



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Nebraska Field Office
201 West Second Street
Grand Island, Nebraska 68801

April 18, 2003

Mr. Rockford G. Plettner
Environmental Specialist Water/
Natural Resources
Nebraska Public Power District
P.O. Box 499
Columbus, NE 68602-0499

Dear Mr. Plettner:

This responds to your April 14, 2003, letter requesting input from the U.S. Fish and Wildlife Service (Service) regarding the possible construction of a wind farm south of Ainsworth, Brown County, Nebraska. These comments are provided as technical assistance and predevelopment consultation and do not constitute a Service report under authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) on any required Federal environmental review or permit.

Wind-generated electrical energy is renewable, produces no emissions, and is a generally environmentally clean technology. Development of wind energy is strongly endorsed by the Secretary of the Interior, as expressed in the Secretary's Renewable Energy on Public Lands Initiative. However, wind energy facilities can adversely impact wildlife, especially birds and bats. As more facilities with larger turbines are built, the cumulative effects of this rapidly growing industry may initiate and contribute to the decline of some wildlife populations. The potential harm to these populations from an additional source of mortality makes careful evaluation of proposed facilities essential.

In accordance with Section 7(c) of the Endangered Species Act of 1973 (ESA), as amended we have determined that the following federally listed and candidate species may occur within or in the vicinity of the Brown County study area:

<u>Listed Species</u>	<u>Expected Occurrence</u>
Bald eagle (<u><i>Haliaeetus leucocephalus</i></u>)	Migration, winter resident
Whooping crane (<u><i>Grus americana</i></u>)	Migration

American burying beetle (<u>Nicrophorus americanus</u>)	Resident
Western prairie fringed orchid (<u>Platanthera praecclera</u>)	Wet meadows
Blowout penstemon (<u>Penstemon haydenii</u>)	Sandhill blowouts

Bald eagles migrate statewide and utilize mature riparian timber near streams, lakes, and wetlands. Bald eagles may occur throughout Brown County during migration. Wintering bald eagles are most likely to be found along the Niobrara River in northern Brown County. The primary bald eagle migration and wintering period is mid-November to April 1.

Whooping cranes use shallow, sparsely vegetated streams and wetlands in which to feed and roost during migration. The peak migration seasons in Nebraska are from approximately March 23 through May 10, and from October 1 through November 15. Brown County is located near the center of the whooping crane migration corridor across Nebraska. Palustrine wetlands and wet meadow habitat found within the project area offer potential migrational habitat for the birds. Although no whooping crane sightings have been confirmed within the study area, the following sightings have been confirmed in the vicinity of the study area:

October 23 - November 2, 2000; 5 birds; Brown County, 4 miles west and 1-mile south of Ainsworth. T30N,R23W,S25.

March 28 - April 1, 1998; 2 birds; Brown County, 1-mile south and 1-mile west of Ainsworth. T30N,R22W,S34,SE4,SW4; T29N,R22W,S4,NE4.

October 21 - 23, 1997; 5 birds; Brown County, 3 miles west and 3 miles south of Ainsworth. T29N,R22W,S6,NE4.

November 1 - 2, 1982; 5 birds; Brown County, 12 miles south of Ainsworth.

In Nebraska, the American burying beetle has been collected in grassland, mixed grassland/cropland, and riparian woodland. No surveys have been conducted within the study area, however, American burying beetles are known to occur in Brown County. During surveys conducted in 2001, American burying beetles were collected in T26N,R22W,S34 and T32N,R22W,S26. It is likely that American burying beetles are scattered throughout Brown County. We recommend that surveys be conducted to determine if the American burying beetle is present within the study area.

The federally listed threatened western prairie fringed orchid is an inhabitant of tall-grass calcareous silt loam or sub-irrigated sand prairies (wet meadows). No populations of western prairie fringed orchid are known to occur within the study area. It appears that potential habitat for this plant species is present within the study area, and we recommend that surveys be

conducted to determine the possible presence of the western prairie fringed orchid. Surveys should be conducted during the flowering period of the plant (i.e., late June to mid-July).

The federally listed endangered blowout penstemon occurs in blowouts in the Nebraska Sandhills. No populations of blowout penstemon are known to occur in Brown County, however, there does appear to be potential habitat (i.e., blowouts) within the study area. Therefore, we recommend that surveys be conducted during the flowering period (i.e., mid-May to late June) of this plant to determine its possible presence within the study area.

The black-tailed prairie dog (*Cynomys ludovicianus*) is currently listed as a candidate species by the Service. The species is found in scattered populations in reduced numbers throughout central and western Nebraska. Prairie dog colonies are known to occur in Brown County. The Service recommends that the existing colonies be protected from disturbance.

If the Federal action agency determines that the proposed action may affect federally listed species, formal section 7 consultation should be requested from this office. If they determine that there will be no effect, and the Service concurs, further consultation is unnecessary.

The Service is concerned about the potential loss of eagles and migratory birds associated with the windpower turbine industry. The installation of wind turbine facilities began in California in 1981. Bird mortalities associated with collisions with rotating turbine blades were first noted in 1984. Since that time, several studies of avian mortality associated with the wind energy projects have been completed. These studies and other sources have revealed a disturbingly high loss of federally protected birds. For example, the studies indicate that an average of 40 golden eagles are being killed each year at the Altamont Pass (California) site alone. It has also been estimated that 6,000 passerine birds are killed annually at another site in southern California. Most, if not all, of the losses are considered to be in violation of the Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703-712 and the Bald and Golden Eagle Protection Act (BEPA), 16 U.S.C. 668. The MBTA, BEPA, and in the case of the bald eagle and other federally listed birds, the ESA, impose a requirement on the windpower industry that it must comply with existing federal laws.

During each migration, millions of migratory birds, representing over 400 species, cross Nebraska. Consequently, the presence of large wind turbine generators would be a potential collision hazard to these birds. In addition to the federally listed bald eagle, migratory, nesting, and wintering raptors such as the peregrine falcon, golden eagle, red-tailed hawk, rough-legged hawk, and northern harrier are likely to occur within the study area.

Migratory and resident bird species are often attracted to wetland habitats. Since there appears to be an abundance of wetlands within the study area, we have enclosed a National Wetland Inventory map showing the location of the various wetland types.

The electrocution of birds, particularly large raptors, may be a problem on transmission and distribution lines associated with the windpower turbines. Uninsulated conductors on poles and

crossarm utility poles have been the primary cause of electrocution of raptors that use power poles as perches. Burying electrical lines should be the first option considered when constructing a wind farm. If electrical lines cannot be buried and overhead lines are installed, then the applicable procedures outlined in the Raptor Research Foundation publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996" should be followed.

Based on the foregoing discussion, we have enclosed draft guidelines, which were developed by the Service's Wind Turbine Siting Working Group, primarily for use in terrestrial situations. The guidelines are intended to assist the wind industry in avoiding or minimizing impacts to wildlife through: 1) proper evaluation of potential wind resource areas; 2) proper siting, design, and operation of turbines within development areas; and 3) pre- and post-construction research and monitoring to identify and/or assess impacts to wildlife. These guidelines are voluntary, are based on current science, and will be updated as new information becomes available.

If you have further questions, please contact Mr. Wally Jobman within our office at (308)382-6468, extension 16. Thank you for the opportunity to comment on this potential wind farm site.

Sincerely,

Steve Anschutz
Nebraska Field Supervisor

Enclosures

cc: FWS, Special Agent, Lincoln, NE (Attn: Mark Webb)
FWS, Special Agent, North Platte, NE (Attn: Mike Damico)
NGPC; Lincoln, NE (Attn: Julie Godberson)

c: ainswind