UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

JUL 12 2010

Roxie Trost, Field Manager
Barstow Field Office, Bureau of Land Management
Attn: Granite Wind Project
2601 Barstow Road
Barstow, CA 92311

Subject: Draft Environmental Impact Statement (DEIS) for Granite Mountain Wind Energy Project and Amendment to the California Desert Conservation Plan, San Bernardino County, California. [CEQ# 20100106]

Dear Ms. Trost:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. These comments were also prepared under the authority of, and in accordance with, the provisions of the Federal Guidelines promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act (CWA). We appreciate State Director Jim Abbot's extension of the deadline for EPA to submit comments.

EPA supports increasing the development of renewable energy resources, as recommended in the National Energy Policy Act of 2005, in an expeditious and well planned manner. Using renewable energy resources such as wind power can help the nation meet its energy requirements while reducing greenhouse gas emissions. Given the large number of renewable energy project applications currently under consideration, particularly in the Desert Southwest, we believe it is imperative that BLM and project applicants coordinate early with other agencies and stakeholders on site selection and project design in order to facilitate timely environmental reviews. We encourage BLM to apply its land management authorities in a manner that will promote a long-term, sustainable balance between available energy supplies, energy demand, and protection of ecosystems and human health.

The Bureau of Land Management has identified thirty-four proposed renewable energy projects as "fast track" projects that are expected to complete the environmental review process and be ready to break ground by December 2010 in order to be eligible for funding under the American Recovery and Reinvestment Act. We are aware that many more projects that have not been designated "fast-track" are also being considered by BLM. Many, if not all, of these projects, fast track or otherwise, are proposed for previously undeveloped sites on public lands.

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In making its decisions regarding whether or not to grant rights-of-way for such projects, we recommend that BLM consider a full range of reasonable alternatives to minimize the adverse environmental impacts. Such alternatives could include alternative technologies or altered project footprints at the proposed location, as well as alternate sites, such as closed landfill or other disturbed sites that may offer advantages in terms of availability of infrastructure and less vulnerable habitats. Given the large number of renewable energy project applications currently under consideration, particularly in the Desert Southwest, we encourage BLM to apply its land management authorities in a manner that will promote a long-term sustainable balance between available energy supplies, energy demand, and protection of ecosystems and human health.

EPA provided scoping comments to the Bureau of Land Management (BLM) on January 14, 2008. In our scoping letter we commented that the project should evaluate in detail all reasonable alternatives that fulfill the purpose of the project's purpose and need including alternatives outside the legal jurisdiction of the BLM. We also expressed concerns regarding air emissions from potential construction activities. We recommended BLM coordinate with the U.S. Army Corps of Engineers to determine if the proposed project required a Section 404 permit under the Clean Water Act (CWA).

Based on our review of the subject Draft Environmental Impact Statement (DEIS), we have rated the DEIS as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*"), due to our concerns that adverse impacts to the environment may result from fill of waters of the U.S. (jurisdictional waters). Our rating was also based on concerns regarding the possible adverse impacts of construction related emission on Air Quality.

EPA recommends BLM include the results of a Jurisdictional Determination by the U.S. Army Corps of Engineers (USACE) in the FEIS. According to the DEIS the Mojave River is a receiving water body for ephemeral drainages in the proposed project area (Page 3-172). The Mojave River is considered waters of the United States, (WOUS). In the event that the project will result in fill of WOUS, BLM should obtain all necessary permits prior to starting construction and include in the FEIS a clear description of the type of permits required.

EPA is concerned with the project's potential to take protected species such as the golden eagle and desert tortoise (*Gopherus agassizii*) and its designated critical habitat. We also encourage BLM to require the most effective technology (e.g. bird and bat radar systems, feathering of blades, and shut down of turbines during strategic intervals to reduce take) that ensures the maximum avoidance of bird and bat strikes.

EPA recommends that BLM consider running the proposed overhead power line parallel to Route 1A, (preferred access, Page 2-5), to minimize the acreage of ground disturbed, thus reducing effects to species habitat, fill of ephemeral washes, possible artifact disturbance, i.e. potential project delay.

EPA appreciates the BLM's coordination, to date, and the opportunity to provide input on this Project and the multitude of DEISs under preparation for renewable energy projects in our Region. If you have any questions, please contact me at (415) 972-3521, or contact James

Munson, the lead reviewer for this project. James can be reached at (415) 972-3800 or munson.james@epa.gov.

Sincerely,

Connell Dunning

for Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: EPA Summary of Rating Definitions
EPA Detailed Comments

cc: Jim Abbott, Bureau of Land Management
Joan Patrovsky, Bureau of Land Management
Michael Picker, Governor's Office
Gerry Salas, U.S. Army Corps of Engineers
Brian Croft, U.S. Fish and Wildlife Service
Albert M. Manville, U.S. Fish & Wildlife Service
Eric Kershner, U.S. Fish & Wildlife Service

U.S. EPA DETAILED COMMENTS ON THE JOINT DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE GRANITE MOUNTAIN WIND ENERGY PROJECT AND AMENDMENT TO THE CALIFORNIA DESERT CONSERVATION PLAN, SAN BERNARDINO COUNTY, CALIFORNIA, JULY 6, 2010

Project Purpose and Need

The Purpose and Need states, "The BLM's purpose and need for the Granite Mountain Wind Energy Project is in response to Granite Wind, LLC's application under Title V of the Federal Land Policy and Management Act (FLPMA) (43 USC 1761) for authorization of a right-of-way (ROW) on BLM-managed lands to construct, operate, and decommission a wind energy facility and associated infrastructure". The Purpose and Need for a project should be stated broadly enough to spur identification of a reasonable range of alternatives, regardless of what the future findings of the alternatives analysis may be. EPA encourages BLM to consider a full scope of alternatives, including off-site locations, environmentally preferable on-site alternatives, or other modes of renewable energy generation. In light of the mandate under Section 7 (a)(1) of the Endangered Species Act, which directs all Federal agencies to use their authorities and programs to conserve threatened and endangered species, we also recommend that management and recovery of the desert tortoise be included as part of the project purpose. For more information about desert tortoise, go to: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=C04L.

Alternatives Analysis

The DEIS includes four alternatives that describe various outcomes based on whether or not the CDCA Plan is amended to approve the Granite Mountain location for wind farms and/or the right of way (ROW) on public lands is approved and/or a conditional use permit (CUP) is approved to "confirm the Project's compatibility with the San Bernardino County General Plan and development standards for the portion of the proposed project on private land" (Page 2-5). Page 2-15 of the DEIS states that "there is a limit to the degree to which the BLM and the County must consider alternative locations." EPA agrees; however, we found the alternatives analysis in the DEIS unduly limited. The Council on Environmental Quality's (CEQ) regulations for implementing NEPA (40 CFR, Parts 1500 - 1508) state that the alternatives section of an EIS should "*rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly describe the reasons for their having been eliminated*" (40 CFR, part 1502.14). All reasonable alternatives that fulfill the project's purpose and need should be evaluated in detail, including alternatives outside the legal jurisdiction of the BLM (Council on Environmental Quality's (CEQ) Forty Questions[1], #2a and #2b). "*Reasonable alternatives include those that are practical and feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.*" (CEQ Forty Questions, #2a).

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[1]Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 40 CFR Parts 1500-1508, Federal Register, Vol. 46, No. 55, March 23, 1981.

In the event that a Clean Water Act (CWA) Section 404 permit is required by the US Army Corps of Engineers (USACE), the Least Environmentally Damaging Practicable Alternative (LEDPA) must be identified in the FEIS. The alternatives analysis should include a reasonable range of practicable alternatives that meet the project purpose and demonstrate the project's compliance with the CWA Section 404(b)(1) Guidelines and authorization of the LEDPA. This would include an expanded alternatives analysis in the FEIS that would contain offsite alternatives. Specifically, the location of bald and golden eagle home ranges and migration corridors in the vicinity of the project, and the need for avoiding the take of eagles, should be considered during development of the LEDPA.

Recommendation:

- EPA recommends that BLM and the project proponent site the proposed overhead transmission lines along Route 1A, "the preferred access route" (Section 2-5). This would eliminate the need for the independent power line to the south of the turbines and minimize ground disturbance, thus reducing impacts to species habitat and fill of ephemeral washes. In addition, according to Section 3-147, portions of the area within the valley floor may contain cultural resources. Consolidating Route 1A and the transmission line would minimize the chances of artifact disturbance that could cause project delay.

Cumulative Impacts Analysis

The DEIS identifies multiple reasonably foreseeable projects and provides qualitative discussion of cumulative impacts in each resource chapter; however, it does not fully assess and quantify cumulative impacts associated with the Project, and does not adequately link the Project's effects to the health of the affected resources. Cumulative impacts are defined in the CEQ NEPA regulations as "the impact on the environment that results from the incremental impact of the action when added to the other past, present, and reasonable foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such actions (40 CFR Part 1508.7)".

The BLM completed a Record of Decision (ROD) for the Wind Energy Programmatic EIS (PEIS) in 2005, and has received numerous ROW applications for utility-scale wind energy projects in California, Nevada, and Arizona. The DEIS states that the PEIS analyzed environmental impacts of projected wind energy development of 7,230 acres in 11 states; however, individual project locations were not evaluated for impacts to the environment. The FEIS should include an updated cumulative impacts analysis that takes into consideration all other proposed renewable energy projects in the area that may have been approved after or proposed prior to the release of the Granite Mountain Wind Energy Project DEIS. The cumulative impacts analysis should assess cumulative impacts to 1) wildlife, particularly the avian population, and the range of listed species affected by the project, and 2) the visual effects on communities adjacent to Granite Mountain. For example, a reasonably foreseeable future project that should be included in the analysis is the proposed Chevron Energy Solutions Lucerne Valley Solar Project, which is to be located within 10 miles of the Granite Mountain Wind Energy Project. In addition, there are three other wind farm projects located within a 25 mile

radius from the proposed project (Figure 3.17). The FEIS should examine cumulative effects of these projects on the environmental resources.

EPA recommends that the FEIS follow the guidance developed by the California Department of Transportation (Caltrans), the Federal Highway Administration (FHWA), and EPA for cumulative impact analysis, as it can be applied to non-road projects. Specifically, the FEIS should disclose to the public the cumulative impacts that are anticipated when the impacts of the Project are considered along with those of past, present, and reasonable foreseeable future actions in the Project vicinity. Even if impacts from the Project, itself, are considered insignificant, the FEIS must address whether there are "collectively significant actions" when multiple, reasonably foreseeable projects are considered together. Incorporating this thorough analysis as part of this Project will help provide the context necessary to evaluate project-related impacts into the future. This analysis should be summarized as part of the Cumulative Impacts Chapter so decision makers do not have to piece together elements of the analysis from different sections of the FEIS.

Recommendation:

- Update the list of reasonably foreseeable projects to include all projects that may cumulatively affect Apple Valley and/or Lucerne Valley. In particular, the analysis should include discussions of the cumulative impacts on transmission capacity, water resources, air quality, biological resources and visual impacts to local communities.
- The FEIS should provide a substantive discussion of, and quantify where possible, the cumulative effects of the project when considered with other past, present, or reasonably foreseeable projects, regardless of what agency or person undertakes those actions (see 40 CFR Section 1508.7).
- The FEIS should also propose mitigation for all cumulative impacts, and clearly state the lead agency's mitigation responsibilities and the mitigation responsibilities of other entities.

Indirect Impacts

As stated on Page 1-3of the DEIS, the project is expected to generate enough electricity to accommodate "10,000 industrial and commercial electricity customers or approximately 77,093 residential customers." As an indirect result of providing additional power, it can be anticipated that this project will allow for development and population growth to occur in those areas that receive the generated electricity.

Recommendation:

- The FEIS should describe the reasonably foreseeable future land use and associated impacts that will result from the additional power supply and jobs created by the project. The document should provide an estimate of the amount of growth, likely location, and the biological and environmental resources at risk.

Impacts to Water Resources

Clean Water Act Section 404

EPA is concerned about the potential adverse impact to aquatic resources that could result from the proposed project. According to the DEIS (Page 3-89), there are 27 ephemeral drainage features on the project site. The Mojave River is the receiving water body for the proposed project location (Page 3-172). Page 3-89 of the DEIS states, "None of the ephemeral drainages within the Proposed Project area appear to meet the established criteria for jurisdiction under Clean Water Act (CWA) 404 or 401." The DEIS also states that a consultant (JBR) conducted a delineation of Waters of the United States (WOUS), including wetlands, and that, "Based on preliminary information regarding these aquatic resource areas, none of the drainages likely qualify as WOUS and therefore would not be regulated by the USACE under Section 404 of the CWA." The BLM is not authorized to determine the extent of federal jurisdiction under Section 404 of the CWA. A federal jurisdictional determination must be conducted by the USACE. In the absence of a formal jurisdictional determination, EPA is concerned that the impacts to aquatic resources may be underestimated.

If it is determined that there are jurisdictional waters within the project area, a CWA Section 404 permit from the USACE will be necessary for any discharges of dredged or fill material into these waters, including wetlands and other special aquatic sites. If a Section 404 permit is required, EPA will review the project for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Pursuant to the Guidelines, any permitted discharge into WOUS must be the Least Environmentally Damaging Practicable Alternative (LEDPA) available to achieve the project purpose. No discharge can be permitted if it will cause or contribute to significant degradation of WOUS. Based on the information available within the DEIS, the applicant has not demonstrated compliance with the Guidelines.

Ephemeral Washes

The FEIS should include additional detailed information on the functions and locations of ephemeral washes. Natural ephemeral washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. Potential damage that could result from disturbance of flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems: adequate capacity for flood control, energy dissipation, and sediment movement, as well as impacts to valuable habitat for desert species.

Proposed project construction associated with access road and transmission line development could directly affect (via temporary or permanent fill) a portion of up to 27 drainages within the Proposed Project area (Page 3-97); however, the area of impact to ephemeral waters has not been quantified. The DEIS states that impacts to aquatic resources will occur as a result of construction of access roads and transmission lines; however, the document

does not describe this. The DEIS states, "Overall, transmission lines have been strategically placed to help minimize flood impacts"; however, the DEIS does not describe the strategy that was used for this purpose. The document states that access roads will be designed to incorporate culverts for crossing waters on the project site, but there is no information on the extent of impact.

Impacts to aquatic resources should be avoided to the full extent possible. For the proposed project, there are opportunities to avoid and minimize impacts to waters through sensitive design criteria or re-routing of transmission lines and roads. If impacts to aquatic resources cannot be avoided, alternatives that minimize impacts, such as the removal of sedimentation basins and the construction of at-grade crossings or bridging, must be fully considered. Pursuant to the Guidelines, the applicant must mitigate for unavoidable impacts to WOUS.

Recommendations:

- BLM should coordinate with the USACE to determine if the proposed project will require a CWA Section 404 permit under the CWA. The results of a jurisdictional determination by the USACE should be included in the FEIS.
- Provide, in the FEIS, additional information on the functions and locations of ephemeral washes in the project area and their hydrologic and biogeochemical roles in relationship to higher-order waters downstream.
- Quantify, in the FEIS, potential impacts to WOUS and discuss the steps taken to avoid and minimize impacts. The applicant should prepare a detailed compensatory mitigation plan for unavoidable impacts to any WOUS, including wetlands.
- To the extent any aquatic features that could be affected by the project are determined not to constitute WOUS, EPA recommends that the FEIS characterize the functions of such features and consider mitigation.

Air Quality

The Project area is located within the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The project area is classified as a moderate PM-10 nonattainment area and a moderate 8-hour ozone nonattainment area.

The FEIS should clarify whether or not the project is in conformance with state air quality implementation plans (SIPs). EPA's General Conformity rule (40 CFR part 93, subpart B, and 40 CFR Part 51, Subpart W, as adopted by reference in MDAQMD Rule 2002, October 1994, and approved into the California State Implementation Plans (SIPs) on April 23, 1999 (see 64 FR 19916), hereafter cited as 40 CFR Part 93) establishes an applicability test for determining which Federal actions are subject to the conformity requirement. If a proposed action would result in emissions increases less than identified de minimis thresholds, then no conformity determination need be made. If emissions from a proposed action would exceed the de minimis threshold for any given maintenance or nonattainment pollutant (or precursor), then the Federal Agency must make a positive conformity determination for that pollutant(s) on the basis of one of the criteria listed in 40 CFR 93.158.

The FEIS should also clarify what affect the MDAQMD *California Environmental Quality Act (CEQA)* and *Federal Conformity Guidelines (Guidelines)* have on the project, in particular whether the significance thresholds in the Guidelines are applicable to this project. If so, then the FEIS needs to reconcile the 68.43 tpy of PM-10 emissions related to construction with the 15 tpy PM-10 significance thresholds in the Guidelines, see (Page 3-12, Table 3.2-C).

EPA supports incorporating mitigation strategies to reduce or minimize fugitive dust emissions as well as emission controls for PM and ozone precursors for construction-related activity. All applicable State and local requirements and the additional and/or revised measures listed below should be included in the FEIS in order to reduce impacts associated with ozone precursors, PM, and toxic emissions from construction-related activities.

Recommendations:

Due to the serious nature of the PM_{10} and 8-hour ozone conditions in the Mojave Desert Air Basin, EPA recommends that the best available control measures (BACM), all applicable requirements under local rules, and the following additional measures be implemented at all times and incorporated into the FEIS, a Construction Emissions Mitigation Plan, and the Record of Decision.

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing, and phase grading operations, where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage, and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling of heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at California Air Resources Board (CARB) and/or EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. CARB has a number of mobile source anti-idling requirements. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards.

- Utilize EPA-registered particulate traps and other appropriate controls where suitable, to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:

- Identify all commitments to reduce construction emissions and incorporate these reductions into the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is deemed to be not implementable due to economic infeasibility and provide comparable determinations for other similar projects as justification for this decision.
- Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Meet CARB diesel fuel requirement for off-road and on-highway (i.e., 15 ppm), and where appropriate use alternative fuels such as natural gas and electric.
- Develop construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

Revise the FEIS to address the following specific air quality related comments:

1. Table 3.2-A contains some errors, which should be corrected as follows:

    - The Federal SO2 standard is a new 1-hour standard of 75 ppb. The 1-hour standard is in the form of the 3-year average of the 99th percentile of the annual distribution of daily max 1-hr average concentrations. The existing 24 hr and annual standards have been revoked.

    - The Federal lead standard is 0.15 ug/m3 (rolling 3-month).

2. The Project area is in a moderate PM-10 nonattainment area as well as a moderate (not severe-17) 8-hour ozone nonattainment area.

3. There does not appear to be any discussion of the proposed on-site concrete batch and gravel crushing plants in the discussion of construction emissions. Revise as needed to insure that these sources are included in the emissions estimates in Table 3.2-C. Update the findings regarding emissions if needed.

4. Revise as appropriate to reflect whether MDAQMD Rule 403.2 applies as well as Rule 403?

5. The BMPs on pages 3-16 and 3-17 are vaguely worded (for example, "as early as possible" is stated versus specifically stating how frequently or how quickly erosion controls or dust abatement techniques should be used, etc.). We recommend adding specificity as to when these BMPs should be implemented, and how frequently.

Climate Change.

EPA commends BLM for the attention given to the issue of climate change (Page 3-10). We understand that once the project is operational it would generate electricity without air pollution, potentially reducing overall emissions associated with power production in the project area (Page 3-12). However, the DEIS does not include measures to avoid, minimize, or mitigate the effects of climate change on the proposed project, nor does it discuss the extent to which climate change may alter the impacts of the proposed project on the environment. Scientific evidence supports the concern that continued increases in greenhouse gas emissions resulting from human activities will contribute to climate change. Effects on weather patterns, sea level, ocean acidification, chemical reaction rates, and precipitation rates can be expected. These changes may affect the scope and intensity of impacts resulting from the proposed project.

Recommendations:

- Consider how climate change could affect the proposed project and the affected environment, specifically within sensitive areas, and assess how the impacts of the proposed project could be exacerbated by climate change.
- Identify strategies to more effectively monitor for climate change impacts in the surrounding area, such as monitoring possible groundwater changes do to impermeable surfaces created at the base of turbines and these effects on special status species.
- Identify specific mitigation measures needed to 1) protect the Project from the effects of climate change, and 2) reduce adverse effects to air quality caused by Project construction activities.

Species of Concern

We encourage BLM to relocate, reduce, or eliminate portions of the project footprint that would adversely affect threatened, endangered, or candidate species or their potential habitat. EPA recommends that the FEIS include a complete review of species that would be affected by the project alternatives. The results of consultation with the United States Fish and Wildlife Service, if appropriate, regarding threatened or endangered species or critical habitat should be included in the FEIS. We suggest consideration of a tactical shut down option during critical hours of species activity, if appropriate, to minimize adverse impacts on such species.

EPA encourages BLM to include in the FEIS a commitment to reduce impacts to migratory birds and eagles. Migratory birds are federally protected under the Migratory Bird Treaty Act (MBTA) and under Executive Order 13186 - Responsibility of Federal Agencies to Protect Migratory Birds. In addition, we note the Memorandum of Understanding (MOU) between the U.S. Department of the Interior, Bureau of Land Management, and the U. S. Fish and Wildlife Service titled: "To Promote the Conservation of Migratory Birds"(April 2010). The MOU directs federal agencies to "Integrate migratory bird conservation measures, as applicable, into future activity management planning' (grazing, recreation, cultural resources, wildlife, etc.), surface operating standards and guidelines for oil and gas exploration and development, and renewable (wind, solar, and geothermal) energy development NEPA mitigation".
http://www.fws.gov/migratorybirds/Partnerships/BLMEO13186MOUSigned%204.12.10.pdf
BLM should state the migratory bird conservation measures that will be integrated with this project. In addition to the protection measures identified above, eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA).

Recommendation:

- EPA recommends that the BLM consider impacts to bird populations during the project design and implementation and incorporate appropriate measures to minimize such impacts into the FEIS. The FEIS should commit to implementing and using design models that have the least amount of threat to all wildlife, including adjusted turbine speeds and avian safe practices for all transmission and distribution lines, and all infrastructure at substations
- The FEIS should identify specific measures to reduce impacts to eagles and identify how the proposed project complies with the Bald and Golden Eagle Protection Act.
- The FEIS should also commit to additional data collection and analysis to document the use and location of areas that are important to bald and golden eagles in relation to the proposed project area and to ensure proper siting to avoid take. Given the large home ranges of golden eagles, and proximity of nests in the area, project modifications, such as Bird & Bat Radar Systems and feathering of blades during strategic intervals to reduce take, should be committed to whenever possible to prevent mortality.
- If alternatives cannot be developed that avoid the take of eagles, the FEIS should include a plan to develop an operational monitoring and adaptive management plan. In the event the project will result in adverse impacts to eagles, an incidental take permit under the BGEPA may be needed.
- For more information regarding avian protection measures, refer to the following websites/articles: http://www.detect-inc.com/avian.html ; http://www.upi.com/Science_News/Resource-Wars/2010/03/18/Radar-reduces-wind-farm-risk-to-birds/UPI-71441268920323/; http://seattletimes.nwsource.com/html/localnews/2012196772_apwawindfarmmurrelets1stldwritethru.html

Visual Impacts

Careful attention should be given to how a wind turbine array is set against the landscape. Steps should be taken to minimize the visual impacts and make the wind turbines less obtrusive when possible.

Recommendations:

- EPA recommends that the FEIS include further consultation with both the Federal Aviation Administration (FAA) and the United States Military to ascertain visual requirements. The DEIS states that BLM's Visual Resource Management "provides a means to identify mitigating measures that can be taken to minimize adverse visual impacts" (Page 3-19). EPA encourages BLM to adhere to these mitigation measures while obtaining input from local communities as well.

Cultural Resources, National Historic Resources and Consultation with Tribal Governments

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act (NHPA). Historic properties under the NHPA are properties that are included in the National Register of Historic Places (NRHP) or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, to consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO).

Executive Order 13007, Indian Sacred Sites (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States' government-to-government relationships with Indian tribes. President Obama directed all federal agencies to develop an action plan to implement this Executive Order by February 3, 2010. For more information, refer to: http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president.

Recommendations:

- EPA recommends the FEIS describe the process and outcome of government-to-government consultation between the BLM and each of the tribal governments within the project area, issues that were raised (if any), and how those issues were addressed in relation to the proposed action and selection of a preferred alternative.

Decommissioning/Follow-up Actions

The DEIS states that the "goal of Project decommissioning is to remove the installed power generation equipment and return the site to a condition as close to a pre-construction state as feasible". The expected life span of this project is up to 30 years (Page 2-12).

Recommendations:

- EPA recommends that the FEIS identify bonding or financial assurance strategies for decommissioning and reclamation. The projected 30-year lifespan should be used to ascertain the correct financial instruments that could be used for bond and or financial assurance calculations.
- The FEIS should take into consideration the increased cost (projected future rates) of decommissioning in thirty years and make provisions for extended or refurbished use.