

**BEFORE
THE OHIO POWER SITING BOARD**

In the Matter of the Application of Seneca)
Wind, LLC for a Certificate of Environmental)
Compatibility and Public Need for a Wind-)
Powered Electric Generating Facility in)
Seneca County, Ohio.)

Case No. 18-488-EL-BGN

SENECA WIND, LLC'S RESPONSES TO STAFF'S SIXTH SET OF DATA REQUESTS

- 1) Provide a table identifying which wetlands and streams would be crossed by facility components, which components would cross each resource, an estimation of the area of impact to each resource, and the method by which the resource would be crossed.

RESPONSE: *See Exhibit A.*

- 2) Which permits does the Applicant plan to obtain for coverage of impacts to surface water resources?

RESPONSE: *The Applicant plans to obtain Nationwide Permit coverage from the U.S. Army Corps of Engineers for impacts to wetlands and surface waters, although boring techniques will be used for many of the streams to completely avoid impact. In addition, the Applicant will develop a Stormwater Pollution Prevention Plan as part of obtaining coverage under the General Permit for construction stormwater.*

- 3) Provide the most recent coordination letter received from USFWS.

RESPONSE: *The latest USFWS project review letter is attached as Exhibit B.*

- 4) Provide details on the status of the Eagle Conservation Plan. Does the applicant anticipate obtaining an Eagle Take Permit?

RESPONSE: *Seneca Wind has been coordinating with the USFWS to develop an Eagle Conservation Plan, which is now in draft form. At this time, Seneca Wind intends to apply for an Eagle Take Permit for bald eagles.*

- 5) Provide an estimate of the acreage of temporary and permanent impacts to specific vegetation community types (i.e. xx acres of forest, xx acres of shrub land, xx acres of grassland, xx acres of agricultural land).

RESPONSE: *The following provides an approximate estimate of temporary and permanent impacts to vegetation community types. In addition to vegetated areas, a small portion of developed land (existing roads or driveways) also has the potential for impact. These values have been adjusted to reflect the removal of Turbine 91. Therefore, estimated areas represent 93 potential turbine locations. Note that these estimates may change based on layout refinements associated with the 77 turbine locations actually selected for construction; however, the total impact is expected to be the same or less than these provided estimates.*

	Estimated Temporary Impacts (acres)	Estimated Permanent Impacts (acres)
Forested	5 – 13	<0.1
Scrub/Shrub	2	0
Grassland	2	<0.2
Agriculture	733	97
Wetland	<0.4	<0.1
Water (Streams)	<0.2	<0.1

- 6) Provide the GIS data for the adjustments made through the supplement filed on 9/14/2018.

RESPONSE: *The GIS data was provided directly to Staff on a disk.*

- 7) It appears that the project would have an impact on the habitat of the state threatened Blanding's turtle and state threatened spotted turtle. Has the Applicant conducted the ODNr recommended surveys for these species?

RESPONSE: *Seneca Wind conducted all surveys recommend by ODNr (see latest coordination letter from ODNr for the Project, which is dated April 25, 2018, attached as Exhibit C). Neither the Blanding's turtle nor the spotted turtle were identified as species requiring consideration during coordination with ODNr; therefore, no surveys were conducted for these species.*

Exhibit A

The following tables reflect:

- Potential permanent wetland impacts;
- Potential temporary wetland impacts;
- Potential permanent stream impacts; and
- Potential temporary stream impacts.

Note that, as reflected in the original OPSB Application, filed with the OPSB in July 2018 (Case No. 18-0488-EL-BGN), no wetland or stream impact is associated with the turbines themselves. Permanent and temporary wetland and stream impacts are anticipated to continue to be less than 0.1 acre and 0.5 acre, respectively; although 0.17 acre of permanent impact and 0.54 acre of temporary impact are associated with 93 turbine locations are reflected in the tables below, only a maximum of 77 turbines will be built. Although infrastructure will be adjusted based on the specific selection of the 77 turbines to be constructed (to account for where turbines not selected shared infrastructure with selected turbines), impact are expected to remain at these levels. Appropriate Nationwide Permit approval will be sought from the U.S. Army Corps of Engineers.

Potential Permanent Wetland Impact

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Site Road	W-A7	Fill	Permanent	481
Site Road	W-A9	Fill	Permanent	1,741
Site Road	W-A10	Fill	Permanent	1,600
Total				3,822 square feet (0.09 acre)

Potential Temporary Wetland Impact

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Cranewalk	W-A12	Mat Pads	Temporary	1,366
Cranewalk	W-A36	Mat Pads	Temporary	622
Collection Line	W-A7	Trench	Temporary	400
Collection Line	W-A9	Trench	Temporary	800
5 Collection Lines	W-A13	Trench	Temporary	3,400
5 Collection Lines	W-A14	Bore	N/A	N/A
2 Collection Lines	W-A16	Bore	N/A	N/A
Collection Line	W-A19	Trench	Temporary	1,200
Collection Line	W-A28	Bore	N/A	N/A
8 Collection Lines	W-A28	Trench	Temporary	6,400
Collection Line	W-A32	Bore	N/A	N/A
3 Collection Lines	W-A33	Bore	N/A	N/A
2 Collection Lines	W-A34	Bore	N/A	N/A
Collection Line	W-A35	Trench	Temporary	1,000
Collection Line	W-A36	Trench	Temporary	400

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Collection Line	W-A37	Trench	Temporary	340
Collection Line	W-A37	Trench	Temporary	1,240
2 Collection Lines	W-B1	Bore	N/A	N/A
Collection Line	W-B2	Bore	N/A	N/A
Collection Line	W-B6	Bore	N/A	N/A
Collection Line	W-B7	Bore	N/A	N/A
Collection Line	W-B12	Bore	N/A	N/A
Collection Line	W-B14	Bore	N/A	N/A
Total				17,168 square feet (0.39 acre)

Potential Permanent Stream Impact

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Site Road	S-A3	Culvert	Permanent	265
Site Road	S-A5	Culvert	Permanent	372
Site Road	S-A13	Culvert	Permanent	585
Site Road	S-A14	Culvert	Permanent	502
Site Road	S-A25	Culvert	Permanent	741
Site Road	S-A32	Culvert	Permanent	202
Site Road	S-B4	Culvert	Permanent	503
Site Road	S-B9	Culvert	Permanent	419
Total				3,589 square feet (0.08 acre)

Potential Temporary Stream Impact

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Cranewalk	S-A2	Mat Pads	Temporary	558
Cranewalk	S-A7	Mat Pads	Temporary	406
Cranewalk	S-A8	Mat Pads	Temporary	614
Cranewalk	S-A30	Mat Pads	Temporary	676
Site Road	S-A3	Culvert	Temporary	445
Site Road	S-A4	Culvert	Temporary	303
Collection Line	S-A1	Trench	Temporary	140
Collection Line	S-A2	Trench	Temporary	140
Collection Line	S-A5	Trench	Temporary	100
Collection Line	S-A5	Bore	N/A	N/A

Project Component	Resource to be Crossed	Method of Crossing	Type of Impact	Estimated Impact Area (square feet)
Collection Line	S-A6	Trench	Temporary	100
Collection Line	S-A7	Trench	Temporary	100
Collection Line	S-A8	Trench	Temporary	140
2 Collection Lines	S-A10	Trench	Temporary	200
2 Collection Lines	S-A10	Trench	Temporary	200
Collection Line	S-A13	Trench	Temporary	80
Collection Line	S-A14	Bore	N/A	N/A
5 Collection Lines	S-A15	Bore	N/A	N/A
2 Collection Lines	S-A17	Trench	Temporary	200
5 Collection Lines	S-A18	Trench	Temporary	600
5 Collection Lines	S-A19	Bore	N/A	N/A
5 Collection Lines	S-A20	Bore	N/A	N/A
5 Collection Lines	S-A25	Trench	Temporary	300
5 Collection Lines	S-A25	Bore	N/A	N/A
Collection Line	S-A25	Trench	Temporary	60
Collection Line	S-A25	Trench	Temporary	60
Collection Line	S-A30	Trench	Temporary	160
Collection Line	S-A31	Bore	N/A	N/A
Collection Line	S-A32	Trench	Temporary	60
Collection Line	S-A32	Trench	Temporary	60
Collection Line	S-A32	Bore	N/A	N/A
8 Collection Line	S-A32	Trench	Temporary	480
Collection Line	S-A33	Trench	Temporary	140
Collection Line	S-A34	Bore	N/A	N/A
3 Collection Lines	S-A35	Bore	N/A	N/A
2 Collection Lines	S-A36	Bore	N/A	N/A
3 Collection Lines	S-A37	Bore	N/A	N/A
Collection Line	S-B2	Bore	N/A	N/A
Collection Line	S-B3	Bore	N/A	N/A
2 Collection Lines	S-B3	Bore	N/A	N/A
Collection Line	S-B4	Bore	N/A	N/A
Collection Line	S-B6	Bore	N/A	N/A
2 Collection Lines	S-B8	Bore	N/A	N/A
Collection Line	S-B9	Trench	Temporary	100
Collection Line	S-B11	Trench	Temporary	200
Collection Line	S-B13	Bore	N/A	N/A
Total				6,622 square feet (0.15 acre)



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

October 24, 2012

Yvonne F. Abernethy
6330 Woodside Executive Court
Aiken, SC
29803

TAILS : 31420-2010-TA-0442

Re: Seneca Project - Request for Update on Project Review

Dear Ms. Abernethy:

This letter is in response to your request for an updated review of the proposed Exelon Generation wind facility for Seneca County, Ohio. The proposed project is for approximately 58 wind turbines (150 MW) and associated infrastructure (collection lines, access roads, substation, etc.). The Service previously provided initial recommendations for the proposed project in a July 3, 2008 letter. We understand the proposed project consists predominately of active agricultural land (79%) and with scattered wooded and grassland habitats (17%). We encourage and appreciate your early coordination with ODNR and the Service, and recommend continued collaboration on this project to ensure wildlife issues are fully and appropriately addressed.

The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making an informed decision regarding wildlife issues, site selection, project design, and compliance with applicable laws. The Service has been working closely with ODNR Division of Wildlife to develop recommended survey protocols and site evaluations that will satisfy both State and Federal wildlife statutes, and this letter describes these measures, in part. The protocols, "On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio" are available on ODNR's website at:

http://www.dnr.state.oh.us/Home/wild_resourcessubhomepage/ResearchandSurveys/WildlifeWind/tabid/21467/Default.aspx

The Service supports the development of wind power as an alternative energy source; however, wind farms can have negative impacts on wildlife and their habitats if not sited and designed with potential wildlife and habitat impacts in mind. Selection of the best sites for turbine placement is enhanced by avoiding sites with known, high concentrations of birds and/or bats passing within the rotor-swept area of the turbines or where the effects of habitat fragmentation will be detrimental. In support of wind power generation as a wildlife-friendly, renewable source of power, development sites with comparatively low bird, bat and other wildlife values, would be preferable and would have relatively lower impacts on wildlife.

WATER RESOURCE COMMENTS:

The Service recommends that impacts to streams and wetlands be avoided and buffers surrounding these systems be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally vegetated buffers surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. Furthermore, forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region. The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to aquatic resources. If water resources will be impacted, the Buffalo Corps of Engineers should be contacted about the need for a Section 404 permit.

ENDANGERED SPECIES COMMENTS:

Because of the potential for wind power projects to impact endangered bird, bat, or other listed species, they are subject to the Endangered Species Act (16 U.S.C. 1531-1544) section 9 provisions governing "take", similar to any other development project. Take incidental to a lawful activity may be authorized through the initiation of formal consultation if a Federal agency is involved; or if a Federal agency, Federal funding, or a Federal permit are not involved in the project, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA may be obtained upon completion of a satisfactory habitat conservation plan for the listed species. However, there is no mechanism for authorizing incidental take "after-the-fact."

The proposed project lies within the range of the **Indiana bat** (*Myotis sodalis*), a Federally listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. During the winter Indiana bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

1. Dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas.
2. Live trees (such as shagbark hickory and oaks) which have exfoliating bark.
3. Stream corridors, riparian areas, and upland woodlots which provide forage sites.

Mist Net Surveys: Based on ODNR's "On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio", a total of 15 mist net surveys have been requested for the proposed project boundary. We understand surveys were conducted July 6- July 29, 2009. During these surveys 6 species and a total of 399 individual bats were captured over 120 net nights. Species included 160 big brown (*Eptesicus fuscus*), 62 northern long-eared (*Myotis septentrionalis*), 29 eastern red (*Lasiurus borealis*), 133 little brown (*Myotis lucifugus*), 10 hoary (*Lasiurus cinereus*), and 3 tri-colored (*Perimyotis subflavus*) bats. While no Indiana bats were captured during surveys for this project, several surveys conducted in Seneca and Crawford Counties in 2011 did capture Indiana bats.

Based upon the proximity of this project to those capture sites, the Service believes that take of Indiana bats from the proposed project is likely to occur during the maternity season. In addition, based upon several documented Indiana bat mortalities during the fall migration season, the Service also believes there is potential for take during the spring and fall migration season. Therefore, as discussed during the meeting on September 27, 2012 meeting, the Service recommends that if this project proposes to move forward, the developer complete a Habitat Conservation Plan (HCP), either individually or as part of the Regional HCP effort, and obtain an associated Incidental Take Permit.

The proposed project lies within the range of the **rayed bean** (*Villosa fabalis*), a Federally listed endangered species. The rayed bean is generally known from smaller, headwater creeks, but records exist in larger rivers. They are usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of lakes. Substrates typically include gravel and sand, and they are often associated with, and buried under the roots of, vegetation, including water willow (*Justicia americana*) and water milfoil (*Myriophyllum* sp.). Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of rayed bean mussels in the vicinity of the proposed site. Any survey should be designed and conducted in coordination with the Endangered Species Coordinator for this office.

BALD AND GOLDEN EAGLE COMMENTS:

Bald and golden eagles are included under the Migratory Bird Treaty Act, but are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). The Service recently issued a final rule that authorizes issuance of eagle take permits, where the take to be authorized is associated with otherwise lawful activities. If take of bald eagles is likely, based on the best information available, a bald eagle take permit for this project will be necessary. Raptor nest searches and nest monitoring should be conducted in accordance with ODNR's survey protocols to identify any raptors, including bald eagles that may nest in or near the project area. In addition, the Service has produced Draft Eagle Conservation Plan Guidance (2011; ECP Guidance). The full text of Service guidelines and recommendations are available at the following web address: [Draft Eagle Conservation Plan Guidance \(2011\): http://www.fws.gov/windenergy/docs/ECP_draft_guidance_2_10_final_clean_omb.pdf](http://www.fws.gov/windenergy/docs/ECP_draft_guidance_2_10_final_clean_omb.pdf)

There are 16 bald eagle nests within 10 miles of the project boundary in Seneca County. These nests are within the perimeter that is outlined in Appendix C of the ECP Guidance. Based on this information, we have determined that ½ the inter-nest distance (defined in the ECP Guidance) for this project is 1.87 miles. The Service recommended all nests within 1.87 miles of this project boundary be monitored as well as eagle use of the project areas be assessed to determine if there is potential risk to eagles from the proposed project. The ECP Guidance suggests a way to estimate relative abundance and eagle exposure rates, characterization of the project area nesting population, and eagle migration and concentration areas. The Service has developed a model to predict risk to eagles from wind turbine facilities. Based upon the site specific information collected for this project the model predicts the take of 0.37 bald eagles per year, or approximately one eagle every three years. Therefore, the Service would recommend Exelon obtain take coverage through either an eagle take permit or incorporating eagles as a covered species within a HCP.

COORDINATION OF SURVEY RESULTS:

Please submit survey results to this office for review. Survey results will be interpreted to determine areas with relatively low bat and bird activity and diversity as opposed to areas with relatively high bat and bird activity and diversity. Based on the survey results, we may make recommendations as to turbine

Exhibit B

placement and operation; additional consultation under Section 7 or 10 of the Endangered Species Act of 1973, as amended, additional permits under the Bald and Golden Eagle Protection Act, or pre- or post-construction monitoring.

POST CONSTRUCTION MONITORING:

The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically robust, peer reviewed methodology of mortality surveys. We recommend that the post-construction monitoring protocol be developed based on the results of pre-construction monitoring, and look forward to working with the project proponent to develop this document.

Thank you for the opportunity to provide comments on this proposed project. If you have questions, or if we may be of further assistance in this matter, please contact Keith Lott at extension 31 in this office or by email at Keith_Lott@fws.gov or visit our website at <http://www.fws.gov/midwest/Ohio>.

Sincerely,


 Mary Knapp, Ph.D.
Supervisor

Cc: Ms. Jennifer Norris, ODNR, Columbus, OH
Mr. Stuart Siegfried, OPSB, Columbus, OH



Exhibit C

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife

Michael R. Miller, Chief
2045 Morse Rd., Bldg. G
Columbus, OH 43229-6693
Phone: (614) 265-6300

April 25, 2018

To all interested parties:

Based upon the revised project boundary map received April 2018, the Ohio Department of Natural Resources Division of Wildlife (DOW) has prepared initial survey recommendations for the proposed Seneca project located in Seneca, Huron, and Crawford counties regarding wildlife species.

Currently the project falls within regions of the state that DOW has identified as needing extensive monitoring efforts based on GIS analysis of the site. However, previous DOW recommendations have determined the habitat is not what DOW considers high-quality stopover habitat for migrating passerines and waterfowl. Therefore, the proposed facility was classified as a "moderate" site under the current protocols. If the developer decides to amend the current boundaries, the DOW will revise our survey recommendations.

State-listed plant species occur in Seneca, Huron, and Crawford counties and the list can be found here: <http://wildlife.ohiodnr.gov/species-and-habitats/state-listed-species/state-listed-species-by-county#plants>. Additional surveys may be warranted to determine presence of state-listed species if construction will impact aquatic or wetland habitat. Once the turbine, road, pad and other infrastructure locations have been determined, please consult with DOW to determine if such surveys are needed.

The attached table summarizes the types and level of survey effort recommended by the DOW. Results from these studies will help assess the potential impact the turbines may pose and will influence our recommendations to the Ohio Power Siting Board.

Monitoring should follow those methods described within the "On-shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio."

If you have any questions, please feel free to contact me at erin.hazelton@dnr.state.oh.us or 614.265.6349.

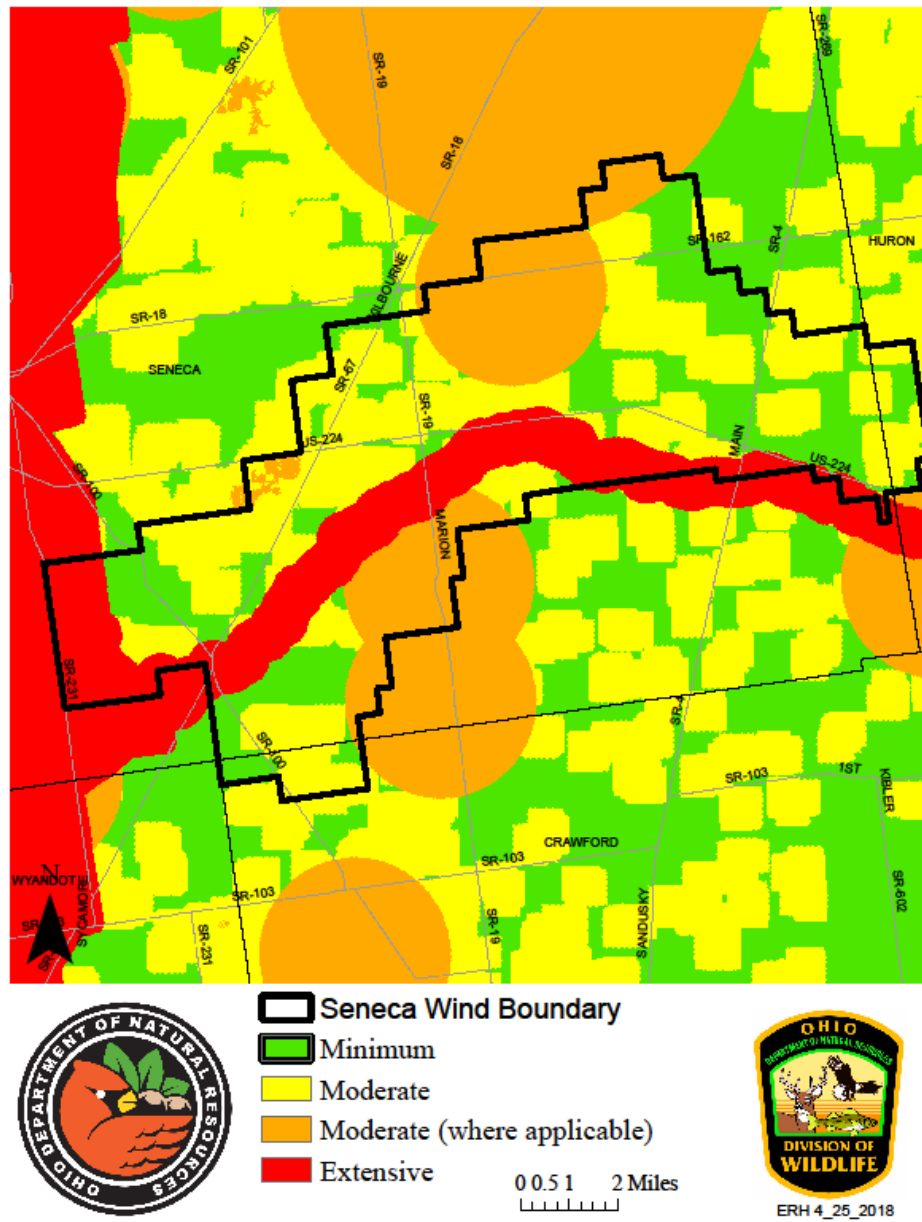
A handwritten signature in blue ink that reads "ER Hazelton". The signature is stylized with a large "E" and "R" and a cursive "Hazelton".

Erin Hazelton
Ohio Division of Wildlife
2045 Morse Road
Columbus, Ohio 43229

cc: Mr. Stuart Siegfried, Ohio Power Siting Board
Mr. Grant Zeto, Ohio Power Siting Board
Mr. Ashton Holderbaum, Ohio Power Siting Board
Ms. Megan Seymour, United States Fish and Wildlife Service
Ms. Kate Haley Parsons, DOW

Seneca Wind Project (April 2018)	
Survey type	
Breeding bird	Breeding bird surveys should be conducted at all sites. The number of survey points may be based on the amount of available habitat, or twice the maximum number of turbines proposed for the site. If turbines are placed in agricultural land, this requirement may be waived by DOW after reviewing the proposed turbine locations.
Raptor nest searches	Nest searches should occur on and within a 1-mile buffer of the proposed facility.
Raptor nest monitoring	Please consult with USFWS on bald eagle nests located within the search area. Nests should be monitored to assess daily bird activity. Should any additional nests of a protected species of raptor be located during nest searches, monitoring should commence as outlined within DOW's monitoring protocols.
Bat acoustic monitoring	To be conducted at all meteorological towers.
Passerine migration survey points	26
Diurnal bird/raptor migration survey points	1
Sandhill crane migration (same points as raptor migration)	NS
Owl playback survey points	NS
Barn owl survey points	NS
Bat mist-netting survey points	51
Nocturnal marsh bird survey points	Survey points on Silver Creek WA, Honey Creek, and Sandusky River, as per protocols
Waterfowl survey points	Survey points for Silver Creek WA, Honey Creek, and Sandusky River, as per protocols
Shorebird migration survey points	NS
Radar monitoring locations	NS
Aquatic species surveys	This requirement may be waived by DOW after reviewing the proposed turbine/infrastructure locations.
Wetland species surveys	This requirement may be waived by DOW after reviewing the proposed turbine/infrastructure locations.

NS = Not required based on the lack of suitable habitat



Survey effort map with the revised boundary for the proposed Seneca project (April 2018).

This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 18-0488-EL-BGN

Summary: Response of Seneca Wind, LLC to Staff's Sixth Set of Data Requests electronically filed by Teresa Orahoud on behalf of Devin D. Parram