BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
Nancy Lange	Commissioner
J. Dennis O'Brien	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Application of Pleasant Valley Wind, LLC for a Site Permit for the 301 MW Pleasant Valley Project in Dodge and Mower Counties	ISSUE DATE: February 10, 2014 DOCKET NO. IP-6828/WS-09-1197 ORDER AMENDING SITE PERMIT

PROCEDURAL HISTORY

On October 27, 2010, the Commission issued a site permit to Pleasant Valley Wind, LLC (Pleasant Valley or the Applicant) for the construction of a 301-megawatt wind farm in Dodge and Mower Counties.

On February 20, 2013, the Commission issued an amendment to the site permit to allow Pleasant Valley to extend by two years the deadlines for obtaining a power purchase agreement and beginning construction.

On November 25, 2013, Pleasant Valley filed a petition to further amend the site permit to specify use of an alternative wind turbine model, to reduce the total number of turbines, and for a different preliminary turbine layout.

On December 12, 2013, the Energy Environmental Review and Analysis unit of the Minnesota Department of Commerce (EERA) filed comments agreeing with the Applicant's proposed changes and recommending certain other modifications to the site permit. The Minnesota Department of Natural Resources also filed comments on December 12 in response to the petition to amend the site permit.

On December 17, 2013, Dodge County filed comments on the petition.

On December 19, 2013, Pleasant Valley filed reply comments.

On December 30, 2013, Pleasant Valley filed supplemental reply comments in response to the comments filed by Dodge County.

On January 30, 2014, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

I. Positions of the Parties

A. Pleasant Valley

In its petition, Pleasant Valley stated that as a result of a power purchase agreement it had reached with Xcel Energy, it is necessary to reduce the project nameplate capacity from 301 megawatts (MW) to 200 MW.[1] As a result of the modification to the project's certificate of need, certain adjustments to the project design are also required, which necessitate modifications to the project's site permit.

Pleasant Valley sought an amendment to allow use of an alternative model of wind turbine – the Vespa V100 2.0 MW -- in lieu of the turbine generators named in the original site permit (the GE 1.5 MW and Siemens 2.3 MW generators). The change in wind turbine type would require modifications to sections of the permit that pertain to project description, the turbine layout, and the height of the wind turbine towers.

Pleasant Valley requested modifications to the language of sections 1.0, 2.2, and 4.9 of the site permit, as set forth below:

Section 1 Project Description

> The up to ~~301~~ 200 MW nameplate capacity LWECS authorized to be constructed in this permit will be developed and constructed by the Permittee. The Project will consist of up to ~~188 General Electric 1.5 MW wind turbine generators with Wind BOOST Control System on 262.5 foot (80 meter) towers with a rotor diameter of 270 feet (82.5 meters) or 130 Siemens 2.3 MW wind turbine generators on 262.5 foot (80 meter) towers with a rotor diameter of 331 feet (101 meters) one hundred Vestas V100 2.0 MW wind turbine generators on 311.7 foot (95 meter) towers with a rotor diameter of 328.1 feet (100 meters)~~ one hundred Vestas V100 2.0 MW wind turbine generators on 311.7 foot (95 meter) towers with a rotor diameter of 328.1 feet (100 meters) having a combined nominal nameplate capacity of up to ~~301~~ 200 MW. Associated facilities will include. . . .

Section 2.2 Turbine Layout

> ~~Two preliminary wind turbine and associated facility layouts are shown on maps at Attachments 1A and 1B~~. The preliminary layout of wind turbine generators and associated facilities is shown in Attachment 1. ~~Each~~ This preliminary layout represents the approximate location of wind turbines and associated facilities within the Project boundary. . . .

[1] See Docket No. IP-6828/CN-09-937).

Section 4.9 Wind Turbine Towers

> Structures for wind turbines shall be self-supporting tubular towers. The Towers may be up to ~~80~~ 95 meters (~~262.5~~ 311.7 feet) above grade, measured from the foundation to ~~at~~ hub height.

B. EERA

The EERA reviewed Pleasant Valley's proposed changes to the amended site permit and recommended approval of the changes to sections 1 and 2.2. The EERA also recommended certain additional permit language modifications that related to the site permit introductory language, modified the Applicant's proposed amended language in Section 4.9 to add additional clarity, and recommended the following language changes in Section 6.7.3 (Immediate Incident Reports) to make it consistent with another recent wind site permit docket:

> 6.7.3 Immediate Incident Reports
>
> The Permittee shall notify the Commission, USFWS, and DNR within twenty-four (24) hours of the discovery of any of the following:
>
> (a) five or more dead or injured non-protected or migratory avian or bat species within a ~~reporting~~ five-day period; or
> (b)~~one or more dead or injured migratory avian or bat species;~~
> (~~c~~b) an incident of one or more dead or injured state threatened, endangered, or species of special concern;
>
> (~~d~~c) one or more dead or injured federally listed species;
> or (~~e~~d) one or more bald eagles.

C. The Department of Natural Resources

The Department of Natural Resource (DNR) filed comments on the Natural Heritage Information System (NHIS) review requirements concerning the identification of state-listed threatened and endangered species within the revised project layout. The DNR requested that Applicant provide 1) assurance that previously reviewed locations which have known occurrences of state-listed threatened and endangered plants will be avoided in the revised project layout, 2) that the current project boundary be reviewed for possible new locations of threatened and endangered species, and 3) that Pleasant Valley submit a NHIS request or a request for DNR concurrence with Pleasant Valley's interpretation of data obtained through an NHIS license.

D. Dodge County

Dodge County filed comments raising questions concerning the merits of Applicant's petition. Dodge County also questioned the new turbine layout, which would result in 12 turbines being located in Dodge County, whereas the original turbine layout did not anticipate that any turbines would be placed within its borders. Dodge County acknowledged that the permitted project boundary included portions of Dodge County, but questioned whether the Commission had

considered the impact of the new turbines being placed in the county during initial site review for the project.

E. Pleasant Valley's Reply Comments

Pleasant Valley initially responded to the comments of the EERA and the DNR. Pleasant Valley agreed with the additional language modifications proposed by the EERA concerning the site permit introductory paragraph, Section 4.9 (Wind Turbines Towers), and Section 6.7.3 (Immediate Incident Reports).

Pleasant Valley also responded to the DNR's comments, stating that it has obtained updated NHIS data and is working with the DNR to incorporate the updated data and study results into its micro-siting of the project.

Finally, Pleasant Valley addressed the concerns raised by Dodge County.[2] Pleasant Valley stated that the revised turbine layout is located entirely within the permitted project boundary, which was previously studied for potential human and environmental impacts as part of the initial site permitting process. Pleasant Valley stated that the site permit established requirements and restrictions to mitigate potential impacts on all landowners within the project boundaries, and noted that the setbacks and restrictions found in Dodge County's local ordinances were considered as part of the initial site permitting process.

II. Commission Action

Under Minn. Rule, part 7854.1300, "[t]he commission may amend a site permit for an LWECS (Large Wind Energy Conversion System) at any time if the commission has good cause to do so." The Commission finds that it has good cause here.

The Commission finds good cause to amend Sections 1 and 4.9 of Pleasant Valley's permit to change the turbine type to the Vestas V100 turbine and allow for taller towers. The proposed Vestas V100 turbines will remain compatible with environmental preservation, sustainable development, and the efficient use of resources. While these turbines will be on a taller tower and with a larger rotor diameter, as recognized by the EERA, those modifications do not affect the ability of the project to comply with site setback requirements and site layout restrictions. Finally, the proposed turbine modifications reflect an industry trend toward towers taller than 80 meters in height with larger rotor diameters.

The Commission also finds good cause to amend the site permit conditions identified by the EERA with respect to Section 2.2 (Turbine Layout) of the permit. All turbines remain within the project boundary and comply with all setback requirements and site layout restrictions identified in the site permit. Further, as reported by the EERA, the sound (noise) modeling results provided with the petition are within the allowable limits under the Minnesota Pollution Control Noise Standards.[3]

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[2] Dodge County did not appear at the hearing and did not further comment in this matter.

[3] Minn. Rules, Chapter 7030.

Further, the Commission finds good cause to amend Section 6.7.3 of the site permit, as recommended by the EERA and the DNR. The DNR has commented that notification requirements such as those contained in Applicant's current site permit would likely be overly burdensome on both a permittee and the DNR, and recommended that such site permit language be modified. The Commission agrees, and will modify the language of Section 6.7.3 as recommended by the EERA.

Finally, the Commission also finds good cause to amend the site permit introductory language to reflect the changes in size and location of the project by virtue of this Order.

ORDER

1. The Commission hereby issues the attached Amended Site Permit incorporating the amendments requested by the Parties.

2. Pleasant Valley shall replace the site permit map (Attachment 1) and Turbine Layout Maps (Attachment 1A and 1B) of the site permit with revised Site Permit Map (Attachment 1 to Pleasant Valley's petition in this matter).

3. Pleasant Valley shall submit a NHIS request or a request for DNR concurrence with Pleasant Valley's interpretation of data obtained through an NHIS license.

4. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

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PERMIT AMENDMENT

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

LARGE WIND ENERGY CONVERSION SYSTEM SITE PERMIT FOR THE PLEASANT VALLYEY WIND PROJECT

IN
DODGE AND MOWER COUNTIES

ISSUED TO
PLEASANT VALLEY WIND, LLC

PUC DOCKET NO. IP-6828/WS-09-1197

In accordance with Minnesota Statutes section 216F.04 this site permit is hereby issued to:

Pleasant Valley Wind, LLC

Pleasant Valley Wind, LLC is authorized to construct and operate up to a ~~301~~ 200 Megawatt Large Wind Energy Conversion System on the site identified in this site permit and in compliance with the conditions contained in this permit.

This permit shall expire on February 20, 2043, thirty (30) years from the date ~~of~~ this ~~approval~~ permit was first amended.

Approved and adopted this 10th day of February, 2014

BY ORDER OF THE COMMISSION

BURL W. HAAR
Executive Secretary

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SITE PERMIT

This **SITE PERMIT** for a Large Wind Energy Conversion System (LWECS) authorizes Pleasant Valley Wind, LLC ("Permittee") to construct and operate the Pleasant Valley Wind Project ("Project"), up to a ~~301~~ 200 Megawatt (MW) nameplate capacity LWECS and associated facilities in ~~Stearns County~~ Dodge and Mower counties, on a site of approximately 70,000 acres in accordance with the conditions contained in this permit.

SECTION 1
PROJECT DESCRIPTION

The up to ~~301~~ 200 MW nameplate capacity LWECS authorized to be constructed in this permit will be developed and constructed by the Permittee. The Project will consist of up to ~~188 General Electric 1.5 MW wind turbine generators with WindBOOST Control System on 262.5 foot (80 meter) towers with a rotor diameter of 270 feet (82.5 meters) or 130 Siemens 2.3 MW wind turbine generators on 262.5 foot (80 meter) towers with a rotor diameter of 331 feet (101 meters)~~ 100 Vestas V100 2.0 MW wind turbine generators on 311.7 foot (95 meter) towers with a rotor diameter of 328.1 feet (100 meters) having a combined nominal nameplate capacity of approximately ~~301~~ 200 MW. Associated facilities will include wind turbine access roads, underground electrical collection system, supervisory control and data acquisition (SCADA) wiring, feeder or collector lines, pad mounted turbine transformers, and up to two meteorological towers. Power will ultimately be delivered to the existing Pleasant Valley Substation.

SECTION 2
DESIGNATED SITE

2.1 PROJECT BOUNDARY

The Project boundary is shown on the map at Attachment 1. The Project is located in Mower and Dodge counties, in the townships of Hayfield (sections 31, 34) and Vernon (Section 31) in southern Dodge County and in the townships of Waltham (sections 1, 3, 10-15, 25, 26, 36), Sargeant (sections 3, 6-12, 15-20, 24, 25, 27-29, 32-34, 36), Pleasant Valley (sections 9, 10, 16-18), Red Rock (sections 1, 2, 11-13, 15, 24-26), and Dexter (sections 2-6, 8-11, 17-23, 26-30) in northern Mower County.

2.2 TURBINE LAYOUT

~~Two preliminary wind turbine and associated facility layouts are shown on maps at Attachments 1A and 1B.~~ The preliminary layout of wind turbine generators and associated facilities is shown in Attachment 1. ~~Each~~ This preliminary layout represents the approximate location of wind turbines and associated facilities within the Project boundary and identifies a layout that minimizes the overall potential human and environmental impacts, which were evaluated in the permitting process. The final layout depicting the location of each wind turbine and associated facility shall be located within the Project boundary.

The Project boundary serves to provide the Permittee with the flexibility to do minor adjustments to the preliminary layout to accommodate landowner requests, unforeseen conditions encountered during the detailed engineering and design process, and federal and state agency requirements. Any modification of the location of a wind turbine and associated facility to a preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 5.1. The Permittee shall submit the final site layout in the site plan pursuant to Section 5.1.

SECTION 3
APPLICATION COMPLIANCE

The Permittee shall comply with those practices set forth in its second revised site permit application, dated February 5, 2010, and the record of this proceeding unless this permit establishes a different requirement in which case this permit shall prevail.

Attachment 4 contains a summary of compliance filings required under this permit, which is provided solely for the convenience of the Permittee. If this permit conflicts or is not consistent with Attachment 4, the conditions in this permit will control.

SECTION 4
SETBACKS AND SITE LAYOUT RESTRICTIONS

4.1 WIND ACCESS BUFFER

Wind turbine towers shall not be placed less than five (5) rotor diameters (RD) on the prevailing wind directions and three (3) RD on the non-prevailing wind directions from the perimeter of the property where the Permittee does not hold the wind rights, without the approval of the Commission. This section does not apply to public roads and trails.

4.2 RESIDENCES

In no case shall a wind turbine be located closer than 1,000 feet to a residence. Wind turbine towers shall not be located closer than 1,000 feet from residences of participating landowners or the distance required to comply with the noise standards pursuant to Minnesota Rule 7030.0040 established by the Minnesota Pollution Control Agency (MPCA), whichever is greater.

Wind turbine towers shall not be located closer than 1,500 feet from residences of non-participating landowners unless a waiver has been signed by the property owner(s) or the distance required to comply with the noise standards pursuant to Minnesota Rule 7030.0040 established by the MPCA, whichever is greater.

4.3 NOISE

The wind turbine towers shall be placed such that the Permittee shall comply with noise standards established as of the date of this permit by the MPCA at all times at all appropriate locations. The noise standards are found in Minnesota Rules chapter 7030.

Turbine operation shall be modified or turbines shall be removed from service if necessary to comply with these noise standards. The Permittee or its contractor may install and operate turbines as close as the minimum setback required in this permit, but in all cases shall comply with MPCA noise standards. The Permittee shall be required to comply with this condition with respect to all homes or other receptors in place as of the time of construction, but not with respect to such receptors built after construction of the towers.

4.4 ROADS

Wind turbine and meteorological towers shall not be located closer than 250 feet from the edge of the nearest public road right-of-way.

4.5 PUBLIC LANDS

Wind turbines and associated facilities including foundations, access roads, underground cable and transformers, shall not be located in public lands, including Waterfowl Production Areas, Wildlife Management Areas, Scientific and Natural Areas or county parks, and wind turbine towers shall also comply with the setbacks of Section 4.1.

4.6 WETLANDS

Wind turbines and associated facilities including foundations, access roads, underground cable and transformers, shall not be placed in public waters wetlands, as defined in Minnesota Statutes section 103G.005, subdivision 15a, except that electric collector or feeder lines may cross or be placed in public waters or public waters wetlands subject to permits and approvals by the Minnesota Department of Natural Resources (DNR) and the United States Army Corps of Engineers (USACE), and local units of government as implementers of the Minnesota Wetlands Conservation Act.

4.7 NATIVE PRAIRIE

Wind turbines and associated facilities, including foundations, access roads, collector and feeder lines, underground cable, and transformers, shall not be placed in native prairie, as defined in Minnesota Statutes section 84.02, subdivision 5, or lands enrolled in the Native Prairie Bank program as provided for in Minnesota Statutes section 84.96, unless addressed in a prairie protection and management plan. Construction activities, as defined in Minnesota Statutes section 216E.01, shall not impact native prairie unless addressed in a prairie protection and management plan. If native prairie is identified in any biological or natural resource inventories conducted pursuant to Section 6.1, or if lands defined as native prairie or lands enrolled in the Native Prairie Bank program have the potential to be impacted by construction activities, the Permittee shall, in consultation with the Commission and DNR, prepare and file a prairie protection and management plan at least thirty (30) days prior to the pre-construction meeting. The plan shall address steps that will be taken to avoid impacts to native prairie and, if applicable, mitigation to unavoidable impacts to native prairie including restoration or management of other native prairie areas that are in degraded condition, conveyance of conservation easements, or by other means agreed to by the Permittee and Commission.

Restoration of native prairie impacted by construction shall be done in accordance with the provisions of Minnesota Statutes 84.02, subdivision 2.

4.8 SAND AND GRAVEL OPERATIONS

Wind turbines and all associated facilities, including foundations, access roads, underground cable and transformers, shall not be located within active sand and gravel operations, unless otherwise negotiated with the landowner with notice given to the owner of the sand and gravel operation.

4.9 WIND TURBINE TOWERS

Structures for wind turbines shall be self-supporting tubular towers. The towers may be up to ~~80 meters (262.5 feet)~~ 311.7 feet (95 meters) above grade measured ~~at~~ from the top of the foundation to hub height.

4.10 TURBINE SPACING

The turbine towers shall be constructed within the site boundary as shown in Attachment 1. The turbine towers shall be spaced no closer than three (3) RD in the non-prevailing wind directions and five (5) RD on the prevailing wind directions. If required during final micro-siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing but the Permittee shall minimize the need to site the turbine towers closer.

4.11 METEOROLOGICAL TOWERS

Permanent towers for meteorological equipment shall be free standing. Permanent meteorological towers shall not be placed less than 250 feet from the edge of the nearest public road right-of-way and from the boundary of the Permittee's site control, or in compliance with the county ordinance regulating meteorological towers in the county the tower is built, whichever is more restrictive. Meteorological towers shall be placed on property the Permittee holds the wind or other development rights.

Meteorological towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the meteorological towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.

4.12 AVIATION

The Permittee shall not place wind turbines or associated facilities in a location that could create an obstruction to navigable airspace of public and private airports (as defined in Minnesota Rule 8800.0100, subparts 24a and 24b) in Minnesota, adjacent states, or provinces. The Permittee shall apply the minimum obstruction clearance for private airports pursuant to Minnesota Rule 8800.1900, subpart 5.

Setbacks or other limitations shall be followed in accordance with the Minnesota Department of Transportation (Mn/DOT), Department of Aviation, and the FAA. The Permittee shall notify owners of all known airports within six (6) miles of the Project prior to construction.

4.13 FOOTPRINT MINIMIZATION

The Permittee shall design and construct the LWECS so as to minimize the amount of land that is impacted by the LWECS. Associated facilities in the vicinity of turbines such as electrical/electronic boxes, transformers, and monitoring systems shall, to the greatest extent feasible, be mounted on the foundations used for turbine towers or inside the towers unless otherwise negotiated with the affected landowner(s).

4.14 COMMUNICATION CABLES

The Permittee shall place all SCADA communication cables underground and within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner(s).

4.15 ELECTRICAL COLLECTOR AND FEEDER LINES

Collector and feeder lines comprise the electrical collection system. Collector lines that carry electrical power from each individual transformer associated with a wind turbine to an internal project interconnection point shall be buried underground. Collector lines shall be placed within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner(s).

Feeder lines that carry power from an internal project interconnection point to the Project substation or interconnection point on the electrical grid may be overhead or underground. Feeder line locations shall be negotiated with the affected landowner(s).

Any overhead feeder lines that parallel public roads shall be placed within the public rights-of-way or on private land immediately adjacent to public roads. If overhead feeder lines are located within public rights-of-way, the Permittee shall obtain approval from the governmental unit responsible for the affected right-of-way.

Collector and feeder line locations shall be located in such a manner as to minimize interference with agricultural operations including, but not limited to, existing drainage patterns, drain tile, future tiling plans, and ditches. Safety shields shall be placed on all guy wires associated with overhead feeder lines. The Permittee shall submit the engineering drawings of all collector and feeder lines in the site plan pursuant to Section 5.1.

The Permittee must fulfill, comply with, and satisfy all Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards applicable to this Project including, but not limited to, IEEE 776 [Recommended Practice for Inductive Coordination of Electric Supply and Communication Lines], IEEE 519 [Harmonic Specifications], IEEE 367 [Recommended Practice for Determining the Electric Power Station Ground Potential Rise and Induced Voltage from a Power Fault], and

IEEE 820 [Standard Telephone Loop Performance Characteristics] provided the telephone service provider(s) have complied with any obligations imposed on it pursuant to these standards. Upon request by the Commission, the Permittee shall report to the Commission on compliance with these standards.

SECTION 5
ADMINISTRATIVE COMPLIANCE PROCEDURES

The following administrative compliance procedures shall be executed in accordance with the Permit Compliance Filings at Attachments 3 and 4. Submissions to the Commission must be made by electronic filing (eFiling).

5.1 SITE PLAN

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall submit to the Commission:

(a) a site plan for all turbines, roads, electrical equipment, collector and feeder lines, and other associated facilities to be constructed;

(b) engineering drawings for site preparation and construction of the facilities; and

(c) a plan for restoration of the site due to construction.

The Permittee may submit a site plan and engineering drawings for only a portion of the Project if the Permittee intends to commence construction on certain parts of the Project before completing the site plan and engineering drawings for other parts of the Project. The Permittee shall document, through GIS mapping, compliance with the setbacks and site layout restrictions required by this permit, including compliance with the noise standards pursuant to Minnesota Rules chapter 7030. In the event that previously unidentified environmental conditions are discovered during construction, which by law or pursuant to conditions outlined in this permit would preclude the use of that site as a turbine site, the Permittee shall have the right to move or relocate turbine site. The Permittee shall notify the Commission of any turbines that are to be relocated before the turbine is constructed on the new site and demonstrate compliance with the setbacks and site layout restrictions required by this permit.

5.2 NOTICE TO LOCAL RESIDENTS

Within fourteen (14) days of permit issuance, the Permittee shall send a printed copy of the permit to the office of the auditor of each county in which the site is located and to the clerk of each city and township within the site boundaries. As applicable, the Permittee shall, within fourteen (14) days of permit issuance, send a printed copy of this permit to each regional development commission, local fire district, soil and water conservation district, watershed district, and watershed management district office with jurisdiction in the county where the site is located. Within thirty (30) days of permit issuance, the Permittee shall send an abbreviated explanatory letter to each landowner within the Project boundary.

The letter shall summarize the changes to the permit and provide instructions for accessing the permit online and obtaining a printed copy. The Permittee shall have the letter approved by Commission staff before sending it. In no case shall the landowner receive this site permit and complaint procedure, developed pursuant to Section 5.8, less than five (5) days prior to the start of construction on their property.

5.3 NOTICE OF PERMIT CONDITIONS

Prior to the start of construction, the Permittee shall inform all employees, contractors, and other persons involved in the construction and ongoing operation of the Project of the terms and conditions of this permit.

5.4 FIELD REPRESENTATIVE

At least fourteen (14) days prior to the pre-construction meeting and continuously throughout construction, including site restoration, the Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during the construction phase of this Project. This person (or a designee) shall be accessible by telephone during normal working hours. This person's address, phone number, and emergency phone number shall be filed with the Commission, which may make the number available to local residents and officials and other interested persons. The Permittee may change the field representative by notification to the Commission by eFiling.

5.5 SITE MANAGER

The Permittee shall designate a site manager responsible for overseeing compliance with the conditions of this permit during the commercial operation and decommissioning phases of this Project. The Permittee shall provide the Commission with the name, address, and phone number, and emergency phone number of the site manager fourteen (14) days prior to placing any turbine into commercial operation. This information shall be maintained current by informing the Commission of any changes by eFiling, as they become effective.

5.6 PRE-CONSTRUCTION MEETING

Prior to the start of any construction, representatives of the Permittee, the Field Representative, and the Department of Commerce State Permit Manager for this project shall participate in a pre-construction meeting to review pre-construction filing requirements, scheduling, and to coordinate monitoring of construction and site restoration activities. The Permittee shall file with the Commission within fourteen (14) days following the pre-construction meeting a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the project's construction start date.

5.7 PRE-OPERATION COMPLIANCE MEETING

Prior to commercial operation, representatives of the Permittee, the Site Manager and the Department of Commerce State Permit Manager shall participate in a pre-operation compliance meeting to review compliance reporting requirements. The Permittee shall file with the Commission within fourteen (14) days following the pre-operation meeting a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the project's date of commercial operation.

5.8 COMPLAINTS

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall file with the Commission the company's procedures to be used to receive and respond to complaints. The Permittee shall report to the Commission all complaints received concerning any part of the Project in accordance with the procedures provided in Attachments 2 and 3 of this permit.

SECTION 6
SURVEYS AND REPORTING

6.1 BIOLOGICAL AND NATURAL RESOURCE INVENTORIES

The Permittee, in consultation with the Commission and DNR, shall design and conduct pre-construction desktop and field inventories of potentially impacted, native prairies, wetlands, and any other biologically sensitive areas within the site, and assess the presence of state threatened, endangered, or species of special concern or federally listed species. The results of these inventories shall be filed at least thirty (30) days prior to the pre-construction meeting to confirm compliance of conditions in this permit.

The Permittee shall file any biological surveys or studies conducted on this Project, including those not required under this permit.

6.2 SHADOW FLICKER

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall provide data on shadow flicker for each residence of non-participating landowners and participating landowners within and outside of the project boundary subject to exposure form turbine shadow flicker. Information shall include the results of modeling used, assumptions made, and the anticipated levels of exposure from turbine shadow flicker for each residence. The Permittee shall provide documentation on its efforts to minimize shadow flicker exposure. The results of any modeling shall be filed with the Commission at least fourteen (14) days prior to the pre-construction meeting to confirm compliance with conditions of this permit.

6.3 ARCHAEOLOGICAL RESOURCES

The Permittee shall work with the State Historic Preservation Office (SHPO) and the State Archaeologist. The Permittee shall carry out a Phase 1 or 1A Archaeology survey for all proposed turbine locations, access roads, junction boxes, and other areas of Project construction impact to determine whether additional archaeological work is necessary for any part of the proposed Project. The Permittee shall contract with a qualified archaeologist to complete such surveys, and shall submit the results to the Commission, the SHPO, and the State Archaeologist at least fourteen (14) days prior to the pre-construction meeting.

The SHPO and the State Archaeologist will make recommendations for the treatment of any significant archaeological sites which are identified. Any issues in the implementation of these recommendations will be resolved by the Commission in consultation with SHPO and the State Archaeologist. In addition, the Permittee shall mark and preserve any previously unrecorded archaeological sites that are found during construction and shall promptly notify the SHPO, the State Archaeologist, and the Commission of such discovery. The Permittee shall not excavate at such locations until so authorized by the Commission in consultation with the SHPO and the State Archaeologist.

If human remains are encountered during construction, the Permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the State Archaeologist. Construction at the human remains location shall not proceed until authorized by local law enforcement authorities or the State Archaeologist.

If any federal funding, permit, or license is involved or required, the Permittee shall notify the SHPO as soon as possible in the planning process to coordinate section 106 (36 C.F.R. part 800) review.

Prior to construction, construction workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction. If any archaeological sites are found during construction, the Permittee shall immediately stop work at the site and shall mark and preserve the site and notify the Commission the SHPO about the discovery. The Commission and the SHPO shall have three (3) working days from the time the agency is notified to conduct an inspection of the site if either agency shall choose to do so. On the fourth day after notification, the Permittee may begin work on the site unless the SHPO has directed that work shall cease. In such event, work shall not continue until the SHPO determines that construction can proceed.

6.4 INTERFERENCE

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall submit a plan to the Commission for conducting an assessment of television and radio signal reception, microwave signal patterns, and telecommunications in the Project area.

The assessment shall be designed to provide data that can be used in the future to determine whether the turbines and associated facilities are the cause of disruption or interference of television or radio reception, microwave patterns, or telecommunications in the event residents should complain about such disruption or interference after the turbines are placed in operation. The assessment shall be completed and eFiled prior to installation of the turbines. The Permittee shall be responsible for alleviating any disruption or interference of these services caused by the turbines or any associated facilities.

The Permittee shall not operate the Project so as to cause microwave, television, radio, telecommunications, or navigation interference in violation of Federal Communications Commission regulations or other law. In the event the Project or its operations cause such interference, the Permittee shall take timely measures necessary to correct the problem.

6.5 WAKE LOSS STUDIES

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall file the pre-construction micro-siting analysis leading to the final tower locations and an estimate of total Project wake losses. As part of the annual report on project energy production required under Section 6.8 of the permit the Permittee shall file any operational wake loss studies conducted on this Project during the calendar year preceding the report.

6.6 NOISE

The Permittee shall file a proposal with the Commission at least fourteen (14) days prior to the pre-operation compliance meeting for the conduct of a post-construction noise study. Upon the approval of the Commission, the Permittee shall carry out the study. The study shall be designed to determine the operating LWECS noise levels at different frequencies and at various distances from the turbines at various wind directions and speeds. The Permittee shall file the study within eighteen (18) months after commercial operation.

6.7 AVIAN AND BAT PROTECTION

6.7.1 AVIAN AND BAT PROTECTION PLAN

The Permittee shall, in consultation with the Commission and DNR, prepare an Avian Bat and Protection Plan and file it at least thirty (30) days prior to the pre-construction meeting. The plan shall address steps to be taken to identify and mitigate impacts to avian and bat species during the construction phase and the operation phase of the Project. The plan shall also include formal and informal monitoring, training, wildlife handling, documentation (e.g., photographs), and reporting protocols for each phase of the Project.

The Permittee shall, by March 15 following each complete or partial calendar year of operation, file with the Commission an annual report detailing findings of its annual audit of ABPP practices. The annual report shall include summarized and raw data of bird and bat fatalities and injuries and shall include bird and bat fatality estimates for the Project using agreed upon estimators from the prior calendar year.

The annual report shall also identify any deficiencies or recommended changes in the operation of the Project or in the ABPP to reduce avian and bat fatalities and shall provide a schedule for implementing the corrective or modified actions. The Permittee shall provide a copy of the report to DNR and to the U.S. Fish and Wildlife Service (USFWS) at the time of filing with the Commission.

6.7.2 QUARTERLY INCIDENT REPORTS

The Permittee shall submit quarterly avian and bat reports to the Commission. Quarterly reports are due by the 15th of each January, April, July, and October commencing the day following commercial operation and terminating upon the expiration of this permit. Each report shall identify any dead or injured avian and bat species, location of find by turbine number, and date of find for the reporting period in accordance with the reporting protocols. If a dead or injured avian or bat species is found, the report shall describe the potential cause of the occurrence (if known) and the steps taken to address future occurrences. The Permittee shall provide a copy of the report to DNR and to the USFWS at the time of filing with the Commission.

6.7.3 IMMEDIATE INCIDENT REPORTS

The Permittee shall notify the Commission, USFWS, and DNR within twenty-four (24) hours of the discovery of any of the following:

(a) five or more dead or injured non-protected or migratory avian or bat species within a ~~reporting~~ five-day period;

~~(b) one or more dead or injured migratory avian or bat species;~~

(~~c~~ b) an incident of one or more dead or injured state threatened, endangered, or species of special concern;

(~~d~~ c) one or more dead or injured federally listed species; or

(~~e~~ d) one or more bald eagles.

6.8 PROJECT ENERGY PRODUCTION

The Permittee shall by February 1st following each complete or partial year of Project operation file a report with the Commission including:

(a) The installed nameplate capacity of the permitted Project;

(b) The total monthly energy generated by the Project in MW hours;

(c) The monthly capacity factor of the Project;

(d) Yearly energy production and capacity factor for the Project;

(e) The operational status of the Project and any major outages, major repairs, or turbine performance improvements occurring in the previous year; and

(f) Any other information reasonably requested by the Commission.

This information shall be filed electronically.

6.9 WIND RESOURCE USE

The Permittee shall, by February 1st following each complete or partial calendar year of operation, file with the Commission the average monthly and average annual wind speed collected at one permanent meteorological tower during the preceding year or partial year of operation. This information shall be filed electronically.

6.10 EXTRAORDINARY EVENTS

Within twenty-four (24) hours of an occurrence, the Permittee shall notify the Commission of any extraordinary event. Extraordinary events include but shall not be limited to: fires, tower collapse, thrown blade, collector or feeder line failure, and injured LWECS worker or private person. The Permittee shall, within thirty (30) days of the occurrence, file a report with the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences.

SECTION 7
CONSTRUCTION AND OPERATION PRACTICES

7.1 SITE CLEARANCE

The Permittee shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the Project.

7.2 TOPSOIL PROTECTION

The Permittee shall implement measures to protect and segregate topsoil from subsoil in cultivated lands unless otherwise negotiated with the affected landowner(s).

7.3 SOIL COMPACTION

The Permittee shall implement measures to minimize soil compaction of all lands during all phases of the Project's life and shall confine compaction to as small an area as practicable.

7.4 LIVESTOCK PROTECTION

The Permittee shall take precautions to protect livestock during all phases of the Project's life.

7.5 FENCES

The Permittee shall promptly replace or repair all fences and gates removed or damaged during all phases of the Project's life unless otherwise negotiated with the affected landowner(s). When the Permittee installs a gate where electric fences are present, the Permittee shall provide for continuity in the electric fence circuit.

7.6 DRAINAGE TILES

The Permittee shall take into account the location of drainage tiles during Project layout and construction. The Permittee shall promptly repair or replace all drainage tiles broken or damaged during all phases of the Project's life unless otherwise negotiated with the affected landowner(s).

7.7 EQUIPMENT STORAGE

The Permittee shall not locate temporary equipment staging areas on lands under its control unless negotiated with affected landowner(s). Temporary staging areas shall not be located in wetlands or native prairie as defined in Sections 4.6 and 4.7.

7.8 ROADS

7.8.1 PUBLIC ROADS

At least fourteen (14) prior to the pre-construction meeting, the Permittee shall identify all state, county, or township roads that will be used for the Project and shall notify the Commission and the state, county, or township governing body having jurisdiction over the roads to determine if the governmental body needs to inspect the roads prior to use of these roads. Where practical, existing roadways shall be used for all activities associated with the Project. Where practical, all-weather roads shall be used to deliver cement, turbines, towers, assembled nacelles, and all other heavy components to and from the turbine sites.

The Permittee shall, prior to the use of such roads, make satisfactory arrangements with the appropriate state, county, or township governmental body having jurisdiction over roads to be used for construction of the Project for maintenance and repair of roads that will be subject to extra wear and tear due to transportation of equipment and Project components. The Permittee shall notify the Commission of such arrangements upon request of the Commission.

7.8.2 TURBINE ACCESS ROADS

The Permittee shall construct the least number of turbine access roads it can. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class five gravel or similar material. Access roads shall not be constructed across streams and drainage ways without required permits and approvals from the DNR, USFWS, and/or USACE.

When access roads are constructed across streams and drainage ways, the access roads shall be designed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed. The access or intersection points with the public roadways shall be located in accordance with all necessary township, county or state road requirements and permits. The access roads shall be constructed in accordance with all necessary township, county or state road requirements and permits.

7.8.3 PRIVATE ROADS

The Permittee shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner(s).

7.9 CLEANUP

The Permittee shall remove all waste and scrap that is the product of construction, operation, restoration, and maintenance from the site and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.

7.10 TREE REMOVAL

The Permittee shall minimize the removal of trees and the Permittee shall not remove groves of trees or shelter belts without notification to the Commission and the approval of the affected landowner(s).

7.11 SOIL EROSION AND SEDIMENT CONTROL

The Permittee shall develop a Soil Erosion and Sediment Control Plan prior to construction and submit the Plan to the Commission at least fourteen (14) days prior to the pre-construction meeting. This Plan may be the same as the Storm Water Pollution Prevention Plan (SWPPP) submitted to the MPCA as part of the National Pollutant Discharge Elimination System (NPDES) permit application.

The Soil Erosion and Sediment Control Plan shall address what types of erosion control measures will be implemented during each Project phase and shall at a minimum identify: plans for grading, construction, and drainage of roads and turbine pads; necessary soil information; detailed design features to maintain downstream water quality; a comprehensive re-vegetation plan to maintain and ensure adequate erosion control and slope stability and to restore the site after temporary Project activities; and measures to minimize the area of surface disturbance. Other practices shall include containing excavated material, protecting exposed soil, and stabilizing restored material and removal of silt fences or barriers when the area is stabilized. The plan shall identify methods for disposal or storage of excavated material. Erosion and sedimentation control measures shall be implemented prior to construction and maintained throughout the Project's life.

The Permittee shall develop an invasive species prevention plan to prevent the introduction of invasive species on lands disturbed by project construction activities. This requirement may be included as an element of the Soil Erosion and Sediment Control Plan.

7.12 RESTORATION

The Permittee shall, as soon as practical following construction of each turbine, considering the weather and preferences of the affected landowner(s), restore the area affected by any Project activities to the condition that existed immediately before construction began, to the extent possible. The time period may be no longer than twelve (12) months after completion of construction of the turbine, unless otherwise negotiated with the affected landowner(s). Restoration shall be compatible with the safe operation, maintenance, and inspection of the Project.

7.13 HAZARDOUS WASTE

The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean-up, and disposal of hazardous wastes generated during any phase of the Project's life.

7.14 APPLICATION OF HERBICIDES

The Permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental Protection Agency. Selective foliage or basal application shall be used when practicable. The Permittee shall contact the landowner or his designee to obtain approval for the use of herbicide prior to any application on their property. The landowner may request that there be no application of herbicides on any part of the site within the landowner's property. All herbicides shall be applied in a safe and cautious manner so as to not damage property, including crops, orchards, tree farms, or gardens. The Permittee shall also, at least fourteen (14) days prior to the application, notify beekeepers with an active apiary within one mile of the proposed application site of the day the company intends to apply herbicide so that precautionary measures may be taken by the beekeeper.

7.15 PUBLIC SAFETY

The Permittee shall provide educational materials to landowners within the site boundary and, upon request, to interested persons~~,~~ about the Project and any restrictions or dangers associated with the Project. The Permittee shall also provide any necessary safety measures, such as warning signs and gates for traffic control or to restrict public access. The Permittee shall submit the location of all underground facilities, as defined in Minnesota Statutes section 216D.01, subdivision 11, to Gopher State One Call.

7.16 EMERGENCY RESPONSE

The Permittee shall prepare an emergency response plan (fire protection and medical emergency plan) in consultation with the emergency responders having jurisdiction over the area prior to Project construction. The Permittee shall submit a copy of the plan to the Commission at least fourteen (14) days prior to the pre-construction meeting and a revised plan, if any, at least fourteen (14) days prior to the pre-operation compliance meeting. The Permittee shall also register the Project with the local governments' emergency 911 services.

7.17 TOWER IDENTIFICATION

All turbine towers shall be marked with a visible identification number.

7.18 FEDERAL AVIATION ADMINISTRATION LIGHTING

Towers shall be marked as required by the FAA. There shall be no lights on the towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.

SECTION 8
FINAL CONSTRUCTION

8.1 AS-BUILT PLANS AND SPECIFICATIONS

Within sixty (60) days after completion of construction, the Permittee shall file with the Commission a copy of the as-built plans and specifications. The Permittee must also file this data in a GIS compatible format so that the Commission can place it into the Minnesota Geospatial Information Office's geographic data clearinghouse located in the Office of Enterprise Technology.

8.2 FINAL BOUNDARIES

After completion of construction, the Commission shall determine the need to adjust the final boundaries of the site required for this Project. If done, this permit may be modified, after notice and opportunity for public hearing, to represent the actual site required by the Permittee to operate the Project authorized by this permit.

8.3 EXPANSION OF SITE BOUNDARIES

No expansion of the site boundaries described in this permit shall be authorized without the approval of the Commission. The Permittee may submit to the Commission a request for a change in the boundaries of the site for the Project. The Commission will respond to the requested change in accordance with applicable statutes and rules.

8.4 NOTIFICATION TO THE COMMISSION

At least three (3) days before the Project is to commence commercial operation, the Permittee shall file with the Commission the date on which the Project will commence commercial operation and the date on which construction was completed.

SECTION 9
DECOMMISSIONING, RESTORATION, AND ABANDONMENT

9.1 DECOMMISSIONING PLAN

At least fourteen (14) days prior to the pre-operation compliance meeting, the Permittee shall submit to the Commission a Decommissioning Plan documenting the manner in which the Permittee anticipates decommissioning the Project in accordance with the requirements of Minnesota Rules 7854.0500, subpart 13. The Permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the Project at the appropriate time. The Commission may at any time request the Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

9.2 SITE RESTORATION

Upon expiration of this permit, or upon earlier termination of operation of the Project, or any turbine within the Project, the Permittee shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment to a depth of four feet. To the extent feasible, the Permittee shall restore and reclaim the site to its pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner(s) requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or no removal shall be recorded with the county and shall show the locations of all such foundations. All such agreements between the Permittee and the affected landowner(s) shall be submitted to the Commission prior to completion of restoration activities. The site shall be restored in accordance with the requirements of this condition within eighteen (18) months after expiration.

9.3 ABANDONED TURBINES

The Permittee shall advise the Commission by a filing of any turbines that are abandoned prior to termination of operation of the Project. A Project, or any turbine within the Project, shall be considered abandoned after one (1) year without energy production and the land restored pursuant to Section 9.2 unless a plan is developed and filed with the Commission outlining the steps and schedule for returning the Project, or any turbine within the Project, to service.

SECTION 10
AUTHORITY TO CONSTRUCT LWECS

10.1 WIND RIGHTS

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall demonstrate that it has obtained the wind rights and any other rights necessary to construct and operate the Project within the boundaries of the LWECS authorized by this permit.

Nothing in this permit shall be construed to preclude any other person from seeking a permit to construct a WECS in any area within the boundaries of the Project covered by this permit if the Permittee does not hold exclusive wind rights for such areas.

10.2 POWER PURCHASE AGREEMENT

In the event the Permittee does not have a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project at the time this permit is issued, the Permittee shall provide notice to the Commission when it obtains a commitment for purchase of the power. This permit does not authorize construction of the Project until the Permittee has obtained a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project. In the event the Permittee does not obtain a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project within two years of the issuance of this permit, the Permittee must advise the Commission of the reason for not having such commitment. In such event, the Commission may determine whether this permit should be amended or revoked. No amendment or revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rule 7854.1300.

10.3 FAILURE TO COMMENCE CONSTRUCTION

If the Permittee has not completed the pre-construction surveys required under this permit and commenced construction of the Project within two years of the issuance of this permit, the Permittee must advise the Commission of the reason construction has not commenced. In such event, the Commission shall make a determination as to whether this permit should be amended or revoked. No revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rule 7854.1300.

10.4 PREEMPTION OF OTHER LAWS

Pursuant to Minnesota Statutes section 216F.07, this site permit shall be the only site approval required for the location of this Project, and this permit shall supersede and preempt all zoning, building, and land use rules, regulations, and ordinances adopted by regional, county, local, and special purpose governments. Nothing in this permit shall release the Permittee from any obligation imposed by law that is not superseded or preempted by law.

10.5 OTHER PERMITS

The Permittee shall be responsible for acquiring any other federal, state, or local permits or authorizations that may be required to construct and operate a LWECS within the authorized site. The Permittee shall submit a copy of such permits and authorizations to the Commission upon request.

10.5.1 COMPLIANCE WITH FEDERAL AND STATE AGENCY PERMITS

The Permittee shall comply with all terms and conditions of permits or licenses issued by Federal, State, or Tribal authorities including but not limited to the requirements of the MPCA (Section 401 Water Quality Certification, NPDES/State Disposal System (SDS) stormwater permit for construction activity, and other site specific discharge approvals), DNR (License to Cross Public Lands and Water, Public Water Works Permit, and state protected species consultation), SHPO (Section 106 Historic Consultation Act), FAA determinations, and Mn/DOT (Utility Access Permit, Highway Access Permit, Oversize and Overweight Permit, and Aeronautics Airspace Obstruction Permit).

10.5.2 COMPLIANCE WITH COUNTY, CITY, OR MUNICIPAL PERMITS

The Permittee shall comply with all terms and conditions of permits or licenses issued by the counties, cities, and municipalities affected by the Project that do not conflict with or are not pre-empted by federal or state permits and regulations.

SECTION 11
COMMISSION POST-ISSUANCE AUTHORITIES

11.1 PERIODIC REVIEW

The Commission shall initiate a review of this permit and the applicable conditions at least once every five (5) years. The purpose of the periodic review is to allow the Commission, the Permittee, and other interested persons an opportunity to consider modifications in the conditions of this permit. No modification may be made except in accordance with applicable statutes and rules.

11.2 MODIFICATION OF CONDITIONS

After notice and opportunity for hearing, this permit may be modified or amended for cause, including but not limited to the following:

(a) Violation of any condition in this permit;

(b) Endangerment of human health or the environment by operation of the Project; or

(c) Existence of other grounds established by rule.

11.3 REVOCATION OR SUSPENSION OF PERMIT

The Commission may take action to suspend or revoke this permit upon the grounds that:

(a) A false statement was knowingly made in the application or in accompanying statements or studies required of the Permittee, and a true statement would have warranted a change in the Commission's findings;

(b) There has been a failure to comply with material conditions of this permit, or there has been a failure to maintain health and safety standards; or

(c) There has been a material violation of a provision of an applicable statute, rule, or an order of the Commission.

In the event the Commission determines that it is appropriate to consider revocation or suspension of this permit, the Commission shall proceed in accordance with the requirements of Minnesota Rule 7854.1300 to determine the appropriate action. Upon a finding of any of the above, the Commission may require the Permittee to undertake corrective measures in lieu of having this permit suspended or revoked.

11.4 MORE STRINGENT RULES

The Commission's issuance of this site permit does not prevent the future adoption by the Commission of rules or orders more stringent than those now in existence and does not prevent the enforcement of these more stringent rules and orders against the Permittee.

11.5 TRANSFER OF PERMIT

The Permittee may not transfer this permit without the approval of the Commission. If the Permittee desires to transfer this permit, the holder shall advise the Commission in writing of such desire. The Permittee shall provide the Commission with such information about the transfer as the Commission requires to reach a decision. The Commission may impose additional conditions on any new Permittee as part of the approval of the transfer.

11.6 RIGHT OF ENTRY

Upon reasonable notice, presentation of credentials, and at all times in compliance with the Permittee's site safety standards, the Permittee shall allow representatives of the Commission to perform the following:

(a) To enter upon the facilities easement of the site property for the purpose of obtaining information, examining records, and conducting surveys or investigations;

(b) To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations;

(c) To sample and monitor upon the facilities easement of the property; and

(d) To examine and copy any documents pertaining to compliance with the conditions of this permit.

11.7 PROPRIETARY INFORMATION

Certain information required to be filed with the Commission under this permit may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law. The Permittee must satisfy requirements of applicable law to obtain the protection afforded by the law.

SECTION 12
EXPIRATION DATE

This permit shall expire on February 20, 2043, thirty (30) years ~~after~~ from the date this permit was ~~approved and adopted~~ first amended.

SECTION 13
SPECIAL CONDITIONS

Special conditions shall take precedence over any of the other conditions of this Permit if there should be a conflict between the two.

13.1 BLANDING'S TURTLE

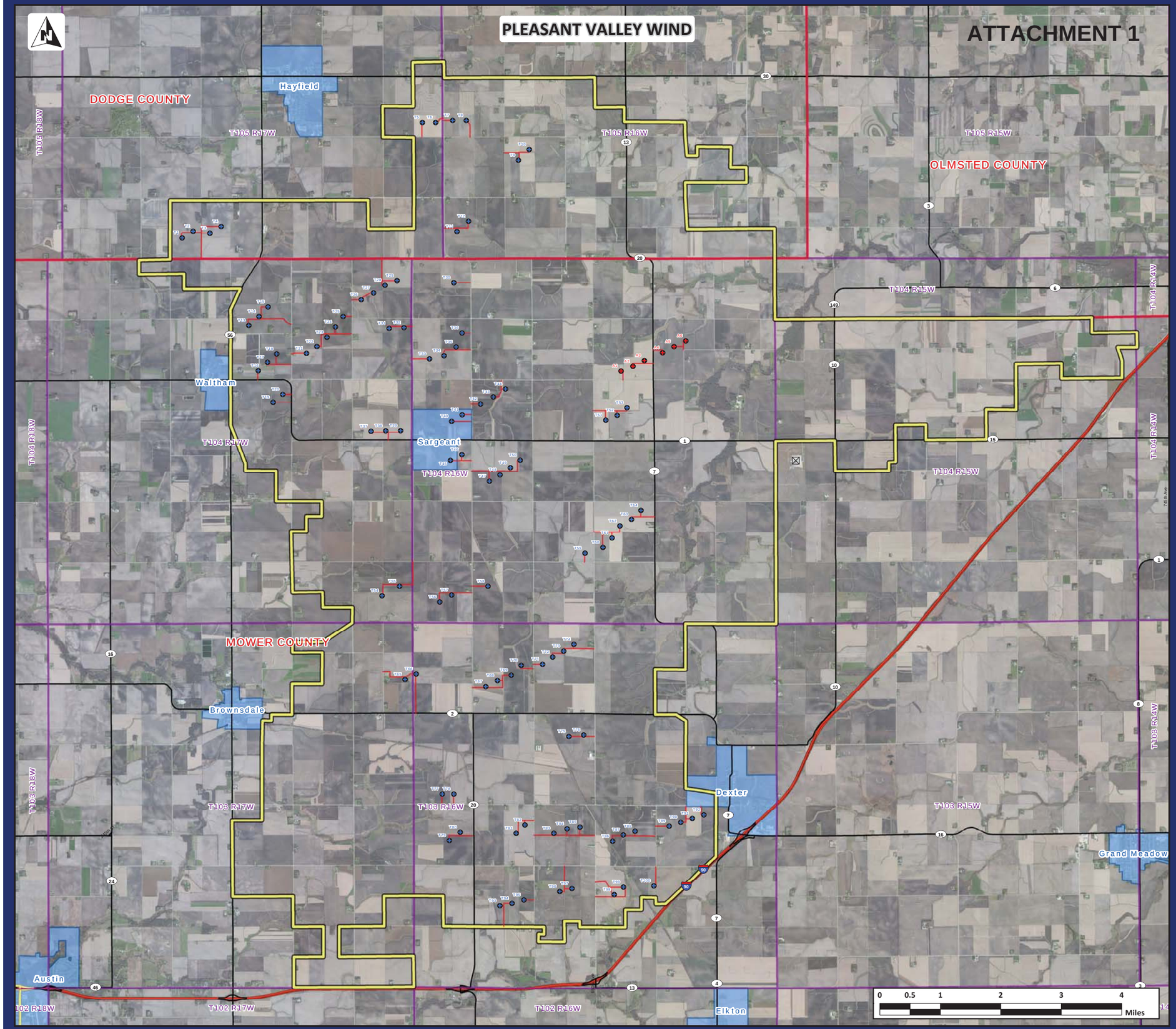
The Permittee shall follow the fact sheet of recommendations for avoiding and minimizing impacts to the Blanding's turtle. The summary of recommendations for avoiding and minimizing impacts to Blanding's turtle populations, including the attached colored photocopies of the Blanding's turtles, shall be made available to all contractors and its employees. Attachment 5 contains the fact sheet recommendations and summary.

13.2 AVIAN AND BAT SURVEYS

The Permittee shall file with the Commission avian and bat surveys, as referenced in its application, thirty (30) days after completion or thirty (30) days prior to the pre-construction meeting, whichever occurs first, and document how results will be used to inform micro-siting and the Avian and Bat Protection Plan required pursuant to Section 6.7.

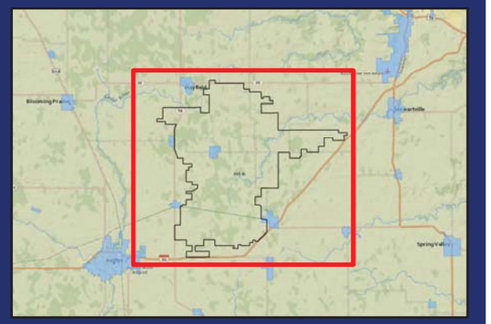
PLEASANT VALLEY WIND

ATTACHMENT 1



LEGEND

- Vestas V100-2.0 Primary Turbine (100 Total)
- Vestas V100-2.0 Alternate Turbine (6 Total)
- Point Of Interconnection
- Proposed Road
- Project Boundary
- County Boundary
- Township & Range Boundary
- Municipal Boundary



COORDINATE SYSTEM: UTM27-15 METERS
LAYOUT NUMBER: PUSAGMD205
DRAWING NUMBER: 01772D2214-01
DRAWN BY: EW Date: 11/11/2013
APPROVED BY: ADB Date: 11/11/2013

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MINNESOTA PUBLIC UTILITIES COMMISSION COMPLAINT HANDLING PROCEDURES FOR LARGE WIND ENERGY CONVERSION SYSTEMS

A. Purpose:

To establish a uniform and timely method of reporting complaints received by the Permittee concerning Permit conditions for site preparation, construction, cleanup and restoration, operation, and resolution of such complaints.

B. Scope:

This document describes Complaint reporting procedures and frequency.

C. Applicability:

The procedures shall be used for all complaints received by the Permittee and all complaints received by the Commission under Minn. Rule 7829.1500 or 7829.1700 relevant to this Permit.

D. Definitions:

Complaint: A verbal or written statement presented to the Permittee by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other LWECS and associated facilities site permit conditions. Complaints do not include requests, inquiries, questions, or general comments.

Substantial Complaint: A written Complaint alleging a violation of a specific Site Permit condition that, if substantiated, could result in Permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A Complaint which, despite the good faith efforts of the permittee and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing:

1. The Permittee shall designate an individual to summarize complaints for the Commission. This person's name, phone number and e-mail address shall accompany all complaint submittals.

2. A person presenting the Complaint should to the extent possible, include the following information in their communications:

    a. Name of Complainant, address, phone number, and e-mail address;
    b. Date of Complaint;
    c. Tract or parcel number; and
    d. Whether the complaint relates to (1) a Site Permit Matter, (2) an LWECS or associated facility issues, or (3) a compliance issue.

3. The Permittee shall document all Complaints by maintaining a record of all applicable information concerning the Complaint, including the following:

    a. Docket Number and Project Name;
    b. Name of Complainant, address, phone number and e-mail address;
    c. Precise description or parcel number;
    d. Name of Permittee representative receiving Complaint and date of receipt;
    e. Nature of Complaint and the applicable Site Permit condition(s);
    f. Activities undertaken to resolve the Complaint; and
    g. Final disposition of the Complaint.

F. Reporting Requirements:

The Permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Consumer Affairs Office at 1-800-657-3782 or consumer.puc@state.mn.us. Voice messages are acceptable.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be eFiled to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no Complaints were received during the preceding month, the permittee shall submit (eFile) a summary indicating that no complaints were received.

Permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit.

G. Complaints Received by the Commission:

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the site manager and or the Permittee's representative.

H. Commission Process for Unresolved Complaints:

Initial Screening: Commission staff shall perform an initial evaluation of unresolved Complaints submitted to the Commission. Complaints raising substantial LWECS Site Permit issues shall be processed and resolved by the Commission. Staff shall notify Permittee and appropriate person(s) if it determines that the Complaint is a Substantial Complaint. With respect to such Complaints, each party shall submit a written summary of its position to the Commission no later than ten (10) days after receipt of the Staff notification. Staff shall present Briefing Papers to the Commission, which shall resolve the Complaint within twenty (20) days of submission of the Briefing Papers.

I. Permittee Contacts for Complaints:

Mailing Address: Complaints filed by mail shall be sent to the address below:

Pleasant Valley Wind, LLC c/o
Renewable Energy Systems Americas Inc.
11101 W. 120th Ave., Suite 400
Broomfield, CO 80021

Tel: 303-439-4281

Email: joe.grennan@res-americas.com

Permittee will eFile the Project's Complaint Contact information within 14 days of the Order granting a site permit and will include the Project's Complaint Contact information in the mailing to landowners and local governments.

ATTACHMENT 3

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES

1. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

A) The permittee shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the website. Permittees must register on the website to eFile documents.

A) All filings must have a cover sheet that includes:

1) Date
2) Name of submitter / permittee
3) Type of Permit (Site or Route)
4) Project Location
5) Project Docket Number
6) Permit Section Under Which the Filing is Made
7) Short Description of the Filing

B) Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the Commission may request a paper copy of any eFiled document.

PERMIT COMPLIANCE FILINGS[1]

PERMITTEE: Pleasant Valley Wind, LLC
PERMIT TYPE: LWECS Site Permit
PROJECT LOCATION: Dodge and Mower County
COMMISSION DOCKET NUMBER: IP-6828/WS-09-1197

PRE-CONSTRUCTION MEETING

Filing Number	Permit Section	Description	Due Date	Notes
1	4.7	Native Prairie Protection Plan	30 days prior to pre-construction meeting, if required.	Develop in consultation with Commission and DNR.
2	5.1	Site Plan	14 days prior to pre-construction meeting.	
3	5.4	Field Representative	14 days prior to pre-construction meeting.	
4	5.8	Complaint Reporting Procedures	14 days prior to pre-construction meeting and complaint submittals on the 15th of each month or within 24 hours.	
5	6.1	Biological & Natural Resource Inventories	30 days prior to pre-construction Meeting.	Results may trigger need for a Native Prairie Protection Plan.
6	6.2	Shadow Flicker Analysis	14 days prior to pre-construction meeting.	
7	6.3	Archaeological Resources	14 days prior to pre-construction meeting and as recommended by the State Historic Preservation Office.	

[1] This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. However, it is not a substitute for the permit; the language of the permit controls.

PRE-CONSTRUCTION MEETING

Filing Number	Condition	Description	Due Date	Notes
8	6.4	Interference	14 days prior to pre-construction meeting.	
9	6.5	Wake Loss	14 days prior to pre-construction meeting and may be included with site plan or operation studies if performed.	
10	6.7	Avian and Bat Protection Plan	30 days prior to pre-construction meeting.	Develop in consultation with Commission and DNR.
11	7.8	Roads	14 days prior to pre-construction meeting.	
12	7.11	Soil Erosion and Sediment Control Plan	14 days prior to pre-construction.	
13	7.16	Emergency Response	14 days prior to pre-construction meeting. Must register in 911 Program.	
14	10.1	Wind Rights	14 days prior to pre-construction meeting.	

PRE-OPERATION COMPLIANCE MEETING

Filing Number	Permit Section	Description	Due Date	Notes
15	5.7	Pre-operation compliance meeting	14 days prior to commercial pre-operation.	
16	6.6	Noise Study Protocol	14 days prior to pre-operation meeting.	
17	9.1	Decommissioning Plan	14 days prior to pre-operation meeting.	

OTHER REQUIREMENTS

Filing Number	Permit Section	Description	Due Date	Notes
18	5.2	Notice to Landowners and Governmental Units	Within 14 days of permit approval to local units of government and within 30 days to landowners.	
19	5.5	Site Manager	14 days prior to prior to commercial operation.	Update contact information as necessary.
20	6.6	Noise Study Results	Within 18 months of Commercial Operation, if required.	
21	6.7.1	Annual Audit Report of ABPP	By March 15th following each complete or partial year of operation.	
	6.7.2	Quarterly Incident Reports	By the 15th of each January, April, July, and October.	
	6.7.3	Immediate Incident Report	Within 24 hours of discovery.	
22	6.8	Project Energy Production	Due 2/1 each year.	
23	6.9	Wind Resource Use	February 1st following each partial or complete year of operation.	
24	6.10	Extraordinary Events	Within 24 hours and report on occurrence of event within 30 days.	
25	8.1	As Builts	Within 60 days of completion of construction.	
26	8.4	Notification of Commercial Operation	At least 3 days prior to commencement of commercial operation.	
27	10.2	PPA or Enforceable Mechanism	Within two years of permit issuance.	If no PPA or other enforceable mechanism at time of permit issuance.
28	10.3	Failure to Start Construction	Within 2 years of permit issuance.	

ATTACHMENT 5

FOLLOWS THIS PAGE

Environmental Review Fact Sheet Series

Endangered, Threatened, and Special Concern Species of Minnesota

Blanding's Turtle

(*Emydoidea blandingii*)

Minnesota Status:	Threatened	State Rank[1]:	S2
Federal Status:	none	Global Rank[1]:	G4

HABITAT USE

Blanding's turtles need both wetland and upland habitats to complete their life cycle. The types of wetlands used include ponds, marshes, shrub swamps, bogs, and ditches and streams with slow-moving water. In Minnesota, Blanding's turtles are primarily marsh and pond inhabitants. Calm, shallow water bodies (Type 1-3 wetlands) with mud bottoms and abundant aquatic vegetation (e.g., cattails, water lilies) are preferred, and extensive marshes bordering rivers provide excellent habitat. Small temporary wetlands (those that dry up in the late summer or fall) are frequently used in spring and summer -- these fishless pools are amphibian and invertebrate breeding habitat, which provides an important food source for Blanding's turtles. Also, the warmer water of these shallower areas probably aids in the development of eggs within the female turtle. Nesting occurs in open (grassy or brushy) sandy uplands, often some distance from water bodies. Frequently, nesting occurs in traditional nesting grounds on undeveloped land. Blanding's turtles have also been known to nest successfully on residential property (especially in low density housing situations), and to utilize disturbed areas such as farm fields, gardens, under power lines, and road shoulders (especially of dirt roads). Although Blanding's turtles may travel through woodlots during their seasonal movements, shady areas (including forests and lawns with shade trees) are not used for nesting. Wetlands with deeper water are needed in times of drought, and during the winter. Blanding's turtles overwinter in the muddy bottoms of deeper marshes and ponds, or other water bodies where they are protected from freezing.

LIFE HISTORY

Individuals emerge from overwintering and begin basking in late March or early April on warm, sunny days. The increase in body temperature which occurs during basking is necessary for egg development within the female turtle. Nesting in Minnesota typically occurs during June, and females are most active in late afternoon and at dusk. Nesting can occur as much as a mile from wetlands. The nest is dug by the female in an open sandy area and 6-15 eggs are laid. The female turtle returns to the marsh within 24 hours of laying eggs. After a development period of approximately two months, hatchlings leave the nest from mid-August through early-October. Nesting females and hatchlings are often at risk of being killed while crossing roads between wetlands and nesting areas. In addition to movements associated with nesting, all ages and both sexes move between wetlands from April through November. These movements peak in June and July and again in September and October as turtles move to and from overwintering sites. In late autumn (typically November), Blanding′s turtles bury themselves in the substrate (the mud at the bottom) of deeper wetlands to overwinter.

IMPACTS / THREATS / CAUSES OF DECLINE

- loss of wetland habitat through drainage or flooding (converting wetlands into ponds or lakes)
- loss of upland habitat through development or conversion to agriculture
- human disturbance, including collection for the pet trade* and road kills during seasonal movements
- increase in predator populations (skunks, raccoons, etc.) which prey on nests and young

*It is illegal to possess this threatened species.

RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

These recommendations apply to typical construction projects and general land use within Blanding's turtle habitat, and are provided to help local governments, developers, contractors, and homeowners minimize or avoid detrimental impacts to Blanding's turtle populations. **List 1** describes minimum measures which we recommend to prevent harm to Blanding's turtles during construction or other work within Blanding's turtle habitat. **List 2** contains recommendations which offer even greater protection for Blanding's turtles populations; this list should be used *in addition to the first list* in areas which are known to be of state-wide importance to Blanding's turtles (contact the DNR's Natural Heritage and Nongame Research Program if you wish to determine if your project or home is in one of these areas), or in any other area where greater protection for Blanding's turtles is desired.

List 1. Recommendations for all areas inhabited by Blanding's turtles.	**List 2. *Additional* recommendations for areas known to be of state-wide importance to Blanding's turtles.**
GENERAL	
A flyer with an illustration of a Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.	Turtle crossing signs can be installed adjacent to road-crossing areas used by Blanding's turtles to increase public awareness and reduce road kills.
Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed.	Workers in the area should be aware that Blanding's turtles nest in June, generally after 4pm, and should be advised to minimize disturbance if turtles are seen.
If a Blanding's turtle nests in your yard, do not disturb the nest.	If you would like to provide more protection for a Blanding's turtle nest on your property, see "Protecting Blanding's Turtle Nests" on page 3 of this fact sheet.
Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.	Construction in potential nesting areas should be limited to the period between September 15 and June 1 (this is the time when activity of adults and hatchlings in upland areas is at a minimum).
WETLANDS	
Small, vegetated temporary wetlands (Types 2 & 3) should not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer).	Shallow portions of wetlands should not be disturbed during prime basking time (mid morning to mid- afternoon in May and June). A wide buffer should be left along the shore to minimize human activity near wetlands (basking Blanding's turtles are more easily disturbed than other turtle species).
Wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.	Wetlands should be protected from road, lawn, and other chemical run-off by a vegetated buffer strip at least 50' wide. This area should be left unmowed and in a natural condition.
ROADS	
Roads should be kept to minimum standards on widths and lanes (this reduces road kills by slowing traffic and reducing the distance turtles need to cross).	Tunnels should be considered in areas with concentrations of turtle crossings (more than 10 turtles per year per 100 meters of road), and in areas of lower density if the level of road use would make a safe crossing impossible for turtles. Contact your DNR Regional Nongame Specialist for further information on wildlife tunnels.
Roads should be ditched, not curbed or below grade. If curbs must be used, 4 inch high curbs at a 3:1 slope are preferred (Blanding's turtles have great difficulty climbing traditional curbs; curbs and below grade roads trap turtles on the road and can cause road kills).	Roads should be ditched, not curbed or below grade.

ROADS cont.	
Culverts between wetland areas, or between wetland areas and nesting areas, should be 36 inches or greater in diameter, and elliptical or flat-bottomed.	Road placement should avoid separating wetlands from adjacent upland nesting sites, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details).
Wetland crossings should be bridged, or include raised roadways with culverts which are 36 in or greater in diameter and flat-bottomed or elliptical (raised roadways discourage turtles from leaving the wetland to bask on roads).	Road placement should avoid bisecting wetlands, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). This is especially important for roads with more than 2 lanes.
Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.	Roads crossing streams should be bridged.
UTILITIES	
Utility access and maintenance roads should be kept to a minimum (this reduces road-kill potential).	
Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.	
LANDSCAPING AND VEGETATION MANAGEMENT	
Terrain should be left with as much natural contour as possible.	As much natural landscape as possible should be preserved (installation of sod or wood chips, paving, and planting of trees within nesting habitat can make that habitat unusable to nesting Blanding's turtles).
Graded areas should be revegetated with native grasses and forbs (some non-natives form dense patches through which it is difficult for turtles to travel).	Open space should include some areas at higher elevations for nesting. These areas should be retained in native vegetation, and should be connected to wetlands by a wide corridor of native vegetation.
Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).	Ditches and utility access roads should not be mowed or managed through use of chemicals. If vegetation management is required, it should be done mechanically, as infrequently as possible, and fall through spring (mowing can kill turtles present during mowing, and makes it easier for predators to locate turtles crossing roads).

Protecting Blanding's Turtle Nests: Most predation on turtle nests occurs within 48 hours after the eggs are laid. After this time, the scent is gone from the nest and it is more difficult for predators to locate the nest. Nests more than a week old probably do not need additional protection, unless they are in a particularly vulnerable spot, such as a yard where pets may disturb the nest. Turtle nests can be protected from predators and other disturbance by covering them with a piece of wire fencing (such as chicken wire), secured to the ground with stakes or rocks. The piece of fencing should measure at least 2 ft. x 2 ft., and should be of medium sized mesh (openings should be about 2 in. x 2 in.). It is ***very important*** that the fencing be **removed <u>before August 1st</u>** so the young turtles can escape from the nest when they hatch!

REFERENCES

[1]Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). http://www.natureserve.org/ranking.htm (15 April 2001).

Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

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Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.

Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.

Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding′s turtle in central Minnesota. Chelonian Conservation and Biology 3(4):626-636.

CAUTION

BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-280-5070); or St. Paul (651-259-5764).

DESCRIPTION: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

BLANDING'S TURTLES DO NOT MAKE GOOD PETS
IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY

SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

(see Blanding's Turtle Fact Sheet for full recommendations)

- This flyer should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles that are in imminent danger should be moved, by hand, out of harms way. Turtles that are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest and do not allow pets near the nest.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).