

Note: These summary notes were compiled by ORISE EPA Intern Program Associate Christine McConaghy, and reflect, to the best of her knowledge and notes, what was presented at the meeting. Readers can contact presenters or view the presentations themselves for more precise information.

**Continuing the Dialogue and Next Steps Toward Wildlife Friendly
Wind Power in the Great Lakes Basin
SOLEC Workshop
Friday, November 3, 2006**

Summary

This workshop provided an overview of wind energy and related wildlife concerns, with representation from various perspectives on the issue. Beginning with a summary of some key issues, the workshop then addressed ongoing activities, emerging issues, and opportunities. The group discussed forming an organization and communications structure to increase coordination and continue the momentum. The workshop was organized by representatives of federal and state agencies, industry, and the International Joint Commission to further the goals of the June 2006 conference, Towards Wildlife Friendly Wind Power: A Focus on the Great Lakes Basin. As a result of the session, several workgroups were formed: Organization – Great Lakes Region focus, Communications, and Responses to Congresswoman Kaptur. Other groups may form in the future. Additional information and presentations from the workshop are available at the Great Lakes Basin Ecosystem Team Windpower website:
<http://www.fws.gov/midwest/greatlakes/windpowersolec2006.htm>

Organizers:

Jeff Gosse, U.S. Fish and Wildlife Service
Shanna Draheim – formerly Michigan Department of Environmental Quality
Kevin Rackstraw - Clipper Wind Power
Steve Ugoretz - Wisconsin Department of Natural Resources
John Gannon – International Joint Commission
Noel Cutright – WE Energies
Laura Miner – formerly U.S. Department of Energy
Rich Greenwood – U.S. Fish and Wildlife Service - retired
Rachel Levin – U.S. Fish and Wildlife Service – Facilitator
Christine McConaghy – U.S. EPA Great Lakes National Program Office—Recorder

Facilitator: Jeff Gosse and Rachel Levin; U.S. Fish and Wildlife Service

Recorder: Christine McConaghy, U.S. EPA Great Lakes National Program Office/ORISE

Total number of participants: 38 (23 on site, and 15 on the conference call line)

Presentations

Overview of Wind Energy Development in the Great Lakes
Laurie Jodziewicz, American Wind Energy Association

Understanding the Impacts of Wind Energy on Birds and Bats
Leakhena Au, U.S. Fish and Wildlife Service

Toward Wildlife Friendly Wind Power, June 2006 Toledo conference: Highlights
Rich Greenwood, U.S. Fish and Wildlife Service

Research Needs on Wildlife Effects of Wind Energy Development
Steve Ugoretz, Wisconsin Department of Natural Resources

National Wind Coordinating Committee: Collaborative Overview and Activities
Summary
Katie Kalinowski, RESOLVE/National Wind Coordinating Committee

A Binational Great Lakes Offshore Approach: An Opportunity to be Proactive
John Gannon, International Joint Commission

Overview of Wind Energy Development in the Great Lakes
Laurie Jodziewicz, American Wind Energy Association

- Wind energy is the second fastest growing energy technology in the world, and recent years (2005-2006) have seen record amounts of capacity installations
- Success of wind energy has been because of cost. Now the industry is fairly competitive with other technologies, partly due to the tax credit, which will expire in 2007 (unless it is renewed)
- Wind power uses no fuel (and therefore requires no mining or drilling), and does not pollute air and water
- President Bush was correct when he said that wind can supply up to 20% of US electricity
- Different organizations are calling for wind energy as a response to global warming, so there is lots of potential to do this in the right way and put wind at forefront.
- Suggestion: Involve the Canadian Wind Energy Association (CanWEA) in discussions of wind energy in the Great Lakes basin
- Six key elements must be present at any site to make it successful: Wind, land, permits, transmission (a critical element), a buyer for the power, and financing
- Studies and analyses are needed pre-construction, and developers must make early decisions (such as, can they get land rights at a site). Therefore, we need open lines of communication early on
- Developers are interested in collaborating, and they take environmental impacts very seriously

Understanding the Impacts of Wind Energy on Birds and Bats **Leakhena Au, U.S. Fish and Wildlife Service**

- Wind energy has benefits over other energy sources like coal. Yet, wildlife injury and mortality are highly variable by site and rather unpredictable
- Averages aren't very informative for predicting anything about an individual project. Most sites have less mortality than the extreme cases.
- High levels of bat mortality are of concern- bats have long life span, lower reproduction rates, high adult survival
- Habitat loss and fragmentation are highly site-variable. Also, consider the loss or fragmentation of aerial habitats. These species depend on air for breeding, feeding, and migration. Cumulative impacts may be a large, growing concern.
- Right now there is not very much quality data that would allow comparison of pre- and post- construction impacts
- Displacement and avoidance are of concern for species such as sage grouse, which have been seen to avoid tall structures for many miles
- A number of information needs were discussed. We'd like to fill information gaps through partnership

Toward Wildlife Friendly Wind Power, June 2006 Toledo conference: Highlights **Rich Greenwood, U.S. Fish and Wildlife Service**

- Looking at the Great Lakes broadly and beyond, we believe wind power is a good alternative, and we want the win-win sites
- The Toledo conference purpose was “not to discuss the merits of wind power, but through this unique and first ever conference dedicated to addressing wildlife issues associated with wind power, focus on: communicating..., sharing resources..., advancing knowledge..., and developing consistent research and management approaches...”
- A number of conference products are available, including a bibliography of websites and the beginning of a “who's who” list for networking
- Post-Toledo Initiatives and opportunities include a white paper under preparation by the Great Lakes Commission

Research Needs on Wildlife Effects of Wind Energy Development **Steve Ugoretz, Wisconsin Department of Natural Resources**

- Studies done since the 1980's have documented direct and indirect impacts. Game and non-game species, and their habitats, along with the implementation of state protected species laws are the responsibility of state wildlife agencies. They don't have direct authority, but play an important role in review and comment of utility scale wind projects
- AFWA (Association of Fish and Wildlife Agencies) recognized that agencies (such as public service commissions) are under-funded and understaffed to address growth issues

- AFWA is developing guidelines to help states, and also, some states have developed guidelines to supplement the draft national guidelines
- As more states enact capacity target incentives, we recognize the need to engage with many partners, including state energy agencies (which often promote and provide grants to projects)
- The AFWA wind-wildlife subcommittee's objectives include advocating for language related to wildlife in incentives and legislation, and building a framework to ensure wildlife is considered and adequate resources are available to achieve this objective

National Wind Coordinating Committee: Collaborative Overview and Activities Summary

Katie Kalinowski, RESOLVE/National Wind Coordinating Committee

- This presentation discussed RESOLVE's facilitation of the National Wind Coordinating Committee (NWCC), and how to get involved in wind-wildlife activities
- NWCC's mission is to work on environmentally, economically, and politically sustainable wind power market development
- NWCC has a steering committee and three workgroups: wildlife, transmission and siting. It is easy to get involved through the list serve, and resources are available at www.nationalwind.org
- The Wildlife Workgroup has a core group to ensure consistent representation by key agencies and stakeholders, so they can share information with their organizations. The outreach coordinator wants to ensure that no breakdowns in communication occur.
- The four subgroups of the wildlife workgroup include the Grassland Shrub Species Collaborative (referred to as GS3C), Nocturnal Methods and Metrics, Risk Assessment, and the Mitigation Toolbox group
- NWCC is updating the 1999 Nocturnal Methods and Metrics guidance document
- NWCC maintains a table of wind wildlife events as a reference to current events

Discussion about the American Wind Energy Association (AWEA)

Laurie Jodziewicz, American Wind Energy Association

- AWEA is the trade association in the US, recognizing 800 or more business members. It is a non-profit which lobbies for tax credit and represents industry.
- Collaboratives of public agencies, environmental NGOs and industry are best suited to develop more credible long term solutions and to move beyond project and company specific issues
- AWEA is working with the Bats and Wind Energy Cooperative (BWEC) on a pre-construction study. It will be followed by a post-construction study, to allow the data to be compared.
- BWEC is also collaborating with AWEA on a bat deterrent to hopefully create noise to keep bats from flying near turbines. Industry is very involved, and they want to field test the deterrent (probably next year).

- More partnerships like BWEC are very desirable; it's the most credible way to move forward
- AWEA has a committee with offshore developers. The economics are very difficult offshore, so there probably will be much less development offshore than there is (and will be) onshore.

A Binational Great Lakes Offshore Approach: An Opportunity to be Proactive
John Gannon, International Joint Commission

- Great Lakes Fishery Commission (GLFC) funded a project to address concerns with emerging energy related uses of the lakebed, among other uses, especially in nearshore habitats
- Due to economies of scale, we expect that there will be many turbines in offshore areas. In North America, the most consistent winds were found in the Great Lakes Region.
- Areas of concern for offshore wind energy include disturbance of bottom, cables, shorelines tagging areas, lake ice, and hydrodynamic disruptions
- Cumulative impacts are of great concern, as we think such impacts will be very difficult to mitigate
- Several reasons stimulated the truly binational review of lakebed issues. One, they realized there was a potential to “shop” jurisdictions, and two, they wanted to overcome the old but persistent paradigm, “React after the fact.” Also, we strive for an ecology/economy “Win-Win.”
- The reviewers came up with a recommended position statement so jurisdictions could look at recommendations and pick up elements they want in their own policies
- The recommended position statement includes a series of guidelines
- Nearshore mapping is greatly needed. Hard substrates have the greatest biodiversity and are of most concern.

Fish and Wildlife Service Bird Migration Maps
Bob Russell, U.S. Fish and Wildlife Service

- These recently developed maps from USFWS are available at the Region 3 USFWS website: http://www.fws.gov/midwest/eco_serv/wind/wind_maps/
- Migrating raptors concentrate in a few areas in the Great Lakes (including Indiana Dunes, the Lake Erie Islands, and Ottawa National Wildlife Refuge)
- Spring migration continues into June
- Detroit River is one of the worst sites to put turbines from wildlife perspective. Raptors, gulls, and terns move through this area.
- The Western shore of Lake Michigan is very important for merlins and peregrines, which are daylight fliers. If you had to feather the turbines, you could select a few weeks or days to do so.

Megan Seymour, U.S. Fish and Wildlife Service

- Ohio Wind Working Group (OWWG) identified that a map showing areas of concern for wildlife issues would be useful. They did this to be proactive and to give a “heads up” to developers regarding where they might encounter wildlife issues
- http://www.fws.gov/midwest/eco_serv/wind/wind_maps/OHWildlifeMap10-06.pdf
- This map identifies areas of concern, not areas you cannot develop. However, in these areas you’ll have to address issues

General Discussion/ Q&A

- There is interest in seeing more holistic maps that incorporate more factors, but there are many factors that limit sites. There’s a definite opportunity to merge maps.
- Information is very helpful to let everyone know of sites where you may need to consider more issues (e.g. wildlife).

Ideas for existing or new structures to act as an umbrella group and continue communications:

- Encourage involvement in state wind working groups. Many have formed through the Department of Energy Wind Powering America and/or state departments. In Ohio, it has been an effective way to get the word out to a broad group of people that we’re willing to work together and find solutions.
- The Great Lakes Commissioners (of GLC) are showing interest in regional coordination of energy policy, so GLC staffers are studying these topics.
- The Great Lakes Water Quality Agreement could address climate change as a result of the current GLWQA review process, and the Great Lakes wind resource is very important. This is a golden opportunity to engage stakeholders for wind and wildlife specifically in GLWQA.
- We want an umbrella group which does not have a strong view on the issue, in order to objectively bring together all different views for the Great Lakes.
- Before 1995, a process called “The Advanced Plan Process” was used in Wisconsin. It required utilities to plan ahead how they’d provide power for the next 20 years. This may provide an interesting framework for planning, and/or an opportunity for profitable organizations to contribute financially.
- There should be a strong incentive for both wildlife interests and suppliers to talk about how to balance out systems.
- Let’s always try to think of a binational connection in our activities, because if one side of the border develops windpower intensively, we’ll all be affected.

Discussion of Techniques/Methods for communication:

- USFWS Region 3 has put up a broad website communicating meetings and information. See http://www.fws.gov/midwest/eco_serv/wind/index.htm
- This group may set up a list serve

- Meetings are valuable, especially if they're piggy-backed on another regularly occurring meeting (e.g. SOLEC, IAFWA, professional societies like The Wildlife Society). These are good opportunities to get together and synergize.
- AWEA's siting workshops for industry would provide good chances to talk to industry about what we're doing and get industry involved. Any resource agency staff is welcome to come to the meeting; it would be good to communicate what various groups are doing in the region (e.g. the wind energy industry probably is not aware that GLWQA is under review).
- Another option is to create a newsletter to share less time sensitive information. Would this be worthwhile? The OWWG puts out a monthly newsletter divided into Ohio, national and international information. OWWG could make that available in some way. NWCC also has calendar of events on website and biweekly newsletter. Creating a newsletter with a compilation of articles from several existing, pertinent newsletters was also discussed.
- As individual state and local officials get involved, they'll need to get up to speed to be effective in providing input. Having a "road map" would be useful. The wind-wildlife biography from the Toledo conference is well structured- can be used as curriculum to help those new to issue to get up to speed.
- Is there any way to overcome industry's concerns about competitiveness and confidentiality, in order to enhance coordination between industry (when they are proposing projects) and those who need to share wildlife information?
- There are a lot of competitive issues and industry concern about confidentiality. Having industry involved in these processes just helps open the line of communication- someone could contact someone else and generally check on a site.
- There needs to be a source of "truth" out there to combat misinformation in a reasonable way. Many NWCC papers are peer reviewed; perhaps draw people's attention to these.

Three Workgroups were formed and are actively addressing the issues of:

1. **Organization – Great Lakes Region focus**
2. **Communications** (to help keep communication going while organizational structure is being formed)
3. **Responses to Congresswoman Kaptur**

Other ideas discussed, which have not been acted upon, were:

- Ways to try to address competitiveness of the industry, which is a disincentive to sharing information with wildlife agencies (e.g. if there was some exemption to FOIA, maybe industry could share information more readily)
- The Council of Great Lakes Governors and Premiers could be a central focal point and also has binational aspect.
- We need more communication with Congress. A glossy information booklet that presents the issues in the right way would be very helpful.

<http://www.fws.gov/midwest/greatlakes/windpower.htm>
http://www.fws.gov/midwest/eco_serv/wind/index.htm