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December 6, 2013

Burl W. Haar, Executive Secretary  
Minnesota Public Utilities Commission  
127 7th Place East, Suite 350  
St. Paul, MN 55101-2147

**Re: Comments and Recommendations on Issuing a Draft Site Permit to Stoneray Power Partners, LLC for a 105 MW LWECS**

Dear Dr. Haar:

Attached are the review and comments of the Minnesota Department of Commerce Energy Environmental Review and Analysis (EERA) staff in the following matter:

In the Matter of the Application of Stoneray Power Partners, LLC for a Large Wind Energy Conversation System Site Permit for the 105 MW Stoneray Wind Project in Pipestone and Murray Counties (PUC Docket No. IP-6646/WS-13-216)

Stoneray Power Partners, LLC submitted an application pursuant to Minnesota Rule 7854.0400 for a Site Permit for a 105 Megawatt wind project in Pipestone and Murray Counties.

This filing was made on June 11, 2013, by:

Melissa Peterson  
Senior Development Manager  
EDF Renewable Energy  
10 Second Street NE, Ste. 400  
Minneapolis, Minnesota 55413

EERA staff is available to answer any questions the Commission may have.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Birkholz', is written in a cursive style.

David Birkholz, Environmental Review Manager

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## BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

### COMMENTS AND RECOMMENDATIONS OF MINNESOTA DEPARTMENT OF COMMERCE ENERGY ENVIRONMENTAL REVIEW AND ANALYSIS

DOCKET NO. IP-6646/WS-13-216

Date: December 6, 2013

EERA Staff: David E. Birkholz .....651-539-1838

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**In the Matter of** the Application of Stoneray Power Partners, LLC for a Large Wind Energy Conversation System Site Permit for the 105 MW Stoneray Wind Project in Pipestone and Murray Counties

**Issue(s) Addressed:** These comments address whether the Commission should issue a Draft Site Permit (DSP), and whether additional conditions are necessary in addition to the permit conditions in the Site Permit Template.

#### Documents Attached

1. Proposed Draft Site Permit with Preliminary Turbine Locations Maps

Additional documents and information can be found on the EERA website <http://mn.gov/commerce/energyfacilities/Docket.html?Id=33153> or on eDockets <https://www.edockets.state.mn.us/EFiling/search.jsp> (Year "13" and Number "216").

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## INTRODUCTION AND BACKGROUND

Stoneray Power Partners, LLC (Applicant) filed an Application<sup>1</sup> with the Public Utilities Commission (Commission) for a Large Wind Energy Conversion System (LWECS) Site Permit

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<sup>1</sup> "Site Permit Application for an LWECS," (SPA) Stoneray Power Partners, LLC, June 11, 2013

on June 1, 2013, to build the Stoneray Wind Farm (Project) in Pipestone and Murray counties. The Applicant had previously filed an application<sup>2</sup> for a Certificate of Need for the Project on April 29, 2013.

Stoneray Power Partners, LLC is a wholly-owned subsidiary of EDF Renewable Energy (EDF), which was formerly enXco Development Corporation. enXco had developed several projects in Minnesota, including the Chanarambie Project<sup>3</sup> in Murray County, adjacent the planned Stoneray Project. Additionally, enXco was formerly granted a permit on June 16, 2005, for a 105 MW Stoneray Project<sup>4</sup> in the area. However, EDF has abandoned that project in favor of pursuing the new Stoneray Project and a new permit.

### ***Project Location***

The Project is located near the city of Woodstock. Portions of the Project are located in Rock and Burke townships in Pipestone County and in Chanarambie and Cameron townships in Murray County. The proposed Project is located in a portion of the state that has seen extensive development of LWECS over the past 15 years.

### ***Project Description***

The Project Boundary encompasses approximately 29,500 acres, of which approximately 14,500 acres are under site control.

The Project for which a permit is being requested includes:

1. A wind turbine layout consisting of up to 62 turbines, depending on turbine specifications; the application describes the possible use of General Electric 1.7 MW, Vestas 2.0 MW, Siemens 2.3 MW or Siemens 3.2 MW wind turbines; and
2. Associated facilities, including gravel access roads, an electrical collection system, temporary and permanent meteorological towers, a step-up substation, and possibly an O&M building.

The Project does not require an associated transmission system, as the Project intends to connect the existing Chanarambie Substation.

The Applicant's goal is to commence commercial operation by December 2014.

## **REGULATORY PROCESS AND PROCEDURE**

A site permit from the Commission is required to construct an LWECS, which is any combination of wind turbines and associated facilities with the capacity to generate five megawatts or more of electricity. This requirement became law in 1995. The Minnesota Wind Siting Act is found at Minnesota Statutes Chapter 216F. The rules to implement the permitting requirements for LWECS are in Minn. Rule 7854.

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<sup>2</sup> "Application for Certificate of Need," Stoneray Power Partners, LLC, eDockets [20134-86239-01](#), April 29, 2013

<sup>3</sup> See EQB Docket [01-19-LWECS-ENXCO](#) at <http://mn.gov/commerce/energyfacilities/>

<sup>4</sup> See EQB Docket [05-90-LWECS-STONERAY](#) at <http://mn.gov/commerce/energyfacilities/>

### ***Application Acceptance***

Application acceptance is guided by Minnesota Rule 7854.0600. The Commission may elect to accept, conditionally accept, or reject the Application. On July 24, 2013, the Commission conditionally accepted the Application as complete upon the filing of additional information on decommissioning, a notice concerning the development of an Avian and Bat Protection Plan and the filing of updated maps.<sup>5</sup> The Applicant filed this additional information on July 15, 2013.<sup>6</sup>

### ***Preliminary Determination on Draft Site Permit***

Minnesota Rule 7854.0800 states, "Within 45 days after acceptance of the application by the commission, the commission shall make a preliminary determination whether a permit may be issued or should be denied. If the preliminary determination is to issue a permit, the commission shall prepare a draft site permit for the project. The draft site permit must identify the permittee, the proposed LWECs, and proposed permit conditions."

Issuing a draft site permit does not confer an authority to construct an LWECs. The Commission may change, amend or modify the draft site permit in any respect before final issuance or may deny the site permit at a later date.

### ***Certificate of Need***

Minnesota Statute 216B.243, subd. 3 states that no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need (CN) by the Commission. Since the Project is over 50 MW, the Stoneray Wind Farm requires a CN. As part of the CN review process, EERA is required to prepare an Environment Report per Minn. Rule 7849.1200.

### ***Public Participation***

The Commission's July 24, 2013, Order waived the 45 day requirement of the rule in order to allow time for public comments and state agencies input on the content of the Draft Site Permit. Energy Environmental Review and Analysis (EERA) staff held a public meeting in Lake Wilson on August 14, 2013, to solicit public comment on the scope of the Environmental Report and the content of the Draft Site Permit. A public comment period was open through August 30, 2013.

The Comments at the meeting included where would turbines be located (which landowners would be selected for siting); would transmission build be required (in this case a connection to the grid already exists with Chanarambie Substation); where does the power from the project go (a final off-take agreement is not yet in place); and are there government subsidies for the producer (in this case, the developer intends to time the Project to take advantage of the expiring Production Tax Credit).

Only two written comments were received, each from state agencies. The Minnesota Pollution Control Agency submitted a reminder that a Construction Stormwater Permit is required for the Project, and that a new permit became official on August 1, 2013, with more stringent requirements for permanent stormwater treatment. The Minnesota Department of Natural Resources (DNR) submitted notes on the Casey Jones State Trail, biodiversity sites, updating threatened and endangered species lists, bat monitoring and Blanding's turtles. DNR also noted its concurrence that the Project as planned is a low risk site for bird and bat fatality.

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<sup>5</sup> "Order Finding Application Complete Conditionally and Referring Matter to the Office of Administrative Hearings," July 24, 2013, eDocket no. [20137-89511-01](http://www.pca.state.mn.us/eDocket/20137-89511-01)

<sup>6</sup> The revised Application can be accessed at <http://mn.gov/commerce/energyfacilities/resource.html?Id=33231>.

### ***County Ordinance Standards for LWECS***

Minnesota Statutes section 216F.08 authorizes counties to assume responsibility for processing permit applications for LWECS with a combined nameplate capacity of less than 25,000 kilowatts. Minnesota Statutes 216F.081 states counties may assume more stringent standards than Commission rules or permits. Neither Pipestone nor Murray counties have adopted ordinances pursuant to these statutes, but each has an ordinance that governs the siting of small wind energy conversion systems not otherwise subject to siting and oversight by the State of Minnesota.

## **EERA ANALYSIS AND COMMENTS**

EERA staff has prepared a Draft Site Permit by amending the DSP Template,<sup>7</sup> identifying the Permittee, the proposed LWECS, and additional proposed permit conditions. The proposed Draft Site Permit is attached to these Comments and Recommendations. Commission approval of the Draft Site Permit will initiate a formal public comment period concluding with a joint Public Hearing to be held in conjunction with the Public Hearing for the CN proceeding.

### ***County Ordinances***

EERA staff did not receive comments on any local wind restrictions from Pipestone or Murray county officials during the application review process or during the public comment period. EERA staff has reviewed the county ordinances to assess local setback restrictions. The ordinance setback provisions of 750 and 1000 feet from dwellings are less stringent than setbacks generally imposed in recent state permits. Other requirements such as siting "1.1 x total height" from roads<sup>8</sup> are more stringent. EERA recommends keeping the standard permit language for turbines at 250 feet from the road ROW, in keeping with the Commission's opinion that "maintaining the existing minimum 250 foot turbine setback from the edge of public road rights-of-way continues to be reasonable. The purpose of the setback is to prevent ice from shedding off wind turbines onto public roads."<sup>9</sup> Pipestone and Murray county officials are free to comment during the review process.

General local government interest in local roads is addressed in the Draft Site Permit.<sup>10</sup>

### ***DNR Comments<sup>11</sup>***

The DNR recommended that turbines not be placed within a 5 x 3 rotor diameter distance from the Casey Jones State Trail and that access roads avoid bisecting it to reduce recreational impacts and increase safety for trail users. DNR did not submit justification for the Commission to alter its standard in this case, and the 5 x 3 RD setbacks would be unprecedented in an LWECS permit. In response to DNR's request for tower height setbacks from trails in the General Permit Standards docket, the Commission declined to establish a setback number, preferring to address the issue on a case-by-case basis. The Commission noted, "Setbacks are primarily to enhance the aesthetic enjoyment of the trail user; however, the needs and desires of the owner of the property through which the trail runs must also be considered."<sup>12</sup>

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<sup>7</sup> PUC generic Large Wind Energy Conversion site permit template, August 13, 2013, eDocket no. [20138-90229-01](#)

<sup>8</sup> DSP at Section 4.4, "Wind turbines and meteorological towers shall not be located closer than 250 feet from the edge of the nearest public road right-of-way."

<sup>9</sup> "Order Establishing General Wind Permit Standards," (Standards) January 11, 2008

<sup>10</sup> DSP at Section 7.8.1

<sup>11</sup> DNR on Scoping and Draft Site Permit (Letter), Jamie Schrenzel, August 30, 2013, eDocket no. [20138-90818-01](#)

<sup>12</sup> Standards at 6

Also, since the trail has not been purchased with federal dollars, it would not have federal restrictions for transecting its ROW.

EERA suggests including a special permit condition that minimizes physical impact on the trail to the degree practicable and employing the same 250 foot turbine setbacks applied for public roads. If DNR has particular concerns for the state trail in this case, they are free to offer further comment during the review process to support this (or greater) restrictions.

The DNR developed a Blanding's turtle priority map that includes potential habitat for the state-listed threatened species. The DNR recommends that the Commission site permit include a condition that only allows construction from November 1 to April 30 within the priority areas in order to avoid potential impacts to Blanding's turtles or their nests. DNR also provided a Blanding's turtle construction avoidance flyer and poster as informational items for contractors. EERA suggests adding a special permit condition concerning priority Blanding's turtle areas and including the DNR attachments with the site permit.

(EERA also notes that the area has been recognized for Topeka Shiners, a federally-protected species, and recommends attaching a copy of Topeka Shiner best management practices to the site permit as well.)

#### ***Avian and Bat Protection Plan/Bird and Bat Conservation Strategy***

Commission staff's briefing paper<sup>13</sup> for application acceptance for the site permit included a tentative schedule anticipating EERA staff would recommend language for a Draft Site Permit by the end of October 2013. This was predicated on the Applicant filing its BBCS by the end of the public comment period which closed on August 31, 2013.

However, the Applicant filed a draft BBCS on November 1, 2013.<sup>14</sup> EERA has reviewed this document for its impacts on the Draft Site Permit, and continues to review it in conjunction with the DNR for the purpose of finalizing the document as a tool to identify and mitigate avian and bat impacts throughout construction and operation of the Project. EERA suggests a BBCS may substitute for an ABPP if it fully defines formal and informal monitoring, training, wildlife handling, documentation (e.g., photographs), and reporting protocols for each phase of the Project, as anticipated in Permit Condition 6.7.1. Further, all requirements of Permit Condition 6.7 and special conditions related to avian and bat issues would need to be addressed.

EERA anticipates the revised, final BBCS will be filed prior to issuance of the Site Permit.

As concerns the Draft Site Permit, the BBCS confirms the DNR assessment of the Project area as a "low risk" site for bird and bat fatalities. Therefore, EERA recommends a special condition requiring one field season of post-construction monitoring. The field season would run from March 15-November 15 to represent one full cycle of migration and activity.

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<sup>13</sup> "Staff Briefing Paper," July 3, 2013, eDocket no. 20137-88851-01

<sup>14</sup> Draft "Bird and Bat Conservation Strategy," Prepared for EDF Renewable Energy by Burns & McDonnell, November 1, 2013, eDocket no. 201311-93194-01

In keeping with the BBCS and with DNR's own recommendation, EERA suggests editing Permit Condition 6.7.3 to increase the count for immediate incidence reports for migratory birds from one to five. DNR considers the single count to be "over burdensome on both a permittee and the DNR."<sup>15</sup> EERA also recommends clarifying the "reporting period" to one week, as suggested by the DNR. The reporting for threatened or endangered, federally-listed species or bald eagles would remain as per each incident.

### **EERA Recommendation**

EERA staff has used the information in the site permit application, which includes appended communications with the Minnesota Department of Natural Resources and the US Fish and Wildlife Service, Mn/DOT and other comment letters, and experience with other LWECS projects as a guide for evaluating whether a Draft Site Permit may be issued for this project or should be denied, pursuant to Minnesota Rules 7854.0800, subp. 1. EERA staff considers the available information sufficient to make a preliminary determination that a site permit may be issued for the project. The applicant would continue to provide additional necessary information as requested by EERA and Commission staff.

EERA staff also recommends adding the discussed permit edits and additions to the Draft Site Permit. An annotated copy of the DSP template is attached to these comments.

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<sup>15</sup> DNR Letter at 3



**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION**

**SITE PERMIT FOR A  
LARGE WIND ENERGY CONVERSION SYSTEM**

**IN**

**PIPESTONE AND MURRAY COUNTIES**

**ISSUED TO**

**STONERAY POWER PARTNERS, LLC**

**PUC DOCKET NO. IP-6646/WS-13-216**

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

**Stoneray Power Partners, LLC**

**Stoneray Power Partners, LLC** is authorized to construct and operate up to a **105** 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 site permit shall expire thirty (30) years from the date of this approval.

Approved and adopted this \_\_\_\_ day of \_\_\_\_\_

BY ORDER OF THE COMMISSION

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BURL W. HAAR  
Executive Secretary

(S E A L)

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**ATTACHMENTS**

- Attachment 1 - Site Permit Boundary and Preliminary Turbine Layout
- Attachment 2 - Complaint Handling Procedures
- Attachment 3 - Compliance Filing Procedures for Permitted Energy Facilities
- Attachment 4 - Permit Compliance Filings
- Attachment 5 - Blanding's Turtle and Topeka Shiner Information

# SITE PERMIT

This Site Permit for a Large Wind Energy Conversion System (LWECS) authorizes Stoneray Power Partners, LLC (Permittee) to construct and operate the Stoneray Wind Farm (Project), a 105 megawatt (MW) nameplate capacity LWECS and associated facilities in Pipestone and Murray counties on 29,500 acres in accordance with the conditions contained in this permit.

## 1.0 PROJECT DESCRIPTION

The up to 105 MW nameplate capacity LWECS Project authorized to be constructed in this permit will be developed, constructed and operated by the Permittee.

Within the site permit boundary, the project and associated facilities shall be located on lands for which the permittee has obtained wind rights. Wind rights or easements have been obtained by the permittee and include 14,500 acres of full easements in sections of Rock and Burke townships in Pipestone County and Chanarambie and Cameron townships in Murray County. Upon completion, the total project site would be converted to wind turbines and associated infrastructure for a total of approximately 36 acres.

## 2.0 DESIGNATED SITE

### 2.1 Project Boundary

The Project boundary is shown on the map at **Attachment 1**. The Project is located in the following townships in Pipestone and Murray counties.

<u>County</u>	<u>Township Name</u>	<u>Sections</u>	<u>Township</u>	<u>Range</u>
<u>Murray</u>	<u>Cameron</u>	<u>30, 31</u>	<u>107N</u>	<u>43</u>
	<u>Chanarambie</u>	<u>5-8, 17-20, 29, 30</u>	<u>106N</u>	<u>43</u>
<u>Pipestone</u>	<u>Rock</u>	<u>8, 15-29, 32-36</u>	<u>107N</u>	<u>44</u>
	<u>Burke</u>	<u>1-17, 19-21, 23-26</u>	<u>106N</u>	<u>44</u>

### 2.2 Turbine Layout

The preliminary wind turbine and associated facility layouts on the maps at **Attachment 1**. The 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 of the Project, 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 make 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 depicted in the 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 file the final site layout in the site plan pursuant to Section 5.1.

### **3.0 APPLICATION COMPLIANCE**

The Permittee shall comply with those practices set forth in its Site Permit Application, dated [June 10, 2013, and as amended July 15, 2013](#), 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, 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.

### **4.0 SETBACKS AND SITE LAYOUT RESTRICTIONS**

#### **4.1 Wind Access Buffer**

Wind turbine towers shall not be placed less than five (5) rotor diameters on the prevailing wind directions and three (3) rotor diameters 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**

Wind turbine towers shall not be located closer than 1,000 feet from all residences or the distance required to comply with the noise standards pursuant to Minnesota Rule, part 7030.0040 established by the Minnesota Pollution Control Agency (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 and 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 turbines 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, State Wildlife Management Areas, Scientific and Natural Areas or county parks. 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 15(a), 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**

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

#### **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 100 meters (328 feet) above grade measured at 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) rotor diameters in the non-prevailing wind directions and five (5) rotor diameters 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 Rules, part 8800.0100, subparts 24(a) and 24(b)) in Minnesota, adjacent states, or provinces. The Permittee shall apply the minimum obstruction clearance for private airports pursuant to Minnesota Rules, part 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.



#### **4.14 Communication Cables**

The Permittee shall place all communication and supervisory control and data acquisition (SCADA) 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 lines that carry electrical power from each individual transformer associated with a wind turbine to an internal project interconnection point shall be buried. 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. Any overhead or underground 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 has 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.

### **5.0 ADMINISTRATIVE COMPLIANCE PROCEDURES**

The following administrative compliance procedures require submissions to the Commission. Submissions 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.

Construction is defined under Minnesota Statutes, Section 216E.01, subdivision 3. 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 that 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 and demonstrate compliance with the setbacks and site layout restrictions required by this permit before the turbine is constructed on the new site.

## **5.2 Permit Distribution to Local Governments and 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 a printed copy of the permit to each landowner within the Project boundary. 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 shall be accessible by telephone during normal working hours. This person's address, email, phone number, and emergency phone number shall be filed with the Commission, which may make the contact information 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 file with the Commission the name, address, email, 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, the Department of Commerce Environmental Review Manager and Commission Staff 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**

At least 14 days prior to commercial operation, the Permittee shall conduct a pre-operation compliance meeting with the Department of Commerce Environmental Review Manager and Commission Staff to coordinate field monitoring of operation activities. 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 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** of this permit.

## **6.0 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 existing wildlife management areas, scientific and natural areas, recreation areas, native prairies and forests, wetlands, and any other biologically sensitive areas within the Project site and assess the presence of state- or federally-listed or threatened species. The results of the inventories shall be filed with the Commission at least thirty (30) days prior to the pre-construction meeting to confirm compliance of conditions in this permit.

The Permittee shall file with the Commission, 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 from 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 avoid, minimize and mitigate 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 filed 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 with the Commission 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 with the Commission 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 carryout 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 (ABPP)

The Permittee shall comply with the provisions of their Final ABPP submitted for this Project on (date) and revisions resulting from the annual audit of ABPP implementation. The Permittee's Bird and Bat Conservation Strategy (BBCS), prepared pursuant to USFWS land-based wind energy guidelines, may act as the Permittee's ABPP as long as all requirements of Permit Condition 6.7 and special conditions related to avian and bat issues are addressed. The ABPP must 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, and 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 five-day period; or
- (b) an incident of one or more dead or injured state threatened, endangered, or species of special concern;
- (c) one or more dead or injured federally listed species; or
- (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 on the monthly energy production of the Project 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 considered public and must 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 considered public and must 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.

## **7.0 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 on all lands unless otherwise negotiated with the affected landowner.

### **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. 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.

### **7.7 Equipment Storage**

The Permittee shall not locate temporary equipment staging areas on lands under its control unless negotiated with affected landowner. Temporary equipment 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) days 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.

### **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 5 gravel or similar material. Access roads shall not be constructed across streams and drainage ways without required permits and approvals. 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. 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.

## **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.

### **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.

### **7.12 Invasive Species**

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.

### **7.13 Restoration**

The Permittee shall, as soon as practical following construction of each turbine, considering the weather and preferences of the affected landowner, 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. Restoration shall be compatible with the safe operation, maintenance and inspection of the Project.

### **7.14 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.

### **7.15 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 to obtain approval for the use of herbicide prior to any application on the 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 Permittee intends to apply herbicide so that precautionary measures may be taken by the beekeeper.

#### **7.16 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.

#### **7.17 Emergency Response**

The Permittee shall prepare an Emergency Response Plan (fire protection and medical emergency) 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.

#### **7.18 Tower Identification**

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

#### **7.19 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.

### **8.0 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.

## **9.0 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, part 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 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 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 of any turbines that are abandoned prior to termination of operation of the Project. The 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 submitted to the Commission outlining the steps and schedule for returning the Project, or any turbine within the Project, to service.

## **10.0 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 authorized by this permit.

Nothing in this permit shall be construed to preclude any other person from seeking a permit to construct a Wind Energy Conversion System (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 Rules, part 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 Rules, part 7854.1300.

## **10.4 Preemption of Other Laws**

Pursuant to Minnesota Statutes, section 216F.07, this 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 preempted by federal or state permits and regulations.

## **11.0 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 Rules, part 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 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.

The Permittee shall notify the Commission of:

- (a) the sale of a parent entity or a majority interest in the Permittee,
- (b) the sale of a majority interest of the Permittee's owners or majority interest of the owners,  
or
- (c) a sale which changes the entity with ultimate control over the Permittee.

## **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.

## **12.0 EXPIRATION DATE**

This permit shall expire thirty (30) years after the date this permit was approved and adopted.

## **13.0 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 Avian and Bat Protection Plan Special Provision**

In keeping with the DNR assessment of the Project area as "low risk" for bird and bat fatalities, the Permittee shall conduct one field season (March 15-November 15) of post-construction fatality monitoring for avian and bat species using survey protocols developed by the DNR specifically for low risk sites.

### **13.2 Application of County Standards**

The Permittee shall setback meteorological towers 1.1 x total height from road rights-of-way, consistent with the WECS ordinances adopted by Pipestone and Murray counties.



### **13.3 Endangered Species**

The Permittee shall follow the fact sheets of recommendations for avoiding and minimizing impacts to the Blanding's turtle and Topeka Shiner. The summary of recommendations for avoiding and minimizing impacts to these populations, including the attached colored photocopies of the Blanding's turtles, shall be made available to all contractors and their employees. **Attachment 5** contains the fact sheet recommendations and summaries, including a map of Blanding's turtle priority areas. If construction activity occurs within the priority areas, it shall be restricted to between November 1 and April 30.

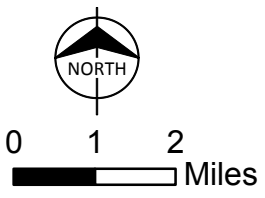
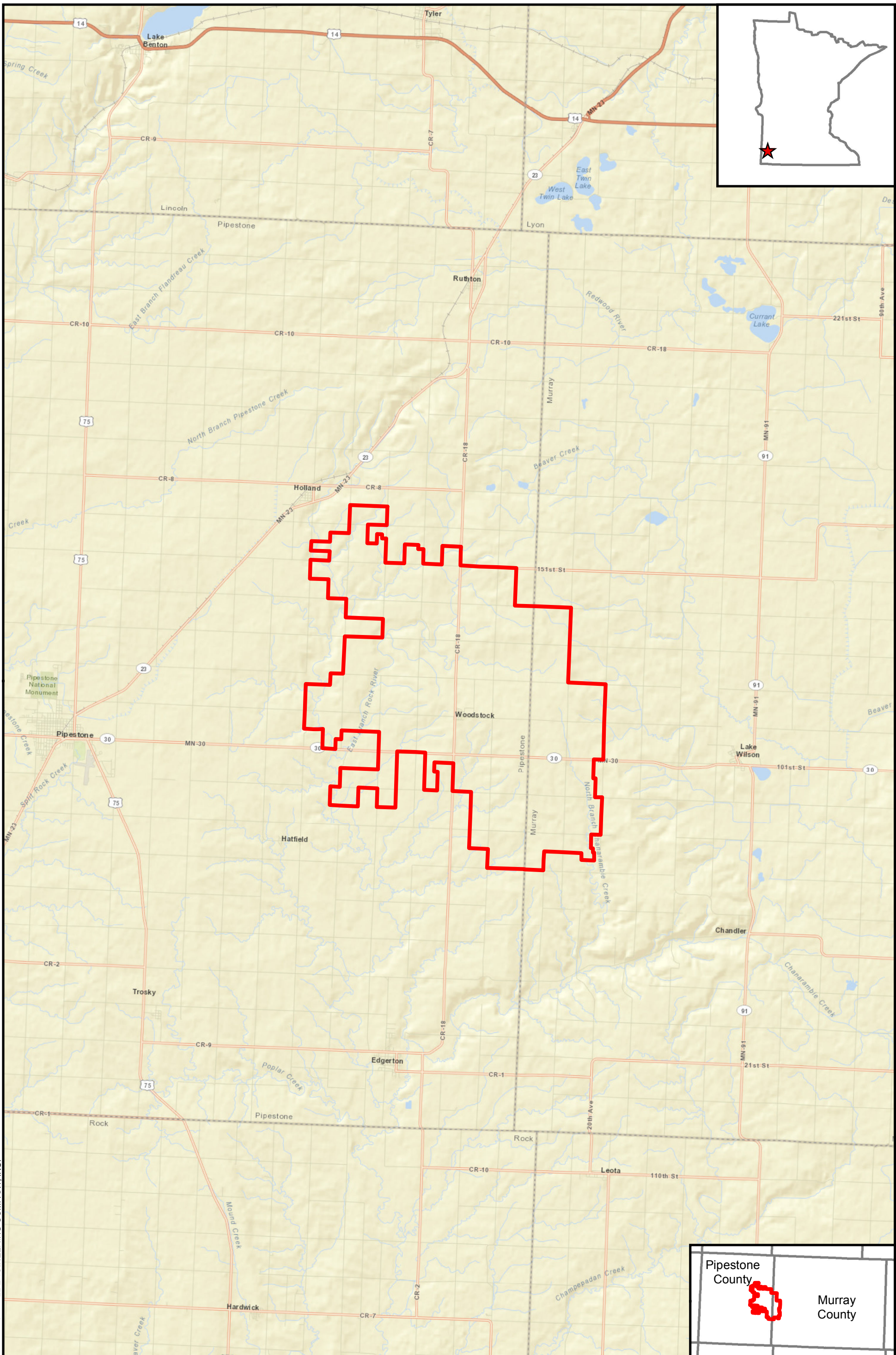
### **13.4 Casey Jones State Trail**


The Project shall avoid physical impact on the Casey Jones State Trail to the extent practicable during construction and operation activities. Wind turbines shall not be located closer than 250 feet from the trail.

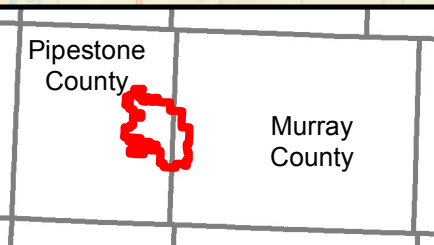


**ATTACHMENT 1. SITE MAPS**





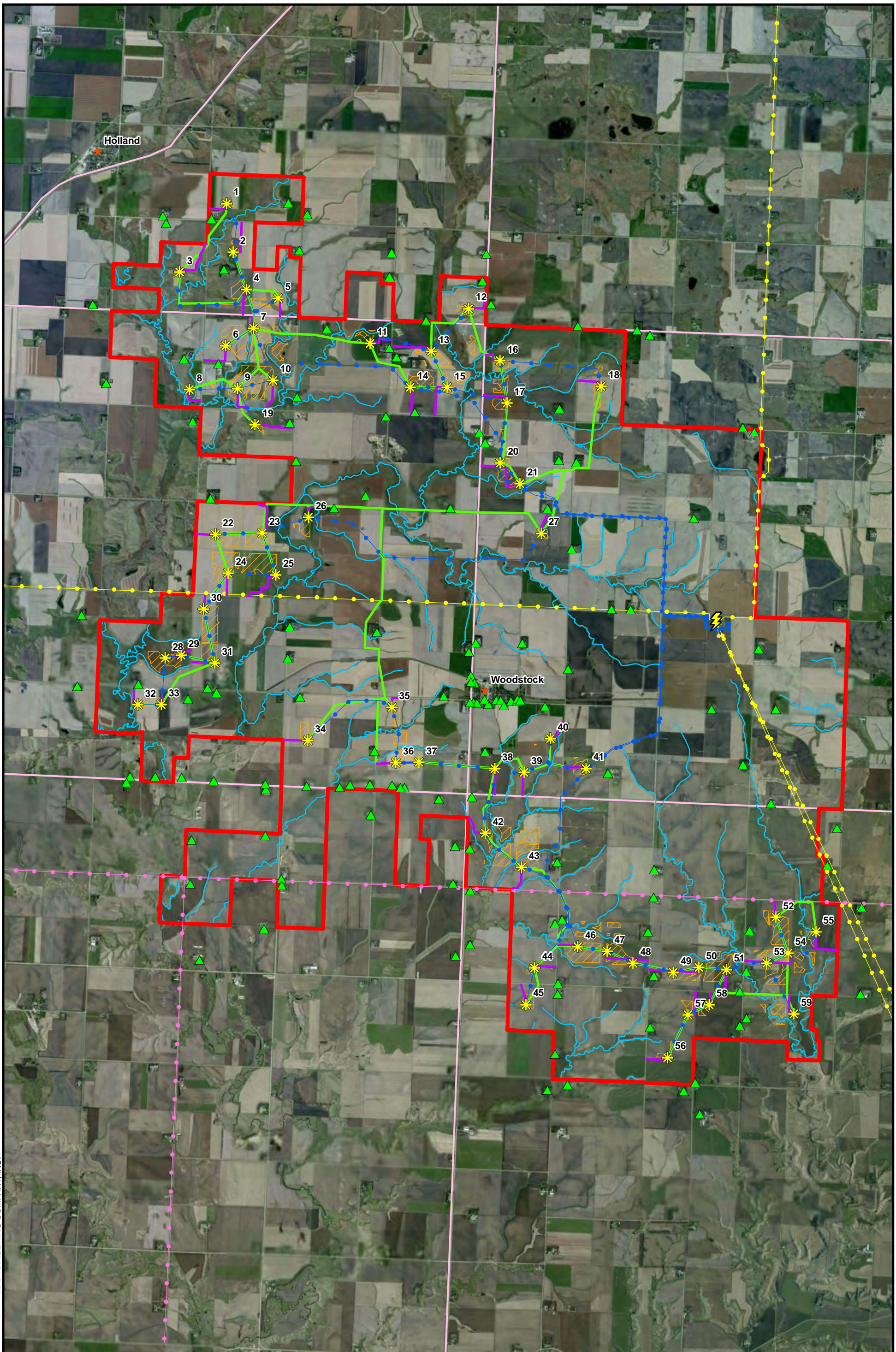
**Legend**  
 Proposed Project Boundary



**Figure 1**  
**General Location**  
**LWECS Application Figures**  
**Stoneray Wind Project**  
**Murray & Pipestone**  
**Counties, Minnesota**



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**Legend**

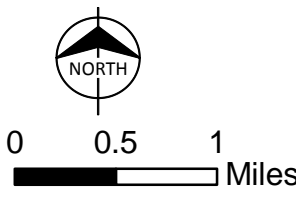
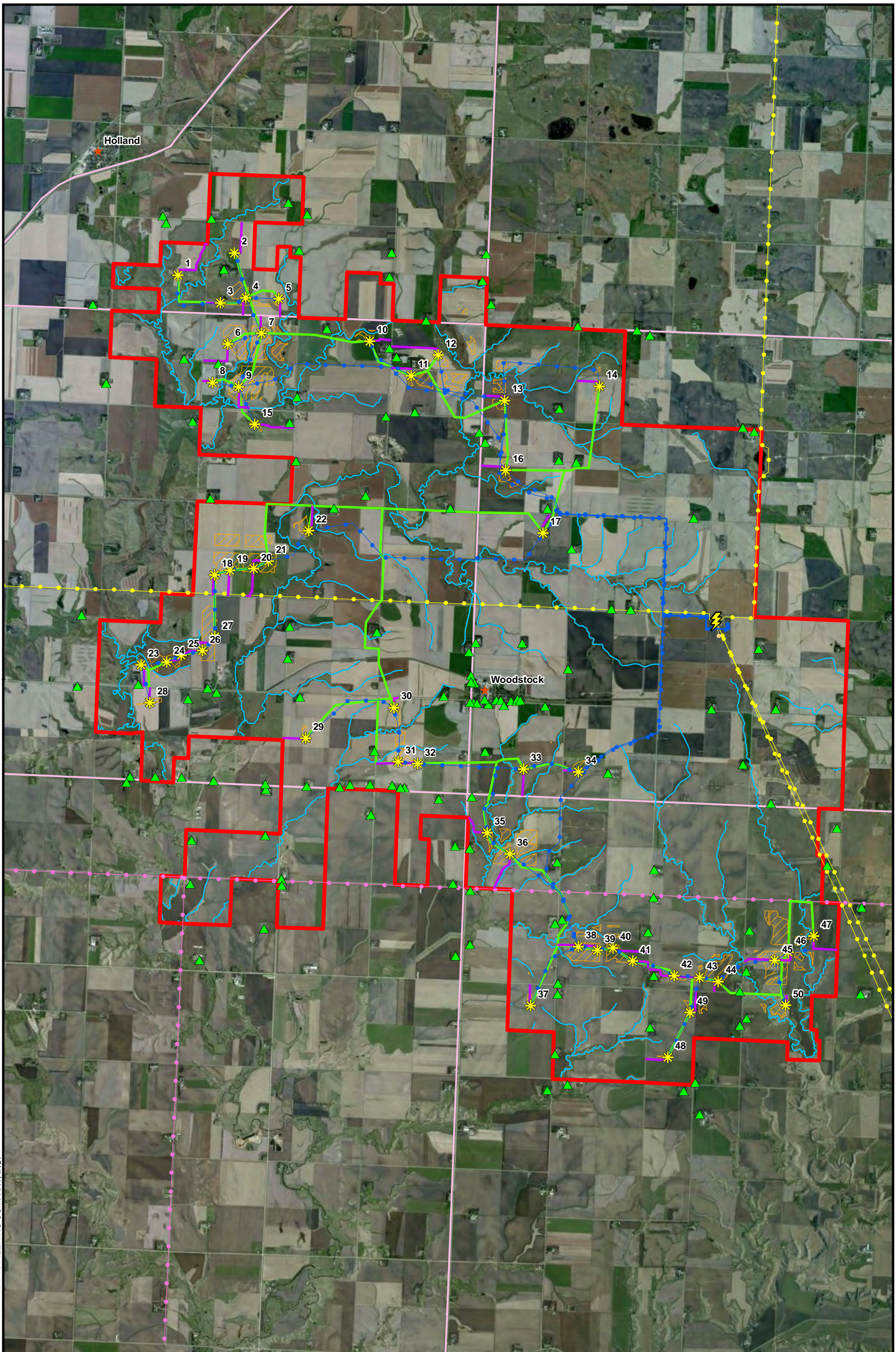
- Proposed Project Boundary
- Proposed Build Land v25
- ★ Proposed GE 1.7 Turbine Array
- ★ Town
- ▲ Residences
- Proposed Access Roads v10
- Proposed Crane Paths v10
- Stream
- Major Road
- ⚡ Chanarambie Substation
- Proposed Collection Lines v10
- 4-kV Transmission
- 69-kV Transmission
- 115-kV Transmission



**Figure 2-1**  
**Project Area and Facilities**  
**LLWECS Application Figures**  
**Stoneray Wind Project**  
**Murray & Pipestone**  
**Counties, Minnesota**



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Legend			
	Proposed Project Boundary		Proposed Access Roads v11
	Proposed Vestas 2.0 Turbine Array		Proposed Crane Paths v11
	Town		Proposed Collection Lines v11
	Residences		4-kV Transmission
	Major Road		69-kV Transmission
	Chanarambie Substation		115-kV Transmission
	Stream		
	Proposed Build Land v26		

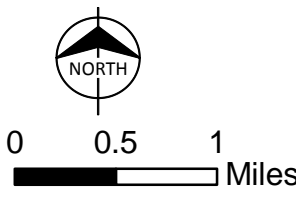
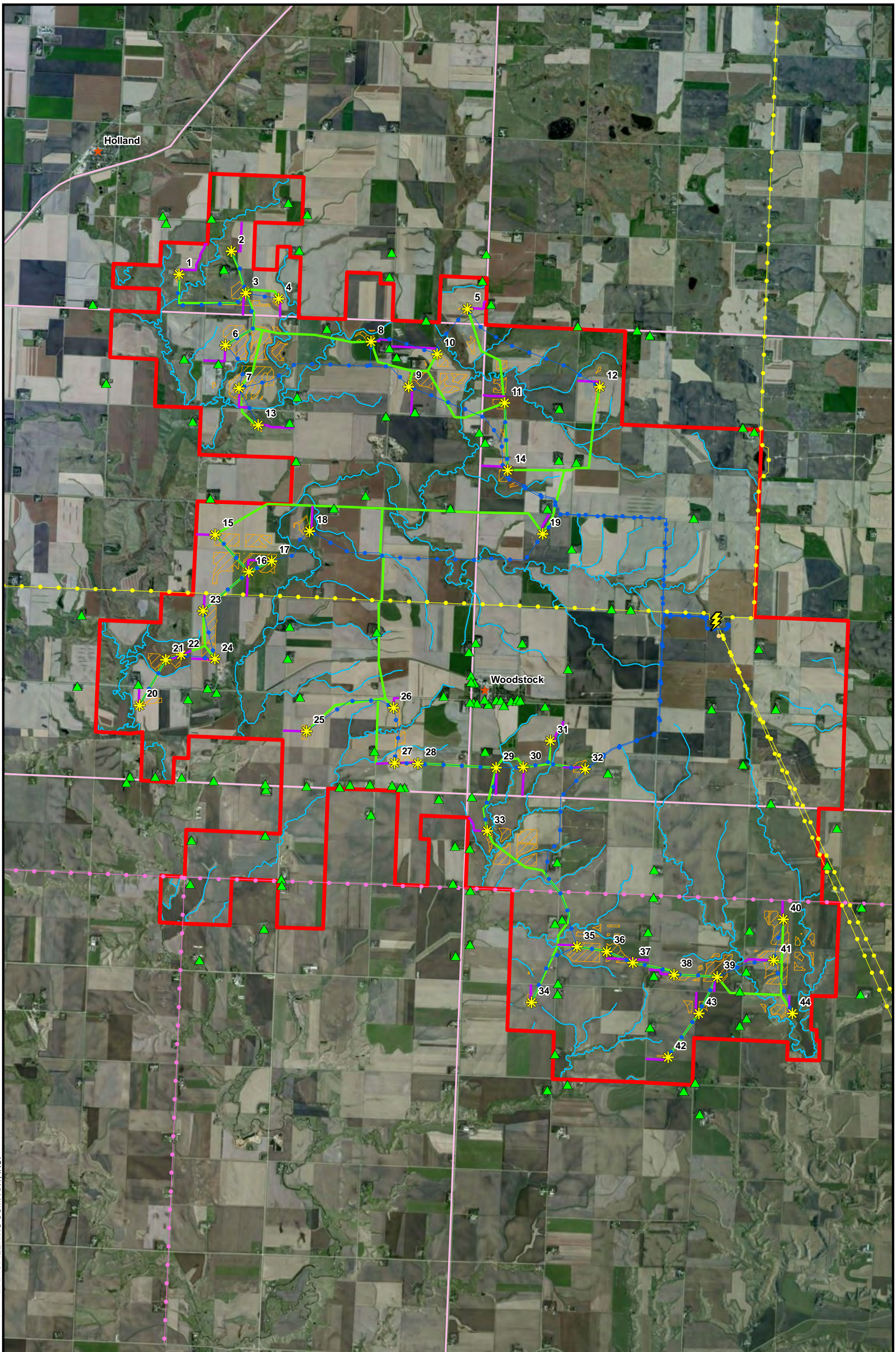


**Figure 2-2**  
**Project Area and Facilities**  
**LWECS Application Figures**  
**Stoneray Wind Project**  
**Murray & Pipestone**  
**Counties, Minnesota**

Source: ESRI (2013) and Burns & McDonnell (2013)



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Legend			
	Proposed Project Boundary		Proposed Access Roads v12
	Proposed Build Land v27		Proposed Crane Paths v12
	Proposed Siemens 2.3 Turbine Array		Proposed Collection Lines v12
	Town		4-kV Transmission
	Residences		Stream
	Major Road		69-kV Transmission
			115-kV Transmission
	Chanarambie Substation		

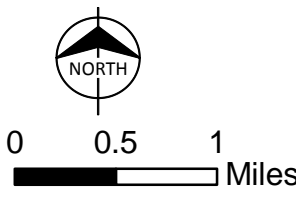
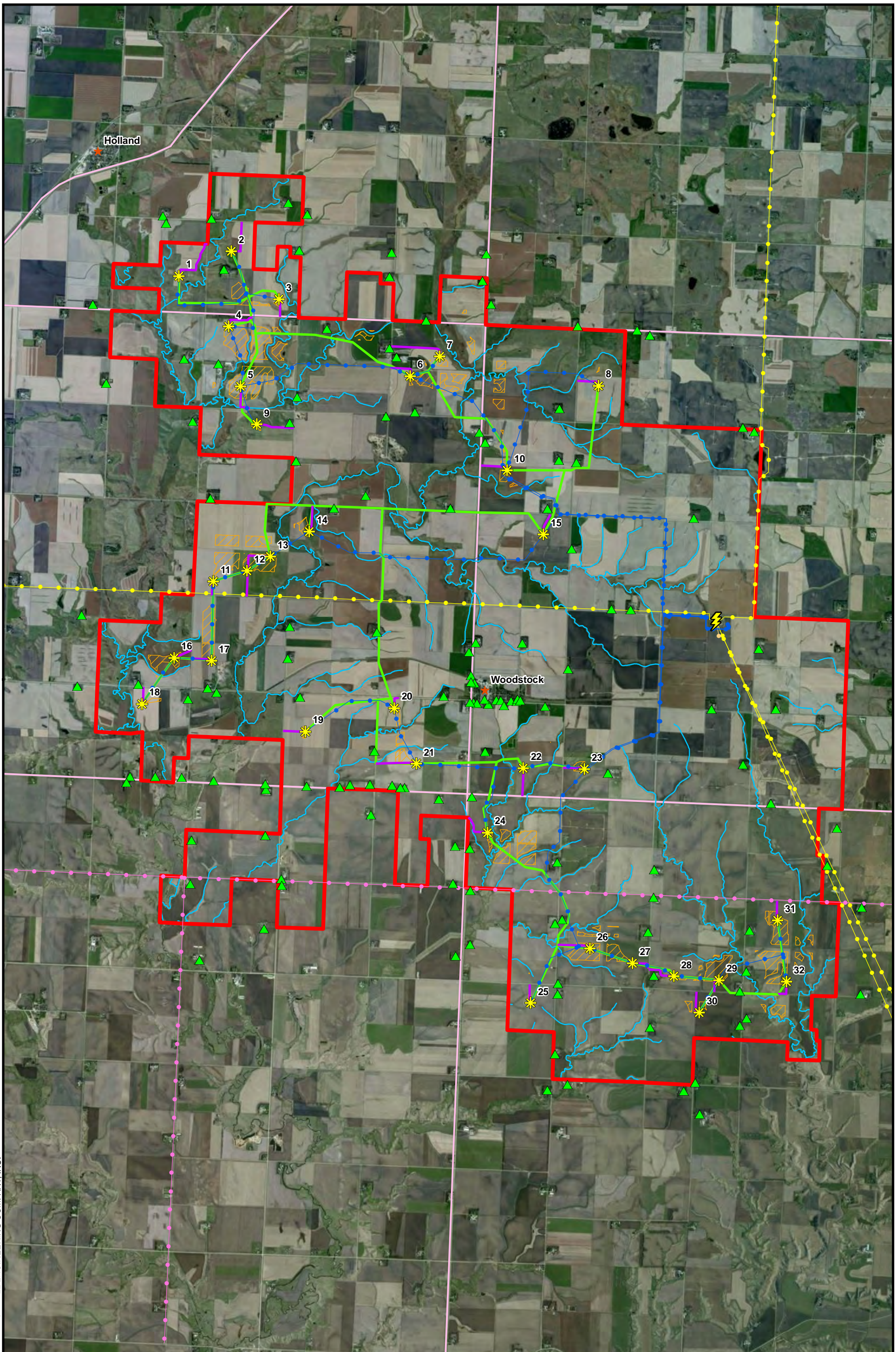


**Figure 2-3**  
**Project Area and Facilities**  
**LWECS Application Figures**  
**Stoneray Wind Project**  
**Murray & Pipestone**  
**Counties, Minnesota**

Source: ESRI (2013) and Burns & McDonnell (2013)



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Legend	
	Proposed Project Boundary
	Proposed Build Land v28
	Proposed Siemens 3.2 Turbine Array
	Town
	Residences
	Proposed Access Roads v13
	Proposed Crane Paths v13
	Proposed Collection Lines v13
	Stream
	Major Road
	Chanarambie Substation
	4-kV Transmission
	69-kV Transmission
	115-kV Transmission



**Figure 2-4**  
**Project Area and Facilities**  
**LLWECS Application Figures**  
**Stoneray Wind Project**  
**Murray & Pipestone**  
**Counties, Minnesota**

Source: ESRI (2013) and Burns & McDonnell (2013)



**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 document all Complaints by maintaining a record of all applicable information concerning the Complaint, including the following:
  - a. Name of complainant, address, phone number, and e-mail address.
  - b. Precise property description or parcel number.
  - c. Name of Permittee representative receiving Complaint and date of receipt.
  - d. Nature of Complaint and the applicable Site Permit conditions(s).
  - e. Activities undertaken to resolve the Complaint.
  - f. Final disposition of the Complaint.
2. 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.
3. A Person presenting the Complaint should to the extent possible, include the following information in their communications:
  - a. Name, address, phone number, and e-mail address.
  - b. Date
  - c. Tract or parcel
  - d. Whether the complaint relates to (1) a Site Permit matter, (2) an LWECs and associated facility issue, or (3) a compliance issue.

**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 Wind Permit Compliance, 1-800-657-3794, or by e-mail to: [DOC.energypermitcompliance@state.mn.us](mailto:DOC.energypermitcompliance@state.mn.us), or. 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 Filed 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.

**G. Complaints Received by the Commission or OES:**

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

**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 days after receipt of the Staff notification. Staff shall present Briefing Papers to the Commission, which shall resolve the Complaint within twenty days of submission of the Briefing Papers.

**I. Permittee Contacts for Complaints:**

**Mailing Address:** Complaints filed by mail shall be sent to one of the addresses below:

Melissa Peterson  
Development Manager  
EDF Renewable Energy  
10 Second St NE., Suite 400  
Minneapolis, Minnesota 55413

**Tel:** (612) 486-4510

**email:** melissa.peterson@edf-re.com

**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.

B) 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

C) 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 7<sup>th</sup> Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7<sup>th</sup> Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the Commission may request a paper copy of any eFiled document.

**PERMIT COMPLIANCE FILINGS<sup>1</sup>**

**PERMITTEE:** Stoneray Power Partners, LLC  
**PERMIT TYPE:** LWECS Site Permit  
**PROJECT LOCATION:** Pipestone County and Murray County  
**COMMISSION DOCKET:** IP-6647/WS-13-216

**PRE-CONSTRUCTION MEETING**

<b>Permit Section</b>	<b>Description</b>	<b>Due Date</b>	<b>Notes</b>	<b>eDocket Doc. ID</b>	<b>Date Filed</b>
4.7	Native Prairie Protection Plan	10 working days prior to pre-construction meeting, if required.	Develop in consultation with Commission and DNR.		
5.1	Site Plan	10 working days prior to pre-construction meeting.			
5.4	Field Representative	10 working days prior to pre-construction meeting.			
5.8	Complaint Reporting Procedures	10 working days prior to pre-construction meeting.			
6.1	Biological & Natural Resource Inventories	30 days prior to pre-construction Meeting.	Results may trigger need for a Native Prairie Protection Plan.		
6.2	Shadow Flicker Analysis	10 working days prior to pre-construction meeting.			
6.3	Archaeological Resources	10 working days prior to pre-construction meeting and as recommended by the State Historic Preservation Office.			
6.4	Interference	10 working days prior to pre-construction Meeting.			

<sup>1</sup> 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 (Cont.)**

<b>Permit Section</b>	<b>Description</b>	<b>Due Date</b>	<b>Notes</b>	<b>eDocket Doc. ID</b>	<b>Date Filed</b>
6.5	Wake Loss	10 working days prior to pre-construction meeting.			
6.7	Avian and Bat Protection Plan	10 days prior to pre-construction meeting.	Develop in consultation with Commission and DNR.		
7.8	Road Identification	10 working days prior to pre-construction meeting.			
7.11	Soil Erosion & Sediment Control Plan	10 working days prior to pre-construction.	May be the same as NPDES SWPPP.		
7.16	Emergency Response	10 working days prior to pre-construction meeting. Must register in 911 Program.			
10.1	Wind Rights	10 working days prior to pre-construction meeting.			

**PRE-OPERATION COMPLIANCE MEETING**

<b>Permit Section</b>	<b>Description</b>	<b>Due Date</b>	<b>Notes</b>	<b>eDocket Doc. ID</b>	<b>Date Filed</b>
5.7	Pre-operation compliance meeting	10 working days prior to commercial operation.			
6.6	Noise Study Protocol	10 working days prior to pre-operation meeting.			
9.1 & 9.3	Decommissioning Plan	10 working days prior to commercial operation.			

**OTHER REQUIREMENTS**

<b>Permit Section</b>	<b>Description</b>	<b>Due Date</b>	<b>Notes</b>	<b>eDocket Doc. ID</b>	<b>Date Filed</b>
5.2	Notice to Landowners & Government Units	Within 30 working days of permit issuance.			
5.5	Site Manager	10 working days prior to prior to commercial operation.	Update contact information as necessary.		
5.8	Complaints	Complaint submittals on the 15 <sup>th</sup> of each month or within 24 hours.	Must eFile report even if no complaints.		
6.6	Noise Study Results	Within 18 months of Commercial Operation.			
6.7	Avian and Bat Reporting Requirements	Quarterly reports due and within 24 hours of discovery of certain species.			
6.8	Project Energy Production	Due 2/1 each year.			
6.9	Wind Resource Use	Upon request of the Commission.			
6.10	Extraordinary Events	Within 24 hours and report on occurrence of event within 30 days.			
8.1	As Builts	Within 60 days of completion of construction.			
10.2	PPA or Enforceable Mechanism	Within 2 years of permit issuance.	If no PPA or other enforceable mechanism at time of permit issuance.		
10.3	Failure to Start Construction	Within 2 years of permit issuance.			

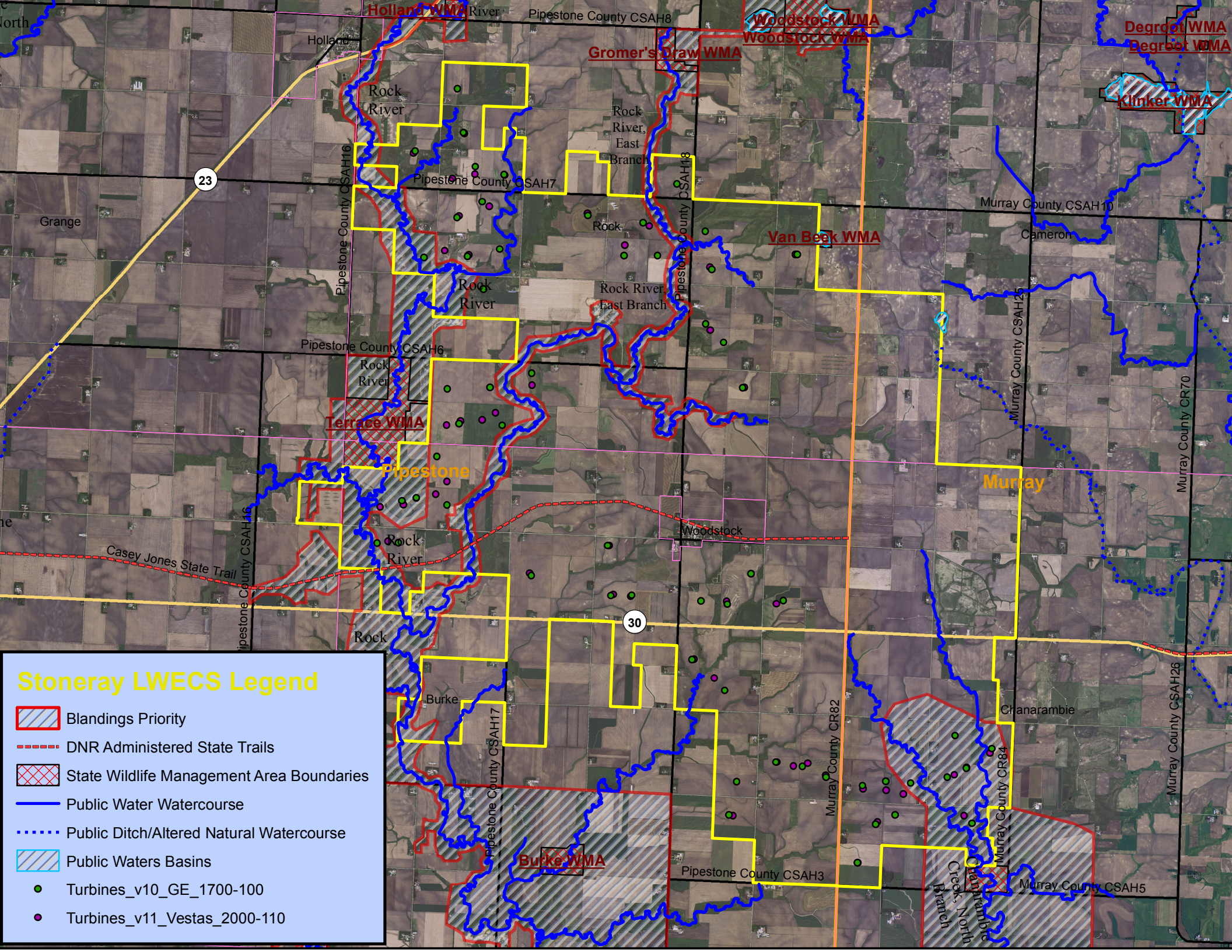
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**ATTACHMENT 5. Blanding's Turtle and Topeka Shiner BMPs**





### Stoneray LWECS Legend

- Blandings Priority
- DNR Administered State Trails
- State Wildlife Management Area Boundaries
- Public Water Watercourse
- Public Ditch/Altered Natural Watercourse
- Public Waters Basins
- Turbines\_v10\_GE\_1700-100
- Turbines\_v11\_Vestas\_2000-110





# HAVE YOU SEEN A BLANDING'S TURTLE ?



**Carapace**

**Carapace** (upper shell):  
Round, dome-shaped, very smooth, dull black with specks and streaks of yellow throughout.

**Plastron** (lower shell):  
Yellow with dark splotches on each scute (section); hinged between 3<sup>rd</sup> and 4<sup>th</sup> pair of scutes (front closes like a drawbridge) So the Blanding's turtle is sometimes called a "semi-Box Turtle"

The **bright yellow chin and underside of the long neck** is one of the most conspicuous features of this turtle.

Marshes, ponds, rivers & streams, adjacent uplands; Also travel overland & cross roads. May bask on logs, shore



**Yellow neck/chin ; no stripes**



**Plastron**

Male=concave

Female=flat



**Domed Carapace**

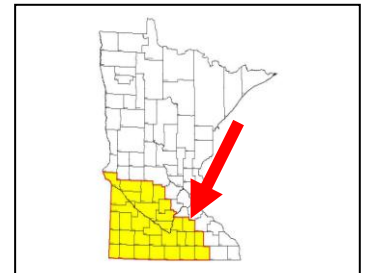
The MNDNR Nongame Wildlife Program (NWP) is seeking reports of **Blanding's turtles** in the counties of southern Minnesota.

If possible, sightings should be verified promptly by either:

1. photographs showing identifying characteristics (top & bottom of shell, jaw) AND/OR
2. a detailed written description specifying identifying characteristics and circumstances of the sighting. (incl. if turtle shell is marked in any way)

Please include:

- Name phone number &/or email address of person reporting sighting
- Date of Sighting
- Number of Blanding's turtles observed
- Specific Location of Sighting  
e.g. GPS coordinates OR Township, Range Section to the nearest ¼ ¼ section &/OR
- Specific directions (e.g. roads with distance and direction from nearest town or other conspicuous landmark with any other information that may be helpful for locating the site. Details about the habitat & landowner contacts also really help. **Many Thanks !**



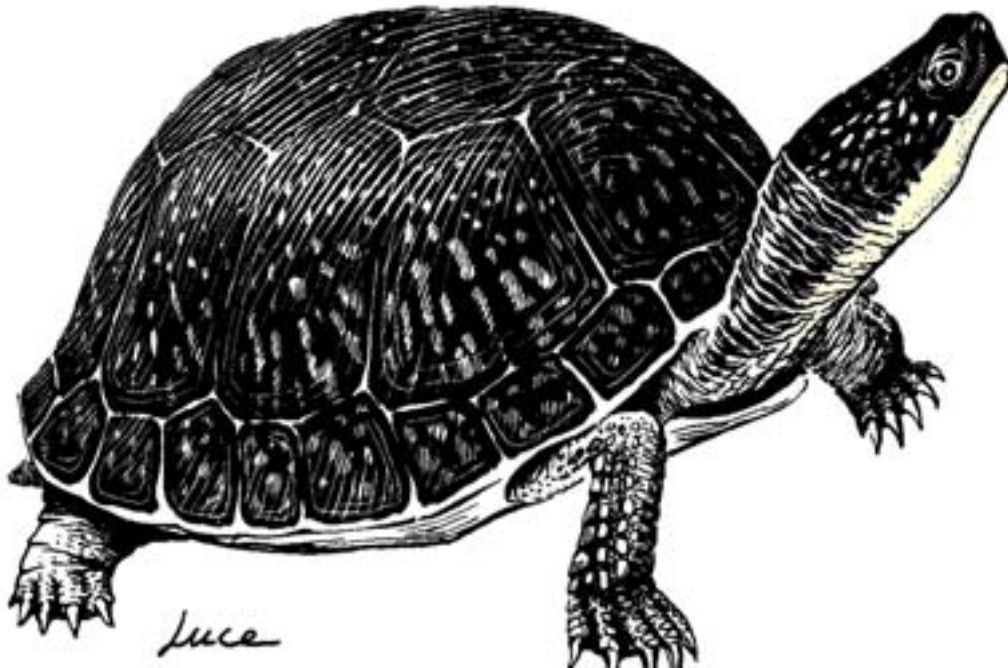
Please Report Sightings as soon as possible to:

Lisa Gelvin-Innvaer, MNDNR Nongame Wildlife Program,  
261 Hwy 15 South; New Ulm, MN 56073

Phone: 507-359-6033 Fax: 507-359-6018 Email: [lisa.gelvin-innvaer@state.mn.us](mailto:lisa.gelvin-innvaer@state.mn.us)



# 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 a State Threatened species 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.

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

*(see Environmental Review Fact Sheet Series for full recommendations)*

- A flyer with an illustration of an adult 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.
- 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 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.
- Blanding's turtles do not make good pets. It is illegal to keep this threatened species in captivity.
- 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 1<sup>st</sup> and before June 1<sup>st</sup>).

# **Recommendations for Projects Affecting Waters Inhabited by Topeka Shiners (*Notropis topeka*) in Minnesota**

**U.S. Fish and Wildlife Service  
Twin Cities Field Office  
(612) 725-3548**

## **Background**

Topeka shiner (*Notropis topeka*) occurs throughout the Big Sioux and Rock River Watersheds in five southwestern Minnesota counties (Figure 1). The U.S. Fish and Wildlife Service (Service) listed Topeka shiner as an endangered species in 1998 and designated critical habitat<sup>1</sup> for it in 2004. The Endangered Species Act (ESA) prohibits the taking<sup>2</sup> of this species.

## **Endangered Species Act Guidance for Actions Affecting Topeka Shiner Habitat**

### Federal Agency Actions

Federal agencies or their designated non-federal representatives must consult with the Service on any action that they fund, authorize, or carry out that may affect Topeka shiner or its critical habitat. If an agency proposes to implement an action that is likely to result in adverse effects to Topeka shiner, it must undergo formal consultation with the Service. If the agency determines that an action may affect Topeka shiners, but that those effects are not likely to be adverse, it may avoid formal consultation by receiving written concurrence on this determination from the Service.

For general information regarding the section 7 process, contact the Service's Twin Cities Field Office at (612)725-3548 or review our internet site - <http://www.fws.gov/midwest/Endangered/section7/index.html>.

### Private or Local (Non-federal) Actions

Private landowners, corporations, state or local governments, and other non-federal entities or individuals who wish to conduct activities that might incidentally take Topeka shiners must first

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<sup>1</sup> See 69 Federal Register 44,736 (July 27, 2004) or <http://www.fws.gov/midwest/endangered/fishes/index.html#topeka> for further information about Topeka shiner critical habitat.

<sup>2</sup> The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.



obtain an incidental take permit from the U.S. Fish and Wildlife Service (Service). To determine whether an action may require an incidental take permit, coordinate with the Service when planning actions that may affect streams or off-channel habitats in the Rock River or Big Sioux River watersheds in Minnesota. Contact the Service's Twin Cities Field Office (612/725-3548) for further information or see the following website for information regarding Endangered Species permits – <http://endangered.fws.gov/permits/index.html?#forms>.

### **Project Recommendations**

The following recommendations are provided to help design actions that would avoid or minimize adverse effects to Topeka shiner. These recommendations may not address every way in which proposed actions may affect this species and may not preclude the need for formal consultation for federal actions or for an incidental take permit for non-federal actions.

Therefore, we highly recommend that you coordinate as early in the planning process as possible with the Service's Twin Cities Field Office (612/725-3548) when contemplating any action that may affect streams or associated off-channel habitats (oxbows, abandoned channels, etc.) in the Big Sioux River or Rock River watersheds in Minnesota (Fig. 1).

In some cases, projects may not be implemented without going against one or more of these recommendations. In those cases, project planners, landowners, etc. should promptly coordinate with the Service's Twin Cities Field Office to determine whether formal section 7 consultation (federal agencies) or an incidental take permit (private landowners, local government agencies, etc.) would be required.

1. Do not dewater stream reaches or temporarily divert streams for construction. Pumping to dewater stream areas or off-channel habitats will almost always require formal section 7 consultation (federal actions) or an incidental take permit (non-federal actions, see above) if Topeka shiners are likely to be present.
2. To avoid disrupting Topeka shiner spawning, do not conduct in-stream work before August 15.
3. Follow all applicable requirements and best management practices for stormwater and erosion control – for example, requirements contained within stormwater permits from Minnesota Pollution Control Agency (MPCA).<sup>3</sup>
4. Minimize removal of riparian (streamside) vegetation; if such removal is necessary, it

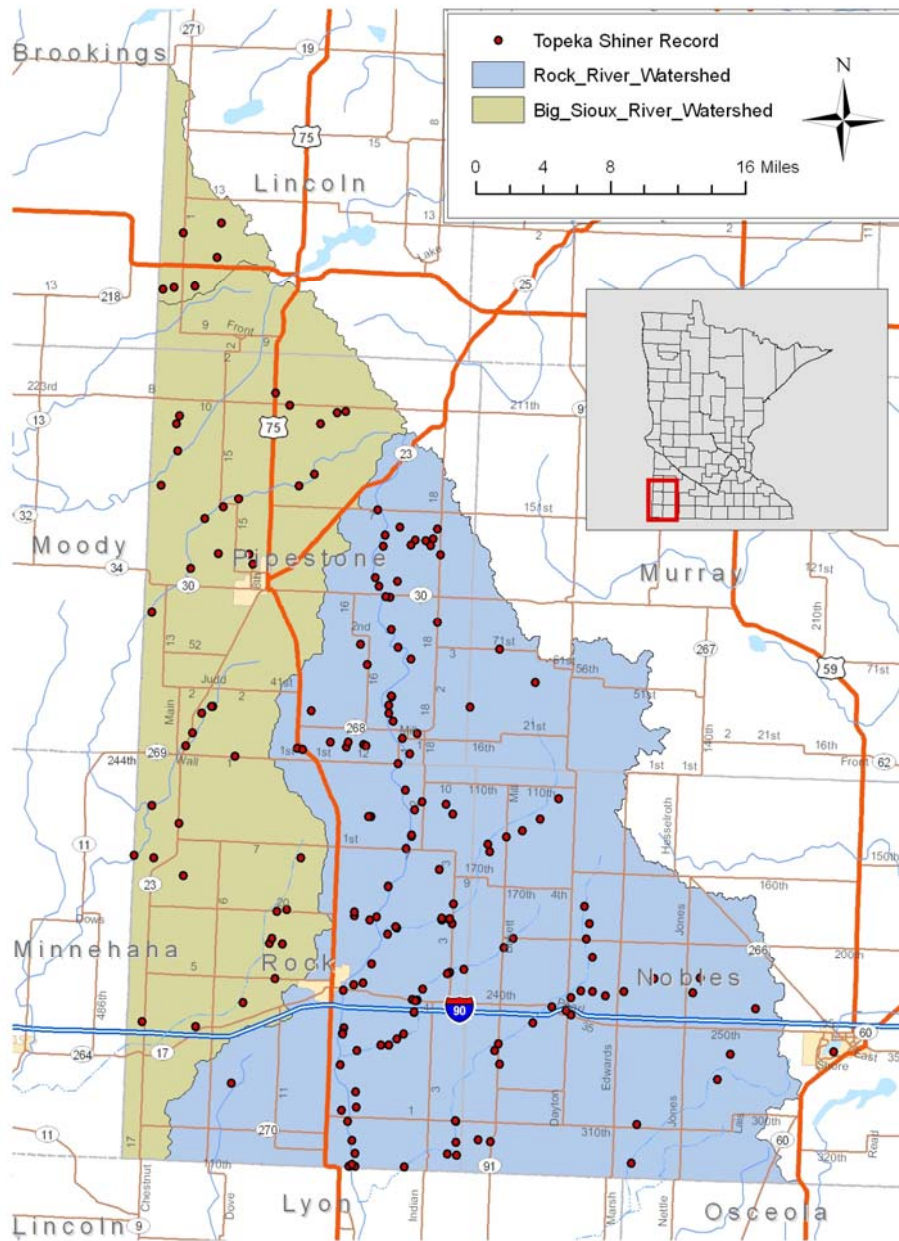
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<sup>3</sup> Resources for designing effective erosion control – Protecting Water Quality in Urban Areas Manual (MPCA, see <http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html>); Minnesota Department of Transportation Erosion Control Handbook for Local Roads (<http://www.mnltap.umn.edu/pdf/erosioncontrolhandbook.pdf>). Also see <http://www.pca.state.mn.us/water/stormwater/stormwater-c.html#factsheets>.

should occur sequentially as needed over the length of the project and it should be replaced as soon as if feasible upon project completion.

5. Mulch areas of disturbed soils and reseed promptly with non-invasive plant species, preferably native species.
6. Implement appropriate erosion and sediment prevention measures to the maximum extent practicable. Inspect devices frequently to ensure that they are effective and in good repair, especially after precipitation.
7. Leave existing features, such as bridge abutments, retaining walls, and riprap, in place as much as is feasible.
8. Ensure that erosion prevention measures are in place and in adequate condition when leaving work site.
9. Design and install instream structures in a manner that will not impair passage of Topeka shiners and other fish species during and after construction.
10. Where feasible, replace bridges with bridges or other open-bottomed structures to avoid altering the natural stream bottoms.
11. Do not operate motorized vehicles instream. Excavation, culvert placement, etc. should be conducted from streambanks outside of standing or flowing water.
12. Backfill placed in the stream shall consist of rock or granular material free of fines, silts, and mud. Machinery parts (i.e., backhoe buckets, etc.) shall be cleaned of all such material and free of grease, oil, etc. before their instream use.
13. Prevent materials and debris from falling into the water during construction.
14. If the project is modified, or if field conditions change, the applicant or agency representative should contact U.S. Fish and Wildlife Service before proceeding.
15. Ensure that contractors and subcontractors understand all permit provisions that are necessary to avoid or minimize adverse effects to Topeka shiners.





**Figure 1. Recorded occurrences of Topeka shiner in Minnesota. Data included here were provided by the Natural Heritage and Nongame Research Program of the Division of Ecological Services, Minnesota Department of Natural Resources (DNR), and were current as of March 2008. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that Topeka shiners are absent. For information on a specific area, contact U.S. Fish and Wildlife Service, (612) 725-3548.**