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STATE OF MINNESOTA

OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION BY AWA GOODHUE WIND, LLC

FOR A SITE PERMIT FOR A LARGE WIND ENERGY CONVERSIONS SYSTEM FOR A 78 MW

WIND PROJECT IN GOODHUE COUNTY

DIRECT TESTIMONY

OF

RONALD P. PETERSON

DIRECTOR OF ENVIRONMENTAL SERVICES

WESTWOOD PROFESSIONAL SERVICES, INC.

ON BEHALF OF AWA GOODHUE, LLC

JANUARY 28, 2011

DIRECT TESTIMONY OF RONALD P. PETERSON

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

DIRECT TESTIMONY OF RONALD P. PETERSON

I. INTRODUCTION AND QUALIFICATIONS

Q: Please state your name and business address.

A: My name is Ronald P. Peterson. My business address is 7699 Anagram Drive, Eden Prairie, Minnesota 55344.

Q: By whom are you employed and what is your position?

A: I am employed by Westwood Professional Services, Inc. My position is Director of Environmental Services. Westwood provides specialized expertise in the areas of permitting, environmental review, wetland delineation and regulation, wildlife studies, and other land use and environmental matters. Westwood, founded in 1972 in the Twin Cities, has grown to nine offices in six states, with three offices in Minnesota (Eden Prairie, Brainerd, and St. Cloud). Westwood has approximately 150 employees across its nine offices.

Q: Please describe your educational background.

A: I received a law degree from William Mitchell College of Law in 1986, a Master of Science degree in Natural Resources, with a Wildlife Biology Emphasis from the University of Wisconsin-Stevens Point in 1979, and a Bachelor of Science degree in Wildlife Management from the University of Minnesota in 1975. I was admitted to the Minnesota Bar in 1986.

Q: What has been your employment history?

A: I have been an environmental consultant for 26 years and was an agency wildlife biologist for five years before that. I have worked for Westwood over two time periods. My initial employment with Westwood was from 1988 through 1991, during which time I initiated and directed Westwood's environmental consulting practice. My second term of employment

with Westwood has been from February, 2006 to the present. Between those periods, I had my own company, Peterson Environmental Consulting, Inc. (PEC), specializing in comprehensive wetland services, environmental review and technical environmental studies (e.g., wetlands, soils, hydrology, botany, wildlife). I began my environmental consulting in 1984 with Barton-Aschman Associates, Inc., where I worked from 1984 to 1988, and prior to that I worked for 1.5 years as a wildlife biologist with the Kansas Fish and Game Commission (1979-1980) and 3.5 years with the Minnesota Department of Transportation (1980-1984). Over the course of my career I have overseen wetland delineations, ecological investigations, studies and permits on high voltage transmission lines, wind projects, solar projects, highways, airports, and various types of commercial, residential and industrial land development projects in twelve states, including Minnesota. I am a frequent lecturer on wetland regulation and natural resource issues.

Q: For whom are you testifying?

A: I am testifying on behalf of AWA Goodhue, LLC.

Q: What is the purpose of your testimony today?

A: The purpose of my testimony is to explain the wetland delineation and permitting work Westwood has done for the AWA Goodhue wind project.

II. WETLAND DELINEATION AND PERMITTING

Q: Please describe the work Westwood did to delineate the wetlands within the project boundary in Goodhue County.

A: Wetland scientists from Westwood Professional Services, under my direction, went into the field and delineated all jurisdictional wetlands within pre-defined development corridors within the project area. These corridors encompassed the various elements of infrastructure associated with the AWA Goodhue wind project, including turbine pads, access roads, crane

paths, underground cable routes and one substation location. To facilitate our field work, we established development corridors that ranged from 100-feet wide for underground cable routes to 300-feet wide for access roads and turbine locations. These development corridors were defined so as to provide sufficient data to facilitate impact avoidance and minimization efforts as the project was being designed.

Wetlands were identified and their boundaries delineated using the methods contained in the Midwest Interim Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual, the manual we are required to use under both state and federal law. We collected data on vegetation, soils and hydrology both inside and outside each wetland and then flagged the wetland boundaries. After flagging them, we located the boundaries of each wetland using a global positioning system (GPS). The GPS coordinates collected in the field were then brought into the Geographic Information System for the AWA Goodhue wind project to assist the designers of the project in minimizing impacts to wetlands wherever possible and facilitate the quantification of unavoidable impacts.

Q: What are jurisdictional wetlands?

A: Jurisdictional wetlands are areas that meet the definitions set forth in the Minnesota Wetland Conservation Act (WCA) rules (Minn. Rules 8420.0111 Subpart 72) and in the U.S. Army Corps of Engineers (USACE) regulations under Section 404 of the Clean Water Act (33 C.F.R. 328.3(b)). USACE jurisdiction over wetlands is narrower than WCA jurisdiction, in that the USACE does not regulate isolated basins or wetlands that lack a "substantial nexus" to "traditional navigable waters."

Q: How many wetlands did you find within the project boundary?

A: Based on our delineation and mapping work, we determined that there are 45 wetlands that lie within or cross portions of the development corridors for the project.

Q: What is the shortest distance between a turbine and the nearest wetland within the project boundary?

A: Based on the current plans, the turbine nearest to a delineated wetland would be 275 feet away. We reviewed the National Wetland Inventory (NWI) and Minnesota Department of Natural Resources (MDNR) stream mapping to determine whether there might be other mapped wetlands or streams that yielded a different answer. However, the nearest NWI-mapped wetlands and MDNR-mapped streams were physically delineated by Westwood, meaning that 275 feet is the correct distance. None of the turbines would actually encroach upon a wetland.

Q: Could you describe the status of wetland permitting activity on the AWA Goodhue wind project?

A: Westwood submitted a combined permit package including a WCA wetland replacement plan and an application for a USACE section 404 permit application for the AWA Goodhue wind project on September 8, 2010. This application package was submitted to the Goodhue Soil and Water Conservation District (SWCD), which serves as the local governmental unit, or LGU, under the WCA, and the USACE. The permit application package included descriptions of: (a) the AWA Goodhue wind project, (b) the characteristics of the wetlands we delineated, (c) the applicable regulatory framework, (d) the proposed wetland impacts (both temporary and permanent), (e) a description of the measures taken to avoid and minimize wetland impacts, and (f) proposed compensatory mitigation. A meeting of the WCA technical evaluation panel (TEP) was convened on September 17, 2010 to review the application package and provide comments. The TEP meeting was attended by representatives of the Goodhue County SWCD, Minnesota

Board of Water and Soil Resources (BWSR), and the USACE. The TEP and USACE provided comments on the permit application package on September 21 and October 7, 2010, respectively. A follow up review attended by Westwood and the Goodhue SWCD was conducted on October 26, 2010 to refine several delineations and confirm avoidance of four wetlands that originally were to have incurred impacts.

Q: How much wetland impact was identified by AWA Goodhue in the permit application package submitted in September 2010?

A: Again, the turbines themselves would not involve any wetland impacts. The permit application package called for a maximum of 0.364 acres of permanent impact for access road crossings. This was a "worst case" figure, as it included access roads to some alternate turbine locations that probably will not be used. The application package also called for 1.76 acres of temporary impacts from the installation of underground cables. Such impacts are considered temporary because the wetlands are fully restored after the cables are installed. Temporary impacts of this nature are covered by a WCA exemption and by a USACE regional general permit.

Q: How did AWA Goodhue propose to compensate for the permanent wetland impacts?

A: AWA Goodhue proposed to acquire wetland replacement credits from established wetland banks located in the minor watersheds that the AWA Goodhue wind project would be built in. Under both state and federal laws, the use of wetland bank credits is the preferred way of offsetting unavoidable wetland impacts. This is because the replacement wetlands already exist and are known to be successful, functioning wetlands. In the case of the proposed

temporary impacts from underground cables, the impacts are mitigated through the restoration of the affected wetland. No other compensatory mitigation is typically required for such impacts.

Q: Has AWA Goodhue made any changes to the project in response to questions or concerns expressed by the TEP or USACE?

A: Yes. After receipt of the initial TEP and USACE comments, several changes were made. One change was with regard to which wetland bank sites would be used for compensatory mitigation, to accommodate the wetland bank sites preferred by the TEP and USACE. AWA Goodhue also worked with Westwood and Carstenson Contracting to modify the plans for the project to further reduce wetland impacts in areas of concern to the TEP and USACE. As a result, the plans for the project were revised to further reduce the permanent wetland impacts from access roads to 0.225 acres.

Q: What is the current status of wetland permitting for the AWA Goodhue wind project?

A: We have temporarily suspended wetland permitting work due to the delay in the Minnesota Public Utilities Commission (MPUC) site permit process. We will resume and complete wetland permitting processes once a final site permit has been issued by the MPUC.

Q: Would you expect the construction and operation of the turbines to have an adverse impact on any wetlands?

A: No. None of the turbine locations would be within a wetland so no turbine would entail filling, draining or excavation within wetlands. During construction, all turbine locations (as well as all other infrastructure associated with the project) would be subject to the erosion and sedimentation control Best Management Practices (BMPs) set forth in the Storm Water Pollution Prevention Plan (SWPPP) for the project. As called for in the SWPPP and required under the

Minnesota Pollution Control Agency's general storm water permit, all BMPs on the project will be inspected once per week and after every rain storm of 0.25 inch or more during construction. Maintenance of BMPs would occur as needed, based on the inspection results. These practices will be more than adequate to protect wetlands from sedimentation during turbine construction, particularly given that the turbine nearest to a wetland or stream would be at least 275 feet away.

No wetland function or value I know of would require a turbine setback of this magnitude in order to be protected. For these reasons, it is my opinion as a wetland scientist that the 1,000 foot setback in the Goodhue County ordinance is unnecessary and excessive. The most common requirement that I am aware of is to simply prohibit placement of the turbines in the wetland, as the MPUC routinely does with the wind permits it issues. In addition, it is common practice for underground collector cables to cross wetlands. Wetlands are also commonly crossed by access roads, where such crossings are unavoidable.

III. CONCLUSION

Q: Does this conclude your testimony?

A: Yes it does.