Nebraska is ranked 3rd in the U.S. for its potential wind power generation ... ...and it is home to hundreds of species of wildlife, .... ...has valuable, intact habitats, and ... ...provides important stop-over sites for millions of migrating birds.

The potential implications of wind energy development on these natural resources are not well known.

Cooperation among stakeholders including wind developers, state and federal management agencies, land owners, utility companies, and communities, is needed to develop wind energy that takes into account ecological and socio-logical needs of Nebraska.

For more information, please contact: windwildlife@unl.edu
Visit: http://snr.unl.edu/renewableenergy/wind/
Wind Energy Development & Wildlife in Nebraska

NEBRASKA WIND ENERGY INFORMATION

- Ranked 3rd in the U.S. for potential wind power generation.
- Wind energy installed capacity is 337.38 megawatts (MW) generated by 196 wind turbines at nine facilities.
- Currently, enough energy is derived from wind to power almost 103,880 homes.
- Potential benefits of developing 1,000 MW of new wind power:
  - Annual: Water Savings: 1,840 million gallons, CO₂ Reductions: 4.1 million tons.
  - Cumulative: $1.1 billion economic benefits.

WILDLIFE & HABITATS OF NEBRASKA

- Over 600 species of wildlife, including 400 species of birds.
- Listed species (#):
  - State - 27
  - Federal - 15
- Biologically Unique Landscapes (40) provide valuable habitats for wildlife species.
- Millions of migrating geese, ducks, shorebirds, and cranes, including endangered Whooping Cranes, rest and feed in areas such as the Rainwater Basin, the narrowest portion of the Central Flyway.
- Hunting and wildlife viewing provide recreation, food or fur, and tourism income for Nebraskans.

POTENTIAL EFFECTS OF WIND ENERGY DEVELOPMENT ON WILDLIFE & HABITATS

Birds and bats can have fatal collisions with wind turbines and/or associated transmission lines.

The sudden drop in air pressure around wind turbines can cause internal hemorrhaging or barotrauma which causes death in bats.

Wind farm construction and infrastructure, including roads, can fragment habitats, create migration barriers, introduce invasive species, disturb animal behavior, and/or displace wildlife from an area.

WIND ENERGY DEVELOPMENT RECOMMENDATIONS

Contact Nebraska Game and Parks Commission (NGPC) and the U.S. Fish and Wildlife Service (USFWS) early in the planning process and review these documents:

- Wind Energy and Nebraska’s Wildlife map (on previous page)
- Guidelines for Wind Energy and Wildlife Resource Management in Nebraska
- Avian Assessment Guidance for Wind Energy Facilities in Nebraska
- U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines (draft)

Coordinating with NGPC and USFWS on wind turbine siting (location, layout, orientation) and operations can help minimize potential negative impacts to wildlife and habitats.

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