-1 formalizes this requirement, and specifies oversight, monitoring, and enforcement actions.

Although it is not anticipated that blasting would be required during construction, the use of explosives at the project site could pose a hazard to personnel or serve as a wildfire ignition source. A large wildfire would pose hazards both to personnel and the public. Hazards to personnel and the public from project-related blasting are potentially significant; however, implementation of MM 4.8-2 would ensure that impacts from blasting would be reduced to a less-than-significant level.

Herbicides may be used for vegetation control around the collector substation, transformers, riser poles, and the O&M facility, which could result in adverse health effects to the public, maintenance personnel, wildlife, or sensitive vegetation if herbicides are handled improperly or chemical drift occurs away from the target area. As a part of standard business practices, the contractor or personnel applying herbicides would have all the appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. Herbicides would be mixed and applied in conformance with the product manufacturer’s directions. The herbicide applicator would be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and waterbodies, herbicides would not be applied directly to wildlife, products identified as non-toxic to birds and small mammals would be used if nests or dens are observed, and herbicides would not be applied within 50 feet of any surface waterbody when water is present. Herbicides would not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. Herbicides would not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying would be discontinued until conditions causing the drift have abated.

The standard business practices described above would ensure that herbicide use would not pose a significant hazard to personnel or the environment. MM 4.8-3 would ensure that these business practices are followed on the site and that herbicide use would not pose a significant hazard to personnel or the environment.

**Mitigation Measures**

**MM 4.8-1** Prior to the issuance of grading or building permits, in accordance with the California Health and Safety Code and Kern County regulations, the project
proponents shall prepare a Hazardous Materials Business Plan and submit it to the Kern County Environmental Health Services Department for review and approval.

The Hazardous Materials Business Plan shall delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. The project proponents shall provide the Hazardous Materials Business Plan to all contractors working on the project and will ensure that one copy is available at the project site at all times.

**MM 4.8-2**

Prior to the issuance of grading or building permits, if blasting is required, the project proponents shall contract with a blasting contractor with experience conducting blasting activities, licensed to use Class A explosives, and licensed as a contractor in the State of California. The blasting contractor shall prepare a blasting plan for the proposed blasting activities to prevent endangering worker safety. The blasting plan shall be submitted for review to the Kern County Planning and Community Development Department, in consultation with the Kern County Environmental Health Services Department, the Kern County Fire Department, and the Kern County Air Pollution Control District. A copy of the blasting plan shall be provided to Edwards Air Force Base. The blasting plan shall:

a. Describe procedures to be implemented to protect workers during blasting, such as using a signaling system to alert workers of an impending blast and using blasting mats to prevent or reduce the number of rock particles thrown into the air;

b. Describe procedures for proper storage and transportation of explosive materials, including protecting explosives from wildfires;

c. Prohibit blasting during extreme fire danger periods; and

d. Comply with the U.S. Bureau of Mines and the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement guidelines for minimizing damage to structures from blasting.

**MM 4.8-3**

Prior to the issuance of grading or building permits, if herbicides are utilized, the contractor or personnel applying herbicides must have all the appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. Herbicides shall be mixed and applied in conformance with the product manufacturer’s directions. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and waterbodies, herbicides shall not be applied directly to wildlife, products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed, and herbicides shall not be applied within 50 feet of any surface water-body when water is present. Herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.
Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.8-2: Create a Significant Hazard to the Public or the Environment Through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

There are no known hazardous materials spill sites within ½ mile of the proposed project (EDR, 2011). However, the potential exists for contamination to occur on the proposed project site as a result of unknown or unreported spills or leaks, or from illegal dumping.

Although not observed during site reconnaissance, contamination from petroleum products (crude oil, gasoline, motor oil, and diesel) is one of the most common types of unknown contamination encountered and is generally detectable by visual and olfactory observation. There are no known plugged and abandoned oil or gas well within the project boundaries. Grading, drilling, or excavation at the site has the potential to mobilize hazardous materials currently in the soil, which could result in exposure of personnel and other sensitive receptors such as plants and wildlife to contaminant levels that could result in short-term and/or long-term health effects. Implementation of MM 4.8-1 would reduce the significance of this potential impact by requiring the HMBP to contain procedures for handling and disposing of unanticipated hazardous materials encountered during construction. MM 4.8-4 would further reduce potential impacts by requiring the construction contractor to stop work if suspected contamination is identified, cordon off areas of suspected contamination, take appropriate health and safety measures, have a trained individual conduct sampling and testing or suspected material, and, if contamination is found to be greater than regulatory limits, notifying the Kern County Environmental Health Services Department and documenting all actions.

There is the potential for hazardous materials being used at the proposed project site to be released into the desert washes and ephemeral streams that traverse the site, as well as in on-site water wells (Schoolhouse Well, San Antonio Well, and possibly Dug Well (at Green Spring); however, MM 4.8-5 would require hazardous materials use and storage to occur at a distance from watercourses and wells, which would reduce the potential for any spilled materials to enter watercourses or water wells.

There is also the potential for motor vehicle fuel to be released from on-site storage tanks or for transformer oil to be released at the project substation if a leak were to occur, potentially resulting in a hazard to soil, water, wildlife, or personnel at the project site. As jurisdictional drainages occur on the project site, the project proponents would be subject to the SPCC rule, which requires a secondary means of containment for spills of large quantities of petroleum products used at the proposed project site. MM 4.8-6 formalizes this requirement and specifies timing and oversight.

Public safety issues related to wind power generation facilities could arise from tower or rotor failure. If a WTG experiences excess speed, material fatigue, excessive stresses, or vibration from seismic ground shaking, a rotor blade could crack or dislocate from the turbine tower. If a blade were to be dislocated from the tower, the thrown blade could travel several hundred feet. Blade failures may occur due to extremely high winds and excess rotor speed. Setbacks required by Kern County would prevent public hazards associated with turbine or rotor blade failures. In addition, the WTGs considered for the proposed project would be equipped with safety and engineering features
to prevent excess rotor speed, to minimize the risk of tower failure, and to maintain personnel health and safety (CH2MHILL, 2010). These features include redundant aerodynamic and mechanical breaks to slow or stop the turbine’s blade rotation; pitch and yaw controls to angle and position and the turbine blades relative to the wind, thereby allowing the WTGs to adapt to different wind speeds and directions and maximize power output; and vibration, temperature, and fire detection systems in the nacelle and tower (CH2MHILL, 2010). In the event of a fire fault or excess vibration or temperature, the WTG would be halted immediately, and an alarm condition would be activated in the control system (CH2MHILL, 2010). These systems substantially reduce the probability of blade failures.

As described in Section 3.5, Project Characteristics – Project Components, all the candidate WTGs would be equipped with a controller, which automatically regulates the operation of the WTG. The controller is responsible for startup, shutdown, pitch control, yaw control, and safety monitoring. A central Supervisory Control and Data Acquisition (SCADA) system would monitor the WTGs, allowing for centralized operation and optimized operations and maintenance. If a control parameter deviates from its normal operating range, the controller would automatically shut down the WTG and notify the operating technicians of the fault. In many situations, the controller would analyze the data and restart the WTG if the fault were corrected or the operating conditions returned to normal. If the fault reoccurred, the controller might require a manual start. A controller cabinet would also be located at the base inside each tower and inside the nacelle for manual control.

Access to the turbine would be through a lockable door at the base of the tower. Access to the nacelle would be via a ladder and/or man elevator. The WTGs would be equipped with an engineered lightning protection system that connects the blades, nacelle, and tower to the earthing (grounding) system at the base of the tower. Other safety features would include, posted safety signs around the WTGs, transformers, and other high-voltage facilities, and along roads, in conformance with applicable State and federal regulations. In addition, a Project Site Safety and Security Plan would be developed and included as part of project implementation. MM 4.8-7 formalizes this requirement and specifies timing and oversight.

The project would comply with all Kern County setback requirements set forth in zoning ordinance 19.64.140. The project proponent has accounted for setback restrictions in the project design, including Kern County’s setback requirements for property lines, neighboring homes, utility corridors and rights-of-way, public access easements, local and County roads, and railroads. In accordance with the WE Combining District fencing requirements, the proposed project would also provide perimeter fencing to secure the proposed project site, but not in areas where unauthorized access is precluded due to topographic conditions (part of Project Site Safety and Security Plan).

In addition, implementation of MMs 4.6-1 through 4.6-4, as described in Section 4.6.4, Geology and Soils of this EIR, would minimize the potential for project infrastructure to fail as a result of seismic activity or unstable soils.

Conformance with Kern County setback requirements in combination with the safety design features of the WTGs, the proposed security fencing and signage, conformance with OSHA and Cal/OSHA standards, implementation of the Project Site Safety and Security Plan (MM 4.8-7), and with the mitigation measures set forth in Section 4.6.4 of this EIR would result in a less-than-significant impact related to tower or rotor failure and the safety of personnel and other persons in or around the project site.
Mitigation Measures

Implement Mitigation Measures 4.6-1 through 4.6-4, and 4.8-1.

MM 4.8-4 If, during grading or excavation work, the contractor observes visual or olfactory evidence of contamination or if soil contamination is otherwise suspected, work near the excavation site shall be terminated, the work area cordoned off, and appropriate health and safety procedures implemented for the location by the contractor’s Health & Safety Officer. Samples shall be collected by an Occupational Safety and Health Administration-trained individual with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor’s Health and Safety Officer. If the sample testing determines that contamination is not present, work may proceed at the site. However, if contamination is detected above regulatory limits, the Kern County Environmental Health Services Department shall be notified. All actions related to encountering unanticipated hazardous materials at the site shall be documented and submitted to the Kern County Environmental Health Services Department.

MM 4.8-5 The project proponents shall site all fueling, hazardous materials storage areas, and operation and maintenance activities involving hazardous materials at least 100 feet away from blue-line drainages as identified on U.S. Geological Survey topography maps and wetlands, as well as all existing water wells.

MM 4.8-6 Prior to the issuance of grading or building permits, in order to mitigate the effects of a spill of transformer oil, gasoline, or diesel fuel, the project proponents shall develop and implement a spill prevention, control, and countermeasures plans for the storage and use of transformer oil, gasoline, or diesel fuel at the site in quantities of 660 gallons or greater. The plans shall include design features of the project that will contain accidental releases of petroleum and transformer oil products from onsite fuel tanks and transformers. The plans shall be submitted to the U.S. Environmental Protection Agency, the California Environmental Protection Agency, and the Kern County Environmental Health Services Department at least 30 days prior to construction (for motor vehicle fuel) and 30 days prior to energizing the proposed project (for substation transformer oil). Compliance will be verified by the Kern County Building Inspection Department.

MM 4.8-7 Prior to the issuance of grading or building permits, the project proponents shall develop and implement a project site safety and security plan to ensure the safety of personnel and other persons in or around the project site. Issues to be addressed in the plan shall include a zero-injury safety policy, responsibilities and roles of personnel, health and safety for subcontractors, worker safety orientation and training, severe weather conditions, accident/incident reporting procedures, employee safe work programs, and safety signage and fencing requirements. The plan shall be submitted to the Kern County Environmental Health Services Department at least 30 days prior to construction. Compliance will be verified by the Kern County Building Inspection Department.

Level of Significance after Mitigation

Impacts would be less than significant.
Impact 4.8-3: Result in a Hazard to Air Navigation In the Vicinity of a Public Airport

The closest public airport to the project site is the California City Municipal Airport, which is located 12 miles southeast of the project site, and has a single runway. Tehachapi Municipal Airport, also a public single-runway airport, is located about 14 miles south-southwest of the project site.

In addition, the project site falls inside the boundaries of the Special Use Airspace of the Joint Service Restricted R-2508 Complex. This complex is considered an extension of the airspace of the military installations within the complex, including Edwards AFB, China Lake NAWS, and Fort Irwin/National Training Center and covers 20,000 square miles. As such, the project area falls within a special use military airspace where total WTG height including turbine, tower, and blade shall not exceed the maximum allowable heights specified in Figure 19.08.160 of the Kern County Zoning Ordinance (see Figure 3-4), unless the military authority responsible for operations in that flight area first provides the Planning Director with written concurrence that the height of the proposed structure or building would create no significant military mission impacts. As shown in Figure 3-4, the project site is located across several of the military review zones, including green (no review requirement), yellow (all structures over 500 feet), and red (wind turbines and communications towers over 80 feet and all other structures over 100 feet). Without military review, those structures falling within the yellow zone would be limited to 500 feet above ground elevation; WTGs and communication towers falling within the red zone, which includes the eastern portion of the project site, would be limited to 80 feet above ground elevation and all other structures would be limited to 100 feet. The proposed project would create a hazard if the height of the WTGs at the site were to create obstructions to air navigation, and if the WTGs were to be poorly lit or marked. As described in Section 3.5, Proposed Project Characteristics – Project Components, a portion of the WTG towers would be furnished with blinking lights for night-time visibility by aircraft in accordance with FAA rules (FAA Advisory Circular 70/7460-1, Obstruction Lighting/Marking). The number of wind turbines with lights, the type of lighting, and any other additional markings (e.g., orange striping, checkerboard patterns, etc.) would be determined in consultation with the FAA. Form 7460-1, Notification of Proposed Construction or Alteration, would be filed with the FAA for each WTG. The FAA would then complete the requisite aeronautical study, and determine the appropriate lighting required for the project’s WTGs and the appropriate exterior finish for the WTGs for daylight marking to ensure safety. The project proponent of the North Sky River Wind Energy Project has filed Form 7460-1 and received a “Determination of No Hazard to Air Navigation from the FAA”.

As noted above, the proposed project is located within R-2508 restricted airspace and would therefore need to conform to R-2508 related aviation requirements, which limit the height of structures. The FAA regulates aviation at regional, public, private, and military airports, and as such would coordinate the military review of the proposed project to ensure the military height requirements are met or the military authority responsible for operations in that flight area provides the Kern County Planning and Community Development Director with written concurrence that the height of the proposed project components would create no significant military mission impacts.

With implementation of MM 4.8-8 the project would comply with Kern County Zoning Ordinance restrictions for height of structures and would be required to implement any FAA required mitigations. Therefore, the potential impact to air navigation would be less than significant.
Mitigation Measures

MM 4.8-8 Prior to issuance of building permits, the project proponents shall submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in 14 Code of Federal Regulation 77.17. The project proponents shall also provide documentation to the Kern County Planning and Community Development Department demonstrating that the Federal Aviation Administration has issued a “Determination of No Hazard to Air Navigation.” This documentation shall include: (1) written concurrence from the military authority responsible for operations in the flight area depicted in Kern County Zoning Ordinance Figure 19.08.160 that all project components would create no significant military mission impacts; (2) a wind turbine generator lighting plan; and (3) a helicopter lift plan demonstrating compliance with all requirements set forth by the Federal Aviation Administration and Kern County. Documentation shall also be furnished to the Kern County Planning and Community Development Department demonstrating that a copy of the approved form(s) has been provided to the operators of Kelso Valley Airport, California City Municipal Airport, Tehachapi Municipal Airport, Edwards Air Force Base, China Lake Naval Air Weapons Station, and Fort Irwin/National Training Center.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.8-4: For a Project Within the Vicinity of a Private Airstrip, Would the Project Result in a Safety Hazard for People Residing or Working in the Project Area

The project could pose a navigation hazard to private aircraft and high performance gliders using nearby private airstrips due to the height of the WTG structures (maximum height of 500 feet above ground surface). The proposed project is located near one unpermit ted private airstrip, which is located 1.2 miles northwest or west of the project site boundary. MM 4.8-8 would ensure that the proposed project complies with all FAA regulations regarding structures located within proximity to airstrips.

Mitigation Measures

Implement Mitigation Measure 4.8-8.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.8-5: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan

The project site is located in a rural area with few established access roads, including Jawbone Canyon Road (from the east), Back Canyon Road (from the west), and South Kelso Valley Road (from the north), to the site in the event of an emergency. Perimeter fencing and security gates could also physically interfere with emergency vehicle access or personnel evacuation from the site. In addition, during the construction phase of the project, heavy construction-related traffic could interfere with emergency response to the project site or emergency evacuation procedures in the event of an emergency such as a wildfire or a chemical spill at the site. Heavy construction-related
traffic could also potentially interfere with emergency response to residences in the project vicinity. To ensure emergency access to the project site during construction, MM 4.16-1, as described in Section 4.16.4 of this EIR, requires preparation of a construction traffic control plan that includes assurance of access for emergency vehicles to the project site. During project operation, MM 4.16-4, also described in Section 4.16.4, requires the project owner obtain Kern County approval of all proposed access road design prior to construction ensuring on-site emergency access is adequate. Additionally, MM 4.8-9 would reduce the significance of this impact by ensuring coordination between emergency responders and project construction crews and by establishing emergency procedures for access to the project site in the event of an emergency.

**Mitigation Measures**

Implement Mitigation Measures 4.16-1 and 4.16-4.

**MM 4.8-9**

Prior to the issuance of grading or building permits, the project proponents shall appoint an Emergency Response Liaison to coordinate the reduction of construction-related traffic for the duration of any emergency at or nearby the project site. The Kern County Fire Department, Kern County Sheriff’s Department, and the California Highway Patrol shall be provided with the construction schedule and the on-site contact information for the Liaison prior to construction. The Liaison shall be immediately reachable at all times during project construction. The Liaison shall have radio contact with project construction vehicles at all times to coordinate traffic reduction measures. In addition, the Liaison shall coordinate with the Kern County Fire Department, the Kern County Sheriff’s Department and the California Highway Patrol to establish emergency procedures for access to the project site in the event of an emergency.

**Level of Significance after Mitigation**

Impacts would be less than significant.

**Impact 4.8-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires, Including Where Wildlands are Adjacent to Urbanized Areas or Where residences are Intermixed with Wildlands**

The project site is located within “moderate,” “high,” and “very high” Fire Hazard Severity Zones. Construction and maintenance activities involving blasting (if required), vehicles, heavy machinery, and personnel smoking at the proposed project site could result in the ignition of a wildfire. Operation of the project could result in wildfire ignition if the rotor blades were to spin out of control resulting in a fire in the nacelle. Unauthorized use of the project area for activities including: target practice shooting, camping, hunting, and off-road vehicle recreation, could also present a high risk for wildfire ignition. Although the characteristics of the site present only a moderate fire hazard, during extreme weather conditions a grass fire originating at the site could spread through the Kelso Valley out of control and pose a risk to life and property.

During construction, heavy equipment and passenger vehicles driving on vegetated areas prior to clearing and grading could increase the risk of fire. Heated mufflers, explosives used during site preparation (if blasting is required), and improper disposal of cigarettes could potentially ignite surrounding vegetation. In addition, during operation, lightning strikes on WTGs could create power surges that could result in a fire.
Project design features and project operations would reduce the potential for wildfire ignition and the potential for a wildfire to spread out of control. The manned operations of the facility would reduce traffic associated with non-property owners and would decrease unauthorized use of the project area. Vegetation would be cleared as required by CPUC GO 95 (Rule 35) and PRC 4292, including around the collector substation, transformers, riser poles, and the O&M facility. Temporary and permanent roads across the proposed project site would break the continuity of fuels at the site, which would slow or stop the progression of potential wildfires.

Turbine nacelle fires result from the malfunction of components such as electrical or hydraulics. Each WTG would be equipped with a fire detection system in the nacelle and tower. In the event of a fire fault, the WTG would be halted immediately, and an alarm condition would be activated in the control system. This system within each WTG would interface with the main controller and the SCADA System for prompt response from the WTG operators who are trained to take all corrective and preventative actions to prevent or reduce WTG component failures.

The WTGs would also be equipped with an engineered lightning protection system that connects the blades, nacelle, and tower to the earthing (grounding) system at the base of the tower.

Although the potential for lightning and WTG-related fires to occur at the site would be reduced by implementation of the project proponent’s safety measures described above, any wildfire ignition resulting from project activities could result in a loss of life and property, and would be considered a significant impact. MMs 4.8-2 (if blasting is required) and 4.8-10 would reduce the potential for construction and maintenance activities to result in severe fires by requiring fire-safe construction and maintenance practices. MM 4.8-11 would further reduce the severity of this impact by restricting work during severe fire weather. MM 4.8-12 would require WTGs to be equipped with automatic fire extinguishing systems. MM 4.8-13 would ensure that grazing or other vegetation management tool is employed during construction to reduce the potential for a construction-related ignition to spread out of control.

**Mitigation Measures**

Implement Mitigation Measure 4.8-2.

**MM 4.8-10** Prior to the issuance of grading or building permits, the project proponents shall develop and implement a Fire Safety Plan for use during construction and operation. The project proponents shall submit the Fire Safety Plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval prior to the issuance of any building permit or grading permits.

The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:

a. All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.

b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition.

c. Fire rules shall be posted on the project bulletin board at the contractor’s field office and areas visible to employees.

d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
e. Personnel shall be trained in the practices of the Fire Safety Plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.

f. The project proponents shall make an effort to restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall easily accessible to personnel.

g. Smoking shall be prohibited in wildland areas and shall be limited to paved areas or areas cleared of all vegetation.

MM 4.8-11 When a Red Flag Warning is issued by the National Weather Service for the project area, all non-emergency construction and maintenance activities shall cease. This provision shall be clearly stated in the Fire Safety Plan. The Emergency Response Liaison (see Mitigation Measure 4.8-9) shall ensure implementation of a system that allows for immediate receipt of Red Flag Warning information from the Los Angeles/Oxnard office of the National Weather Service.

MM 4.8-12 Prior to the final occupancy approval, the project proponents shall install an automatic fire detection and extinguishing system that complies with international standards for fire protection systems on each wind turbine generator at the proposed project site. Proof of system installation shall be submitted to the Kern County Planning and Community Development Department prior to energizing the proposed project.

MM 4.8-13 In the areas of the site mapped as annual grassland (see North Sky River Biological Resources Technical Report, Appendix B; and for all grassland areas on the Jawbone site), grazing shall be continued for the duration of construction, and shall cease prior to energizing the project (per Mitigation Measure 4.4-14 [Mitigation Measure for condors]). During the fire season, grasses shall be maintained at a height of 2 inches or less during construction.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.8-7: Would Implementation of the Project Generate Vectors or Have a Component that Includes Agricultural Waste Exceeding Adopted Qualitative Thresholds

As proposed, the project does not possess a component that includes agricultural waste. However, implementation of the proposed project will involve construction and operations that could result in standing water, trash piles, or open containers that could provide breeding areas for mosquitoes, flies, or rodents. These potential disease vectors could pose a hazard to personnel or the public. MM 4.8-14 would prohibit standing water, trash piles, and open containers from being accumulated at the site.

Construction of the proposed project would occur in an area favorable to the growth of the Valley Fever vector, the fungus *Coccidioides immitis*, which grows in soils in areas of low rainfall, high summer temperatures, and moderate winter temperatures. Project construction would disturb the soil and cause the fungal spores to become airborne, potentially putting construction personnel and wildlife at risk of contracting Valley Fever. However, most Valley Fever cases are very mild, and
more than half of infected people either have no symptoms or experience flu-like symptoms and never seek medical attention. In addition, mitigation for dust control—MM 4.3-1, as described in Section 4.3, Air Quality—would minimize the spread of fungal spores.

Mitigation Measures

Implement Mitigation Measure 4.3-1.

MM 4.8-14 In order to eliminate the risk of generating disease vectors at the site, during project construction and operations the project proponents shall ensure that trash is stored in closed containers and removed from the site at regular intervals. Open containers shall be inverted and construction ditches shall not be allowed to accumulate water. Construction and maintenance operations shall not generate standing water. Naturally occurring depressions, drainages, and pools at the site shall not be drained or filled without consulting with the appropriate resource agency (Kern County, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game) and obtaining the appropriate permits. The environmental monitor will ensure that standing water and large quantities of trash do not accumulate on site. Compliance will be verified by the Kern County Building Inspection Department during the course of that agency’s performance of any on-site inspections.

Level of Significance after Mitigation

Impacts would be less than significant.

Cumulative Setting Impacts and Mitigation Measures

Cumulative Setting

The geographic scope for cumulative impacts from hazards and hazardous materials includes the area within 6 miles of the proposed project site for wildfire hazards and interference with emergency response, and within ½ mile of the site for all other hazards, including hazardous materials. This geographic scope of analysis is appropriate because the area of influence of a large wildfire can be several miles if there is sufficient continuity of fuels and favorable topography, which occurs within approximately 6 miles of the site. In addition, interference with emergency response vehicles can result from construction traffic in locations relatively remote from the proposed project site, and hazardous materials impacts and other hazards discussed in this section are typically highly localized.

Impact 4.8-8: Cumulative Hazards and Hazardous Materials Impacts

With regard to the creation of a hazard through the routine transport, use, or disposal of hazardous materials, a potentially significant impact could result if a spill or leak were to occur during construction or operation of the proposed project. However, compliance with State and County regulations and the MMs outlined above would ensure that impacts would remain less than significant. This impact does not have the potential to combine with contamination from spills from other projects within ½ mile of the site to result in a cumulative impact due to the site-specific nature of soil contamination and the MMs that would ensure proper cleanup and disposal of contaminated soil. Cumulative contamination of groundwater is unlikely as a result of these projects because the depth to groundwater in the project area is greater than 100 feet and any on-site spill would be unlikely to reach groundwater. Additionally, implementation of MM 4.8-1 and 4.9-3 (as
described in Section 4.9, Hydrology and Water Quality) would further reduce the potential for project-related groundwater contamination. Therefore, impacts of the proposed project would not be expected to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

With regard to creation of a hazard through upset or accident conditions involving a hazardous material release, the potential exists for proposed project activities to result in mobilization of hazardous materials in the soil resulting in exposure of personnel and other sensitive receptors to contaminant levels that could result in short-term and/or long-term health effects; and rotor failure could pose a hazard to personnel and the public. However, conformance with existing State and County regulations, project safety design features, and implementation of the MMs identified above would render this impact less than significant. This impact does not have the potential to combine with impacts of other projects because of the localized nature of the impacts, and because appropriate safety, cleanup, and disposal methods would be implemented to reduce the impact to a level that would not combine with impacts of other projects. Therefore, impacts of the proposed project would not have the potential to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

With regard to the creation of a safety hazard for a project located within the Kern County ALUCP, the potential exists for proposed project structures to pose a hazard to air navigation. However, compliance with County Zoning requirements (including military review requirements) and FAA regulations, as required by MM 4.8-8, would render this impact less than significant. This impact does not have the potential to combine with impacts of other projects because of the localized nature of this impact, and because compliance with existing rules would render this impact less than significant. Therefore, impacts of the proposed project would not have the potential to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

With regard to the creation of a safety hazard for a project located within two miles of a private airstrip, the potential exists for proposed project structures to pose a hazard to air navigation. This impact does not have the potential to combine with impacts of other projects because of the localized nature of this impact. Therefore, impacts of the proposed project would not have the potential to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

With regard to interference with an adopted emergency response plan or emergency evacuation plan, heavy construction-related traffic could interfere with emergency response/evacuation to/from the project site or with emergency response to residences in the project vicinity. However, with implementation of MM 4.8-9, this impact would be less than significant. This adverse but less-than-significant impact has the potential to combine with other current and future projects that would generate high volumes of traffic on area roadways and whose construction schedules overlap with that of the proposed project by creating a cumulative traffic burden on regional roadways as a result of an abundance of construction vehicles. However, considering the other projects identified in the vicinity are already built and in operation, such that traffic associated with these projects is part of the baseline conditions evaluated in this EIR for the proposed project; the rural nature of the project area; and the relatively close proximity of emergency services (within seven miles), the potential for a cumulative impact to emergency response is unlikely to occur, and would therefore be less than significant.
With regard to exposing people or structures to a wildland fire hazard, construction and maintenance of the proposed project would increase the likelihood of wildfire ignition. However, implementation of the MMs outlined above would substantially reduce the possibility of a project-related ignition rendering this impact less than significant. Mitigation would reduce this impact to a level that would not combine with other projects, therefore, impacts of the proposed project would not have the potential to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

With regard to generating disease vectors, project construction could disturb the Valley Fever vector or attract other disease vectors by allowing standing water, trash piles, or open containers to accumulating at the site, potentially resulting in a hazard to construction personnel or the general public. However, implementation of the MMs described above would reduce this impact to a less-than-significant level. Mitigation would reduce this impact to a level that would not combine with other projects, therefore, impacts of the proposed project would not have the potential to combine with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact.

**Mitigation Measures**

Implement Mitigation Measures 4.3-1, 4.6-1 through 4.6-5, 4.8-1 through 4.8-14, 4.9-3, 4.16-1 and 4.16-4.

**Level of Significance after Mitigation**

Cumulative impacts would be less than significant.