

BLACK SWAMP BIRD OBSERVATORY

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TEAMING RESEARCH WITH EDUCATION TO PROMOTE BIRD CONSERVATION

August 23, 2021

Jennifer French, Chair
Ohio Power Siting Board
Docketing Division
180 Broad Street
Columbus, OH 43215-3797
By email: contactOPSB@puc.state.oh.us

Re: Case# 20-0417-EL-BGN

Dear Ms. French:

Black Swamp Bird Observatory is dedicated to inspiring the appreciation, enjoyment, and conservation of birds and their habitats. As such, we often find ourselves at odds with the intents and purposes of wind energy. We are continually disheartened with the manner in which wind developers, such as the ones already operating in Paulding County, have presented their cases before the Ohio Power Siting Board, having misrepresented the ecological science of pre-construction avian and bat surveys, and having continued to do so in post-construction mortality surveys.

Since there are already six adjacent and nearby wind farms in Paulding County, comprising 334 turbines and 729 MW, we feel it is unlikely that the OPSB will balk at another 23 turbines and 150 MW proposed by the Grover Hill Wind case. Therefore, our intention here is simply to provide a scientific review of the avian studies presented as pre-construction surveys, to assist the OPSB in assessing their ability to fulfill the requirements of OAC 4906-4-08 (B) (1) (d), "Health and Safety, Land Use, and Ecological Information," "Results of Field Surveys for Plant and Animal Species Identified in Literature Review" based on these avian studies.

It is our position that the avian studies, the data generated by them, and the conclusions drawn from them, are invalid and insufficient for OPSB Staff to fulfill the requirements of OAC 4906-4-08, and that, in order for the application to be accepted as complete, the studies need be repeated on a more rigorous, scientific basis.

The details of our review in support of this conclusion are as follows, where text presented in quotes are from the survey reports themselves:

Exhibit M – Pre-construction Avian Survey Report (March 2, 2020):

3.1 Avian Point Count Surveys "the point count locations were placed...[]...to attain a minimum survey coverage of 30% of the Project Area." "Surveys were conducted...[]...within 800 m radius circular plots and the information gathered was used to assess avian community composition, species-specific relative abundances..."

There is absolutely no way that birds can be seen and identified at a distance of 800m, one-half mile, even with the best optical equipment. That is frankly a fallacious assertion on the part of the Applicant. It is our experience, having performed point count surveys for over three decades, that a reasonable radius for a point count area is 100m if species-specific data is required, as it is here.

This leads us to two important conclusions: 1) if the radius of 100m is used to obtain reliable information, then the amount of coverage for 10-point count locations is only 0.8% of the Project Area; or conversely, the number of 100m radius point count locations would have to be raised to 375 to reach the 30% coverage goal proposed above; 2) taking another approach, the required radius for 10 points needed to meet the 30% coverage goal is 612m, still far too distant to make reasonable species-specific observations. We question where the 30% coverage goal came from; but clearly it is unworkable. The protocol needs to be redesigned and the point count survey needs to be repeated.

It is clear from these conclusions that the avian studies performed at the ostensible 800m radius did not meet the goals of the study, and that any conclusions drawn from the data misrepresent the true avian community composition, whatever that may be.

Since the main goal of the avian study has not been reached there has been, in effect, no study to inform the OPSB Staff of the ecological risk to avian life. Regardless of the fact that the Applicant would have us believe otherwise, the avian studies must be performed in a manner which is both informative and reliable, which the current study is not.

4.0 Results

The data shown in Tables 4.1a thru 4.1d present the species-specific data collected during the point counts. Of particular interest is the occurrence of "unknown" species listings, or rather the lack of them. The tables show the observation of 21,838 birds, of which only 117 were said to be "unknown" at the species level. This means that while claiming to observe at a distance of up to one-half mile, 99.5% of the birds observed were claimed to be identified to the correct species.

There are two possible explanations for this claim: 1) most of the birds that would have been classified as "unknown" weren't actually observed at all, possibly because they were too far away; 2) the observations taken weren't actually made to a radius of one-half mile, 800m, and the amount of coverage was something far less than the goal of 30% of the Project Area.

As a result of the serious shortcomings in the survey protocols, as discussed above, any further discussion and inferences drawn from the data by the Applicant such as Mean Bird Use, Species Composition, Species Frequency of Occurrence, or Spatial Use are meaningless at best, and misleading at worst.

It is our considered opinion that the Avian Survey is invalid and needs to be repeated in a meaningful manner in order to properly inform the OPSB Staff in a manner which would allow them to satisfy the requirements of OAC 4906-4-08.

Exhibit N – Raptor Nest Survey Report (November 1, 2019):

3.0 Methods

This report is seriously lacking in information concerning methods and protocols which would help anyone interested to judge the rigor of the survey. For instance, the goal

of the survey seems to be locating and observing "raptor and other large bird nests." However, the actual species defined as "raptors and other large birds" were not named. This is very serious omission since not all raptors or large birds build stick nests in trees, which seems to be what the survey was focused on.

Eagles and hawks will build stick nests in trees, where eagles will continue to reuse the same nest in subsequent years unless something drives them to build another nest elsewhere, while hawks will build a new nest every year. However, harriers will nest on the ground, and owls will nest in holes in trees and even in abandoned hawk nests. So, the question remains, what instructions were given to the field staff when they were sent out to perform their survey? The report does not say. Were they looking for nests in tree cavities, where they might observe the nests of American kestrels and great-horned owls? Were they looking for nests on the ground where they might find the nest of a Northern Harrier?

The Avian Survey discussed above listed observations of six raptor species: Bald Eagle, Red-tailed Hawk, Sharp-shinned Hawk, Cooper's Hawk, Northern Harrier, and American Kestrel. If the field staff were not instructed to look for anything other than stick nests in trees they would have missed the nests of three of the six raptors seen in the Project Area, if they were in fact nesting in the area.

It could be argued that the rigor of the raptor nest survey is not crucial to the completeness of the Application. However, the Northern Harrier is an Ohio State Endangered Species and its survival is a matter of established concern, while the nest survey apparently did not even look for this species' nest sites on the ground. Likewise, the Sharp-shinned Hawk is an Ohio Species of Concern, but the nest survey apparently didn't look for its nest of twigs low to the ground.

As a result of the serious shortcomings in the survey protocols as discussed above, any further discussion and inferences drawn from the data by the Applicant such as risk to raptor species are meaningless at best, and misleading at worst.

It is our considered opinion that the Raptor Nest Survey is invalid and needs to be repeated in a meaningful manner in order to properly inform the OPSB Staff in a manner which would allow them to satisfy the requirements of OAC 4906-4-08.

Further Considerations.

1. It is worth noting that the 6 MW turbines proposed for the site would have a total height of 656 feet, only two feet shorter than the fourth tallest building in Ohio. These are very large in other ways as well. For example, the blades are 266 feet long, so with a rotation of 17 rpm they would have a tip speed of 322 mph. Also, taking into account the curvature of the earth, at a distance of 10 miles, 623 feet of the turbines would be visible above the horizon. The rotor swept area, the "kill zone" of a wind turbine, is 45.8 acres/turbine for the 6 MW machines; so, for 23 turbines this increases the kill zone in Paulding County by roughly 1,000 acres over what already exists from present turbines.
2. The Application, in Table 1, "Impact Assumptions," on page 6, states that the area of vegetation clearing around the turbines will be typically 120-foot radius per turbine. This is wholly inadequate for performing post-construction mortality surveys, where the ODNR guidelines recommend a mortality survey search area radius of 1.2 times the blade length; which in this case would be a 320-foot radius. Without adequate vegetation clearing a realistic mortality survey cannot be conducted post-construction, and the actual effect of the turbines on avian life will be unknown. Since the Applicant does not yet have a plan for post-construction monitoring, or for mitigation in the event

of unexpectedly high mortality, it is not surprising that they have no plan to perform an adequate mortality survey. This is not acceptable and should not be permitted when granting a Certificate of Environmental Compatibility and Public Need.

3. On page 24 of the Application the Applicant states "The proposed Facility is not expected to result in *significant* adverse impact to ecological resources..." (Emphasis added.) There is no agency or legal definition of the term "significant," so the extent of the adverse impact expected is unknown. This is not semantics; it is a test of the meaning and integrity of the Applicant's statements and intent.
4. On page 112 of the Application the Applicant states "Mean raptor use within the Project Area was low..." suggesting that Project-related raptor fatalities may be low. There is no "suggestion" based on scientific evidence, other than the literature suggesting that there is no correlation between pre-construction surveys and post-construction mortality. What is known is that, by virtue of design and operation, turbines kill avian life, and that is true whether the turbines are actually operating or not.
5. On page 174 of the Application the Applicant states "The Applicant will submit a post-construction monitoring plan that is consistent with ODNR and OPSB guidelines." This plan ought to be formulated *before* the Application can be considered complete. The guidelines and options for post-construction monitoring are a developing ecological science, and there have been many plans and protocols employed in the past which have proven to be inadequate. It should be recognized that the ODNR guidelines themselves are twelve years old and out of date with respect to current ecological science. They simply do not provide adequate guidance. An example of this is that current science would recommend that post-construction mortality searches be conducted using cadaver dogs in place of human searchers in order to raise the searcher efficiency from roughly 10% for humans to over 90% for dogs. The ODNR guidelines do not recommend the use of cadaver dogs, because they were written before the work with cadaver dogs became public about four years ago.
6. On page 174 of the Application the Applicant states "At least 60 days prior to the first turbine becoming operational, the Applicant will provide OPSB with a description of its plan for maintaining the turbine blades in a stationary, or nearly stationary, stance during low wind speed conditions during bird and bat migration seasons." As stated above in item 5 this plan should be submitted *before* the Application can be considered complete. There are various types of curtailment, feathering, braked, higher cut-in speed, and there are various time intervals to choose from corresponding to higher risk periods for birds and bats, so that a formal plan for curtailment needs to be reviewed and agreed upon between ODNR, OPSB, and the Applicant before the Application can be considered complete. There's also no data to demonstrate that curtailment effectively mitigates mortality for migratory birds, although it does appear to be helpful for bats.
7. On page 174 of the Application the Applicant states "If construction activities result in significant adverse impact to federal- or state-listed and protected species, the Applicant will develop a mitigation plan or adaptive management strategy." As stated before, there is no clear understanding of what the word "significant" means. Since its definition is the trigger for implementing a strategy or mitigation plan it should be more clearly defined and agreed upon by the agencies of USFWS, ODNR, and OPSB. Secondly, such plans should be in writing and agreed upon *before* the Application can be considered complete. And lastly, it should be noted that such plans will need to cover endangered species, threatened species, species of concern, migratory birds, and bald eagles as separate cases, where the definition of significance is sometimes dependent upon the species and the act under which they are protected, and the mitigation actions prescribed depend upon species behavior, weather conditions, and seasons.

Science suggests that turbines have a cumulative effect on risk, so this is not just about risk associated with 23 turbines at the proposed Grover Hill site. It is risk associated with adding 23 turbines to the 334 turbines already operating in Paulding County. We ask: does the

proposed cumulative risk outweigh the incremental increase in power capacity intended to meet a speculation of Public Need?

We at Black Swamp Bird Observatory are hopeful that our review will be taken seriously in the light of increasing turbine presence in the Paulding County area and elsewhere. It is our stated mission "to promote bird conservation" and we take the preservation of avian life to be a primary concern. We promote the use of good ecological science, up-to-date ecological science, and do so with the hope that good science will prevail.

As is easy to do, a detailed and extensive application process can lend itself to a matter of simply "checking off the boxes" in order to bring a project to fruition. Items such as ecological risk assessment have not historically found prominent positions in the engineering work necessary to design, build, and operate a project such as the Grover Hill Wind Project; but it cannot be allowed to go into operation without due diligence and adequate concern and analysis. We find this lacking in the Application as it stands.

It is our hope that the Staff at OPSB concurs with our review and considers the Application to be incomplete and wanting in ecological evidence.

Sincerely,

Don Bauman
Black Swamp Bird Observatory Conservation Committee, Chair
Black Swamp Bird Observatory Board of Trustees, Chair

Mark Shieldcastle
Black Swamp Bird Observatory, Director of Research

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Summary: Public Comment of Don Bauman and Mark Shieldcastle, via website, electronically filed by Docketing Staff on behalf of Docketing