



"Mark Skolnicki"
<MarkSkolnicki@bsbo.org>

12/03/2012 01:02 PM
Please respond to
MarkSkolnicki

To: <midwestwindhcp@fws.gov>
cc: <Rick_Amidon@fws.gov>
Subject: USFWS Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan

Mr. Amidon:

Attached are Comments from Black Swamp Bird Observatory on the Service's *Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan* . Please note that our comments are set forth in a letter and one enclosure to the letter.

Please let me know if you have any questions. Thank you for the opportunity to comment on the draft habitat conservation plan.

Sincerely,
Mark

Mark W. Skolnicki, Esq.
Board Member
Black Swamp Bird Observatory
13551 West State Route 2
Oak Harbor, Ohio 43449
419-898-4070
MarkSkolnicki@bsbo.org



BSBO Comments USFWS Midwest Wind Energy MSHCP.pdf



Enclosure_1 to BSBO Comments USFWS Midwest Wind Energy MSHCP.pdf

BLACK SWAMP BIRD OBSERVATORY

13551 W. State Route 2 ▲ Oak Harbor, Ohio 43449 ▲ 419 898-4070 ▲
www.bsobird.org

Teaming research with education to promote bird conservation

December 3, 2012

Regional Director, Attn: Rick Amidon
U.S. Fish and Wildlife Service, Ecological Services
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

Sent via e-mail to: midwestwindhcp@fws.gov.

Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan Within Eight-State Planning Area [FWS-R3-ES-2012-N179; FXES11120300000F2-123-FF03E00000]

Dear Sir,

On behalf of the Board of Directors, Staff and the thousands of members and supporters of Black Swamp Bird Observatory (BSBO), I am submitting the following comments and information in response to the U.S. Fish and Wildlife Service (hereinafter "USFWS" or "the Service") request for public comment on the *Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan*, announced in the *Federal Register* on August 30, 2012 in [FR Doc. 2012-21498](#) (77 Fed. Reg. 52754) (with the comment period being extended by a subsequent notice published in the *Federal Register*).

BSBO Supports Bird-Smart Renewable Energy

We want to be clear: BSBO is not opposed to renewable energy. We understand the need for renewable energy resources to reduce CO2 emissions and help reduce our dependency on the fossil fuels that have pushed our planet to the brink. Wind power can be an important part of the nation's energy portfolio, but wind energy facilities can also kill birds—including eagles, songbirds, and endangered species—through collisions with turbines and power lines, as well as creating collateral damage through loss of habitat as a result of displacement and avoidance. By 2030, there will likely be more than 100,000 wind turbines in the U.S., and these are expected to be killing at least one million birds each year—probably significantly more. Wind energy facilities are also expected to impact almost 20,000 square miles of terrestrial habitat, and over 4,000 square miles of marine habitat by 2030, some of it critical to threatened species. We agree with the American Bird Conservancy's principles of bird-smart wind power, which employs careful siting, operation mitigation, monitoring, and compensation, to reduce and redress any unavoidable bird mortality and habitat loss from wind energy development.

We share in the Service's goal of pursuing adequate, peer-reviewed research *before* finalizing decisions to build wind turbines on or near wildlife sensitive areas, especially on or near critical habitats, such as Important Bird Areas. The contemplated Multi-Species Habitat Conservation Plan (MSHCP) should incorporate a standard, minimum of three (3) year pre-construction study duration to account for annual and seasonal variations in moderate risk areas and should exclude high risk areas from any definition of "covered lands" until adequate research has been completed and analyzed. By excluding high risk areas from the "covered lands" of the MSHCP, the Service would create a level playing field and incentives for everyone to work with the Service to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

About Black Swamp Bird Observatory

Located in the remnants of the once vast Great Black Swamp region of Northwest Ohio, Black Swamp Bird Observatory (BSBO) is a 501(c)(3) nonprofit dedicated to inspiring the appreciation, enjoyment, and conservation of birds and their habitats through research, education, and outreach. BSBO teams research with education to promote bird conservation.

The Observatory's long-term research projects have shed much light on the mysteries and complexities of the migration of songbirds, raptors, shorebirds, and rails. BSBO data has been used to assist both private and governmental land owners in better managing their properties for migratory bird species. We are fortunate to have many dedicated individuals and businesses that help us to carry out our mission. For example, our Research Director, Mark Shieldcastle, has over 35 years of experience as a Wildlife Biologist. Mr. Shieldcastle has coauthored and contributed to several wildlife management and conservation plans such as the *Beneficial Use Impairments for Wildlife and Wildlife Habitat* section of the *Lake Erie Management Plan*; *The Great Lakes-Upper Mississippi River Regional Plans* for the *National Shorebird Plan* and the *North American Waterbird Plan* and several *Partners-in-Flight* regional plans. More recently, because of his experience in managing and conserving wildlife, and specifically Bald Eagles, Mr. Shieldcastle participated as a Member of the Peer Review Team for the Service's Draft Eagle Conservation Plan Guidance.

BSBO is a vital link in connecting people with nature. We provide opportunities to make a meaningful difference for the environment through our many Citizen Scientist projects, working together to safeguard our natural world for future generations. The Observatory research staff and volunteers have banded more than 500,000 birds in Northwest Ohio and Southeast Michigan, making it the largest operation of its kind in North America. The Observatory's youth education programs are recognized on a national scale. (www.ohioyoungbirders.org). Our Black Swamp Birds & Business Alliance program promotes local businesses to thousands of birders that travel here every year for the spectacular bird watching, raises awareness of the economic value of conserving habitat, and engages business owners in bird conservation issues. Black Swamp Bird Observatory is also the lead organization hosting THE BIGGEST WEEK IN AMERICAN BIRDING®, an 11-day birding festival that annually has drawn more than 50,000 birders to this area from around the world.

Most Important Issue of Concern: Protect Critical Migratory Bird Stopover Habitat

Every spring and fall, many millions of songbirds migrate long distances between nesting grounds in Canada or the northern United States and wintering grounds in the southern U.S. or the tropics. These birds mostly fly at night and spend the days resting and feeding within stopover habitats. In addition to songbirds, many other groups of birds, such as shorebirds, raptors - including a large number of breeding Bald Eagles - waterbirds, and waterfowl, utilize this region. Within North America a few areas of major stopover habitat are critically important to the survival of large numbers of migratory birds. One such region involves a series of sites along the south shore of Lake Erie, in the northwestern part of Ohio known as the Lake Erie Marsh Region, recognized as globally important for migratory birds. (<http://www.abcbirds.org/abcprograms/domestic/iba/index.html>).

While some research has been done on the effects of wind turbines on migratory birds, most of these studies have been conducted in areas where birds are in active migration, generally flying at heights above the reach of the turbines. Stopover habitat changes the entire equation because birds are dropping in and taking off in these areas. In other words, just because a commercial jetliner's cruising altitude is 30,000 feet, no one would think to put obstructions like wind turbines at the edge of the runway or landing strip. Moreover, the birds are generally arriving and departing during predawn or dusk, when visibility is poor and obstacles present the greatest threat.

To better understand the impacts of wind energy development on migratory stopover habitat, Black Swamp Bird Observatory has been initiating dialogue and participating with diverse stakeholder groups to develop habitat management guides, conservation plans, and monitoring protocols to help landowners make well-reasoned decisions, especially in areas of importance for migratory and nesting birds. Examples include Lake Erie Marsh Stopover Migration Group, *Managing Habitats for Migrating Birds in the Western Lake Erie Basin: A Landowners Guide to Landscaping and Land Management*; Ohio Bird Conservation Initiative, and *All-Bird Conservation Plan for Ohio*. BSBO has also hosted collaborative meetings and provided dozens of presentations about wind energy impacts to wildlife for relevant stakeholders over the past two years.

Degradation of the Lake Erie Marshes and similar habitats is not only a local or regional matter of concern, but decisions about wind energy development are also issues of national importance because of the national and international scope of migratory birds. If for no other reason, the interstate and international scope of migratory birds and other wildlife means that the same regulatory standards must apply to all wind energy projects and be enforced consistently throughout the Region and the United States. Human mistakes, even well-intentioned, at even one small stop along the migration route of millions of birds could lead to rapid declines in the populations of many species of birds and other wildlife.

It would be irresponsible and contrary to the regulatory mandates of the Service to consider any documented stopover habitat as “covered lands” for purposes of any habitat conservation plan given the present level of knowledge of habitat use, habitat needs, ascent and descent, and effects on bird energetics and survival during migration. Recent studies have indicated as much as eighty (80) percent of avian mortality occurs in migration and having secure stopover habitats is indispensable for survival during lengthy migrations. It is time that along with wetlands, woodlands, and grasslands that the air column is recognized as a principle habitat of birds and bats and protected and conserved as such. Stopover habitats are documented in a wide variety of existing conservation initiatives. National, regional, and state avian conservation plans address these types of issues. The Important Bird Area programs of Partners-in-Flight and the National Audubon Society document critical habitats and many states indicate high risk Avian Concern Zones in relation to wind power issues. Areas designated as high risk and/or high importance by any of these initiatives should be excluded from MSHCP “covered lands”. A loss of even one stopover site, could result in a domino effect that could take considerable time and money to identify and recover -- if even possible.

From our experiences in Ohio, it took decades of time, effort and money for the recovery of the Bald Eagle from short-sighted and accelerated actions to develop land used by the eagles. For multiple reasons, the Lake Erie Marsh region -- perhaps the greatest and most important stopover habitat in the entire Great Lakes region -- warrants removal from any blanket permitting process. These reasons include, but are not limited to: the only consistent documented stopover site for Kirtland's Warbler; the largest shorebird concentration in the Great Lakes; extensive raptor migration; unparalleled waterfowl concentrations including the American Black Duck and Tundra Swan; and a concentration of nocturnal migrating landbirds of untold millions as demonstrated by bird banding data and bird watcher numbers to the region.

The Service Should Incorporate Biological Maps When Designating "Covered Lands"

One way the Service could implement the Midwest MSHCP in a cost-effective manner to all wind energy developers and users, including small-scale turbine operators, would be to utilize Federal or State wildlife data maps that show areas of low, moderate, and high risk to wildlife. Broadly publicizing maps showing developers and the public where Important Bird Areas and other wildlife sensitive areas are located would be a simple way for the public and the Service to quickly identify areas where small-scale turbine projects should be avoided. This is consistent with the Defenders of Wildlife recommended approach that wind energy projects should be “smart from the start” by first

pursuing the development of disturbed or degraded lands such as brownfields and former industrial sites and avoiding wilderness quality lands, sensitive wildlife habitat and important natural and cultural resources. Various States may also have more detailed maps. For instance, Ohio has delineated “Avian Concern Zones.” See Ohio Department of Natural Resources, Division of Wildlife, *Recommendations on Wildlife Surveys for Proposed Wind Energy Facilities*, (Updated 29 March 2011) (“Extensive” wildlife surveying recommended in “those areas within proximity to migratory corridors, staging areas, Audubon Important Bird Areas (IBAs), or the Lake Erie shoreline (3-mile buffer).”): <<http://www.dnr.state.oh.us/LinkClick.aspx?fileticket=iJUadEzMbE4%3d&tabid=21467>>; Ohio Department of Natural Resources (ODNR), Division of Wildlife, *On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio* (May 2009), (<http://www.dnr.state.oh.us/LinkClick.aspx?fileticket=loJTSEwL2uE%3d&tabid=21467>).

The Service could design and implement the Midwest MSHCP in a cost-effective manner to all wind energy developers and operators, including small-scale turbine projects by utilizing Federal and State wildlife data maps that show areas of low, moderate, and high risk to wildlife. In addition to the pragmatic solutions offered by the Nature Conservancy, the Service may be able to incorporate another wildlife database resulting from another Department of Interior initiative. The Protected Areas Database of the United States (PAD-US)¹ – could be used to show zones of “last resort” for wind energy development. By using tools like this, many stakeholders in the next few years might spend less time and money trying to unsuccessfully develop wind energy projects on “Protected Areas” (or lands not covered by a Habitat Conservation Plan) -- lands dedicated to the preservation of biological diversity and to other natural, recreation and cultural uses, and managed for these purposes through legal or other effective means.

Maps with detailed data on wildlife are also currently being developed by conservation groups, such as American Bird Conservancy (ABC), for use by the wind industry. See ABC Wind Development Bird Risk Map, available at: <http://www.abcbirds.org/extra/index_wind.html>. Pre-construction assessments should always be conducted to confirm whether a particular site presents an especially high risk to birds. Some areas are not going to be suitable for wind development.

As we will discuss further in our comments, conservative designations of "covered lands" for the purposes of the MSHCP for all wind energy projects in the Midwest will minimize the likelihood of irreversible mistakes being made before the impacts of further disturbance to protected species and their shrinking migratory stopover habitats can be adequately assessed. Again, we are in support of alternative energy sources – however, we believe that the Service and the renewable energy industry should proceed with careful consideration of our valuable avian and other wildlife resources.

When Making any Initial Designation of "Covered Lands" for the Midwest MSHCP, the Service Should Incorporate Other Pragmatic Approaches to Conserve and Promote Important Habitat

We would prefer to see the Service use many of the principles suggested by organizations such as the Defenders of Wildlife in their “Smart from the Start” approach for renewable energy projects. In the alternative, the Service could adopt an approach that incorporated maps showing areas where wind energy development would pose a high risk to wildlife (e.g., Ohio’s Avian Concern Zones) and therefore it would be very reasonable, and probably not wise from a business standpoint to invest time and monetary resources into even considering such a site. See also Kiesecker JM, Evans JS, Fargione J, Doherty K, Foresman KR, et al., *Win-Win for Wind and Wildlife: A Vision to Facilitate Sustainable Development*, PLoS ONE, Volume 6, Issue 4, p. e17566 (6 April 2011), available at:

¹ “PAD-US will give the American people a full accounting of all of our investments in protected areas — this comprehensive inventory of wilderness, parks and open space is essential for more effective conservation plans, land management and recreational access. Guided by a public-private partnership, PAD-US will collaborate with states, federal agencies, land trusts, local governments, private businesses and other groups to maintain a comprehensive record of America’s land conservation accomplishments.” — Ken Salazar, Secretary, U.S. Department of the Interior.

<<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0017566>> (“the identification of large areas of disturbed lands that are suitable for wind energy development and the targeting of wind energy and transmission line construction in these areas offer the potential to dramatically reduce the wildlife impacts associated with increased wind energy generation.”).

The Nature Conservancy, a well respected organization that pursues non-confrontational, pragmatic solutions to conservation challenges by partnering with, among others, businesses and governments, released Great Lakes specific guidelines for the siting and operation of wind energy systems in the Great Lakes region, which were developed in the context of the specific species and systems of the Great Lakes region. Ewert, D.N., J.B. Cole, and E. Grman. 2011. *Wind energy: Great Lakes regional guidelines*. The Nature Conservancy, Lansing, Michigan (hereinafter “Great Lakes Guidelines”), at <<http://conserveonline.org/library/wind-energy-great-lakes-regional-guidelines/view.html>>.

Before pursuing any wind energy development along the Western Lake Erie Basin, the Observatory and other organizations, including many local business owners, have been calling for a three year moratorium on wind turbine placement within three miles of Lake Erie in Lucas, Ottawa, Sandusky, and Erie Counties until adequate radar studies can be conducted on the potential impacts on birds and bats in our globally significant area. This amount of time should allow for radar and other studies to be conducted and the true risk to birds from turbines in this important migratory stopover location to be evaluated.

The suggestion for a three mile buffer had been based on “Avian Concern Zones” established by Ohio’s Department of Natural Resources in conjunction with voluntary guidelines for commercial wind energy developers. Scientific research and analysis of available data by The Nature Conservancy in Ohio and Michigan led to recently completed Great Lakes specific guidelines recommending against commercial wind energy development within five (5) miles of Great Lakes shorelines until further studies can be conducted. The common scientific rationale for both sets of guidance is the fact that many of North America’s most critical stopover habitats, and Important Bird Areas designated by National Audubon Society and American Bird Conservancy, are along Great Lakes coasts.

The Nature Conservancy provides specific rationale for recommending against commercial wind energy development within five (5) miles of Great Lakes shorelines. *See e.g.*, Great Lakes Guidelines, p. 1, Table 1 (Siting Recommendations) (“Placing wind turbines, or other large structures, where relatively large numbers of birds occur increases the risk of collision and may have both local and cumulative consequences for bird populations. IBAs are sites with rare and/or threatened bird species, significant species assemblages, and high concentrations of migratory birds.”).

Among other things, the Great Lakes Guidelines provide a list of “*Sites That May Be Suitable for Siting of Wind Turbines.*” Suitable areas for wind energy development may include:

- Tilled agricultural lands distant (≥ 5 mi) from the Great Lakes waters with no known or suspected species migration stopover sites.
- Industrial lands, especially those distant (> 5 mi) from the Great Lakes waters.
- Brownfields, abandoned or underused industrial and commercial facilities and land available for re-use, especially those distant (> 5 mi) from the Great Lakes waters where birds are less likely to be concentrated.

By clearly designating "covered lands" away from lands which pose a moderate and high risk to birds, wildlife and their habitats, the Service can streamline the process for responsible projects. This approach would also encourage development on lands which will yield the most cost-effective potential. In short, projects sought in low-risk areas should need minimal pre-construction studies, whereas proposed project sites in moderate to high risk areas should always require more serious or

extensive planning -- and therefore not receive the benefits of a streamlined process, which could later be viewed by a court as a failure of the Service to fulfill its duties and responsibilities under laws such as the Migratory Bird Treaty Act (MBTA) and Endangered Species Act (ESA).

The Service Should Not Even Consider Including Migratory Stopover Habitat in "Covered Lands" Under the Midwest MSHCP Until Well After Adequate, Peer-reviewed Research Can Be Conducted and Properly Analyzed

Black Swamp Bird Observatory (BSBO) hosted a meeting in February of this year to expand a local and regional partnership of agencies, universities, and organizations investigating bird migration and the ramifications of operating wind power turbines near critical stopovers for migratory birds like the marshes, woods, and fields along western Lake Erie. Scientists, wildlife agencies and organizations like BSBO are concerned about the impact of poorly sited wind turbines on northwest Ohio's large population of Bald Eagles, the thousands of swans and other waterfowl that live and feed in the marshes, and the millions of small songbirds that rely on the Lake Erie Marsh region as a "rest stop" before and after crossing our Great Lake during their international travels.

Not enough is known yet about the typical angle of descent and ascent of birds that stop to rest and feed along our shores during migration. While some research has been done on the effects of wind turbines on migratory birds, most of these studies have been conducted in areas where birds are in active migration, with some portion of the population flying at heights above the reach of the turbines. Migration into and away from stopover habitat is more challenging to study because most songbirds are nocturnal migrants landing and taking off during nighttime hours when visibility is poor for the songbirds – and for biologists trying to study them. Adding to the complexities of researching bird behavior, flights into and out of migratory stopovers can be highly variable and affected by environmental factors such as storms. Many wildlife biologists have assumed that if wind turbines were placed too closely to stopover habitat, countless migrating birds would drop in or rise up through the risk zone of turbine blades and associated infrastructure such as transmission lines.

Therefore, the Observatory's Research Director, Mark Shieldcastle, organized and facilitated the meeting of scientists to build on recent studies by individual biologists. The group of experts participating at the meeting at Black Swamp Bird Observatory's office included representatives from U.S. Fish and Wildlife Service, U.S. Geological Survey, Bowling Green State University, University of Toledo, Ohio State University, The Nature Conservancy, Pelee Island Bird Observatory, Winous Point Marsh Conservancy, and Old Bird Inc., a nonprofit organization specializing in acoustic monitoring of avian flight calls.

Many of the participants updated the group on various projects they have been working on in the Great Lakes region. The group then discussed the most effective ways of incorporating additional radar units into a comprehensive migration monitoring program that also includes less expensive research methods such as banding, point counts, and acoustic monitoring. The concerted efforts will help scientists and policy makers to better understand how and where birds and bats are using the airspace along the shores of Lake Erie during their nocturnal migration.

Because so many migratory birds stop along the Lake Erie Shores and Islands Region, nearly 64,000 birdwatchers were estimated to have visited northwest Ohio last Spring alone. Based on post-event data from the 2011 "Biggest Week in American Birding" festival, and a recent Ohio Sea Grant survey, bird-related tourism was estimated to have contributed between 25 to 30 million dollars to the local economy last year. Ultimately the scientific work to be done this year by the diverse group of scientists who met in Oak Harbor earlier this year will begin to answer whether the recommended buffers along Lake Erie are enough to prevent irreparable harm to the recent increase in the area's eco-tourism – an economic engine that relies on the continued well being of the large numbers of migratory songbirds, waterfowl, and eagles who also love to visit and live by Ohio's Great Lake.

Additional Information and Comment

We wish to express our sincere appreciation for the U.S. Fish and Wildlife Service effort in the development of this habitat conservation plan. An issue such as this—politically charged as well as biologically significant—creates a situation that is at once, urgent and of long-term consequences. This issue represents a clear and present danger to federal trust species of migratory birds and bats. As noted in last year's State of the Birds report, "Bird- and wildlife-friendly guidelines and *safeguards* for wind and solar energy, natural gas drilling, and other energy development are *urgently needed to minimize large-scale degradation and fragmentation of habitats and to prevent direct mortality from structures, including transmission lines.*" 2011 State of the Birds, p. 28 (emphasis added).

The Service has recognized the problem and is the appropriate entity to assume the lead in assessing and developing responsible solutions for the people of the United States that these natural resources are held in trust for. The Service should recognize that it would be irresponsible not to act in defense of its regulatory responsibility concerning migratory birds, bats, and other wildlife and their habitats. When designing a streamlined administrative process, the Service should not disregard its congressionally mandated statutory obligations. Doing so would create a serious set of extremely negative consequences to external parties whether it is developers or consumers (not to mention the birds, bats, and other wildlife impacted).

Black Swamp Bird Observatory (BSBO) opposes the addition of any rationale to the MSHCP suggesting the impact of greenhouse gases and climate change should justify disregarding federal laws such as the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and Endangered Species Act. In other words, the Service should ensure its administrative process, and any rationale for implementing the MSHCP, do not effectively create de facto exemptions to statutory prohibitions and penalties – lest the Service risk tarnishing its reputation as a premier wildlife agency.

Along with the concerns and recommendations in this letter, we are also providing the Service with more detailed additional information and comment on certain issues framed by the Service in its Federal Register Notices on this matter. *See* Enclosure (1).

Teaming Research with Education to Promote Bird Conservation

Thank you for the opportunity to provide comments for consideration by the Service as it finalizes its draft documents, including an environmental impact statement, for the Midwest MSHCP. Black Swamp Bird Observatory shares in the collective goal of developing sources of renewable energy and we offer our commitment to helping relevant stakeholders achieve the right balance of expanding wind energy production and maintaining and protecting the Midwest's wildlife and their habitats - especially those along the coasts of the Great Lakes.

Please contact me via the staff at BSBO or via e-mail (MarkSkolnicki@bsbo.org) if you have any questions. We look forward to working together in the future on similar initiatives.

Sincerely,



Mark W. Skolnicki, Esq.
Board Member

Enclosure

Certain Information and Comment Requested by U.S. Fish & Wildlife Service

The planning process

During the process used to finalize the U.S. Fish and Wildlife Service (“USFWS” or “the Service”) [Land-Based Wind Energy Guidelines](#) (Guidelines) -- a tool to assist in avoiding, minimizing, and compensating for significant adverse impacts of wind power projects to wildlife and their habitats -- several members of the Wind Turbine Guidelines Advisory Committee (WTGAC) and many supporters of the wind energy industry inferred or commented that USFWS was standing in the way of another set of good policies – the environmental and economic benefits of wind energy. We acknowledge the challenges facing the Service given that the Migratory Bird Treaty Act (MBTA) and Endangered Species Act (ESA) do not allow the Service to consider all of the benefits of wind energy when carrying out their responsibilities under those statutory mandates. We encourage the Service to remain committed to its primary mission as it designs and implements the Midwest Wind Energy Multi-Species Habitat Conservation Plan (MSHCP).

Black Swamp Bird Observatory (BSBO) also trusts that the Service will honor the Secretary’s stated goals for the development of those Guidelines of upholding the conservation values and legacy of the United States and forging a true “coalition of effort” that uses inputs from the wind energy industry and inputs and advice from the conservation community and the Public. If implemented, the Midwest MSHCP should be a “coalition of effort” consisting of more than just the “one voice” of the industry. The Service should not be opposed to incorporating public comments, suggestions, and even objections to any future documents associated with the MSHCP (e.g., Environmental Impact Statement) in order to strike the right balance for the MSHCP.

Serious consideration and incorporation of alternate views where possible will undoubtedly produce a more balanced MSHCP which in turn should pave a more level playing field by providing a uniform set of incentives for everyone to work together with the Service to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. If nothing else, incorporation of public comments, recommendations, and concerns into the MSHCP would allow the Service to honor a similar pledge it made in a 2005 U.S. Government Accountability Office (GAO) Report to Congress:

FWS will be reviewing and incorporating the public, industry, and agency comments received on the interim guidelines as appropriate in order to revise and improve them, and will solicit additional public input before disseminating a final version.

GAO, [Wind Power: Impacts on Wildlife and Government Responsibilities for Regulating Development and Protecting Wildlife](#), GAO-05-906 (Washington, D.C. September 2005).

BSBO encourages the Service to seriously consider all views, including positions taken by the conservation community -- and the Service's own experts -- when designing and implementing the MSHCP. By doing so, the Service will come closer to striking the right balance for the Midwest region.

The Service's permitting approach

If the Midwest MSHCP is to truly avoid and minimize negative effects to fish, wildlife and their habitats resulting from construction, operation and maintenance of land-based, wind energy facilities, then the MSHCP, once finalized, should not include Federal lands (e.g., National Wildlife Refuges, Bureau of Land Management, National Forest, and National Park Service lands). By not immediately including Federal lands within the definition, description, or designation of "covered lands" for the contemplated MSHCP would also be consistent with [Executive Order 13186](#) of January 10, 2001 (*Responsibilities of Federal Agencies to Protect Migratory Birds*).

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

Federal lands provide an important portion of migratory bird and bat habitat in this country, but they can not stand alone in the conservation and protection of these trust species. Therefore, BSBO urges the Service to look holistically at the long-term responsibilities they hold for these trust species and the landscape needs of their conservation. By designing and limiting the applicability of a Midwest MSHCP to wind energy projects developed and operated on lands posing a low risk to birds, bats and their habitats, the Service will minimize, if not eliminate, irreversible miscalculations that will negatively affect Protected Species and other wildlife. The Service has the legal mandate and the trust responsibility to maintain and enhance migratory bird populations and habitats for the continued enjoyment of the American public. The Service is authorized by more than 25 primary conventions, treaties, and laws, many of which have authorities that extend beyond the borders of the United States, to ensure the conservation of more than 800 species of migratory birds.

Because the Service cannot absolve any individuals or companies from liability under MBTA or the Bald and Golden Eagle Protection Act (BGEPA), the MSHCP should apply to *all* wind energy projects, even existing small scale projects such as the small-scale residential and mid-sized turbines (100 Kw to 1 Mw, and/or greater than 100 foot tall) appearing on the landscape in rapidly increasing numbers. While generally initiated as single or small installations, when viewed collectively these projects have the same potential as utility based operations for adverse effects on migratory birds and bats in wildlife sensitive areas – especially major stopovers, where millions of migratory birds, including federally endangered species, arrive and depart before dawn or at or after dusk, when visibility is poor and obstacles present the greatest threat. These small and mid-sized units approach the same dimensions of utility scale turbines of a decade ago and constitute similar concerns.

On September 20, 2011, during a meeting of the WTGAC, federal advisory committee members discussed and acknowledged that even just one turbine in the wrong place can be “*really bad*.” BSBO would like to assert that more than one mid-sized turbine in the wrong place would be “*really, really bad*” – not only for the migratory birds, bats and eagles that will be impacted, but also for the reputation and continued support of the responsible wind energy developers in our country. Moreover, during a December 2011 U.S. Department of Energy seminar, one USFWS representative remarked that “even one turbine in the wrong place” – for instance, next to or in the vicinity of an eagle nest – “could be a devastating problem for the birds, and for the developer.” The Service should stand firm in its recognition that misplaced turbines at even one small stop along the migration route of millions of birds could lead to rapid declines in the populations of many species of songbirds, eagles, hawks, and other wildlife.

During the development and implementation of the Midwest MSHCP, the Service has a golden opportunity to educate the public that without a permit it is not possible under ESA, MBTA, and BGEPA to absolve individuals, companies, agencies, or associations from liability if unauthorized takes occur – even unintentional takes. The Service could, and should, make it more clear to more individuals, farmers, school boards, small businesses, and others seeking to use the wind as an environmentally friendly alternative energy source, that their well intended actions—including partnerships with wind energy developers—could result in civil and criminal penalties for violations of these laws.

These well intentioned individuals, small businesses, and other groups should know that the simple act of contacting the Service before having a wind turbine constructed on their property will allow the Service to advise them on what steps they would need to take to demonstrate that they took some due care to avoid, minimize, and mitigate adverse impacts to Protected Species. Opening a dialogue with the Service will undoubtedly lead to better business decisions by minimizing preventable environmental hazards to migratory birds and bats— thereby minimizing the legal liability of responsible wind projects owners and operators.

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

Most importantly, *having the USFWS involved as early as possible*, especially with respect to highly sensitive habitats, *may prevent a developer from constructing a turbine or series of turbines at a high-risk site independently*. By way of example, the decision by one local city and its school board to not involve the Service, has lead to the development and operation of four wind turbines being **on or in close proximity to highly sensitive habitat**. Wind turbine projects on or in close proximity to highly sensitive habitat will continue to go forward *without meaningful wildlife involvement by any government wildlife agency*.

Last year, despite testimony and written recommendations by Black Swamp Bird Observatory and other concerned citizens at several public hearings, a city and school district along the shores of Lake Erie, approved plans to install "mid-sized" wind turbines at four (4) schools located ***within a few miles of a National Wildlife Refuge, Important Bird Areas, several eagle nesting sites, and one of the largest concentrations of Bald Eagles in the 48 contiguous States***. This "really bad" scenario, which is now a present day reality, has occurred in large part because there appeared to the local government officials to be no incentive to involve the Service in a decision that will negatively impact Bald Eagles and several Endangered Species which migrate though the Lake Erie Marsh Region. The turbines were installed and began operating shortly before the 2012 Spring migration season. The school district has indicated that ***the only wildlife surveying to be conducted would be post-construction***. This unfortunate set of streamlined decisions were made despite repeated warnings and even attempts to involve state and federal wildlife agencies (including the U.S. Fish & Wildlife Service Field Office). See BSBO letter to Oregon School Board (June 22, 2011) (<http://www.bsbo.org/pdf/RWE-BSBO_Letter_to_School_Board_06222011.pdf>). It should also be noted that one single turbine installed and now operating at Clay High School in Oregon, Ohio is so large that the regional energy company, Toledo Edison, would not permit it to be connected to its system until the turbine operator installed a necessary safety device known as a direct transfer trip switch. See Kelly Kaczala, Safety issues idles wind turbine at Clay, Press, Oregon, Ohio (July 19, 2012) <<http://www.presspublications.com/from-the-press/9774-safety-issue-idles-wind-turbine-at-clay>> ("*The turbine that they have at Clay is huge – the largest of its kind on our system. It really needs to be on a wind farm. That's what it was designed for - not for a distribution system.*").

For existing projects on or in close proximity to areas of high wildlife value, or near critical areas of wildlife congregation, the Service should advise the developer or operator to modify the project, mitigate, or conduct specific post-construction monitoring. The above mentioned wind turbine projects near the shores of Lake Erie continued forward, with no preliminary evaluation of the general ecological context of the sites, and are currently in operation. The Service should consider addressing these types of operational projects, in close proximity to areas of high wildlife value and near critical areas of wildlife congregation, in the Midwest Wind Energy MSHCP -- even if located outside "covered lands." In the meantime, once aware of these types of projects, located near habitats of high wildlife value and along critical areas of wildlife congregation, the Service should expect, among other things, a meaningful pre-construction component of post-construction studies necessary to estimate and evaluate impacts, before even considering to provide the owner/operator with any enforcement assurances -- permit or no permit. Of course, if an endangered or threatened species were taken without any evidence of due care before, during or after construction, we would expect the Service to pursue an investigation and possible prosecution of those responsible for the death, injury or disturbance of the listed species.

If developers, owners, and operators of distributed and community-scale wind energy projects in close proximity to any critical areas of wildlife congregation, or areas of high wildlife value, want enforcement assurances from the Service, they should be expected to provide adequate documentation of the measures taken to avoid, minimize, and compensate for effects to wildlife and their habitats. Most importantly, the chances of unwise and ill-fated decisions to construct and operate a turbine or series of turbines at high-risk sites would be greatly decreased if the Service would not include *critical areas of wildlife congregation*, or

areas of high wildlife value, in its definition, designation, or description of "covered lands" in the Midwest MSHCP.

The Service should also consider the entire purpose of any requested Take Permit. In the Service's own Land-based Wind Energy Guidelines, the Service recommends that if a proposed wind site does not meet a "low risk" category the site should be abandoned or altered. In addition to offering a controversial path which would ignore statutory and regulatory standards, the mere suggestion of issuing a Take Permit under a Habitat Conservation Plan in locations other than "low risk" areas would negate the voluntary guidelines and system of best practices the Service designed (and championed) as a balanced approach.

Among other important lands, the Service should exclude habitats and lands in close proximity to Federal lands and critical areas of wildlife congregation and areas of high wildlife value from any definition, designation, or description of "covered lands" for the MSHCP.

The biological aspects of the interaction of wind facilities and species

To efficiently and effectively design and implement the Midwest MSHCP, the Service should leave out of any definition, designation, or description of "covered lands" the following types of lands: any lands on or near rivers, lakes, or marshes recognized as having global significance to migrating birds under wildlife management or conservation plans such as the North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, North American Waterbird Conservation Plan, and North American Landbird Conservation Plan. The biological rationale for excluding these types of sites from a definition, description, or designation of MSHCP "covered lands" is linked to the fact that these locations are key components of the North American Bird Conservation Initiative, as well as designated Important Bird Areas, which are exceptionally important for bird conservation. Recent literature suggests that nearly 80% of land bird mortality occurs in migration. The consequences of the loss of any significant stopover habitat may be disproportionately large and irreversible. Sillett, T.S. and R.T. Holmes. 2002. Variation in survivorship of a migratory songbird throughout its annual cycle. *Journal of Animal Ecology* 71:296-308.

The Western Lake Erie Basin Partnership, designed to create a comprehensive Federal, State, and regional watershed management partnership and framework for the Western Lake Erie Basin (WLEB), and a group to which significant taxpayer money has been invested even before the Great Lakes Restoration Initiative, has noted the following about our unique region:

Coastal natural areas provide limited habitat for insects, fish and birds. The bay area and other vital habitat areas (e.g., Oak Openings Region) feature several unique habitat types with offshore areas supporting several endangered and threatened species. As individual watershed assessments indicate, several streams, including portions of the Maumee River, remain highly rated with regard to biodiversity and should be maintained.

Fish and wildlife habitat is dependent upon improvement and continued protection of water quality in the WLEB. Undeveloped land and wetlands, while limited, should be protected given their significant natural resource value.

Western Lake Erie Basin Partnership, State of the Basin (August 3, 2009), available at: <http://wleb.org/wordpress/wp-content/uploads/2010/02/WLEB-State-of-the-Basin-Final-091509.pdf>. See also WLEB Partnership, "About Us", at http://wleb.org/wordpress/?page_id=2 ("Western Lake Erie has been recognized for its biodiversity in the North American Waterfowl Management Plan and the United Nations Convention on Biological Diversity. The U.S. Environmental Protection Agency has also identified the western basin as a "Biodiversity Investment Area.").

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

National Audubon Society has long recognized the Lake Erie Western Basin as an Important Bird Area (IBA). The following summary includes some of the important sites within Audubon's Lake Erie Western Basin IBA, and the primary rationale for their inclusion in this IBA:

This sprawling IBA includes open lake waters, coastal wetlands, Lake Erie Islands, a large bay, sand beaches, numerous river mouths, deciduous woodlands, and shrublands. It represents the shallow backwater and associated marshes of Lake Erie. Onshore woodlands and shrublands populate ancient beach-heads, remainders from the reduction over geological time of Lake Erie. Between these ancient beachheads lie the marshlands. The islands include an important nesting island for waterbirds (West Sister Island NWR) and migratory stopover sites for landbirds (Bass Islands, Kelleys Island). Sandusky Bay is an important Bald Eagle fall/wintering area. Open waters surrounding the islands and in Sandusky Bay are important waterfowl staging areas. Various public agencies including U.S. Fish and Wildlife Service and Ohio Department of Natural Resources (Division of Natural Areas and Preserves, Division of Parks and Recreation, Division of Wildlife) administer much of the habitat. Among the more significant sites are Maumee Bay State Park, Mallard Club Wildlife Area, Metzger Marsh Wildlife Area, Cedar Point NWR, Ottawa National Wildlife Refuge, Darby Unit ONWR, West Sister Island, Magee Marsh Wildlife Area, Kelleys Island, the Bass Islands, Sandusky Bay, Medusa Marsh, Sheldon Marsh State Nature Preserve, Old Woman Creek National Estuarine Research Reserve, Pickerel Creek Wildlife Area, Willow Point Wildlife Area, Resthaven Wildlife Area, and Castalia Pond. Also included are large expanses of privately managed marshland including Winous Point Marsh Conservancy, Ottawa Shooting Club, and Toussaint Shooting Club.

See National Audubon Society, Important Bird Areas Program, *A Global Currency for Bird Conservation* (<http://web4.audubon.org/bird/iba/>).

Under its criteria, American Bird Conservancy has identified much of the shoreline of the Western Lake Erie Basin as Globally Important Bird Areas (e.g., Cedar Point NWR; Magee Marsh Wildlife Area; Maumee Bay; Metzger Marsh Wildlife Area; Ottawa NWR, and Sandusky Bay). See Globally Important Bird Areas of the United States, <<http://www.abcbirds.org/abcprograms/domestic/iba/index.html>> ("Some waterfowl species congregate at wetlands in massive flocks during parts of their annual cycle. Shorebirds too depend on multiple stopover sites to refuel along their migration routes. The loss of any one of these crucial staging areas could have a catastrophic impact on populations already stressed by the hardship of migration....").

In short, the Service should exclude from any definition, designation, or description of MSHCP "covered land", habitats and lands in close proximity to sites managed by wildlife management or conservation plans and lands designated as Important Bird Areas and/or Globally Important Bird Areas.

Other information on the biological aspects of the interaction of wind facilities and species - Bald Eagle Restoration Program in Ohio

Because we are fortunate to have on staff a wildlife biologist with over 25 years experience directing the recovery plan for Bald Eagles in the state of Ohio, we felt it important to offer some advice, based in part on many of the lessons learned from managing regional eagle populations. During his career as a wildlife biologist for the Division of Wildlife at the Ohio Department of Natural Resources (ODNR), Mark Shieldcastle was instrumental in the overwhelmingly successful recovery of Bald Eagles in Ohio. In 1979, only four breeding pairs of Bald Eagles were left in Ohio. Through habitat protection and reintroduction programs from ODNR's Division of Wildlife, there are well over 200 nests (almost 60 times as many) in Ohio today. Intensive behavior observations as well as habitat identification and work with landowners and other stakeholders resulted in a wildlife success story.

It may be decades before there is adequate data for the Service to develop and run a reliable predictive model to estimate annual mortality. With adequate Eagle Conservation Plan (ECP) completions, and permit conditions requiring additional monitoring, it will become more possible to populate a reliable predictive model. Pre-construction and post-construction monitoring as permit conditions will allow Permittees and the Service to better assess disturbance and avoidance as well as inform future modeling for direct and indirect mortality. Under the BGEPA, it is the responsibility of the proponent to show no effect – the Service should not be in the position of having to demonstrate harm.

Predictive models are often lacking adequate data and require extensive datasets to operate even remotely as expected. For both species of eagle, it is going to be extremely difficult to populate the models properly to operate them and to evaluate the outputs. Sample size of important parameters and knowledge for both species results in uncertainty magnitudes greater than what is known for waterfowl, and those models are still settling out after nearly two decades of operation. Even natural mortality is an uncertainty in eagle populations and sub-populations.

Energy development can affect eagles in a variety of ways. First, structures such as wind turbines and associated infrastructure such as transmission lines can cause direct mortality through collision. (Hunt 2002, Krone 2003, Chamberlain et al. 2006). As part of the post-construction monitoring conditions to any permit to be granted under the Midwest Wind Energy MSHCP, the Service should ensure that transmission lines and other project facilities for each turbine are incorporated into the surveys. For Bald Eagles in the Great Lakes region, mortality from transmission line strikes and electrocution is much greater than utility pole strikes. Multiple birds were lost during the Ohio restoration program and none due to stationary utility poles. Over the thirty (30) years of the Bald Eagle Restoration Program in Ohio, multiple Bald Eagles were lost by striking wires, flipping with one wing contacting a second wire resulting in electrocution; not once was a bird lost by contacting wires by landing on a pole. Other raptors in Ohio have been meeting similar tragic fates.

Placing additional monitoring conditions on any permit will minimize the likelihood of irreversible mistakes being made before the impacts of further disturbance to eagles and their shrinking habitats can be adequately assessed. Surveys may also need to extend across contiguous nesting populations to assess disturbance and displacement. Interaction among pairs could result in reduced production of individual pairs or a reduction in pairs available on the landscape.

With respect to eagles, an eagle take permit under the BGEPA should be the only way to show due diligence and due care for projects proposed anywhere other than a “low risk” area as outlined by the USFWS Eagle Plan Guidance and accompanying regulations at 50 CFR – i.e., enforcement discretion without a take permit should only be possible if the project is unlikely to have, or does not have, important eagle-use areas within 10 miles of the project footprint.

The role of the Service is as the Federal care taker of the resource and objectives of their actions must represent that mission. With projections of what it will require to meet governmental mandates of renewable energy sources, of which wind is one, the immense number of structures on the land will be mind boggling. It is the cumulative effects from hundreds of thousands of turbines of larger and larger size, and the additional support structures, that must be of utmost concern to the Service. Proposed permits, such as the ones contemplated to be issued under the Midwest Wind Energy MSHCP, must take into account what remaining populations and their habitats look like now, and what they may look like in the future after certain changes are made by humans.

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

If and when data support the issuance of a permit under the BGEPA, additional conditions to any permit will assist the Service in assessing the true status of the population – before, during, and after changes are made to habitats. If the Service and its permittees do not continually “stay on top” of population impacts of long-lived birds such as eagles, we would be ignoring the lessons learned over the last half-century when our national bird, the Bald Eagle, became an endangered species – by the time a problem presented itself “statistically” it almost became too late to manage the crisis. This lesson should not be lost on the Service and any take permit should not be issued for more than a five year period as is presently enforced. This will allow for status updates in a biologically significant time frame and for a complete population review before consideration for renewal.

After years of dedicated service by wildlife biologists and large monetary investments by government agencies, businesses and taxpayers, Bald Eagles have made an incredible comeback in the Lake Erie Shores and Islands Region. In the 1970s, only four pairs of Bald Eagles were left near Lake Erie. Through habitat protection and reintroduction programs from ODNR’s Division of Wildlife, there are almost 60 times as many nests in Ohio today. Future success for Bald Eagles in Ohio will be determined by how humans manage their remaining habitat. The same can be said about how federal and state wildlife agencies manage Bald and Golden Eagles throughout the Midwest and throughout the Nation.

As a result, the Service should exclude from any definition, designation, or description of MSHCP "covered land", habitats and lands in close proximity to sites and areas managed for the preservation of eagles -- especially, important eagle-use areas within 10 miles of the edge of any "covered lands."

Scientific data that may help inform the MSHCP or monitoring of impacts

Black Swamp Bird Observatory is in the process of completing a project to digitize, organize, and convert twenty years of historical bird survey and accompanying datasets of Black Swamp Bird Observatory. This and other digitization projects will result in a thorough database of historic and current use of some of the Great Lakes shorelines by migratory birds in spring and fall.

Throughout the Great Lakes, radar and acoustic/ultrasonic data is beginning to be organized together with new and historical bird survey data to obtain species-specific information for specific sites. By combining these datasets the Service will have a robust data set describing how birds use the Great Lake shorelines during migration, which will be an invaluable tool to understand the potential interaction between migrating birds and wind power projects.

New data on bird and bat migration patterns will be obtained from migration surveys on the eastern Lake Ontario islands in New York. All historic and current bird data will be entered into the Midwest Avian Data Center’s database, which is a new node of the Avian Knowledge Network. This will ensure the data will be publicly accessible and will enable the use of geospatial tools to undertake various analyses.

The Service itself has noted:

*The immediate goal of gathering this information is to be able to identify **bird and bat migration and concentration areas** with the hope of guiding wind development away from such areas. But the value of the information extends far beyond just this utility. Migratory bird data can be used to evaluate and prioritize land for conservation or restoration, inform habitat management, and aid in understanding species distribution and behavior. By making both current data and historic datasets publicly accessible, this valuable information can be widely used for conservation planning purposes.*

USFWS, Region 3 Website, at <<http://www.fws.gov/midwest/wind/radar/index.html>> (emphasis added).

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

The Service should wait for its anticipated "robust data set" before recognizing that many other stakeholders throughout the Midwest have already identified "*bird and bat migration and concentration areas*". Accordingly, we encourage the Service to partner with interested stakeholders, especially non-governmental organizations (NGOs) with local expertise and data available to develop regional database websites (e.g., USFWS's Midwest Coordinated Bird Monitoring Partnership). While USFWS and other federal and state agencies have made great strides in making wildlife and habitat data available online, early coordination with the Service will provide interested parties with the opportunity to learn of data and reports that may not be available online (e.g., local NGO surveys, bird lists, data bases, and reports such as Audubon monthly counts). Interested parties will benefit by learning early of this new data and of any new developments based on ongoing studies or new information. This type of early coordination with the Service will also allow the Service to help developers make wise business decisions by focusing their investment capital on locations that pose less risk to wildlife and habitat, especially migratory birds and bats and their stopover habitats. This early coordination in turn will mean far less risk of costly project modifications or relocations and possible civil and criminal actions.

In addition to radar, surveys, and acoustic data, the Service should also give serious consideration to an economic set of issues and related datasets when determining what locations to include in the MSHCP "covered lands" -- namely, impacts to wildlife-related tourism. In 2010, based on data collected by the Ohio Division of Wildlife (ODOW), more than 50,000 birdwatchers from around the globe visited the Lake Erie Shores and Islands Region between April 15th and May 15th. Based on post-event economic impact data collected by Black Swamp Bird Observatory (BSBO) from birdwatchers who participated in "The Biggest Week in American Birding" ®, those birders spent at least 19 million dollars in our region during that time frame. In 2011, the number of visiting birders documented by ODOW climbed to nearly 64,000. In our post-event data, visitors reported staying in the area longer and spending more money, increasing the economic impact figure to between 25 and 30 million dollars during the same time frame.¹

The Lake Erie Shores and Islands Region is home to a large number of breeding Bald Eagles and is recognized by the American Bird Conservancy as globally important for migratory birds. Every spring and fall, many millions of songbirds migrate long distances between wintering grounds in the southern United States or the tropics and nesting grounds in Canada or our northern States. These birds mostly fly at night and spend the days resting and feeding within stopover habitats, like those in our region.

The impacts of turbines at or near stopover habitat have never been adequately studied. Not enough is known yet about the typical angle of descent of birds that stop to rest and feed along the shores of the Western Lake Erie Basin (WLEB) during migration. While some research has been done on the effects of wind turbines on migratory birds, most of these studies have been conducted in areas where birds are in active migration, flying at heights well above the reach of the turbines. Migration into stopover habitat is more challenging to study since birds drop in and take off in these areas and generally arrive and depart during predawn or dusk when visibility is poor and obstacles present the greatest threat. This also presents challenges for the birds and the biologists and other scientists trying to study the birds' flight patterns and related behavior.

Misplaced turbines at even one small stop along the migration route of millions of birds could lead to rapid declines in the populations of many species of songbirds, eagles, hawks, and other wildlife. Well before serious consideration of a possible project site, wind energy developers must talk with the Service, State wildlife agencies and interested organizations to make sure they are not relying on inaccurate, irrelevant, inadequate, or outdated information.

¹ BSBO's estimated economic impact analysis is consistent with the results of a [February 2012 Ohio Sea Grant survey](#). See also Matthew Forte, *The Benefits of Birding: Sea Grant Research Finds Bird Watching Contributes \$30 Million to Northern Ohio's Economy*, [Twine Line](#), pp. 8-9 (2012 Winter/Spring).

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

It is of great concern from the scientific perspective of the overwhelming inadequacies of existing pre- and post-construction evaluations that are available for review -- and that are being used as a basis for irreversible decisions that will harm birds, wildlife and their habitats. Sample design has been watered down to questionable usefulness. With poorly designed surveys, poor supporting surveys (i.e. detectability and scavenger), and other meta data concerns it is extremely difficult to access results to inform decision making processes. The Midwest Wind Energy MSHCP would greatly benefit from existing localized data as it develops its criteria for covered lands, activities, and species.

To this end, BSBO fully supports the state of Ohio's efforts to identify Avian Concern Zones where development should never take place without highly extensive studies and extraordinary care. BSBO urges the Service to not include in a definition, designation, or description of "covered lands" in the MSHCP the following: Ohio's delineated Avian Concern Zones or any other areas deemed by authorities or NGOs to be of the highest concern for wildlife. Many BSBO publications provide support for these unique and critically important areas. These include our Annual Progress reports such as "MIGRATIONAL MOVEMENTS AND HABITAT USAGE OF MIGRANT PASSERINES IN THE GREAT LAKES REGION: OTTAWA NATIONAL WILDLIFE REFUGE, OHIO" and "SPRING RAPTOR MIGRATION IN OTTAWA NATIONAL WILDLIFE REFUGE AND SURROUNDING LAKE ERIE MARSHES, OHIO." BSBO Annual Progress Reports available at: <http://www.bsbo.org/BSBO_publications.htm>. Additionally, the documented sightings of Kirtland's Warblers along the Western Lake Erie Basin are unparalleled anywhere on their migration routes. Since 2009, at least seven individual Kirtland's Warblers have been confirmed from areas included in Ohio's Avian Concern Zones. Moreover, BSBO banding data provides considerable documentation of records of species of concern including but not limited to the Golden-winged Warbler.

Furthermore, BSBO and partners including the U.S. Geological Survey, U.S. Fish and Wildlife Service, Ohio State University, University of Toledo, Bowling Green State University, and Old Bird, Inc. are currently in the middle of a comprehensive research study addressing ascent and descent of birds into a stopover habitat and correlation of multiple field method results including radar, banding, point counts, and acoustics. This study will provide considerable information to improve decision making processes on the potential risk of birds from the wind industry from the Lake Erie shore to 15 miles inland. Early results are indicating considerable risk to an extremely large number of birds as far as 15 miles inland and a wide range of bird behaviors concerning migration.

An additional resource for the development of the Midwest Wind Energy MSHCP is The Nature Conservancy's Great Lakes Wind Energy Guidelines. The recommendations of the Nature Conservancy in its Great Lakes Guidelines are based on a balanced scientific survey and extensive analysis of peer-reviewed literature and published reports. We join the Nature Conservancy in strongly encouraging the Service to review the scientific rationale used to develop the Conservancy's guidelines as the Service develops its habitat conservation plan(s) and related documents. Ewert, D.N., J.B. Cole, and E. Grman. 2011. *Wind energy: Great Lakes regional guidelines*. The Nature Conservancy, Lansing, Michigan (hereinafter "Great Lakes Guidelines"), at <<http://conserveonline.org/library/wind-energy-great-lakes-regional-guidelines/view.html>>; see e.g., Ewert, D.N., G.J. Soulliere, R.D. Macleod, M.C. Shieldcastle, P.G. Rodewald, E. Fujimura, J. Shieldcastle, and R.J. Gates. 2005. [Migratory bird stopover site attributes in the western Lake Erie basin](#). Final report to The George Gund Foundation. (available at: <http://www.fws.gov/midwest/wind/references/gund_stopover_rpt_2006apr20_final.pdf>).

The Nature Conservancy report also provides, among other things, a summary of locations which the Service should not include in any definition, designation, or description of "covered lands" for purposes of the MSHCP. For the convenience of the reader, the relevant Section of the Great Lakes Guidelines is set forth here:

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

B. Sites That Should Be Avoided for Siting of Wind Turbines: An Assessment and Recommendations

Lands and waters not available or less suitable for wind development include officially designated lands in which wind energy development is not permitted (e.g., wilderness areas), lands explicitly established for biodiversity protection, and other protected lands important for biodiversity. Lands without legal protection may also have ecological attributes associated with important biodiversity areas and thus may be less suitable for wind energy development. At sites where mitigation, restoration, or other actions can preserve biodiversity values, and where wind energy is permitted, some development could occur (Kiesecker et al. 2009). A partial list of sites to avoid (taken from many of the sources of Sections VI AB) includes:

- Legally protected or otherwise designated lands associated with important biodiversity areas, some of which are closed to development in whole or in part.
 - o National parks
 - o Wilderness areas
 - o U.S Fish and Wildlife National Wildlife Refuges
 - o U.S. Fish and Wildlife Waterfowl Production Areas
 - o Designated critical habitat or other management areas for threatened or endangered species
 - o Habitat Conservation Areas
 - o National forests
 - o State parks
 - o State wildlife management areas
 - o Natural areas or other designated lands for natural features
 - o State or federal bottomland preserves
 - o Nature reserves of land trusts
 - o Lands with conservation easements

- Lands with ecological/biological/physical attributes associated with important biodiversity areas but not legally protected or otherwise designated (see sources listed in Sections VII A-B).
 - o Habitat for rare species (state or federally listed)
 - o Ecoregional and other biodiversity sites identified by The Nature Conservancy, Ducks Unlimited, and others
 - o Sites with high ranked state or globally ranked species or communities, based on Natural Heritage Program data
 - o Islands with high biodiversity values, as scored by the Great Lakes Island Collaborative
 - o Important lands for biodiversity identified in state wildlife action plans
 - o Large relatively intact landscapes (> 5,000 acres [1,970 ha]) with intact ecological processes that support area-sensitive species, surrounded by moderately to highly altered landscapes
 - o Habitats particularly sensitive to disturbance such as beaches and sand dunes, wetlands, prairies, and open peatlands
 - o River mouths with large amounts of annual discharge
 - o Zones of high aquatic productivity
 - o Designated critical habitat or other management areas for threatened or endangered species
 - o Habitat Conservation Areas
 - o National forests
 - o State parks
 - o State wildlife management areas
 - o Natural areas or other designated lands for natural features
 - o State or federal bottomland preserves
 - o Nature reserves of land trusts
 - o Lands with conservation easements

It has also been suggested that construction be minimized during migration and spawning and to minimize acoustic disruption of aquatic life and sediment disturbances that increase turbidity. Best Management Practices defined by local, state, provincial, and federal governments for erosion and sediment control should be followed. Maintaining natural drainage patterns, hydrology, surface and ground water levels, and buffers around wetlands consistent with federal/state/provincial wetland laws should be achieved.

Enclosure (1) of Black Swamp Bird Observatory Comments re: Midwest Wind Energy MSHCP

Ewert, D.N., J.B. Cole, and E. Grman. 2011. *Wind energy: Great Lakes regional guidelines*. The Nature Conservancy, Lansing, Michigan, at pp. 7-8. (<<http://conserveonline.org/library/wind-energy-great-lakes-regional-guidelines/view.html>>).

Accordingly, the Service should exclude from any definition, designation, or description of MSHCP "covered lands", habitats and lands in close proximity to the types of sites the Nature Conservancy's Great Lakes Guidelines recommend be avoided for the siting of wind turbines -- (1) the many types of legally protected or otherwise designated lands associated with important biodiversity areas and (2) the many types of lands with ecological/biological/physical attributes associated with important biodiversity areas but not legally protected or otherwise designated.

With respect to "coastal areas", the Service should follow the Nature Conservancy's wind energy guideline for "Coastal areas" by excluding lands within five (5) miles of Great Lakes shorelines from the definition, designation, or description of "covered lands" for purposes of the MSHCP. Furthermore, based on the preliminary results of our ongoing comprehensive research study addressing ascent and descent of birds into a stopover habitat, we highly recommend that the Service err on the side of caution by incorporating a revised Great Lakes wind energy guideline for "Coastal areas":

"Avoid wind energy development within 15 miles of Great Lakes shorelines, including islands, and including agricultural fields traditionally used by large numbers of waterfowl."

An MSHCP can always be revised in the future to allow for streamlined development between five (5) and fifteen (15) miles from the coast of a Great Lake. The same cannot be said for the birds and their habitats -- once development of critical habitat takes root, it may be nearly impossible to reverse negative trends to populations of endangered and threatened species negatively impacted by wind energy development on *coastal areas and lands associated with important biodiversity areas*.
