

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Vice Chair  
Commissioner  
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In the Matter of the Application of AWA  
Goodhue Wind, LLC for a Site Permit for a  
78 Megawatt Large Wind Energy Conversion  
System Project in Goodhue County

ISSUE DATE: April 6, 2012

DOCKET NO. IP-6701/WS-08-1233

ORDER DENYING APPROVAL OF  
AVIAN AND BAT PROTECTION PLAN

**PROCEDURAL HISTORY**

On August 23, 2011, the Commission issued a site permit to AWA Goodhue, LLC (AWA Goodhue) for the Goodhue Wind Project (a large wind energy conversion system in Goodhue County) and directed AWA Goodhue to submit an avian and bat protection plan for Commission approval prior to construction. The U.S. Fish and Wildlife Service (the Service) subsequently recommended that AWA Goodhue, as part of the federal permitting process, apply to the Service for a non-purposeful (incidental) bald eagle take permit.

On December 15, 2011, AWA Goodhue submitted a proposed avian and bat protection plan and a preconstruction bat monitoring report.

On January 19, 2012, comments of the Service and the Minnesota Department of Natural Resources (DNR) were filed in response to AWA Goodhue's protection plan, identifying areas of concern and recommending changes.

On January 24, 2012, Goodhue Wind Truth, an intervenor, filed comments stating that the protection plan is inadequate and insufficient and recommended that the Commission deny approval. The Commission also received dozens of public comments expressing similar concerns about the protection plan.

On January 24, 2012, AWA Goodhue filed reply comments and modifications to its plan in response to specific concerns raised by the Service and the DNR.

On February 3, 2012, the Energy Facilities Permitting Unit of the Department of Commerce (EFP) filed comments recommending approval of the protection plan.

On February 9, 2012 additional comments of the DNR and the Service, respectively, were filed, identifying continuing concerns but making no recommendation as to approval of the protection plan.

On February 23, 2012, the plan came before the Commission.

## **FINDINGS AND CONCLUSIONS**

### **I. Background**

On August 23, 2011, the Commission issued a site permit to AWA Goodhue for the Goodhue Wind Project (the Project), a 76.8 megawatt large wind energy conversion system located in Goodhue County. The Project will include 48 turbines, and the Project area includes approximately 32,684 acres (51 square miles).

The Project area is located in the Mississippi Flyway, a geographic corridor used by migrating birds, which begins at the Gulf of Mexico and follows the Mississippi River in the United States to the Mackenzie River in Canada. In and near the Project area, numerous avian and bat species are present, including eagles, loggerhead shrike, trumpeter swans, and the northern long-eared bat. These and other migratory species are protected under state and federal legislation, and both the Department of Natural Resources (DNR) and the U.S. Fish and Wildlife Service (the Service) are charged with enforcement.<sup>1</sup>

In addition, the Commission's rules governing the permitting process require the Commission to establish project conditions that are reasonable to protect the environment, enhance sustainable development, and promote the efficient use of resources.<sup>2</sup> As a condition of the site permit, the Commission therefore required AWA Goodhue to develop an avian and bat protection plan for Commission approval prior to construction.

The site permit requires the plan to be developed in consultation with the DNR and the Service and to "address how results of pre-construction avian surveys informed micro-siting and steps to be taken to identify, avoid, minimize, and mitigate impacts to avian and bat species during the construction and operation phases of the Project."

Section 13 of the site permit specifically addresses the monitoring of eagles, bats, and loggerhead shrike. Monitoring of eagles for movement in and near turbine locations in consultation with the Service is required; ongoing monitoring of eagles must be conducted in accordance with Service requirements; acoustic detectors used to determine baseline bat activity and species distribution are required; and loggerhead shrike habitat must be avoided. Ongoing fatality monitoring and reporting is required for all species.

### **II. Summary of Commission Action**

In response to permit requirements, AWA Goodhue submitted both an avian and bat protection plan and a bat monitoring report. The plan and the report contain wildlife monitoring data, including data on eagles and bats collected through 2011 surveys. The surveys presented in

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<sup>1</sup> The Service is charged with enforcement of the Federal Endangered Species Act, 16 U.S.C. § 1531, et. seq.; the Migratory Bird Treaty Act (a federal criminal statute that protects migratory birds), 16 U.S.C. §§ 703-712; and the Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668-668c. The DNR is charged with enforcing the Minnesota Endangered Species Act, Minn. Stat. § 84.0895.

<sup>2</sup> Minnesota Rules, part 7854.1000.

satisfaction of the permit requirements, however, exclude key data and fail to incorporate a key recommendation made by the Service.

AWA Goodhue missed collecting approximately half of the acoustic bat monitoring data required under the site permit and did not use multiple eagle risk models, as recommended by the Service. The omission of these essential items is a serious lapse, raising doubt about the accuracy of the data collected and the plan's protection measures.

The Commission will therefore deny approval of the plan, as explained in further detail below.

### **III. Bat Monitoring and Protection**

Condition 13.1.2 of the site permit requires AWA Goodhue to install at least two acoustic bat monitoring devices on each meteorological tower to collect data, at a minimum, from July 15, 2011 to November 15, 2011 and then again from May 1, 2012 to November 15, 2012.

#### **A. AWA Goodhue's Bat Monitoring Report**

AWA Goodhue's bat monitoring report states that AWA Goodhue conducted monitoring using two Anabat Bat Detection Systems on one meteorological tower located in the northeastern portion of the project area; the two detectors were located at heights of 5 and 45 meters. The detectors were installed on July 22, 2011 and monitoring was scheduled to end on November 22, 2011. The data was gathered to detect bat species and to document baseline bat activity.

According to the report, monitoring did not occur (due to equipment malfunctions) at the 45 meter height detector on 23 nights between August 19 and September 28 and did not occur at the 5 meter height detector on 38 nights between September 3 and November 22. AWA Goodhue stated, however, that a significant amount of useful data had in fact been collected and stated that it would monitor collection of data on a weekly basis to avoid such problems in the future.

#### **B. Agency Comments**

Although AWA Goodhue stated that a significant amount of useful data had been collected, members of the public and the DNR expressed concern about the missing data. The DNR stated that the majority of the season for collecting ideal results was missed and that consequently, comparative data between the years will also be missing.

The EFP concurred with the concerns over the missing data, stating that acoustic bat monitoring was recommended for the Project due to the presence of the northern long-eared bat (under consideration by the Service for listing as an Endangered Species) and due to suitable bat habitat in and near the Project area. The EFP, while recommending approval of the plan, supported requiring AWA Goodhue to conduct an additional year of acoustic bat monitoring in 2013.

#### **C. Commission Action**

The Commission, too, is concerned about the extent of missing bat data because collecting a full season of data prior to construction would enable the parties and the agencies to make determinations as accurately as possible about the presence of bat species. That process has been severely compromised, and the permit condition was not met. The Commission will therefore direct AWA Goodhue to complete the acoustic bat monitoring required under the site permit and to conduct an additional season of monitoring in 2013.

#### **IV. Eagle Monitoring and Protection**

The Project will be located in an area of the Mississippi Flyway where the presence of bald eagles is significant and appears to be on the rise.<sup>3</sup> The site permit therefore requires that eagle monitoring be conducted in close consultation with the Service, the agency charged with enforcing the Bald and Golden Eagle Protection Act. The law was originally enacted in 1940 and prohibits anyone from taking (including killing) an eagle without a permit issued by the Secretary of the Interior.

The Service requires collision risk modeling as a means of calculating potential impacts and in this case recommended that AWA Goodhue use multiple risk models, including use of the Service's risk assessment model. Furthermore, the Service recommended that AWA Goodhue apply for an incidental bald eagle take permit to determine appropriate take levels compared to local area eagle populations.

##### **A. AWA Goodhue's Eagle Risk Modeling and Eagle Take Permit**

AWA Goodhue conducted point count monitoring (a field method that uses fixed duration and area to study avian population trends). AWA Goodhue used the data to conduct risk modeling, which estimates collision risks to eagles; those estimates were then used to establish adaptive management measures to further reduce collision risks.

AWA Goodhue did not, however, use multiple risk models as recommended by the Service. Instead, AWA Goodhue limited its risk modeling to the Band et al. (2007) collision risk model, stating that it was the only model calibrated for a number of species through development of avoidance factors and stating that it is the most scientifically robust model. AWA Goodhue also stated that the Service's risk assessment model is under development and overestimates collision risks to eagles.

AWA Goodhue has also confirmed its intent to apply for an incidental eagle take permit, recognizing that the process of obtaining an incidental take permit may require other or further risk modeling, in addition to the risk modeling already completed.

##### **B. Agency Comments**

The Service stated that there are several outstanding material eagle issues, including the level of future monitoring, appropriate take levels, adoption of adaptive management, and mutually agreed upon minimization and mitigation measures. For example, the Service stated that turbines should be clustered to avoid the barrier effect,<sup>4</sup> which the Service stated appeared to be described as a mitigation measure in AWA Goodhue's plan.

The Service also stated that its permitting process, including review of an incidental take permit, will continue independently of the Commission's decision in this case.

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<sup>3</sup> There are five confirmed bald eagle nests in the area. Two of those were confirmed by AWA Goodhue on May 2, 2011, and area residents have claimed there as many as 12 eagle nests in the area.

<sup>4</sup> The barrier effect increases energy expenditure of birds by causing them to move around obstacles in their flight paths; further, it may cause birds to abandon their flight paths.

The DNR expressed concern over the lack of multiple collision risk models, as recommended by the Service, and adaptive measures, such as food habitat modification, which attempts to limit food sources that attract eagles into project areas. The DNR stated that habitat modification could potentially cause negative impacts to other species relying on those food sources.

The DNR further stated that there appears to be some uncertainty about the number of active bald eagle nests (residents have claimed higher numbers of eagle nests in the area than AWA Goodhue claims), raising concern over whether all eagle nests have been adequately accounted for through siting.

The EFP recommended that AWA Goodhue complete the risk modeling recommended by the Service, apply for the incidental eagle take permit as recommended by the Service, and continue working with the agencies on the issues identified above. The EFP also recommended that the Commission approve the plan.

### **C. Commission Action**

The Commission concurs with the Service that there are outstanding material issues relating to the monitoring and protection of bald eagles. Protecting eagles is central to the sound operation of this Project and requires careful study and accurate understanding of potential impacts at the outset of the process. The Commission therefore required approval of the plan prior to construction. And although AWA Goodhue has updated its plan based on agency input, concerns remain over the accuracy of the estimated risks to eagles and the development of avoidance, minimization, and mitigative measures.

The Commission is not persuaded that using one collision risk model instead of also using other risk models, such as the Service model, is justified. Using multiple models enables a more thorough analysis of risk estimates and is especially relevant in this case due to the significant eagle presence and claims by residents of additional eagle nests in the area. And importantly, it is the role of the Commission to weigh the significance of the data and to decide its probative value.

Furthermore, the incidental take permitting process will require a closer examination of collision risks for determining appropriate eagle take levels, information useful to an evaluation of protection measures. The Commission will therefore deny approval of AWA Goodhue's plan as filed.

### **V. Trumpeter Swans**

In August 2011, the DNR confirmed a report of trumpeter swans nesting within a two mile buffer of the Project's footprint. AWA Goodhue stated that it will visit the nest site early in the 2012 breeding season to determine whether it is again used for nesting. AWA Goodhue also stated, however, that the Project area encompasses very little habitat potentially suitable for nesting by trumpeter swans. The DNR stated that swans are not likely to move substantially during the breeding season and that monitoring should be conducted during the breeding season, summer post fledging, and fall migration.

The Commission must ensure that the potential impacts to trumpeter swans, which were previously considered eliminated in Minnesota, are understood and addressed. The Commission concurs that future monitoring will be useful in making those determinations.

## VI. Conclusion

For the reasons described above, the Commission finds that material issues relating to the protection of avian and bat species remain unresolved under this plan. The Commission will therefore decline to approve AWA Goodhue's avian and bat protection plan as filed.

### ORDER

1. The Commission hereby denies approval of the AWA Goodhue revised avian and bat protection plan.
2. AWA Goodhue shall conduct the bat monitoring required under the site permit.
3. AWA Goodhue shall conduct an additional season of acoustic bat monitoring in 2013 from July 1 to October 15 using the methods specified in site permit condition 13.1.2.
4. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar  
Executive Secretary



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