

# Wind and Wildlife in Nebraska



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# Overview

1. Introduction
2. Environmental Review Process
3. Planning Tools and Guidance



# Introduction

- Nebraska Game and Parks Commission (NGPC) has responsibility to protect and manage wildlife and natural habitats
- NGPC wants to work proactively with developers to ensure wind energy facilities are developed with wildlife in mind
- Impacts to wildlife can be avoided and minimized if wildlife concerns are recognized and addressed during the planning phase

# Environmental Review



- Provide project information early
- Turbines (design & placement), roads, portable concrete facilities, substations, transmission lines, potential direct & indirect impacts



# Environmental Review

- Nebraska Nongame and Endangered Species Conservation Act (NESCA)  
(Neb. Rev. Stat. 37-801-11)
  - 27 Threatened & Endangered Species



# Environmental Review

- NESCA 37-806
  - It is unlawful for any person to export, **take**, possess, process, sell or offer for sale, deliver, carry, transport, or ship threatened or endangered species
    - “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to do any of these things



# Environmental Review

- NESCA 37-807(3)
  - State agency consults with NGPC for any actions they authorize, fund, or carry out
    - Power Review Board, NGPC, Dept of Natural Resources, Dept of Environmental Quality, Dept of Roads, etc.



# Environmental Review

- Other at-risk species and communities
  - Nebraska Natural Legacy Project
    - Tier I & Tier II Species
    - At-risk Communities
    - Biologically Unique Landscapes
  - Prevent listing other species
- Federal Laws
  - Endangered Species Act
  - Migratory Bird Treaty Act
  - Bald and Golden Eagle Protection Act





# Environmental Review



- “Standard” Conservation Conditions
  - Avian Power Line Interaction Committee standards
  - Mark transmission lines (bird flight diverters)
  - Bury Collection lines
  - Free-standing meteorological towers
  - White strobe lights & minimum flashes (as allowed by FAA)
  - Minimize disturbance & re-seed using native, local ecotypes
  - Mitigate **direct & indirect impacts** to native habitats (conservation easement) and wildlife
  - Seasonal construction restrictions
  - Pre & Post-construction surveys and mortality studies

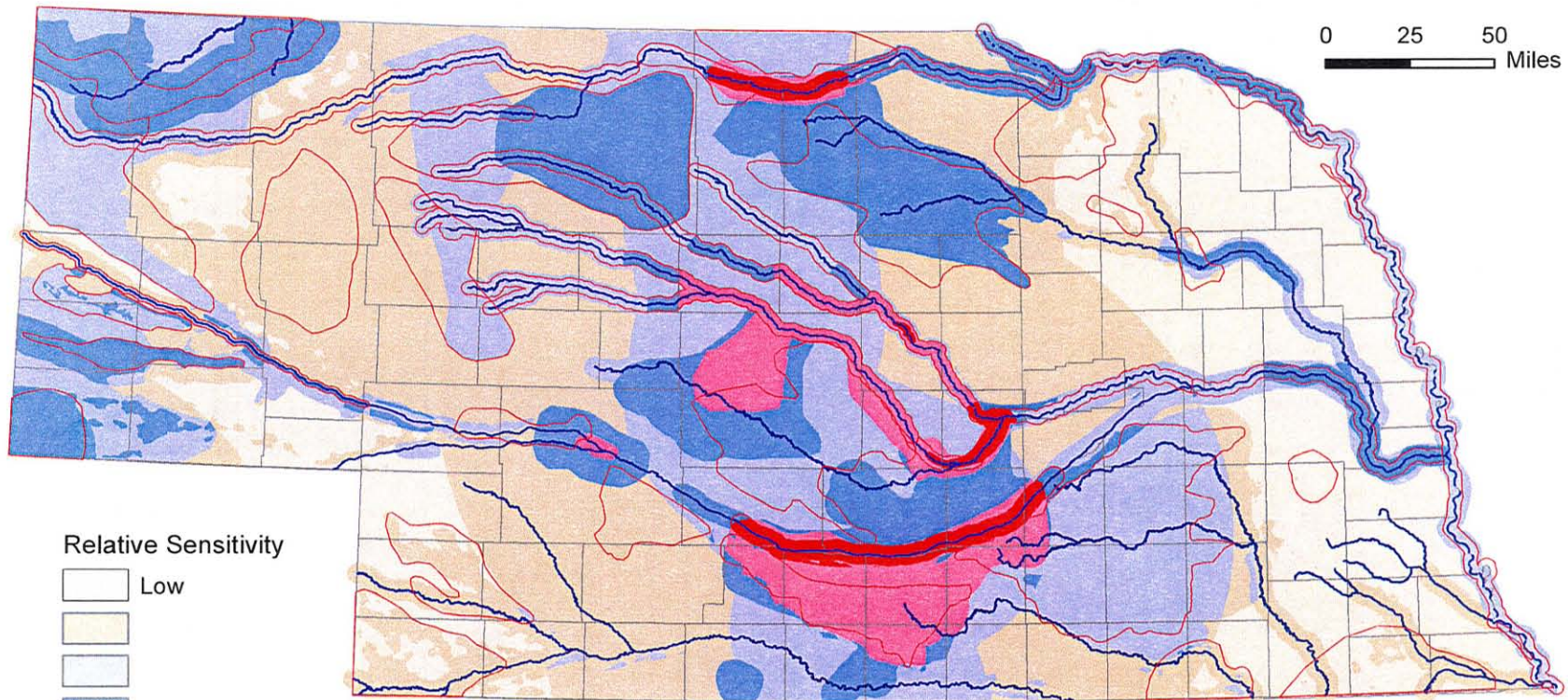
# Planning Tools & Guidance

- Wind & Wildlife Map
- Guidelines for Wind Energy and Wildlife Resource Management
- Avian Assessment Guidance





DRAFT: Wind power and Nebraska's wildlife:  
An index of the sensitivity of wildlife habitats to wind power development,  
based on selected at-risk species



Relative Sensitivity



Biologically Unique Landscapes



This map was designed to aid in planning for wind power development by identifying areas that are considered relatively more sensitive or less sensitive to such development, with respect to species of concern. This map is not designed to evaluate wind farm siting at specific locations. Even in "low sensitivity" areas shown, there will be specific locations where siting of wind power infrastructure can negatively impact significant biological resources (e.g. remnant tallgrass prairie, listed plant species, etc.). Contact the Nebraska Game and Parks Commission and the U.S. Fish and Wildlife Service for potential site-specific impacts and potential conservation measures to avoid "take" under the state Nongame and Endangered Species Conservation Act and the federal Endangered Species Act.

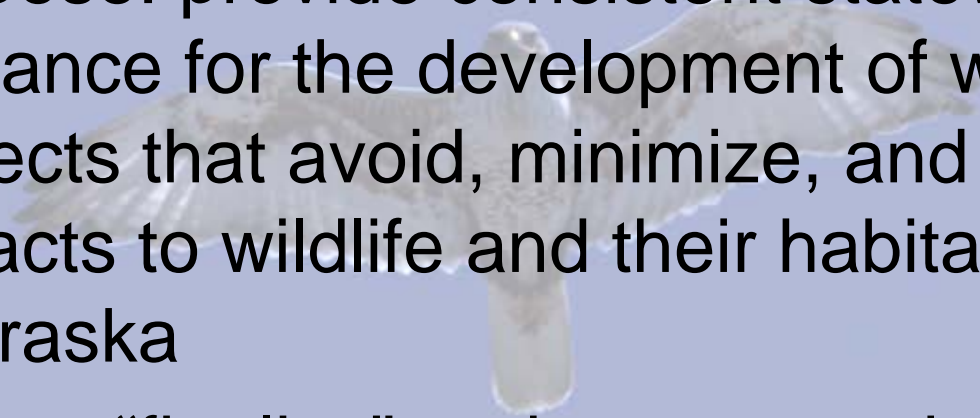
See attached document for a description of the information used to develop this map.

Map version date: April 30, 2009



# Planning Tools & Guidance

- *Guidelines for Wind Energy and Wildlife Resource Management in Nebraska*
  - The Nebraska Wind and Wildlife Working Group
  - Purpose: provide consistent statewide guidance for the development of wind energy projects that avoid, minimize, and mitigate impacts to wildlife and their habitats in Nebraska
  - Plan to “finalize” and post on website





# Planning Tools & Guidance

- *Guidelines for Wind Energy and Wildlife Resource Management in Nebraska*
  - Pre-construction site assessment
    - T&E Species
    - Avian Assessment Guidance
    - Bats
    - At-risk Ecological Communities
  - Practices to avoid and minimize impacts to wildlife
  - Post-construction operational monitoring
  - Mitigation for long-term habitat impacts
  - Research

# Planning Tools & Guidance

## WIND POWER AND NEBRASKA'S WILDLIFE

Avian assessment guidance for wind power facilities



- Avian Assessment Guidance
- Assist with designing surveys & reporting
  - Breeding Birds
  - Nesting Raptor
  - Prairie Grouse
- Produce defensible results
- Used to make sound decisions
  - Location
  - Mitigation

# Planning Tools & Guidance

## Avian Assessment Guidance

- Two years pre & post construction surveys
- Allow flexibility with methods
  - Still want to estimate detection probabilities and corrected densities
- Species specific surveys
- Specific surveys in migratory corridors or stop-over locations






# Summary

- Provide project information for initial review early in the planning phase
- Develop survey methods & conduct two years of pre-construction surveys
- Schedule meetings and/or site visits as necessary
  - survey methods & reports, final infrastructure
- Conduct 2-3 years of post-construction surveys



# Summary

- Involve NGPC & USFWS to avoid impact to sensitive species & communities
- Plan Ahead (review and surveys)
- Utilize tools and guidance documents
- Work together to avoid and minimize impacts to wildlife



**Thank You!**  
**Any Questions?**

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