

SITE WIND RIGHT

Mapping Low-Risk Wind
Energy Development in the
Great Plains & Midwest



*Briefing for
Prairie State Conservation Coalition*

1 March 2018

The Conservation Conundrum

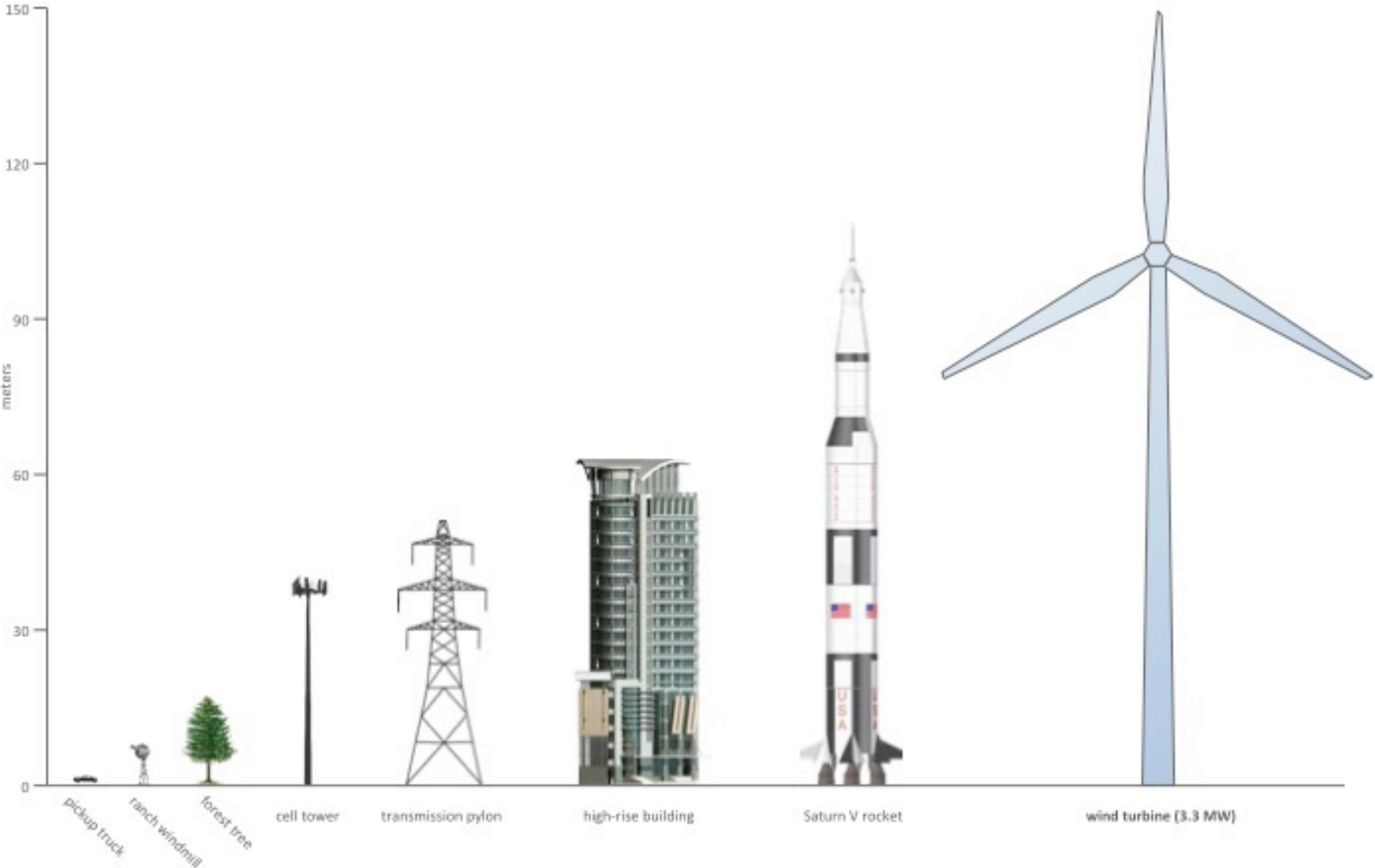
Species Protection



Climate Change and Renewable Energy



Height comparison



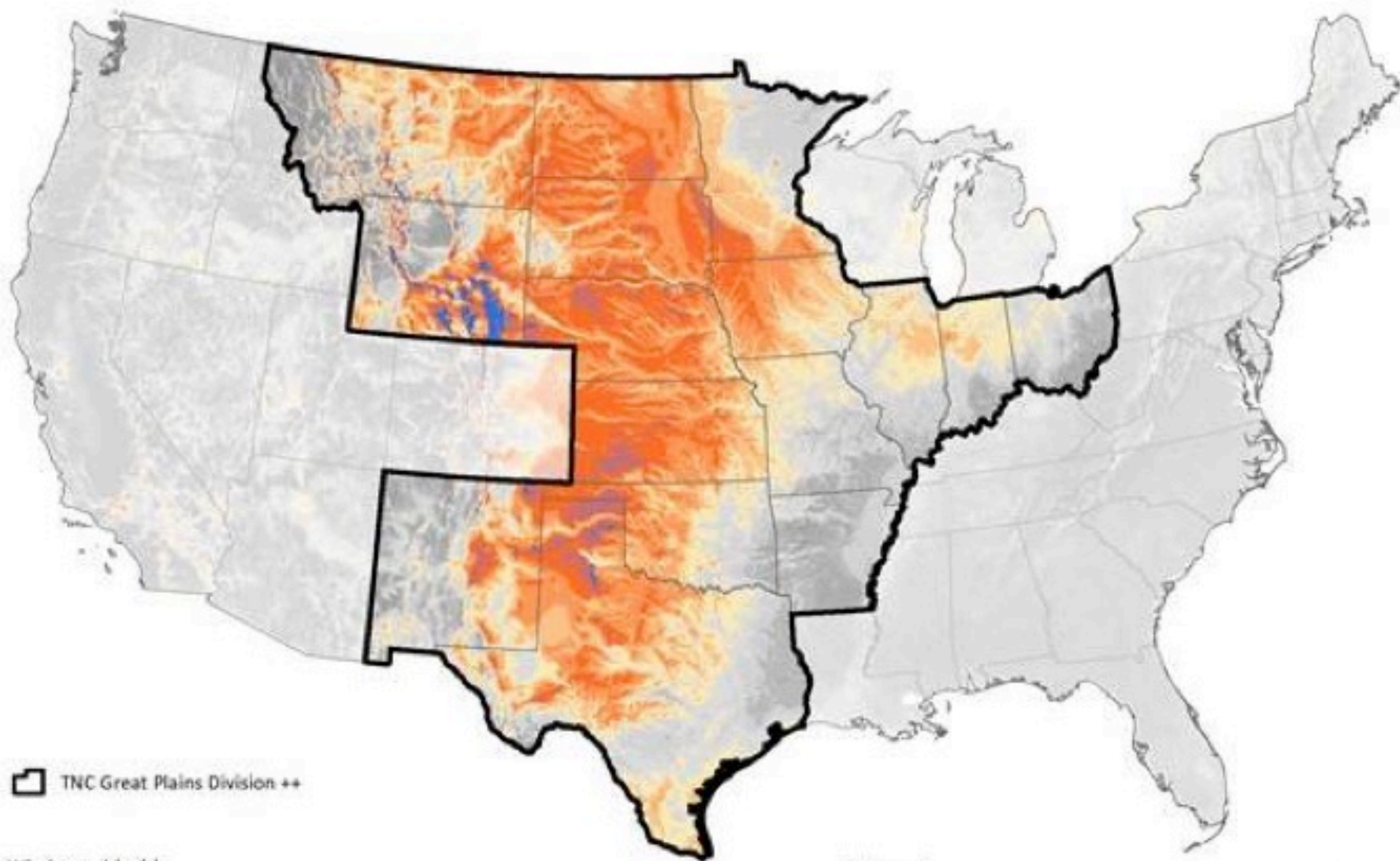



SITE WIND RIGHT

www.sitewindright.com

- Free online GIS mapping tool for use by all wind energy stakeholders
- Aims to minimize wildlife impacts, avoid costly conflicts
- Being expanded across the 17 high wind states
- Does not replace ground-level analysis nor agency involvement***

Low-Risk Wind Assessment Proposed Expansion



 TNC Great Plains Division ++

Wind speed (m/s)



Background:

NREL / AWS Truepower utility-scale land-based 80 m wind maps for the United States
<http://energy.gov/eere/wind/windexchange>

Plans Reviewed and Data Sources Used

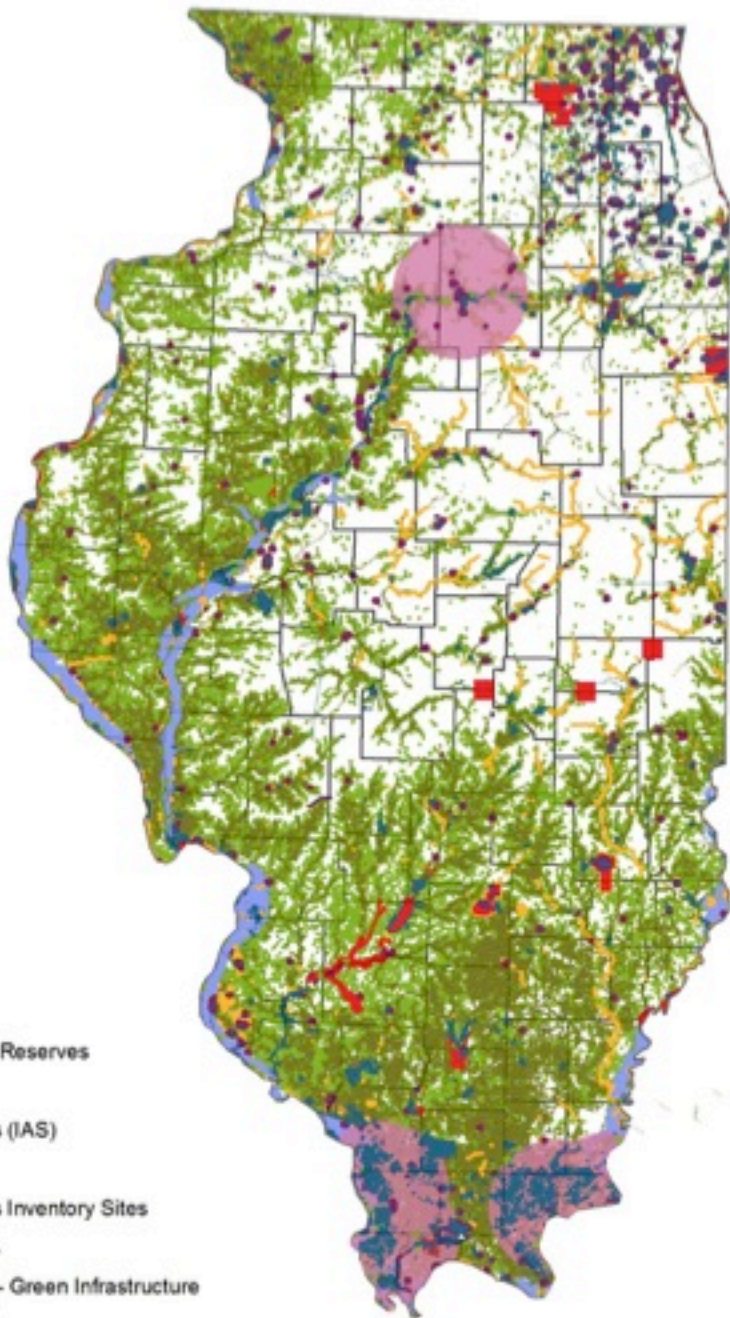
- ❑ Midwest Wind Energy Multi Species Habitat Conservation Plan
- ❑ IDNR Recommendations
- ❑ USFWS management guidelines
- ❑ Audubon Important Bird Areas
- ❑ Siting Restrictions, Wind Resource, and Engineering Restrictions

Conservation Targets

- ❖ Important Bat hibernacula – 20 mile buffer
- ❖ Bald Eagle Nesting Sites – 1.6 km buffer
- ❖ Major Floodplains – Mississippi, IL, Ohio, Wabash Rivers
- ❖ Midwest Wind Energy MSHCP – Green Infrastructure Network
- ❖ Nature Preserves - 1 mile buffer, Land & Water Reserves – ½ mile buffer
- ❖ Protected land (Private, County, Federal, State) – 500 ft buffer
- ❖ Audubon Important Bird Areas
- ❖ Illinois Natural Areas Inventory sites – ½ mile buffer
- ❖ *Natural Land Cover - To Be Reconciled Across States*

Illinois

Key Wildlife Areas

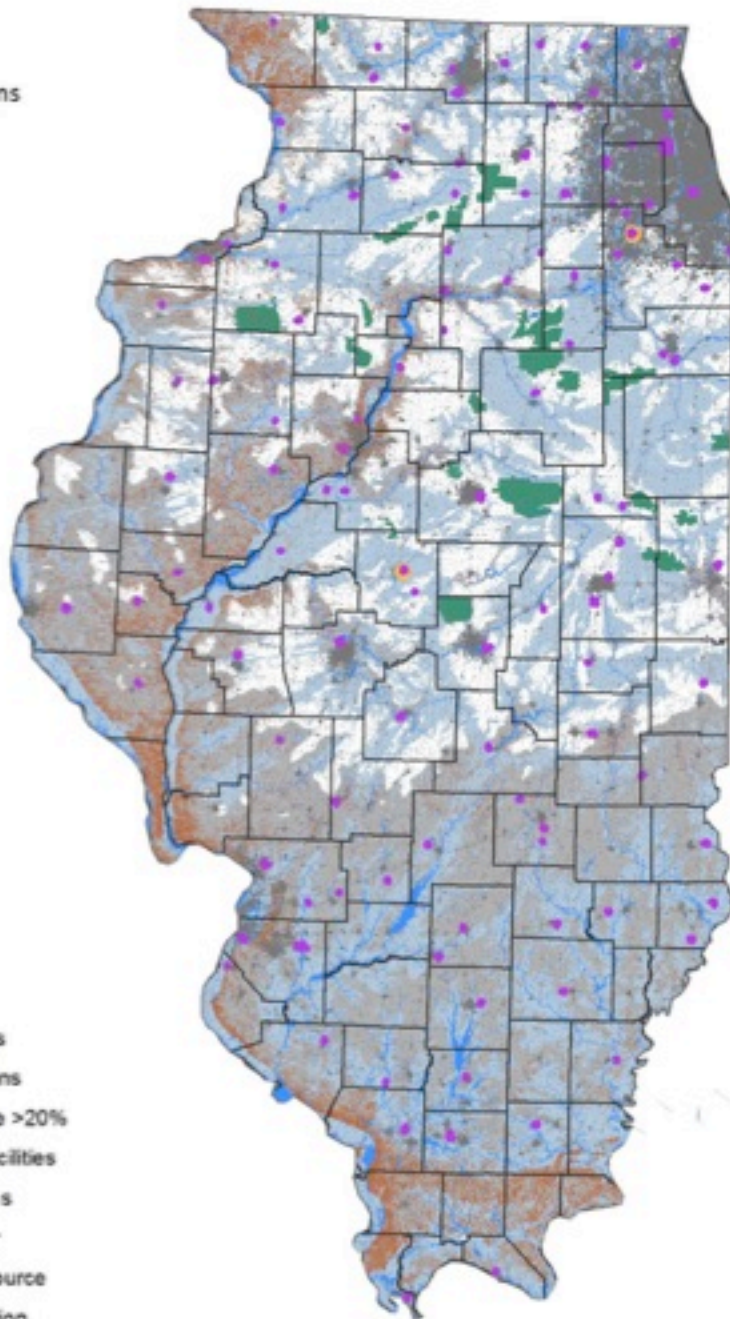


DRAFT:
Key Wildlife Areas



Illinois

Potential Restrictions



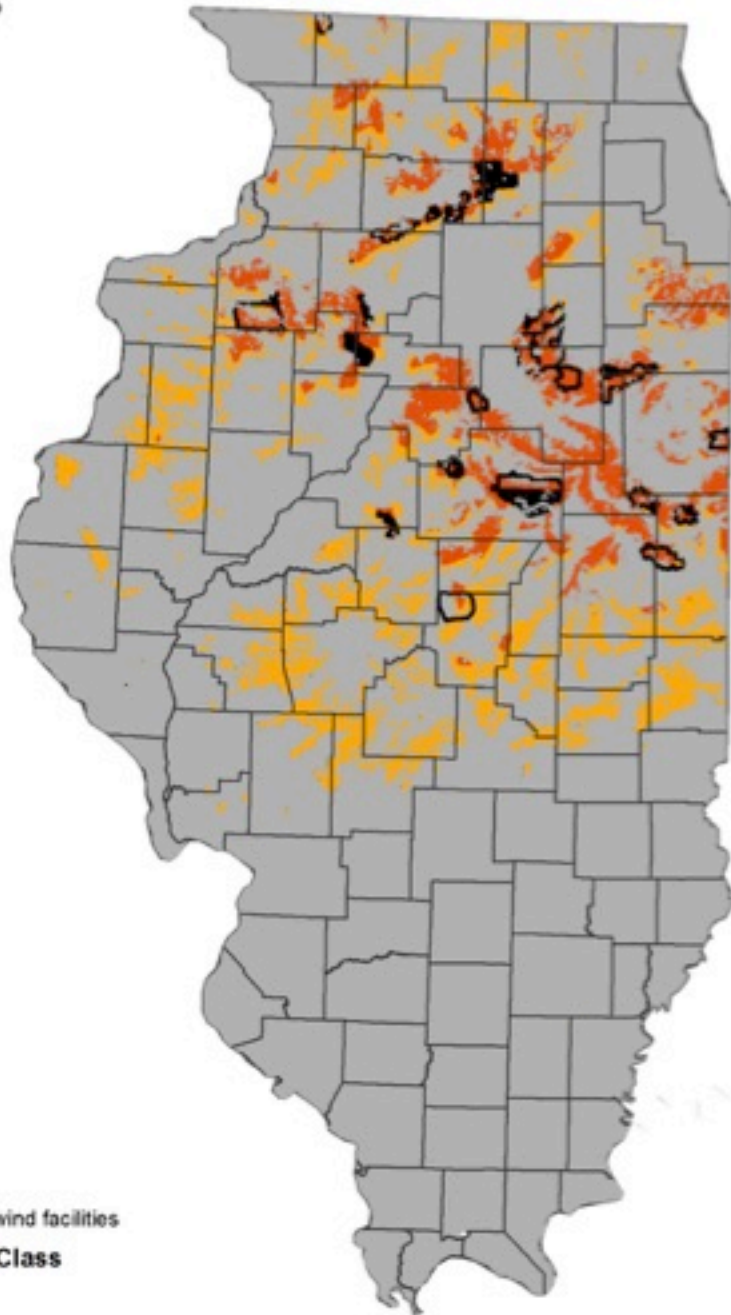
DRAFT: Wind Resource, Siting & Engineering Restrictions

- Airport Runways
- NEXRAD Stations
- Excessive Slope >20%
- Existing wind facilities
- Developed Areas
- Wetlands/Water
- Poor Wind Resource
- Negative Elevation

0 50 100 Miles

Illinois

Results



DRAFT: Low-Risk Wind Energy Development

Existing wind facilities

Wind Speed Class

7

8

0 50 100 Miles

Our Request

- Do we have the critical data?
- Spread the word: county boards, utility companies, wind developers, consumer groups, fellow conservationists

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revised 8/25/2017

This product was developed for general use in the siting of wind energy facilities. **It is NOT intended to replace consultation with relevant federal and state wildlife agencies** regarding potential impacts to protected species. The Nature Conservancy makes no warranty regarding the accuracy or completeness of the information provided herein.

To download data for offline use, click the  icon at top right

Visit nature.org/sitewindright for additional information

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