

# Wind Power and Birds: Conservation Considerations, Challenges, and the Role of the USFWS

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# Outline

- Migratory Bird Treaty Act & Enforcement
- FWS siting guidelines
- Wind v. other sources of mortality
- PIF trend data and cumulative effects
- Wind energy future in OR
- Role of FWS

# Migratory Bird Treaty Act

- Passed in 1918 + subsequent amendments
- Implements treaties with:
  - Canada (GB) – 1916
  - Mexico – 1936
  - Japan – 1972
  - Russia – 1978
- Prohibits direct take unless authorized by permit.
- There are no regulations that permit indirect or incidental take.
- It's a Strict Liability statute – one incidental take is a violation.

# Which Birds Are/Aren't Protected?

✦ Protects 830+ native species **except**

- resident game birds
- introduced species
- hawaiian honeycreepers, &
- ...wrentits

(50 CFR 10.13)



# FWS Dilemma

... While MBTA and the Bald and Golden Eagle Protection Act have **no provision for** allowing unauthorized **take**, the Service recognizes that **some birds may be killed** at structures such as wind turbines even if all reasonable measures to avoid it are implemented. While **it is not possible** under these acts **to absolve individuals, companies, or agencies from liability**, the Service's office of Law Enforcement and Department of Justice have **used enforcement and prosecutorial discretion** in the past regarding individuals, companies, or agencies who have made **good faith efforts to avoid the take** of migratory birds....

# Mitigation?

- Cannot mitigate mortality under MBTA
  - Strict liability statute
  - No take thresholds or allowances
  - No ability to permit take
- States bound to uphold MBTA
- Can mitigate for land under FWS  
Mitigation policy

# FWS Siting Guidelines

- 2002 – DOI's Renewable Energy on Public Lands Initiative – FWS asked to develop siting guidelines
- 2003 – FWS distributes for comment
  - 2004 grouse guidelines
- 2007 – FAC formed
- 2009 – FAC recommendations to FWS

# Total Mortality?

- We think bird mortality nationwide averages 2 birds/yr/MW;
- Current wind power capacity is 21,017 MW.
- Now killing ~ 42,000/yr
- Projected capacity ~ 100 times current.
- Projected mortality ~ 4 million/yr



# Wind v. Other Sources of Mortality?

U.S. Annual	
Buildings & Windows	98 M to 980 M
High Tension Lines	50,000 to 174 M
Cats	100 M
Vehicles	60 M to 80 M
Pesticides	70 M
Commun. Towers	4 M to 50 M
<b>Projected Wind</b>	<b>4 M</b>
<b>Current Wind</b>	<b>40,000</b>
Seabird By-catch	?

# Cumulative Effects?

- Partners in Flight Continental Plan (2004)
  - evaluated 448 species
  - 100 on the ‘Watch List’ (threats to habitat, declining populations, small population sizes, or limited distributions
    - 28 require immediate action
    - 44 more need management to reverse long-term declines.

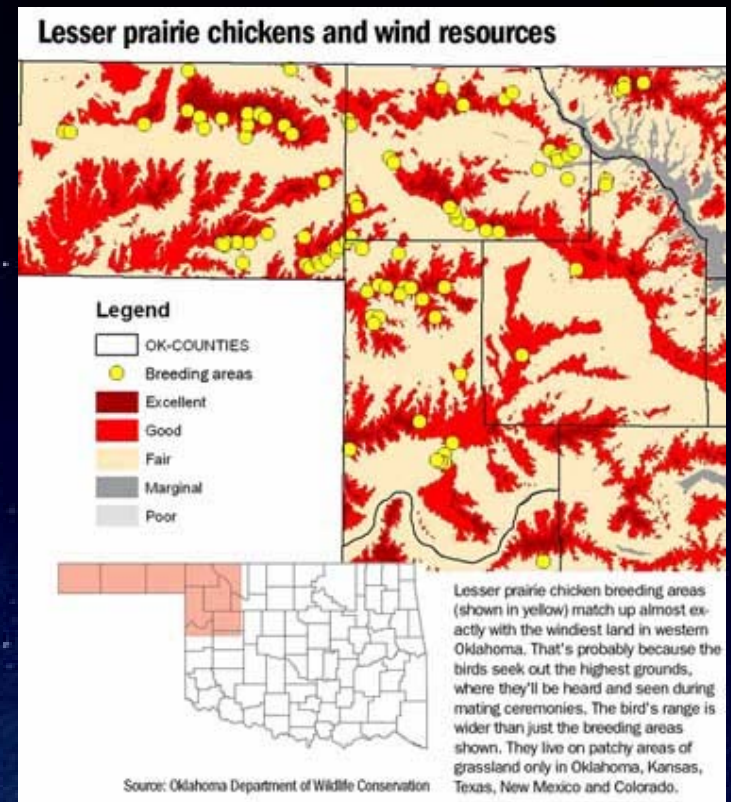


# Which Species are Killed at Wind Facilities?

- Few nocturnal migrants
- In the West/Midwest – Horned Larks. 30% of all birds killed were HOLAs
- Altamont, CA – 1.5-2.2 raptors/MW/year
  - 75 to 116 golden eagles
  - 209 to 300 red-tailed hawks
  - 73 to 333 American kestrels
  - 99 to 380 burrowing owls, per year
- Altamont is unique. Seasonal shutdowns, re-powering, + many other mitigations now being implemented and being monitored

# Displacement/Avoidance

- FWS grouse guidelines (2004)
  - 5 mile buffer around leks.
- Some sage grouse researchers recommend larger.
- NWCC – GS3C studying prairie chicken and recommending sage grouse studies.



# Future Development in OR?

- Previously limited by lack of transmission
- Transmission and wind projects planned for high desert areas
- Need for multi-partner long-term plan, particularly in shrub-steppe
  - Mapping lek locations
  - Wind Resources areas
  - Transmission corridors
  - Climate change models
  - 50+ year horizon
- Research on effects on grouse – every new site is an experiment.

# FWS Role

- We are not regulatory to industry
- If mortalities, the Law Enforcement might get involved
  - Prosecutorial Discretion
- Some site visits, phone consultations, ES involvement, some memberships on TACs
- Grouse not MBTA spp. – but might be ESA some day
- We issue letters to developers regarding Fed laws
- Consult on State guideline development
- Review pre/post construction survey results with industry and contractors
- National Siting Guidelines – draft, interim, volunteer since 2003
- Work with partners to minimize mortality