



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
3425 Miriam Avenue  
Bismarck, North Dakota 58501



APR - 4 2008

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PUBLIC SERVICE COMMISSION

Mr. Mark D. Aanenson  
Houston Engineering, Inc.  
P.O. Box 5054  
2505 North University Drive  
Fargo, North Dakota 58105-5054

Dear Mr. Aanenson:

This is in response to your March 19, 2008, request for environmental information, on behalf of Just Wind, LLC (Just Wind), in relation to a proposed Logan County Wind Farm (LCWF) Project near Napoleon in Logan County, North Dakota. The proposed location for Phase I of the wind power project is directly to the north and east of Napoleon and Phase II is approximately 3 miles northeast of Napoleon. Phase I of the project as proposed is a 192 Megawatt (MW) wind park consisting of 80, 2.4 MW wind turbines with associated roads, underground collector lines, underground telemeter communication system, substation inter-connection, and other associated equipment required for the successful operation of the wind farm. Phase II as proposed will be approximately 312 MW consisting of 95, 2.4 MW wind turbines. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and the National Environmental Policy Act ( Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982).

The U.S. Fish and Wildlife Service (Service) holds certain resources in trust and manages them for the benefit of the American people. These resources include migratory birds, inter-jurisdictional fish, federally-listed threatened and endangered species of plants and animals and their habitats, and units of the National Wildlife Refuges system. When planning an activity, project proponents should give careful consideration to potential impacts to these trust resources and compliance with the laws mentioned above. Additional information is provided below.

### Migratory Birds

Adequate consideration for avian resources early in the site evaluation process can help to minimize impacts and facilitate project review. Although current wind turbine technology and proper siting can help to minimize the incidence of avian deaths due to blade, aerial line, and

10 PU-07-54 Filed: 4/7/2008 Pages: 7  
Response to Just Wind, LLC re: Environmental  
Information

tower strikes, the potential for direct mortality of some migratory birds will remain. Wind power developers, in concert with the Service, can help to ensure that projects proceed with as little impact to migratory birds as possible. This can be accomplished by gathering information on avian resources as they relate to project siting and by implementing measures to minimize impacts to migratory birds from the construction and operation of the wind facility. The Service's Interim Wind Turbine Siting Guidelines are enclosed to assist in project planning (enclosure 1). We encourage Just Wind to conduct a Potential Impact Index (PII) analysis to assist in the selection of a wind power site that minimizes the potential to impact migratory birds. Please inform this office whether or not you plan to use the Service's interim guidelines in selecting your site and if not, why not, and whether you intend to use a different method to assess avian resources and impacts to migratory birds.

To minimize the electrocution hazard to birds, the Service, with support from the Rural Utilities Service, recommends that new or updated overhead power lines be constructed in accordance with the current guidelines for preventing raptor electrocutions. The recommended guidelines can be found in "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996". To increase power line visibility and reduce bird fatalities resulting from collisions with power lines, the Service recommends new power lines that cross or run adjacent to rivers or large wetlands be modified according to "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994". Both publications can be obtained by writing or calling the Edison Electric Institute, P.O. Box 266, Waldorf, Maryland 20604-0266, (1-800-334-5453) or visiting their website at [www.eei.org](http://www.eei.org).

### **Threatened and Endangered Species**

A list of Federally threatened and endangered species that may occur within the proposed project's area of influence is enclosed (enclosure 2). Section 10(a)(1)(B) of the ESA allows non-Federal parties planning activities that have no Federal nexus, but which could result in the incidental taking of listed animals, to apply for an incidental take permit. (A Federal nexus exists whenever an activity is conducted, funded, or licensed or permitted by a Federal agency). The application must include a habitat conservation plan (HCP) laying out the proposed actions, determining the effects of those actions on affected federally-listed fish and wildlife species and their habitats (often including proposed or candidate species), and defining measures to minimize and mitigate adverse effects. The Service does not believe that a determination of "no effect" is appropriate for the proposed location because of, but not limited to, the presence of migrating whooping cranes in this area.

The Aransas Wood Buffalo Population (AWBP) of whooping cranes is the only self-sustaining migratory population of whooping cranes remaining in the wild. These birds breed in the wetlands of Wood Buffalo National Park in Alberta and the Northwest Territories of northern Canada, and overwinter on the Texas coast. Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations.

Endangered whooping cranes have been documented using roosting habitat in the vicinity of the proposed project area. The proposed site is located within a 90 mile-wide migration corridor that includes 75% of all confirmed whooping crane sightings in North Dakota (enclosure 3). The presence of suitable roosting and feeding habitat for whooping cranes in the project area, and confirmed whooping crane sightings in the project vicinity, document the potential for whooping crane presence in the proposed project area. Just Wind's proposed wind energy project has the potential to affect whooping cranes during their annual spring and fall migration through North Dakota. Potential effects may be direct (e.g. collision mortality) or indirect (e.g. avoidance of the site resulting in cranes seeking alternate habitat). The interactions of whooping cranes with wind turbines and wind farms are currently not fully known, although it is expected that these large birds with relatively low maneuverability are susceptible to mortality via collisions with turbines. Currently, collisions with power lines are the greatest known source of mortality for fledged whooping cranes, and have accounted for the death or serious injury of at least 46 whooping cranes since 1956.

### **Fish and Wildlife Service Property Interests**

The Service administers Waterfowl Production Area fee title as well as wetland and grassland easements throughout North Dakota. A review of the County plat books indicate Service property interests (wetland easements highlighted in yellow and grassland easements highlighted in purple) are located in the planning area (enclosure 4). Mr. Mick Erickson, Project Leader, Kulm Wetland Management District, 1 First Street, SW, P.O. Box E, Kulm, North Dakota 58456 (701-647-2866), should be contacted for more specific information relative to Service easements. Following are some suggestions and explanations of the various land interests the Service is responsible for in the proposed project area.

Wetland easements (yellow) are legal agreements with private landowners that permanently protect wetland basins from being drained, burned, leveled, or filled.

Grassland easements (purple) are legal agreements with landowners that permanently protect grassland vegetation, primarily native prairie, from being destroyed or developed. These easements prevent these grasslands from being converted to cropland. Mowing, haying, and grass seed harvesting must be delayed until after July 15 each year.

The primary responsibility in protecting these easements is to review all proposed uses to ensure that the requests are compatible with Service easement regulations and various laws and policies. Therefore, these comments and suggestions are made in an attempt to accomplish three goals: 1) avoid impacts to Service grassland and wetland easements in the project area as much as possible; 2) if unavoidable, ensure that any proposed turbine and associated infrastructure impacts (roads, buried collection lines, transmission lines, sub-stations, etc.) on any Service easement areas are kept to an absolute minimum; and 3) investigate all potential alternatives to eliminate or reduce impacts to easement areas to protect the integrity of the easement.

With these goals in mind, the Service offers the following comments:

1. Grassland Easements:

- There are two grassland easement tracts in the proposed Phase I project area. They are located in T. 135 N., R. 72 W., Section 1 (NW $\frac{1}{4}$ ; W $\frac{1}{2}$ NE $\frac{1}{4}$ ) and Section 13 (NE $\frac{1}{4}$ ). The proposed Phase II project area contains three grassland easement tracts. They are located in T. 136 N., R. 72 W., Section 3 (SW $\frac{1}{4}$ ), Section 4 (S $\frac{1}{2}$ ), Section 27 (S $\frac{1}{2}$ ), Section 35 (SE $\frac{1}{4}$ ; E $\frac{1}{2}$ SW $\frac{1}{4}$ ; NW $\frac{1}{4}$ SW $\frac{1}{4}$ ), and Section 36 (W $\frac{1}{2}$ ; NW $\frac{1}{4}$ NE $\frac{1}{4}$ ).
- The draft plan for Phase I indicates two or three turbines to be placed on the grassland easement tract in Section 1. Building turbines on grassland easements will require a discussion about a variety of administrative procedures that will need to be completed to comply with various laws, policies and regulations (NEPA documentation, compatibility determinations, restoration plans, decommissioning plans, replacement of impacted areas, a possible reimbursable agreement in support of Service expenditures for review, etc.). Mr. Erickson is available to meet in person to cover all these easement considerations in more detail once a more complete draft plan of the project layout is available. However, as with all other resource considerations, we urge you to discuss your plans with us prior to final site selection.
- The draft plan for Phase I also indicates that two turbines are proposed for placement on the grassland easement tract in Section 13. In addition, there is a proposed interconnection point (sub-station) proposed for this quarter-section. The substation construction will need to be discussed further, since this type of infrastructure may impact a substantial amount of the Service grassland easement versus the disturbance resulting from placing a turbine on the easement.

2. Wetland Easements:

- The Service manages a number of wetland easements in the proposed project area. Without a map showing the proposed turbine and road locations, it is not possible at this time to identify specific concerns with turbines and roads. The National Wetlands Inventory (NWI) identifies many of the area's wetlands; however, many of the small, shallow temporary wetland basins may not be recognized on NWI photography. You should make all reasonable efforts to avoid facility placement and disturbance to wetland easements. If your plans indicate a proposal to locate project facilities on Service wetland easements, the Service will review aerial photography along with field inspections to review construction stakes to make sure all wetland basins are avoided. In addition, it is important to make sure that access roads do not alter individual wetland basins and their individual watersheds.

### 3. NEPA Review:

- As mentioned, if Service lands are proposed to be impacted, the Service will be required to conduct an analysis of impacts and examine alternatives, pursuant to NEPA.

Mr. Erickson is available to assist you in the planning and micro-siting phase of your project in order to reduce impacts to native grasslands and wetland basins.

### **High Value Habitat Avoidance**

The proposed project area is located in the Missouri Coteau region of North Dakota and includes areas of native mixed-grass prairie. Since the 1800s, North Dakota has lost approximately 75-90 percent of its native grasslands, primarily due to crop production. The Service recommends avoiding construction or disturbance on native prairie areas.

Native prairie has significant natural resource values including:

- Provides habitat for a number of migratory and resident grassland birds whose populations are declining.
- Provides nesting habitat for millions of waterfowl.
- Contains 200-300 plant species, which provide genetic diversity important to agriculture and medicine.
- Provides habitat for thousands of insects including the Dakota skipper, a candidate species for listing under the ESA, and other butterflies (Ex: Regal fritillary, Tawny crescent).
- Crucial for soil and water conservation.
- Provides recreational opportunities (hunting, bird watching/wildlife observation, hiking).
- Living laboratories for scientific research.

Our review of NWI maps indicate that wetland areas are located within the project area. NWI data can be accessed directly by visiting their website at ([wetlands.fws.gov](http://wetlands.fws.gov)). Section 404 of the Clean Water Act regulates placement of fill materials in certain wetlands. A Corps of Engineers' 404 permit may be required if fill material will be placed in aquatic sites including wetlands. Contact Mr. Dan Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine their permit requirements. If a 404 permit is required, the Service will provide recommendations on this project to the Corps.

Other high value wildlife habitat types in North Dakota include wooded draws and riparian forests. We recommend that you avoid construction of wind towers and appurtenant facilities in the above habitat types whenever possible.

Construction activities should be conducted in a manner that will minimize impacts to the wildlife and the existing habitat in the project area. Where impacts are unavoidable, we recommend that you:

- Schedule construction for late summer or fall/early winter so as not to disrupt waterfowl or other wildlife during the breeding season (February 1 to July 15). If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds or active nests, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the absence or presence of nesting migratory birds. If nesting migratory birds are found, we request you contact this office, suspend construction or take other measures, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that field surveys for nesting birds, along with information regarding the qualification of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site, be thoroughly documented and that such documentation be shared with the Service and maintained on file by the project proponent at least until such time as construction on the proposed project has been completed.
- Avoid construction in native prairie, if possible, and reseed disturbed native prairie with a comparable native grass/forb seed mixture. Obtain seed stock from nurseries within 250 miles of the project area to insure the particular cultivars are well adapted to the local climate.
- Minimize grassland disturbance by using fewer, larger turbines and limiting new road construction.
- Use underground transmission lines between turbines, as well as to the primary substation.
- Locate appurtenant facilities to avoid placement of fill in wetlands along the route.
- Install and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams near the project area.
- Replace unavoidable wetland losses with functionally equivalent wetlands.

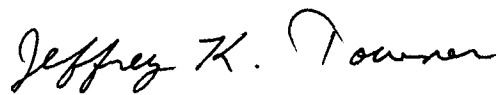
### **Research, Monitoring, and Assessment**

We encourage project proponents to conduct collision monitoring studies designed to determine the effect of several factors, such as site selection, turbine designs, the layout of wind plants, wind plant operations, habitat alteration, and changes in available perching and nesting sites, on bird deaths. The Avian Subcommittee of the National Wind Coordinating Committee (NWCC) has developed a guidance document to assist wind energy developers in designing studies that will produce credible and comparable results of avian interaction with wind power plants. The NWCC document, "Studying Wind Energy/Bird Interactions: A Guidance Document. Metrics and methods for determining or monitoring potential impacts on birds at existing and proposed wind energy sites," can be obtained by contacting the National Wind Coordination Committee,

c/o RESOLVE, 1255 23<sup>rd</sup> Street, Suite 275, Washington, D.C. 20037, or by visiting their website at ([www.nationalwind.org](http://www.nationalwind.org)).

Given the Service requirements and recommendations above, as well as possible unforeseen issues that may arise, we encourage you to build sufficient planning time for coordination with the Service into your project timeline. Thank you for the opportunity to comment on this project. If you require further information as project planning proceeds, please contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address.

Sincerely,



Jeffrey K. Towner  
Field Supervisor  
North Dakota Field Office

Enclosures (4)

cc: Project Leader, Kulm WMD  
(Attn: M. Erickson)  
Regulatory Office, Army Corps of Engineers, Bismarck  
(Attn: D. Cimarosti)  
ND Public Service Commission, Bismarck  
Director, ND Game & Fish Department, Bismarck  
(Attn: M. McKenna)

cc/enc: Just Wind, LLC, Mound  
(Attn: J. Metzger)