

Using the Wildlife Data Layers of the Ohio Wind Map

Geographic Information System (GIS) wildlife data layers have been prepared to overlay on the Ohio wind map. This data was gathered at the request of the Ohio Wind Working Group. These layers were provided by the U.S. Fish & Wildlife Service, Reynoldsburg, Ohio Field Office (Service), with information contributed by the Service and Ohio Department of Natural Resources (ODNR).

The Service implements the Endangered Species Act and Migratory Bird Treaty Act, which prohibit the taking or killing of Federally listed threatened and endangered species and migratory birds, respectively. Unauthorized take of Federally listed threatened and endangered species and migratory birds may result in enforcement actions by state or federal government agencies. In an effort to avoid such situations, the wildlife data layers were developed to identify areas of concern for protected species early in the wind power development planning process. The data layers and guidance provided below are intended to help wind power developers avoid known locations of species of concern, and to identify upfront actions that may be needed to assess the impact of projects that are proposed within these areas of concern.

The layers provide a coarse overview of areas in Ohio where potential wildlife and/or natural resource areas of concern are present and may be an issue relative to potential wind power developments; use of the wildlife layers does not preclude additional project-specific review of individual proposals by the Service, ODNR, and other State and/or Federal resource agencies.

The layers and their intended uses are described below:

1) Lake Erie buffer:

A 3-mile buffer from the shoreline of Lake Erie/Sandusky Bay, which incorporates areas commonly used by migratory birds, shorebirds, landbirds, raptors, and waterfowl, has been included. This area is heavily used during the migration season, when millions of birds move between their nesting and wintering grounds in spring and fall. Bird migration does not follow a well-defined corridor, but rather a broad front. Many birds migrate at night, and stop to rest during the day. Birds migrating over the lake at sunrise will look for the closest land mass to stop and rest, resulting in many birds concentrating at or near the shoreline. Furthermore, Lake Erie acts as a barrier to migration for some bird species, which then follow the shoreline of the lake to pass through the area. Significant data exist to support this claim in the western basin of Lake Erie (roughly Toledo to Sandusky), where more than 20 years of bird studies have been completed documenting this phenomenon. Less data is available for the central basin (Sandusky to Conneaut), however the migration and stopover process is generally the same. Bird use of a given area is somewhat dependent on habitat types. One would expect more diverse species assemblages and larger numbers of individual birds in areas with significant habitat, such as forest, grasslands, and wetlands. One would expect less diverse species assemblages and smaller numbers of individuals in areas that do not support significant habitat, such as urban areas or intensive agricultural areas. While migration fronts are not necessarily dependent on habitat types, the presence of a large number of birds flying at low altitudes and/or stopping to rest during the migration process would more likely be encountered where suitable habitat (as described above) is present. Wind power development projects proposed within 3 miles of Lake

Erie have increased potential of impacting migratory birds relative to other more inland areas. Wind power developers should note that bird use studies, risk assessments, onsite habitat delineations, implementation of bird conservation measures, and post-construction mortality studies may be recommended. Furthermore, if significant bird kills are documented post-construction, remedial actions may be recommended to address bird mortality.

2) Federal Species Buffer:

A 5-mile buffer from known locations of Federally listed avian species of significant concern relative to wind power development has been included. This layer represents known locations of Federally listed threatened and endangered species, including the bald eagle, Indiana bat, and Karner blue butterfly. Because they are flying species, these animals are more likely to be impacted by wind power development than many other federally listed species in Ohio. Wind power development projects within these areas could result in take of Federally listed species, which is prohibited under Section 9 of the Endangered Species Act, unless a permit authorizing take has been issued by the Service. If the Service deems that take is likely, formal consultation under Section 10 or 7 of the Endangered Species Act could be completed to authorize take, provided that sufficient avoidance and minimization measures have been implemented. Developers should note that avian use studies, risk assessments, onsite habitat delineations, implementation of listed species conservation measures, and post-construction mortality studies may be required for projects in these areas. Similar to the bird layer, locations of Federal species are often habitat-specific, so individual site-specific project review is strongly encouraged.

3) Important Bird Areas:

Important Bird Areas (IBAs), designated by Audubon Ohio, have been included. According to Audubon Ohio's webpage, "IBAs provide essential habitat for one or more species of birds and include sites that birds use during their nesting season, during the winter and/or while they are migrating. Usually these sites stand out as special from the surrounding landscape. To determine where IBAs are in the state, the Ohio IBA Technical Committee reviews nominations submitted by volunteers. The selected IBAs are identified using standardized, science-based criteria. More than 80 IBAs have been identified so far in Ohio. The goal of the IBA program is to conserve the identified IBAs and protect bird populations. To accomplish this, Audubon Ohio will:

1. Identify IBAs through a science-based nomination process;
2. Publicly dedicate sites and raise public-awareness of bird conservation;
3. Involve public and private participation in conservation planning on sites;
4. Provide public education and outreach about sites;
5. Encourage legislation that promotes IBAs and bird conservation."

Wind power development within designated IBAs is strongly discouraged, due to the potential impact to birds. Wind power developers should note that bird use studies, risk assessments, onsite habitat delineations, implementation of bird conservation measures, and post-construction mortality studies may be recommended. Furthermore, if significant bird kills are documented post-construction, remedial actions may be recommended to address bird mortality.

4) Major River Buffer:

A 1 mile buffer along major rivers in Ohio that may serve as migratory fronts or stopover areas for birds has been included. These buffers have been identified along major river corridors that support significant riparian habitat and are known or thought to be areas of bird concentration during the migration period. Wind power developers should note that bird use studies, risk assessments, onsite habitat delineations, implementation of bird conservation measures, and post-construction mortality studies may be recommended. Furthermore, if significant bird kills are documented post-construction, remedial actions may be recommended to address bird mortality.

For a complete evaluation of wildlife concerns relative to a specific project, please contact the U.S. Fish and Wildlife Service's Ohio Field Office at 6950 Americana Parkway, Suite H, Reynoldsburg, OH 43068-4127, (614) 469-6923.

If you have questions about these layers, or if we may be of additional assistance, please contact Service biologist Megan Seymour, at (614) 469-6923 ext. 16.