California Office
1303 J Street, Suite 270 | Sacramento, CA 95814 | tel 916.313.5800 | fax 916.313.5812
www.defenders.org

January 28, 2010

Bureau of Land Management
California Desert District
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553-9046
(Attn: Greg Thomsen)

(Sent by electronic mail to**:** catulewind@blm.gov)

Re: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Tule Wind Project and the Proposed East County Substation Project, San Diego County. Federal Register: December 29, 2009 (Volume 74, Number 248), Pages 68860-68861.

Dear Mr. Thomsen:

On behalf of Defenders of Wildlife (Defenders) and our more than 1,000,000 members and supporters in the U.S., 200,000 of which reside in California, I am writing to provide issue scoping comments on the Bureau of Land Management's (BLM) intent to prepare an Environmental Impact Statement for the proposed Tule Wind Project (EIS) located in McCain Valley in eastern San Diego County, CA.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

We strongly support renewable energy production and utilization in California, but we do not consider the construction of utility-scale projects, and especially the very large projects currently proposed on public lands in and adjacent to the California Desert to be the primary way to meet our long term renewable energy goals. Some utility-scale wind energy projects exist on BLM administered lands in the California Desert, as well as on adjacent private lands. Such large projects should be sited on degraded or disturbed land, to the maximum extent possible, before projects are considered on public lands having significant biological resources and values. We expect that the analysis of alternatives in the NEPA process will fully address opportunities for locating proposed projects on both federal and privately owned lands that are in a disturbed condition consistent with the purpose and need for each project.

Our scoping comments are based on the project description contained in the Federal Register notice. For background information purposes, we include a summary of the project description, as follows:

National Headquarters
1130 17th Street, N.W.
Washington, D.C. 20036-4604
tel 202.682.9400 | fax 202.682.1331

Project Description: Pacific Wind Development submitted a right-of-way (ROW) application to construct, operate, and maintain an energy generation facility approximately 60 miles east of San Diego, north of Interstate 8. The project would generate 200 megawatts of wind energy. The project, known as the Tule Wind Project, would include the construction of new roads, turbines, a transmission line, and other facilities. The proposed project would be constructed on approximately 15,500 acres, comprised of lands administered by the BLM as well as private lands under county jurisdiction, state lands, and lands within the Ewiiaapaayp Indian Reservation. The public land portion of the proposed project involves 12,125 acres in McCain Valley administered by the El Centro Field Office of the BLM.

SDG&E has applied to BLM for a 1.5-mile, 100-foot wide ROW to accommodate a 138-kilovolt transmission line in support of the wind project. The ROW is part of the application SDG&E has filed with the California Public Utilities Commission (CPUC) for the much larger East County (ECO) Substation Project.

Environmental issues that should be addressed in the environmental review process are:

1. Project Alternatives: The range of alternatives analysis is the "heart of the environmental impacts statement." 40 C.F.R. § 1502.14. The National Environmental Policy Act (NEPA) requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions." *See* 40 C.F.R. §§ 1052.14(a) and 1508(c).

Recommendation: The DEIS must include alternative project sites or locations, including those that may not fall under the jurisdiction of the BLM; project extent and electrical power generation that differ from the applicant's proposal; and the potential for different technology that may lead to lesser potential impacts on sensitive environmental resources.

The issue of the applicant signing power purchase agreements with public utility companies for a certain amount of electrical power prior to decisions on the proposed project by the various agencies with permitting authority should be addressed. This practice appears to result in inflexibility on the part of the applicant with regard to what constitutes a reasonable range of alternatives, and may unjustly influence the permitting agencies into thinking that the only alternatives are the proposed project or no project.

2. Land Use Planning and Management: Federal land in McCain Valley under jurisdiction of the BLM has been the subject of land use planning and conservation management for several decades. Notable among these are the following:

- McCain Valley National Cooperative Land and Wildlife Management Area: Among the first actions taken to conserve lands and wildlife resources in McCain Valley was establishment of the McCain Valley National Cooperative Land and Wildlife Management Area in 1961 by Secretary of the Interior Stuart Udall. It was established by Public Land Order 2460. According to the USDI, Office of the Secretary, in an information notice dated 8/16/1961[1], the McCain Valley Cooperative Land and Wildlife

[1] Department of the Interior, Office of the Secretary. Information Service notice dated August 16, 1961: Interior Establishes Six Federal-State Land and Wildlife Areas.

Management Area was established for the purpose of "…development of wildlife, recreational, and other natural resources for benefit of the entire Nation." Furthermore, the announcement states "…the Department has withdrawn the lands in the cooperative management areas from all applications under the nonmineral public land laws. The lands are closed to disposition under the homestead, desert land and scrip selection laws, but are open to mining, mineral leasing, grazing, and other compatible uses."

- Eastern San Diego County Management Framework Plan: The 1981 Eastern San Diego County Management Framework Plan (MFP)[2] established multiple land use and resource management policy for approximately 99,000 acres of public land. McCain Valley is within this planning area. This multiple land use plan highlighted the wildlife and natural resources values of the McCain Valley area, including the popularity of recreational hunting for upland game and Mule Deer. This plan called attention to the high wildlife values associated with naturally occurring Oak Woodlands in McCain Valley because they provide essential nesting and foraging area for numerous bird species, including raptors.

  The MFP identified certain nonfederal land parcels for acquisition to facilitate management of critical resource values. BLM has acquired non-federal parcels of land in the McCain Valley Wildlife Habitat Management Area through purchase using funding from the Land and Water Conservation Fund (LWCF), and the MFP indicated BLM intended to continue to purchase remaining private lands within McCain Valley using the LWCF or mitigation funds. These land acquisitions were described as desirable because they resulted in the protection of wildlife and archaeological resources, and facilitated public recreation

- McCain Valley Wildlife Habitat Management Plan: BLM, in cooperation with the California Department of Fish and Game, prepared the first McCain Valley Wildlife Habitat Management Plan[3] in 1978 and an updated version in 1984[4]. The purpose of these habitat management plans is to establish policies to protect and enhance wildlife habitat and numerous species of plants and animals occurring on public lands in McCain Valley. Wildlife species and their habitats addressed in the plan included upland game birds, raptors, Mule Deer, and Peninsular Bighorn Sheep. Several species of rare plant species were noted and habitat protection goals were established.

- Eastern San Diego County Resource Management Plan: The Eastern San Diego County Resource Management Plan[5] basic land use management plan was finalized in 2008 and establishes the most recent public land management policy for the McCain Valley and

[2] Bureau of Land Management. 1981. Eastern San Diego County Planning Unit, Management Framework Plan. California Desert District, Riverside, CA. 50 pp.
[3] Bureau of Land Management. 1978. McCain Valley Wildlife Habitat Management Plan. Riverside District, Riverside, CA. 19 pp.
[4] Bureau of Land Management. 1984. McCain Valley Wildlife Habitat Management Plan. California Desert District, El Centro Resource Area. (A Sikes Act Plan prepared jointly with the California Department of Fish and Game, Region 5. 26 pp. plus appendices.
[5] Bureau of Land Management. 2008. Eastern San Diego County Resource Management Plan and Record of Decision. El Centro Field Office, California Desert District, El Centro, CA. 143 pp. plus appendices.

other public lands in eastern San Diego County. With regard to McCain Valley, this plan established the following management policies for vegetation and wildlife resources:

A. Vegetation

1. Promote oak woodland communities with oak recruitment that contain trees of various size and age classes, with an understory of native perennial grass and forb species.

2. Ensure that oak woodland communities are stable or expanding with no net loss and minimal habitat fragmentation.

3. Avoid adverse impacts to special status species, priority species, and plants protected by the California Native Plant Protection Act and associated habitats by developing, modifying, redesigning, mitigating, or abandoning specific projects.

4. Surface-disturbing activities will be designed to avoid impacts to riparian areas, desert fan palm oases, oak woodlands, and desert wash to the greatest extent possible. Where avoidance is not possible, these areas will be restored to their previously undisturbed or native condition. Restoration will follow approved protocol and include watering and maintenance until establishment.

5. Prohibit removal of native standing trees, alive or dead, with the exception of fire management, health and human safety, or disease control.

6. Surface-disturbing activities will be designed to avoid impacts to riparian areas, desert fan palm oases, oak woodlands, and desert wash to the greatest extent possible. Where avoidance is not possible, these areas will be restored to their previously undisturbed or native condition. Restoration will follow approved protocol and include watering and maintenance until establishment.

7. Riparian areas will be avoidance areas for all commercial and non-commercial surface disturbance activities. Avoidance area is defined as an area only available for discretionary land use authorizations when there are no other reasonable alternatives for the authorization.

B. Wildlife

1. Restore native species habitat distribution and occurrence (especially for priority species), conserve biological diversity, maintain genetic integrity and exchange, and improve availability of suitable habitats and habitat linkages. Initiate restoration activities in priority habitats—such as invasive weed removal or native seeding—to move toward desired habitat conditions, and provide functional landscapes to sustain the fish and wildlife species populations. Wildlife habitat improvement projects for the Planning Area will be implemented in coordination with the California

Department of Fish and Game (CDFG), pursuant to Section 103(f) of the California Desert Protection Act of 1994, and/or USFWS, as necessary.

2. Pursue land acquisition options (i.e., purchase, exchange, donation, and easement) to consolidate important wildlife habitats.

3. Provide natural or man-made nesting or perching structures in suitable areas to enhance foraging and breeding habitat for raptors as the need arises.

4. Require all new structures to be raptor-safe in accordance with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (the Avian Power Line Interaction Committee 2006) or the current version of this document.

5. Apply the BLM wind energy program policies and BMPs from Appendix A in the Wind Energy Development Program ROD (DOI BLM 2005f).

6. Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable, through the application of mitigation measures for authorized activities.

7. Management actions will be guided by recommendations of comprehensive migratory bird planning efforts such as those completed by California Partners in Flight, including *The Oak Woodland Bird Conservation Plan* (California Partners in Flight [CalPIF] 2002), *The Riparian Bird Conservation Plan* (Riparian Habitat Joint Venture 2005), *The Coastal Scrub and Chaparral Plan* (CalPIF 2004), and other plans as available.

8. Monitor new energy development including power lines and wind turbines or other structures to better understand risks to non-game migratory birds.

9. Require a non-game migratory bird inventory for new utility or energy projects.

10. Require a bat inventory for new wind energy projects.

11. Implement species or habitat-specific goals, objectives, prescriptions, and actions, as applicable, addressed in the approved recovery plans for federally listed species.

12. Require that any surface disturbance activities avoid or minimize impacts and mitigate for residual impacts to all special status species habitat. Mitigation will be in the form of habitat restoration or acquisition.

13. Critical habitat lands are exclusion areas for all types of Land Use Authorizations including renewable energy (geothermal development is regulated by the land use decisions for leasable mineral resources).

14. Incorporate the additional conservation measures that are recommended in the BO prepared by the USFWS for the RMP (Appendix B).

15. For Peninsular Bighorn Sheep, minimize effects resulting from human-caused disturbances.

16. Maintain migratory corridors and stopover habitat of sufficient quality and quantity to facilitate use by Swainson's hawks.

17. ACECs are exclusion areas for renewable energy (i.e., wind and geothermal development).

C. Utility Corridors

1. All new utility ROWs, consisting of the following types, will be located only within the designated corridor: 1) new electrical transmission towers and cables of 161 kV or above.

Recommendation: The EIS must carefully analyze the effects of the proposed project on the McCain Valley and its rich biological resources, including the effects on those resources that are addressed from a land use policy perspective in the various land use plans and wildlife activity plans identified above. The effects of the proposed project on each goal and objective for biological resources in these plans need to be analyzed. BLM must clearly demonstrate to what degree, if any, this proposed project is consistent with established management policies, goals and objectives for wildlife resources.

Recommendation: Analysis of the effects of the proposed project on the management directive for the McCain Valley contained in Public Land Order 2460 is critical. This order states that public lands are to be managed by the BLM "…for the development, conservation, utilization, and maintenance of their natural resources, including their recreational and wildlife resources." Although the order allows for multiple land uses requiring a right of way, the decision whether or not to grant a right of way for specific projects is discretionary by BLM and must be based on an analysis of consistency of the impacts of the proposed project with the goals of the order.

Recommendation: The EIS must disclose the location of all lands BLM and other cooperating agencies have acquired within the McCain Valley for the purposes of enhancing biological resources and recreational uses of wildlife. Acquisitions by donation, purchase or exchange need to be identified. If lands have been acquired for wildlife conservation and recreational purposes, then BLM must evaluate the effects on these acquired lands and their wildlife resources in light of the recent BLM policy decision in California that lands acquired for conservation purposes should be identified as avoidance/exclusion areas for multiple land use activities that would result in surface disturbance.[6]

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[6] Bureau of Land Management. 2009. Interim Policy on Management of Donated Lands and Lands Acquired with Land and Water Conservation Funds (LWCF). Instruction Memorandum No. CA-2009-20. May 27, 2009. Sacramento, California. 2pp.

3. Biological Resources

BLM Policy Manual: Special Status Species Management (6840): Analysis of the impacts of the project on Special Status Species, and the subsequent development of avoidance, minimization and mitigation measures for such impacts, must conform with policy contained in the 6840 Manual as follows: "On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat..."[7]

Recommendation: For each special status species of plant and animal that would be affected by the proposed project, the EIS must demonstrate whether or not the proposed projects, and all the alternatives, are consistent with the 6840 manual.

Raptor Management: The EIS should describe the occurrence of nesting and foraging raptors in and adjacent to McCain Valley based on literature surveys and adequate field work on site. The Eastern San Diego County MFP indentifies key raptor nesting areas in McCain Valley and also states that scattered Oak Woodlands provide important nesting habitat. Raptor migration through and adjacent to McCain Valley needs to be analyzed.

Recommendation: The long term effects of large scale wind turbine developments on the raptor resource in McCain Valley must be a part of the analysis in the EIS. The cumulative impacts of other existing wind turbine developments and powerlines should be part of the analysis.

BLM should clearly articulate in the EIS the policy for raptor management on public lands, the protection provisions of the Migratory Bird Treaty Act, and any other applicable laws, regulations or policies pertaining to raptors. Impact mitigation measures should be based on credible and applicable scientific studies that have demonstrated measures that can be used to avoid or substantially reduce adverse impacts to raptors and other bird species.

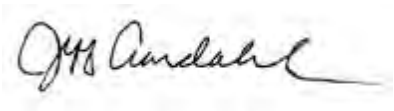
4. Interagency Coordination: Two wildlife habitat management plans prepared by BLM for the McCain Valley Wildlife Habitat Management Area in 1978 and 1984 were cooperative management plans prepared in concert with the California Department of Fish and Game. The plans were formally approved by the Department of Fish and Game Regional Manager and the BLM District Manager.

Recommendation: The EIS should include information provided by the California Department of Fish and Game on the compatibility of the proposed wind turbine project in McCain Valley based on their role as cooperator in management of wildlife resources. There is little, if any, documentation of any involvement by the Department of Fish and Game in development of the Eastern San Diego County Resource Management Plan and specifically issues associated the renewable energy development in McCain Valley.

[7] Bureau of Land Management. 2008. Manual 6840: Special Status Species Management. Washington, D.C. 24 pp.

Thank you for considering our comments. If you have any questions, please contact me at (916) 313-5800 x110 or via email at jaardahl@defenders.org.

Sincerely,



Jeff Aardahl
California Representative

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

JAN 28 2010

ATTN: Greg Thomsen
Bureau of Land Management
California Desert District Office
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553-9046 89049

Subject: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Tule Wind Project and the Proposed East County Substation Project (ECO), San Diego County, California

Dear Mr. Thomsen:

The U.S. Environmental Protection Agency (EPA) has reviewed the December 29, 2009 Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) for the proposed Tule Wind Project and the proposed East County Substation Project (ECO), San Diego County, California. Our comments are provided 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.

EPA supports increasing the development of renewable energy resources, as recommended in the National Energy Policy Act of 2005. Using renewable energy resources such as wind power can help the nation meet its energy requirements while reducing greenhouse gas emissions. To assist in the scoping process for this project, we have identified several issues for your attention in the preparation of the EIS. We are most concerned about impacts to water resources, biological resources, and habitat, as well as cumulative impacts associated with the potential development of multiple large-scale wind and solar projects in the desert southwest.

We appreciate the opportunity to review this NOI and are available to discuss our comments. Please send two hard copy of the Draft EIS and two CD ROM copies to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please contact me at (415) 972-3238 or at plenys.thomas@epa.gov.

Sincerely,

Tom Plenys
Environmental Review Office

Enclosures: EPA's Detailed Comments

US EPA DETAILED COMMENTS ON THE NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED TULE WIND PROJECT AND EAST COUNTY SUBSTATION PROJECT, JANUARY 28, 2010

Project Description

The Bureau of Land Management (BLM) issued a December 29, 2009 Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) for the proposed Tule Wind Project and the proposed East County Substation Project (ECO), San Diego County, California. The NOI indicates that the Pacific Wind Development has submitted an application to the BLM to construct, operate and maintain an energy generation facility that would generate 200 megawatts (MW) of renewable power. The project, known as the Tule Wind Project, would include the construction of new roads, turbines, a transmission line and other facilities.

The proposed project would use 15,500 acres of land administered by BLM, the California State Land Commission (CSLC), lands of the Ewiiaapaayp Indian Reservation, and privately-owned property under the jurisdiction of San Diego County. BLM's lands would comprise 12,125 acres. The proposed project is located in unincorporated San Diego County, approximately 60 miles east of San Diego, California.

The San Diego Gas and Electric Company (SDG&E) has also filed an application with the California Public Utilities Commission (CPUC) for the proposed East County Substation Project (ECO). The ECO project will include: construction of a new substation (ECO substation); a loop-in of the existing 500 kV Southwest Powerlink transmission line; construction of an approximately 13.3-mile-long, 138 kilovolt (kV) transmission line from the ECO Substation to the Boulevard Substation; upgrading of the existing Boulevard Substation; dismantling and removal of the existing 69/12 kV substation; and upgrading of the existing SDG&E communication facility at White Star.

As part of the ECO Project, SDGE&E has filed an application with BLM for a right-of-way grant for an approximately 1.5 mile long, 100 foot wide area to construct a 138 kV transmission line within a designated utility corridor.

BLM intends to use and coordinate the National Environmental Policy Act (NEPA) process for this project.

Statement of Purpose and Need

The Draft Environmental Impact Statement (DEIS) should clearly identify the underlying purpose and need to which BLM is responding in proposing the alternatives (40 CFR 1502.13). The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity.

Recommendation:
The purpose and need should be a clear, objective statement of the rationale for the proposed project. The DEIS should discuss the proposed project in the context of the larger energy market that this project would serve; identify potential purchasers of the power produced; and discuss how the project will assist the state in meeting its renewable energy portfolio standards and goals.

Alternatives Analysis

NEPA requires evaluation of reasonable alternatives, including those that may not be within the jurisdiction of the lead agency (40 CFR Section 1502.14(c)). A robust range of alternatives will include options for avoiding significant environmental impacts. The DEIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail. Reasonable alternatives should include, but are not necessarily limited to, alternative sites, capacities, and technologies as well as alternatives that identify environmentally sensitive areas or areas with potential use conflicts. The alternatives analysis should describe the approach used to identify environmentally sensitive areas and describe the process that was used to designate them in terms of sensitivity (low, medium, and high).

The environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The potential environmental impacts of each alternative should be quantified to the greatest extent possible (e.g., acres of wetlands impacted, tons per year of emissions produced, etc.).

Recommendations:
The DEIS should describe how each alternative was developed, how it addresses each project objective, and how it would be implemented. The alternatives analysis should include a discussion of alternative sites, capacities, and generating technologies including different types of technologies, and describe the benefits associated with the proposed technology.

The DEIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Thresholds of significance should be determined by considering the context and intensity of an action and its effects (40 CFR 1508.27).

Water Resources

Clean Water Act Section 303(d)

The Clean Water Act (CWA) requires States to develop a list of impaired waters that do not meet water quality standards, establish priority rankings, and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality.

Recommendation:
The DEIS should provide information on CWA Section 303(d) impaired waters in the project area, if any, and efforts to develop and revise TMDLs. The DEIS should describe existing restoration and enhancement efforts for those waters, how the proposed project will coordinate with on-going protection efforts, and any mitigation measures that will be implemented to avoid further degradation of impaired waters.

Clean Water Act Section 404

The project applicant should coordinate with the U.S. Army Corps of Engineers (Corps) to determine if the proposed project requires a Section 404 permit under the Clean Water Act (CWA). Section 404 regulates the discharge of dredged or fill material into waters of the United States (WOUS), including wetlands and other *special aquatic sites*. The DEIS should describe all WOUS that could be affected by the project alternatives, and include maps that clearly identify all waters within the project area. The discussion should include acreages and channel lengths, habitat types, values, and functions of these waters. In addition, EPA suggests that BLM include a jurisdictional delineation for all WOUS, including ephemeral drainages, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* and the December 2006 *Arid West Region Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.* A jurisdictional delineation will confirm the presence of WOUS in the project area and help determine impact avoidance or if state and federal permits would be required for activities that affect WOUS.

If a permit is required, EPA will review the project for compliance with *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 ("404(b)(1) Guidelines"). Pursuant to 40 CFR 230, any permitted discharge into WOUS must be the least environmentally damaging practicable alternative (LEDPA) available to achieve the project purpose. The DEIS should include an evaluation of the project alternatives in this context in order to demonstrate the project's compliance with the 404(b)(1) Guidelines. If, under the proposed project, dredged or fill material would be discharged into WOUS, the DEIS should discuss alternatives to avoid those discharges.

The DEIS should describe the original (natural) drainage patterns in the project locale, as well as the drainage patterns of the area during project operations, and identify whether any components of the proposed project are within a 50 or 100-year floodplain. We also recommend the DEIS include information on the functions and locations of WOUS, as well as ephemeral washes in the project area, because of the important hydrologic and biogeochemical role these washes play in direct relationship to higher-order waters downstream.

Water Supplies

Public drinking water supplies and/or their source areas often exist in many watersheds. Source water is water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are delineated and mapped by the state for each federally-

regulated public water system. The 1996 amendments to the Safe Drinking Water Act (SDWA) require federal agencies to protect sources of drinking water for communities. Therefore, EPA recommends that the EIS identify:

a) source water protection areas within the project area;
b) activities that could potentially affect source water areas;
c) potential contaminants that may result from the proposed project; and
d) measures that would be taken to protect the source water protection areas.

Biological Resources, Habitat and Wildlife

During construction of the proposed project, vegetation would be cleared and soils moved during the construction of roads, wind turbine foundations, substations, switchyards, transmission lines and other facilities. The DEIS should describe the current quality and capacity of habitat and its use by wildlife in the proposed project area, especially bats and avian populations. The DEIS should describe the critical habitat for the species; identify any impacts the proposed project will have on the species and their critical habitats; and how the proposed project will meet all requirements under the Endangered Species Act, including consultation with the U.S. Fish and Wildlife Service, National Oceanographic Atmospheric Administration, and Nevada Department of Wildlife.

The DEIS should identify all petitioned and listed threatened and endangered species that might occur within the project area. The DEIS should identify and quantify which species might be directly or indirectly affected by each alternative. We suggest that the BLM review the following documents: 1) the U.S. Fish and Wildlife Service's 2003 *Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines*, and 2) the 2005 GAO Report to Congressional Requesters, *Wind Power: Impacts on Wildlife and Government Responsibilities for Regulating Development and Protecting Wildlife*.

Wind energy generation projects have the potential to disrupt important wildlife species habitat, resulting in mortality of migratory species such as birds and bats due to collisions with rotors. The EIS should consider whether migratory birds are likely to use the project area and avoid, if possible: 1) areas supporting a high density of wintering or migratory birds, 2) areas with high level of raptor activity, and 3) breeding, wintering or migrating populations of less abundant species which may be sensitive to increased mortality as a result of collision. A comprehensive monitoring program should be designed to evaluate impacts on bats and avian species. We suggest that the BLM conduct pre-construction baseline surveys to evaluate the site for its importance to bats and avian species, as well as post-construction surveys to determine the extent of mortalities and to determine the effectiveness of mitigation measures. Surveys should be conducted by a qualified biologist during the appropriate time of year. BLM actions should promote the recovery of declining populations of species.

Collision risk depends on a range of factors related to species, numbers and behavior, weather conditions, topography, and lighting. The DEIS should identify and describe specific turbine types and their operating characteristics and consider turbine design standards that

minimize adverse impacts to wildlife, particularly birds and bats. Consideration should be given to reducing the perching and nesting opportunities, which may help reduce potential collisions.

Because the project may have impacts on native and rare plants, the DEIS should include general locations of rare plants, and how these sites will be managed to minimize impacts on the plants. If any pesticides and herbicides will be used for vegetation treatment during the proposed project operations, the DEIS should address any potential toxic hazards related to the application of the chemicals, and describe what actions will be taken to assure that impacts by toxic substances released to the environment will be minimized. If vegetation would be burned, then the DEIS should include a smoke management program that would be followed to reduce public health impacts and potential ambient air quality exceedances.

Invasive Species

Executive Order 13112, *Invasive Species* (February 3, 1999), mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species. If the proposed project will entail new landscaping, the DEIS should describe how the project will meet the requirements of Executive Order 13112.

Recommendation:
The DEIS should include an invasive plant management plan to monitor and control noxious weeds.

Indirect and Cumulative Impacts

The cumulative impacts analysis should provide the context for understanding the magnitude of the impacts of the alternatives by analyzing the impacts of other past, present, and reasonably foreseeable projects or actions and then considering those cumulative impacts in their entirety (CEQ's Forty Questions, #18). The DEIS should clearly identify the resources that may be cumulatively impacted, the time over which impacts are going to occur, and the geographic area that will be impacted by the proposed project. The DEIS should focus on resources of concern – those resources that are "at risk" and/or are significantly impacted by the proposed project, before mitigation. In the introduction to the *Cumulative Impacts Section*, identify which resources are analyzed, which ones are not, and why. For each resource analyzed, the DEIS should:

- Identify the current condition of the resource as a measure of past impacts. For example, the percentage of species habitat lost to date.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis.
- Identify all on-going, planned, and reasonably foreseeable projects in the study area that may contribute to cumulative impacts.
- Identify the future condition of the resource based on an analysis of impacts from reasonably

foreseeable projects or actions added to existing conditions and current trends.

- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify opportunities to avoid and minimize impacts, including working with other entities.

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.

Recommendations:
The DEIS should describe the reasonably foreseeable future land use and associated impacts that will result from the additional power supply. The document should provide an estimate of the amount of growth, its likely location, and the biological and environmental resources at risk.

The DEIS should consider the direct and indirect effects of the inter-connecting transmission line for the proposed project, the Energia Sierra Juarez Generator-Tie Line Project, as well as the cumulative effects associated with the transmission needs of other reasonably foreseeable projects.

Implementation of Adaptive Management Techniques for Mitigation Measures

Adaptive management is an iterative process that requires selecting and implementing management actions, monitoring, comparing results with management and project objectives, and using feedback to make future management decisions. The process recognizes the importance of continually improving management techniques through flexibility and adaptation instead of adhering rigidly to a standard set of management actions. Although adaptive management is not a new concept, it may be relatively new in its application to specific projects. The effectiveness of adaptive management monitoring depends on a variety of factors including:

a) The ability to establish clear monitoring objectives;
b) Agreement on the impact thresholds being monitored;
c) The existence of a baseline or the ability to develop a baseline for the resources being monitored;
d) The ability to see the effects within an appropriate time frame after the action is taken;
e) The technical capabilities of the procedures and equipment used to identify and measure changes in the affected resources and the ability to analyze the changes;
f) The resources needed to perform the monitoring and respond to the results.

Recommendation:
EPA recommends that BLM consider adopting a formal adaptive management plan to evaluate and monitor impacted resources and ensure the successful implementation of mitigation measures. EPA recommends that BLM review the specific discussion on Adaptive Management in the NEPA Task Force Report to the Council on Environmental Quality (CEQ) on *Modernizing NEPA*.

Climate Change

Scientific evidence supports the concern that continued increases in greenhouse gas emissions resulting from human activities will contribute to climate change. Global warming is caused by emissions of carbon dioxide and other heat-trapping gases. Global warming can affect weather patterns, sea level, ocean acidification, chemical reaction rates, and precipitation rates, resulting in climate change. Reports also indicate that deserts may store as much carbon as temperate forests.

Recommendations:
The DEIS should consider how climate change could potentially influence the proposed project, specifically within sensitive areas, and assess how the projected impacts could be exacerbated by climate change.

The DEIS should quantify and disclose the anticipated climate change *benefits* of wind energy. We suggest quantifying greenhouse gas emissions from different types of generating facilities including solar, geothermal, natural gas, coal-burning, and nuclear and compiling and comparing these values.

The DEIS should discuss whether the trenching, grading, and filling associated with the construction of this project and the installation of the turbines, will affect the deserts ability to store carbon, and to what degree this may occur.

Air Quality

The DEIS should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards (NAAQS), criteria pollutant nonattainment areas, and potential air quality impacts of the proposed project (including cumulative and indirect impacts). Such an evaluation is necessary to assure compliance with State and Federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality.

The DEIS should describe and estimate air emissions from the proposed facility, including potential construction and maintenance activities, as well as proposed mitigation measures to minimize those emissions. EPA recommends an evaluation of the following measures to reduce emissions of criteria air pollutants and hazardous air pollutants (air toxics).

Recommendations:

- *Existing Conditions* – The DEIS should provide a detailed discussion of ambient air conditions, NAAQS, and criteria pollutant nonattainment areas in all areas considered for wind development.

- *Quantify Emissions* – The DEIS should estimate emissions of criteria pollutants from the proposed project and discuss the timeframe for release of these emissions over the lifespan of the project. The DEIS should describe and estimate emissions from potential construction activities, as well as proposed mitigation measures to minimize these emissions.

- *Specify Emission Sources* – The DEIS should specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. This source specific information should be used to identify appropriate mitigation measures and areas in need of the greatest attention.

- *Equipment Emissions Mitigation Plan (EEMP)* – The DEIS should identify the need for an EEMP. An EEMP will identify actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and NOx associated with construction activities. We recommend that the EEMP require that all construction-related engines:

    - are tuned to the engine manufacturer's specification in accordance with an appropriate time frame;
    - do not idle for more than five minutes (unless, in the case of certain drilling engines, it is necessary for the operating scope);
    - are not tampered with in order to increase engine horsepower;
    - include particulate traps, oxidation catalysts and other suitable control devices on all construction equipment used at the project site;
    - use diesel fuel having a sulfur content of 15 parts per million or less, or other suitable alternative diesel fuel, unless such fuel cannot be reasonably procured in the market area; and
    - include control devices to reduce air emissions. The determination of which equipment is suitable for control devices should be made by an independent Licensed Mechanical Engineer. Equipment suitable for control devices may include drilling equipment, generators, compressors, graders, bulldozers, and dump trucks.

- *Fugitive Dust Control Plan* - The DEIS should identify the need for *Fugitive Dust Control Plan.* We recommend that it include these general recommendations:

    - Stabilize open storage piles and 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; and
- 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.

Noise Impacts

The DEIS should include an assessment of noise levels from the wind turbines. Decibel levels of the turbines should be evaluated as should the effects of noise levels on a variety of species, as well as effects on property values, residences, and recreational use.

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.

Coordination with Tribal Governments

Executive Order 13175

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.

Recommendation:
The DEIS should 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 the selection of the proposed alternative.

National Historic Preservation Act and Executive Order 13007

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act (NHPA). Historic properties under the National Historic Preservation Act (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, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO). Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800.

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.

Recommendation:
The DEIS should address the existence of Indian sacred sites in the project areas. It should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the BLM will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist. The DEIS should provide a summary of all coordination with Tribes and with the SHPO/THPO, including identification of NRHP eligible sites, and development of a Cultural Resource Management Plan.

Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. Guidance[1] by CEQ clarifies the terms low-income and minority population (which includes American Indians) and describes the factors to consider when evaluating disproportionately high and adverse human health effects.

Recommendation:
The DEIS should include an evaluation of environmental justice populations within the geographic scope of the project. If such populations exist, the DEIS should address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the project's impact on minority and low-income populations should reflect coordination with those affected populations.

Hazardous Materials/Hazardous Waste/Solid Waste

The DEIS should address potential direct, indirect and cumulative impacts of hazardous waste from construction and operation of the proposed project. The document should identify projected hazardous waste types and volumes, and expected storage, disposal, and management plans. It should address the applicability of state and federal hazardous waste requirements. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization). Alternate industrial processes using less

[1]Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997.

toxic materials should be evaluated as mitigation. This potentially reduces the volume or toxicity of hazardous materials requiring management and disposal as hazardous waste.

Coordination with Land Use Planning Activities

The DEIS should discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the project area. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should also be addressed it they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b).