

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Patrick Smith
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SERVICE DATE: January 26, 2011

DOCKET NO. IP-6830/WS-10-49

In the Matter of the Application of Paynesville Wind, LLC for a Large Wind Energy Conversion System (LWECS) Site Permit for the 95 MW Paynesville Wind Farm in Stearns County

The above entitled matter has been considered by the Commission and the following disposition made:

Adopted the attached Findings of Fact, Conclusions of Law, and Order prepared for the 95 MW Paynesville Wind Farm in Stearns County.

Issued the proposed LWECS Site Permit for the 95 MW Paynesville Wind Farm to Paynesville Wind, LLC.

The Commission agrees with and adopts the recommendations of the Office of Energy Security which are attached and hereby incorporated in the Order.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary



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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**COMMENTS AND RECOMMENDATIONS OF THE
MINNESOTA OFFICE OF ENERGY SECURITY
ENERGY FACILITY PERMITTING STAFF**

DOCKET NO. IP-6830/WS-10-49

Meeting Date: November 23, 2010.....Agenda Item # 10

Company: **Paynesville Wind, LLC**

Docket No. **IP-6830/WS-10-49**

In the Matter of the Application of Paynesville Wind, LLC for a Large Wind Energy Conversion System (LWECS) Site Permit for the 95 MW Paynesville Wind Farm in Stearns County.

Issue(s): Should the Commission grant a site permit to Paynesville Wind, LLC for the 95 MW Paynesville Wind Farm?

OES Staff: Ingrid E. Bjorklund651-297-7039

Relevant Documents

LWECS Site Permit ApplicationJanuary 29, 2010
ALJ Summary of Public CommentsSeptember 22, 2010
Stearns County Comments.....July 22, 2010
Stearns County Resolution.....June 29, 2010
Applicant Comments.....November 9, 2010
Avian and Bat Surveys.....November 9, 2010

The enclosed materials are the work papers of the Office of Energy Security (OES) Energy Facility Permitting Staff (EFP). They are intended for use by the Public Utilities Commission and are based on information already in the record unless otherwise noted.

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Documents Attached

1. Paynesville Wind Site Maps (constraint maps and turbine layout maps)
2. Proposed Findings of Fact, Conclusions of Law, and Order
3. OES EFP Staff Exhibit List
4. Proposed Site Permit
5. DNR November 5, 2010, Comments
6. USFWS November 9, 2010, Comments

See eDocket filings (10-49) at <https://www.edockets.state.mn.us/EFiling/search.jsp>, or the Commission website at: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=25836> for project related documents.

Statement of the Issues

Should the Commission grant a site permit to Paynesville Wind, LLC for the 95 megawatt (MW) Paynesville Wind Farm?

Introduction and Background

Paynesville Wind, LLC (Applicant or Paynesville Wind) submitted a site permit application to construct the proposed 95 MW Paynesville Wind Farm (Project) in Stearns County on January 29, 2010, which was accepted by the Commission on March 9, 2010. Paynesville Wind is a wholly owned subsidiary of Geronimo Wind Energy.

Project Location

The proposed Project will be located in Stearns County in Zion, Paynesville, Spring Hill, and Lake Henry townships, as shown on the accompanying map. The Project area is located north of Paynesville and south and east of Lake Henry. The Project area encompasses approximately 15,000 acres, of which more than 11,500 acres are under site control. The Applicant believes the site is sufficiently large to provide flexibility in the micro-siting process. The attached maps show the Project boundary and turbine and constraint layouts.

Project Description

The Project for which a permit is being requested includes the following associated facilities:

1. A turbine layout consisting of up to 60 General Electric (GE) 1.6 MW wind turbine generators with a rotor diameter of 270 feet (82.5 meters), 53 Vestas 1.8 MW turbines with a rotor diameter of 295 feet (90 meters), or 42 Siemens 2.3 MW wind turbine generators with a rotor diameter of 331 feet (101 meters) on turbine towers that are either 262.5 feet (80 meters) or 328 feet (100 meters) in height;
2. Gravel access roads;

3. Electrical collection system (collector and feeder lines), SCADA wiring, pad mounted transformers, permanent meteorological tower, a Sonic Detection and Ranging unit or Light Detection Ranging unit; and
4. Project substation and a metering yard.

The Applicant's goal is to complete the construction of the Project and achieve commercial operation in the third quarter of 2011.

Regulatory Process and Procedures

A site permit from the Commission is required to construct a Large Wind Energy Conversion System (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 and rules to implement the permitting requirements are found in Minnesota Rules chapter 7854.

Certificate of Need Process

A site permit cannot be granted before a Certificate of Need (CN) is issued if a CN is required. A CN is required for the Paynesville Wind Farm because, as a 95 MW LWECS, it qualifies as a "large energy facility" as defined by Minnesota Statutes section 216B.2421, subdivision 2(1). The Applicant applied for a CN from the Commission on December 8, 2009, prior to filing its site permit application. A Commission order accepted the application on February 5, 2010. See Docket No. IP-6830/CN-09-1110.

OES EFP staff combined portions of the site permit public participation process with portions of the environmental review process in the CN proceeding for the Project, as has been done in several recent dockets to achieve efficiencies. This included combining notices, public information and environmental review scoping meetings, and comment periods. An environmental report was prepared by OES EFP staff on August 12, 2010, for the CN proceeding. Upon completion of the environmental report, OES posted notice of public hearing and environmental report availability on eDockets and the Commission's website. Notice was also published in the *Cold Spring Record*, *The Paynesville Press*, *St. Cloud Times*, and *EQB Monitor*. The Office of Administrative Hearings conducted a public hearing on the CN proceeding, including the environmental report, on August 25, 2010.

Site Permit Application and Acceptance

The Applicant filed a site permit application for the Pleasant Valley Wind Project with the Commission on January 29, 2010. The Commission accepted the site permit application as complete on March 9, 2010. An OES notice of site permit application acceptance was issued on March 18, 2010. The Applicant distributed the site permit application and notice of application acceptance to local, state and federal government agencies and landowners.

Preliminary Determination on Draft Site Permit

On June 4, 2010, a Commission order made a preliminary determination that a draft site permit may be issued for the Paynesville Wind Farm. This allowed EFP staff to proceed with the notice requirements of Minnesota Rules 7854.0800 and 7854.0900. Notice of the August 25, 2010, public information meeting and CN hearing was published in *Cold Spring Record*, *The*

Paynesville Press, *St. Cloud Times*, and *EQB Monitor* and also mailed to persons and governmental agencies required by rule.

Public Participation Process and Public Comments

The rules provide opportunities for the public to participate in deliberations on the LWECS site permit application. The public was advised of the submission of the site permit application after the site permit application was accepted. Public comments on information in the application and issues to be considered in development of a draft site permit were accepted through May 10, 2010. Several comments that came in after the deadline were also reviewed as part of the comment period. OES EFP staff received 32 written comments during the comment period from 26 individuals. Further, approximately 115 people attended the public meeting held on April 19, 2010, in Lake Henry. OES EFP staff submitted comments and recommendations to the Commission on issuance of the draft site permit and summarized the issues raised by the public and government officials.

A public hearing on the Paynesville Wind Farm was held on August 25, 2010, presided over by Administrative Law Judge Raymond Krause. Approximately 50 people attended the public hearing. The deadline for submitting comments following the hearing was September 8, 2010. On September 22, 2010, Administrative Law Judge Krause filed the “Summary of Public Testimony.” In addition to an overview of the Project, the summary provides comments from 22 people who provided testimony at the public hearing and 50 people who provided written comments. Concerns raised in the comments include: impacts to wildlife, native prairie, air traffic, property values; impacts from noise, shadow flicker, stay voltage, turbine lighting, 100 meter towers, construction with regard to roads; and other issues, such as sufficiency of wind production, validity of land leases/easements, and ownership interest in Geronimo Wind.

Standard for Permit Issuance

The test for issuing a site permit for a LWECS is to determine whether a project is compatible with environmental preservation, sustainable development, and the efficient use of resources. Pursuant to Minnesota Statutes section 216F.02, certain sections of Minnesota Statutes chapter 216E (Minnesota Power Plant Siting Act) apply to siting LWECS, including section 216E.03, subdivision 7 (considerations in designating sites and routes). Minnesota Statutes section 216F.04 (d) allows the Commission to place conditions in LWECS permits.

OES EFP Staff Analysis and Comments

The Applicant e-filed maps updating its associated facilities on November 9, 2010. Final interconnection facilities remain under review with the Midwest Independent Transmission System Operator; therefore, it is not yet known how power will be delivered to the point of interconnection. As a result, the Project substation location has not yet been determined, and three locations are under consideration, which vary in length about four miles from the point of interconnection. Finding 19 addresses this issue.

The Applicant emailed additional information not included in the record regarding the location of radio, television broadcast, and telecommunication facilities in the Project area. The Applicant reported that there are no digital television or radio towers, but there are eight antenna structure registrations and five private mobile registrations in the Project area. Section 6.4 of the Site Permit requires an assessment of television and radio signal reception, microwave signal

patterns, and telecommunications and prohibits the Applicant from operating the Project in a manner to cause disruption of these communication devices.

Results from the Paynesville Wind Avian and Bat Surveys were provided by the Applicant on October 27, 2010, to staff from OES EFP, Minnesota Department of Natural Resources, and U.S. Fish and Wildlife Service. A conference call was held on November 1, 2010, among staff listed above and Paynesville Wind and its consultants to discuss results and address questions. The survey results were e-filed on November 9, 2010.

The OES EFP staff addresses oral and written comments below and the proposed findings.

Minnesota Department of Natural Resources and U.S. Fish and Wildlife Service

The Minnesota Department of Natural Resources (DNR) provided oral testimony at the public hearing and both the DNR and the U.S. Fish and Wildlife Service (USFWS) submitted comments on the following issues:

Avian and bats: The DNR and the USFWS submitted comments prior to the completion of the Paynesville Wind Avian and Bat Surveys and comments in response to the surveys. The DNR and USFWS agreed with the survey recommendation that post-construction surveys are needed. The USFWS recommended a minimum of two years of post-construction surveys to determine impacts to migratory bird and bats and requested to review the post-construction monitoring plan prepared by the Applicant.

The DNR generally concurred with the conclusions of the avian report, specifically that while there is high use of the area by waterfowl and the presence of the state-listed threatened Trumpeter Swan, there does not appear to be a clear flight path between specific Project natural features. DNR requested that if substantial fatality rates are found in post-construction surveys, additional mitigation measures should be implemented.

The DNR noted that Observation Points 5 and 7 indicated higher occurrences and detections of threatened, declining, or special concern species. The USFWS expressed concern over an area used as an observation site in the Applicant's pre-construction avian and bat surveys, known as Observation Point 7, which is located between Lake Henry Waterfowl Production Area (WPA), Bauman WPA, and the Zion WPA. Station 7 had the highest number of bird count totals when compared to the other nine survey stations within the proposed Project area. USFWS noted that the seasonal movement of birds through this area appears to be significant during late September and October, which warrants further consideration of appropriate turbine model selection and turbine spacing to allow for movement of migratory birds.

DNR requested that the Avian and Bat Protection Plan specifically address steps to minimize impacts to breeding birds during the construction phase.

OES EFP Response: Section 13.2 of the Site Permit requires a minimum of one year of post-construction avian and bat fatality surveys; however, the study could also be extended for an additional year if the results show additional study is warranted following the USFWS Draft Guidelines for Wind Turbine Siting. As referenced in Section 13.2, the process for extending the surveys or other mitigation, such as curtailment, is outlined in Section 11.2.

The Avian and Bat Protection Plan in Section 6.7 of the Site Permit will be prepared in consultation with the Commission and the DNR and will incorporate the agencies' concerns, particularly those regarding Observation Points 5 and 7 and steps to minimize impacts to breeding birds. Findings 88 through 101 discuss potential impacts to wildlife and rare and unique species.

100 Meter Towers: The USFWS prefers the use of 100 meter towers because it would raise the rotor swept area further above ground, allowing for clearance for low elevation avian flight. DNR agrees that lower flying birds will benefit from 100 meter towers, but raises concerns such as the potential to interfere with nocturnal migration, particularly for songbirds (passerines) at 150 meters.

OES EFP Response: Finding 92 discussed the impact of 100 meter towers on wildlife. While the 100 meter towers could reduce the risk to low-flying birds, taller towers could increase the risk to migrating birds if the towers and blade height exceed 150 meters. Impacts to bats are unknown. The Siemens turbine has the largest rotor diameter and, on 100 meter towers, it would be 150.5 meters tall. Risks could be minimized to migratory birds if the Siemens turbine was not allowed on 100 meter towers. As far as OES EFP is aware, there are no 100 meter towers used in Minnesota. OES EFP staff has not recommended any restrictions on the use of 100 meter towers, but notes that the post-construction surveys can be designed to further explore this issue.

Native Prairie: The DNR requested clarity regarding the Prairie Protection and Management Plan; specifically the process of determining whether prairie will be affected and how a prairie protection management plan is implemented. The DNR also inquired about prevention of invasive plant species.

OES EFP Response: Section 4.7 of the Site Permit provides for sufficient flexibility to take into consideration emerging information regarding the site and the protection of native prairie. A Native Prairie Protection and Management Plan would be required if native prairie is discovered on potentially impacted areas pursuant to biological and natural resource surveys in Section 6.1. Section 7.11 of the Site Permit includes language requiring the Applicant to develop an invasive species prevention plan.

Grasslands: The USFWS recommended that grasslands be avoided because they are beneficial to a number of nesting bird species and avian aerial courtship displays.

OES EFP Response: Grasslands will be identified if potentially impacted in surveys required under Section 6.1 of the Site Permit.

Glacial Lakes State Trail: The DNR requested that the wind access buffer in Section 4.1 of the Site Permit to apply to Glacial Lakes State Trail.

OES EFP Response: Setbacks to trails have been considered by the Commission on a case-by-case basis. Setbacks to state trails, which are generally multi-use recreational trails, are primarily to enhance the aesthetic enjoyment of the trail user; however, the preference of adjacent landowners who choose to have a turbine on their property should also be considered. In this case, the state trail crosses a southern extension of the Project area that was included in order to

allow for the tap to the Paynesville Substation. Thus, there is no condition regarding setbacks to trails. Preliminary turbine layouts demonstrate that turbines will be located at least 5 RD from the trail. Finding 77 addresses the Glacial Lakes State Trail.

Grant-in-Aid Trails: The DNR requested that turbines be placed a sufficient distance from the trails for safety reasons.

OES EFP Response: Grant-in-Aid trails are located on private property and their location can vary from year to year. The Site Permit does not address trails on private property; however, it is in the best interest of the Applicant to work with local trail contacts in the area. Finding 78 addresses the setbacks to this trail. Finding 63 addresses the issue of ice on turbine blades.

USFWS-Owned Lands: The USFWS requested a half-mile setback from all Waterfowl Production Areas (WPAs).

OES EFP Response: Section 4.1 of the Site Permit requires a setback of 3 rotor diameters (RD) on the non-prevailing wind direction and 5 RD on the prevailing wind direction, which applies to WPAs as referenced in Section 4.5. This setback distance is a well established standard and is consistent with past permits issued by the Commission. Further, the USFWS did not provide a rationale for a half-mile setback.

Stearns County

On December 10, 2009, the Stearns County Board of Commissioners (Stearns County) notified the Commission that it passed a resolution to assume authority to permit LWECS less than 25 MW pursuant to Minnesota Statutes section 216F.08. The draft site permit for the Paynesville Wind Farm included the Stearns County LWECS Ordinance (Ordinance), which was adopted on November 17, 2009. Certain provisions of the Ordinance are more restrictive than the Commission's general permit standards.

During the comment period on the draft site permit, Stearns County submitted Resolution Number 10-36 (Resolution) regarding its consideration of a moratorium on LWECS. Stearns County decided not to enact a moratorium on LWECS and included findings of fact to support that decision in the Resolution. Some of these findings and comments submitted on July 20, 2010 (July Comments) included requests for permit conditions beyond those adopted by Stearns County in its Ordinance. Further, in its July Comments, Stearns County stated that after review of the draft site permit in relation to this proposed Project, it has decided that certain Ordinance requirements need not be followed.

Project Boundary Setbacks: The Ordinance requires a setback of 5 RD from the Project boundary. However, Stearns County can authorize a setback less than 5 RD if the Applicant can demonstrate that due to the wind direction, the wake interference is less than 5 RD. In its July Comments, Stearns County recommends applying a setback of 3 RD on the non-prevailing wind direction and 5 RD on the prevailing wind direction from property where the Applicant does not hold the wind rights.

OES EFP Response: Section 4.1 of the Site Permit requires a setback of a setback of 3 RD on the non-prevailing wind direction and 5 RD on the prevailing wind direction.

Road Right-of Way Setback: The Ordinance requires a setback from road rights-of-way of 1.1 times the height of the tower or 250 feet, whichever is greater. However, in its July Comments, Stearns County supports a setback of 250 feet as measured from the tip of the blade to the road. Stearns County estimates that measuring the setback in such a manner would result in a setback of 376 feet from the road to the base of the turbine if the turbine with the smallest rotor diameter was selected.

OES EFP Response: Ordinarily, the 250 foot setback from roads is not measured from the tip of the blade, but the Applicant did not object in its comments, dated September 8, 2010. Section 4.4 of the Site Permit requires that the setback be 250 feet from roads. Any arrangement made between the Applicant and Stearns County is discussed in Finding 40 and is expected to be implemented.

Internal Turbine Spacing: The Ordinance requires all internal turbine spacing to be 5 RD apart for downwind spacing and 3 RD apart for crosswind spacing for all turbines and does not allow for any exceptions. However, in its comments, Stearns County recognizes that sometimes it is necessary to site turbines closer in order to maximize energy production and such variation does not affect non-participating landowners.

OES EFP Response: Section 4.10 of the Site Permit addresses turbine spacing, which allows up to 20 percent of the towers to be sited closer.

Feeder Lines: The Ordinance requires that feeder lines shall be buried underground unless shallow bedrock interferes with the ability to bury lines, which is not the case in this Project area.

OES EFP Response: Paynesville Wind initially proposed overhead feeder lines to its substation, but has since revised its plans. Section 13.1.1 of the Site Permit requires that all collector and feeder lines be buried underground.

Shoreland District: The Ordinance does not allow WECS greater than 40.01 kW in its Shoreland Overlay District.

OES EFP Response: Section 13.1.2 of Site Permit requires that turbines are not placed in shoreland district. The attached constraint maps show the shoreland districts.

Property Line Setbacks: While not addressed in Stearns County's July Comments or Resolution, Stearns County has a setback of 1.1 times the total turbine height between property lines unless there is a recorded fall zone easement for the affected properties.

OES EFP Response: The Applicant addressed this setback and noted it has a provision in its wind easements to address catastrophic failures including turbine collapse. Setbacks between participating landowners have not historically been incorporated into the site permit. Further, the risk of a turbine falling is very small; only one turbine is known to have fallen in the United States. For these reasons, this setback is not included in the Site Permit.

Miscellaneous Issues: Stearns County raised several issues in its July Comments that were not part of its Ordinance and requested the following:

- The operation and maintenance facility and concrete ready-mix or asphalt mixing facilities should be permitted locally and not be included as associated facilities permitted by the Commission;
- County standards should be followed where they are more restrictive than the National Pollutant Discharge Elimination System (NPDES) rules for soil erosion and sediment control;
- 60 days submittal of the emergency response plan prior to the start of construction and approval of the plan by Stearns County Emergency Services Department along with specific items identified in the plan;
- Detailed noise analysis to be completed prior to construction at different frequencies at various distances from the turbines at various wind directions and speeds;
- Submission of the plan for conducting an assessment of television signal reception and microwave signal patterns prior to construction;
- Removal of the temporary meteorological towers no more than one year after the project in-service date; and
- Site restoration should meet all of the requirements of the Stearns County Solid Waste Ordinance No. 171 or successor ordinance.

OES EFP Response: The Applicant has agreed to all these requests by Stearns County, many of which are covered to some degree by Commission issued site permits. Section 7.11 of the Site Permit requires a Soil Erosion and Sediment Control Plan, which does not preclude the plan from being more restrictive than the NPDES rules. The emergency response plan required under Section 7.16 is to be prepared in consultation with the emergency responders having jurisdiction over the area and is required at least 10 days prior to the pre-construction meeting. Section 6.6 requires the Applicant to submit a noise study proposal to the Commission for approval. Section 6.4 requires the Applicant to submit an assessment of television signal reception and microwave signal patterns. Finally, Section 9.2 addresses site restoration, including solid waste issues.

In addition, the operation and maintenance facility and concrete ready-mix or asphalt mixing facilities are not included as associated facilities in the Site Permit and will be permitted locally. Likewise, the Site Permit does not cover temporary meteorological towers. Stearns County issued permits for the existing temporary meteorological towers and has sole jurisdiction over their term.

Reflectors on blades: In its Resolution, Stearns County recommended that the permit require reflectors to be installed on the ends of the rotor blade tips in order to aid emergency air services.

OES EFP Response: The Site Permit does not require reflectors at the tips of blades because they could increase noise and would likely require approval by the Federal Aviation Administration.

Roads: In its Resolution, Stearns County requested that a road agreement be required, which follows the guidelines of a road agreement that has been prepared and successfully used throughout southern Minnesota.

OES EFP Response: Section 7.8 of the Site Permit addresses roads in general. Section 7.8.2 requires the access roads to be constructed in accordance with local requirements and permits. Stearns County, similar to Mower, Nobles, and Jackson counties, may choose to require a

development agreement with the Applicant that would address roads among other issues. Roads are addressed in Findings 64 through 67.

Population Density: In its Resolution, Stearns County decided to send correspondence to the Commission asking that the Commission consider population density of a LWECS project area when considering site permit applications due to differences in impact on residents in different projects as a result of differences in population density. Stearns County did not raise this issue in its July Comments.

OES EFP Response: Finding 37 addresses population density. Population density in the Project area is not significantly different than other wind projects. As population density increases, the remaining space in which to erect wind turbines decreases because setbacks to residences (including those needed to meet the noise standard), roads, and non-participating landowners exclude a greater area. These larger exclusion areas that come with more residences and roads generally prohibit siting of LWECS in a highly populated area.

Project Area Residents

Residents raised a wide variety of concerns, which included impacts to wildlife, native prairie, air traffic, property values, and impacts from noise, shadow flicker, stay voltage, turbine lighting, 100 meter towers, sufficiency of wind production, and construction with regard to roads. Other issues, such as the validity of land leases/easements and ownership interest in Geronimo Wind, are not addressed.

OES EFP Response: Many of these issues are addressed in the Findings of Fact. For example, Findings 42 - 46 address noise, Findings 47 - 49 address shadow flicker, Findings 61 – 62 address stray voltage, Finding 51 addresses turbine lighting, Findings 31 – 33 address wind production, Finding 83 addresses property values. Finding 54 – 56 address impacts to airports, crop-dusting, and emergency medical helicopters. Construction of roads is discussed above and addressed in Findings 64 – 67. Wildlife and native prairie is discussed above and also in Findings 88 – 101. The option of 100 meter towers is furthered discussed below.

- 100 Meter Towers: A number of residents expressed surprise and concern when the Applicant announced at the public hearing that it is requested that the Commission consider the option of installing turbines on 100 meter towers.

OES EFP Response: Impacts of 100 meter towers on wildlife is discussed above. The Applicant would like the option of 100 meter towers because it could allow for generation between 41 and 47 gigawatt hours on an annual average basis, which would ensure the Project would stay competitive in the broader energy market by increasing energy production. The Applicant believes that the environmental impacts from installation of 100 meter towers would generally remain the same as those of 80 meter towers. While noise impacts would not be likely to increase, shadow flicker impacts would likely increase from the taller structures. Due to many nearby recreational areas, the taller structures would be more visible to users of those areas. Section 4.9 of the Site Permit allows for the option of 100 meter towers.

Based on the record of this proceeding, OES EFP staff concludes that the Paynesville Wind Farm meets the procedural requirements and the considerations and standards for issuance of a site permit identified in Minnesota statutes and rules. The site permit application and the record have been reviewed pursuant to the requirements of Minnesota Statutes chapter 216F and Minnesota Rules chapter 7854.

In accordance with Minnesota Rule 7854.0500, subpart 2, the Commission may not issue a site permit for an LWECs that requires a certificate of need until an applicant obtains a certificate of need from the Commission.

OES EFP staff has prepared for Commission consideration proposed Findings of Fact, Conclusions of Law and Order (Attachment 2), an Exhibit List (Attachment 3) for the Paynesville Wind Farm, and a proposed Site Permit (Attachment 4) for the 95 MW Paynesville Wind Farm.

Proposed Findings of Fact

The proposed Findings of Fact address the procedural aspects the process followed, describe the Project, and address the environmental and other considerations of the Project. See Attachment 2. The proposed Findings of Fact reflect some findings that were also made for other LWECs projects. The site considerations addressed in the proposed Findings of Fact (such as human settlement, public health and safety, noise, recreational resources, community benefits, effects on land based economies, archaeological and historical resources, wildlife, and surface water) track the factors described in the Commission’s rules for other types of power plants that are pertinent to wind projects. The following outline identifies the categories of the Findings of Fact.

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Exhibit List

OES EFP staff has prepared an exhibit list of documents that are part of the record in this permit proceeding. See Attachment 3.

Proposed Site Permit

The OES EFP Staff has prepared a site permit for the Commission’s consideration. See Attachment 4. The conditions in this proposed site permit are consistent with conditions included in other LWECS site permits issued by the Commission. The proposed site permit is different from the draft site permit issued by the Commission. The site permit headings and requirements have been revised to reflect the new format consistent with recently issued permits and special conditions were added consistent with the findings for this Project.

Commission Decision Options

A. Paynesville Wind Farm Findings of Fact, Conclusions of Law, and Order

1. Adopt the attached Findings of Fact, Conclusions of Law, and Order prepared for the 95 MW Paynesville Wind Farm in Stearns County.
2. Amend the Findings of Fact, Conclusions of Law, and Order as deemed appropriate.
3. Make some other decision deemed more appropriate.

B. LWECS Site Permit for the 95 MW Paynesville Wind Farm

1. Issue the proposed LWECS Site Permit for the 95 MW Paynesville Wind Farm to Paynesville Wind, LLC.
2. Amend the proposed LWECS Site Permit as deemed appropriate.
3. Deny the LWECS Site Permit.
4. Make some other decision deemed more appropriate.

OES EFP Staff Recommendation: The staff recommends options A1 and B1.



November 12, 2010

ENERGY FACILITY PERMITTING KEY DOCUMENTS

In the Matter of the Application of Paynesville Wind, LLC for a Site Permit for the Paynesville Wind Farm for up to a 95-Megawatt Large Wind Energy Conversion System in Stearns County.

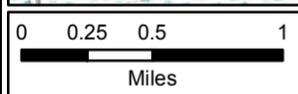
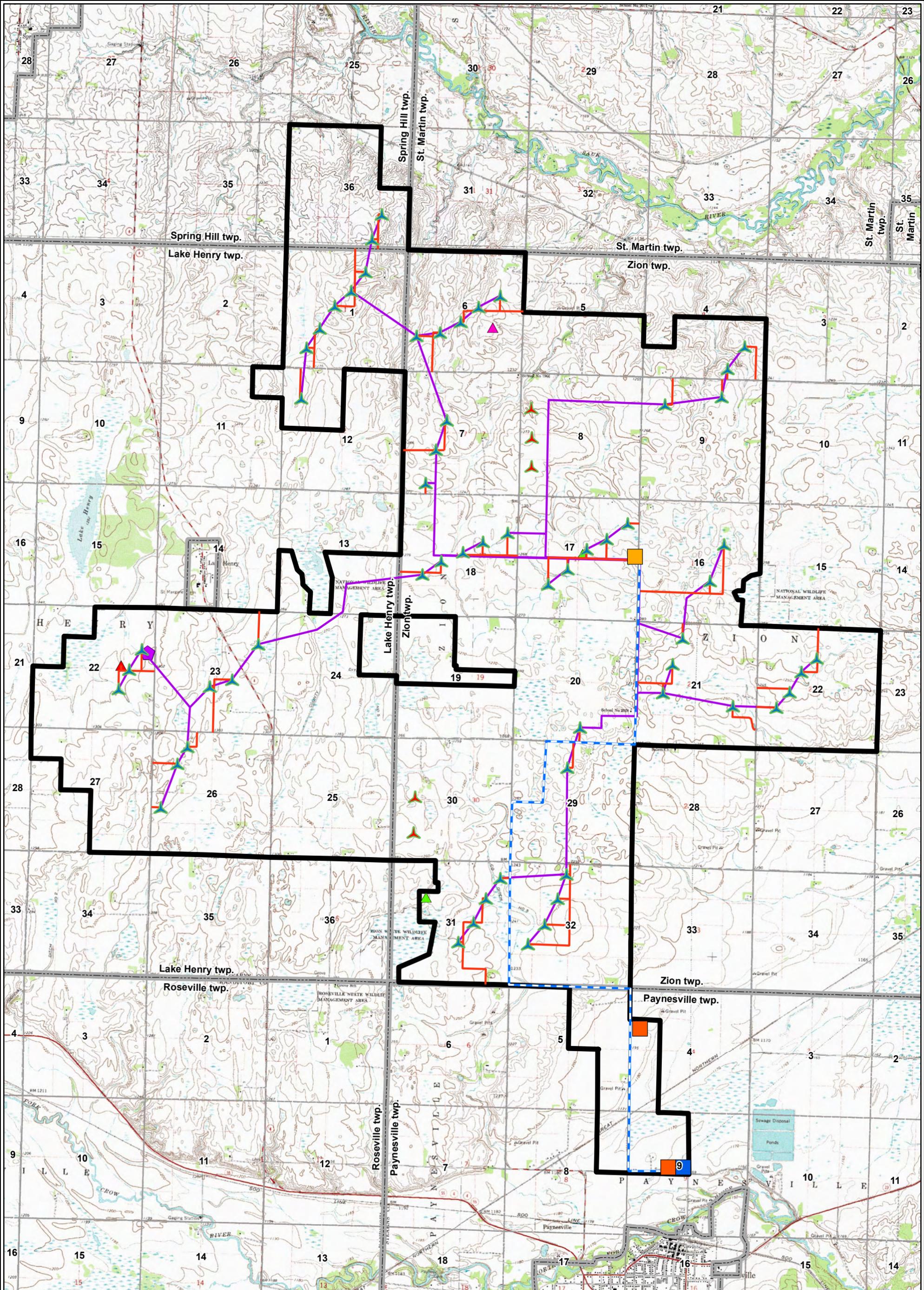
PUC Docket No. IP-6830/WS-10-49

OES Exhibit No.	Exhibit	eDocket Date	eDocket Document Number
1	LWECS Site Permit Application for Paynesville Wind Farm	1/29/10	20101-46537-02 20101-46537-01
2	OES EFP Comments and Recommendations to the PUC on acceptance of Paynesville Wind's LWECS Site Permit Application	2/19/10	20102-47260-01
3	PUC Order accepting the Paynesville Wind Site Permit Application as complete and granting a variance to Minnesota Rule 7854.0800 to extend the period for the PUC to make a preliminary determination on whether a site permit may be issued.	3/9/10	20103-47827-01
4	Notice of Application Acceptance and Scoping Meeting (with Affidavit of Service).	3/30/10	20103-48561-01
5	Affidavits of Publication: Notice of Application Acceptance and Scoping Meeting appearing in the <i>Cold Spring Record</i> (3/30/10) and <i>The Paynesville Press</i> (3/31/10).	4/12/10	20104-49034-01
6	Notice of Application Acceptance and Scoping Meeting published March 22,	6/22/10	20106-51861-01

OES Exhibit No.	Exhibit	eDocket Date	eDocket Document Number
	2010, in <i>EQB Monitor</i> , Vol. 34, No. 6.		
7	Affidavits of Service to affected landowners and government officials for Notice of Application Acceptance and Scoping Meeting (mailed: 3/23/10).	3/25/10	20103-48368-01
8	Public and government agency comments on issues to consider in developing the draft site permit and scoping of the environmental report (table of contents; parts 1 – 4). Comment period closed 5/10/10.	5/12/10	20105-50536-01 20105-50537-01 20105-50538-01 20105-50539-01 20105-50540-01
9	Record of oral comments on issues to consider in developing the draft site permit and scoping of the environmental report.	5/20/10	20105-50527-01
10	OES EFP Comments and Recommendations to the PUC on issuance of the Draft Site Permit.	5/20/10	20105-50646-01
11	PUC Order issuing Draft Site Permit for public review and comment.	6/4/10	20106-51274-01
12	Notice of Availability of Draft Site Permit (with Affidavit of Service).	6/21/10	20106-51782-01
13	Affidavit of publication and mailing of Notice of Availability of Draft Site Permit.	6/30/10	20106-52110-01
14	Notice of Availability of Draft Site Permit published 6/28/10 in <i>EQB Monitor</i> , Vol. 34, No. 13.	6/30/10	20106-52099-01
15	Notice of Public Hearing, Availability of Environmental Report, and Availability of Draft Site Permit (with Affidavit of Service).	8/12/10	20108-53432-01
16	Affidavit of service of Notice of Public Hearing, Availability of Environmental Report, and Availability of Draft Site Permit to landowners not on project list.	8/16/10	20108-53522-02

OES Exhibit No.	Exhibit	eDocket Date	eDocket Document Number
17	Notice of Public Hearing, Availability of Environmental Report, and Availability of Draft Site Permit published 8/23/10 in <i>EQB Monitor</i> , Vol. 34, No. 17.	8/23/10	20108-53734-01
18	Affidavits of Publication: Notice of Public Hearing, Availability of Environmental Report, and Availability of Draft Site Permit appearing in the <i>Cold Spring Record</i> (8/17/10), <i>The Paynesville Press</i> (8/18/10) and <i>St. Cloud Times</i> (8/13/10).	8/24/10	20108-53793-01
19	Record of afternoon and evening public hearings held on August 25, 2010.	9/7/10	20109-54152-01 20109-54152-03
20	Summary of Public Hearing by the Office of Administrative Hearings.	9/22/10	20109-54666-01
21	Public comments submitted between June 16 and September 8, 2010 (comments were e-filed by OES and OAH).	Various	20109-54589-01 20109-54589-02 20109-5458904 20109-54589-05 20109-54589-06 20109-54589-07 20109-54589-08 20109-54321-03 20109-54323-08 20109-54320-01 20109-54320-07 20109-54321-07 20109-54323-06 20109-54323-05 20109-54320-03 20109-54320-05 20109-54323-01 20109-54321-05 20109-54321-02 20109-54321-09 20109-54321-06 20109-54323-03 20109-54323-07 20109-54320-06 20109-54321-08

OES Exhibit No.	Exhibit	eDocket Date	eDocket Document Number
			20109-54321-04 20109-54323-02 20109-54323-04 20109-54321-01 20109-54320-04 20109-54320-02
22	Applicant's July comments Applicant's pre-hearing comments Applicant's post-hearing comments	7/13/10 8/24/10 9/8/10	20107-52500-01 20108-53811-04 20109-54236-01
23	Stearns County Board of Commissioner's comments	7/22/10	20107-52839-01
24	Stearns County Resolution	6/29/10	20106-52067-01
25	Applicant November comments, including turbine layout and constraint maps.	11/9/10	201011-56360-01
26	Avian and Bat Survey results	11/9/10	201011-56352-02 201011-56352-01 201011-56352-04 201011-56352-05 201011-56352-03
27	DNR comments	11/10/10	201011-56397-01
28	USFWS comments	11/10/10	201011-56397-02



PAYNESVILLE WIND FARM

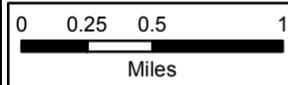
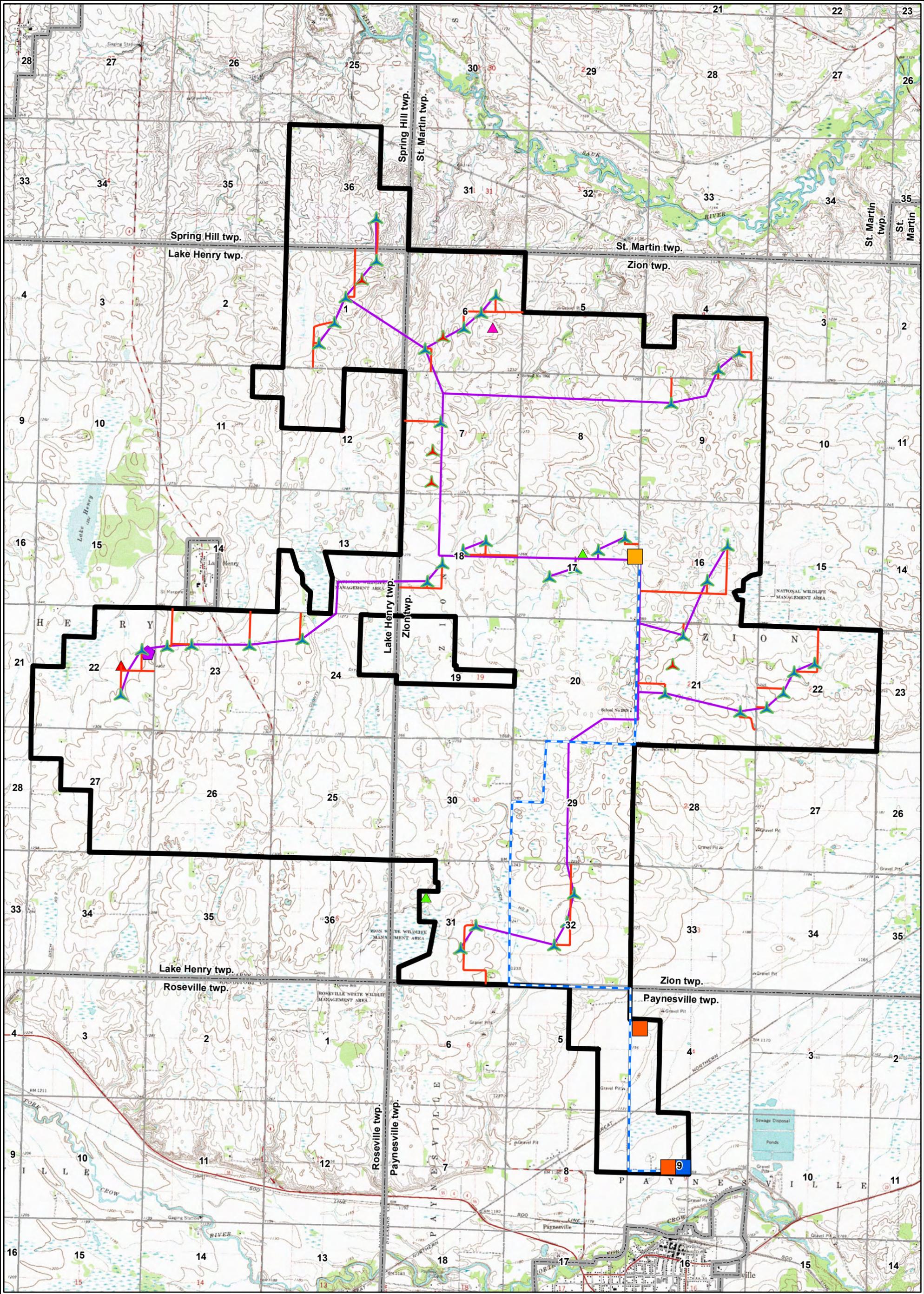
GE XLE Draft Turbine Layout and Associated Facilities



- | | | | | | | | | | |
|--|---------------------------|--|---|--|---|--|----------------|--|-----------------------|
| | Draft Turbine Locations | | Draft Collector | | Alternate Wind Farm Substation and Metering (Draft) | | Sodar Location | | Met Towers (Proposed) |
| | Draft Alternative Turbine | | 69kV Tap to Paynesville Sub (Draft) | | Paynesville Substation | | | | 80m Met Tower |
| | Draft Access Roads | | Wind Farm Substation and Metering (Draft) | | Temporary 60m Met Towers | | | | Alternate Met Tower |

SOURCES:
Geronimo Wind Energy
US Fish and Wildlife Service
Minnesota DNR
USDA FSA

11/5/2010



PAYNESVILLE WIND FARM

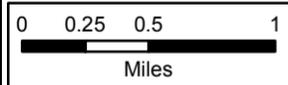
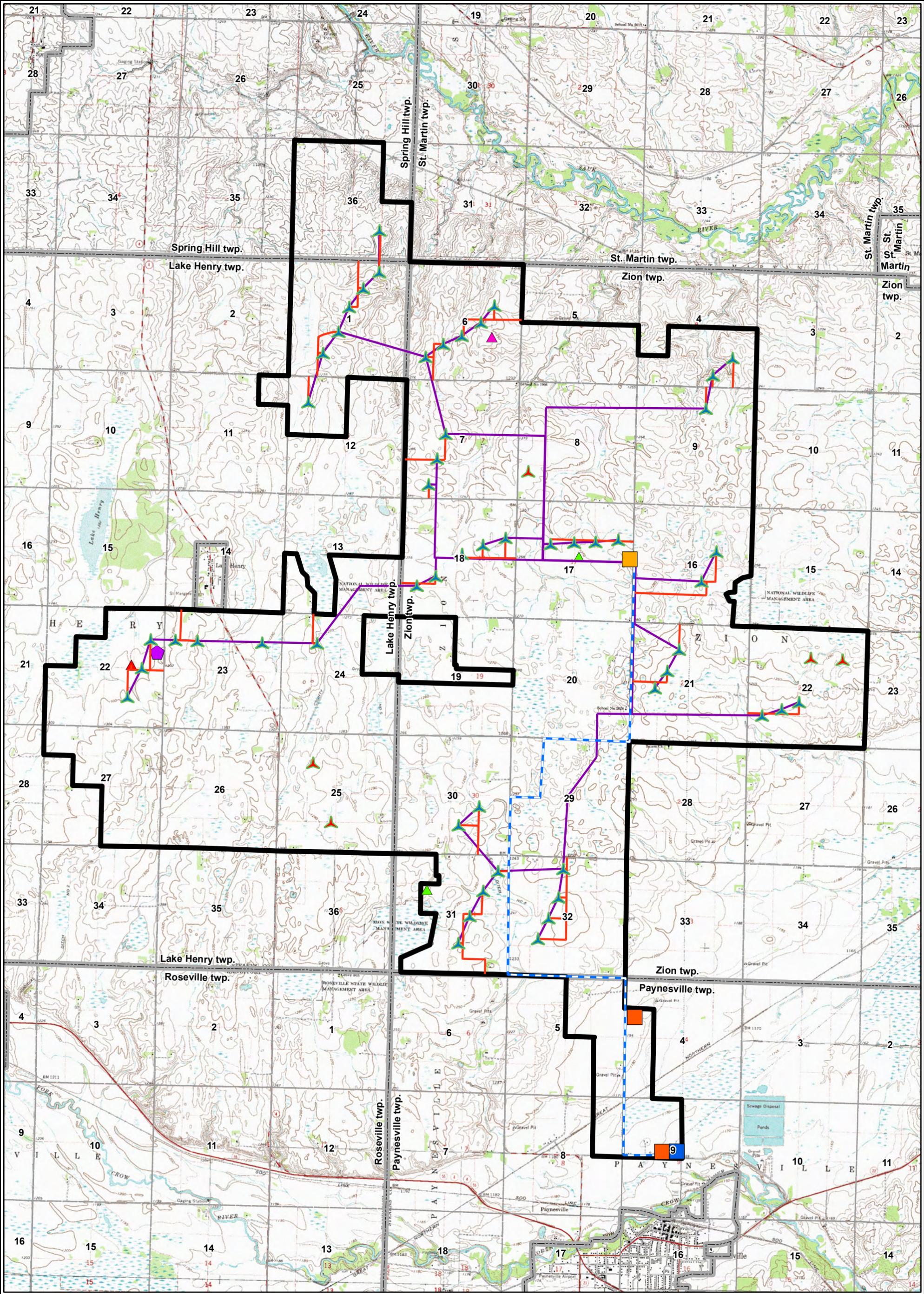
Siemens SWT Draft Turbine Layout and Associated Facilities



- | | | | | |
|-------------------------|---|---|----------------|------------------------------|
| Draft Turbine Locations | Draft Collector | Alternate Wind Farm Substation and Metering (Draft) | Sodar Location | Met Towers (Proposed) |
| Draft Alternate Turbine | 69kv Tap to Paynesville Sub (Draft) | Paynesville Substation | 80m Met Tower | Alternate Met Tower |
| Draft Access Roads | Wind Farm Substation and Metering (Draft) | Temporary 60m Met Towers | | |

SOURCES:
Geronimo Wind Energy
US Fish and Wildlife Service
Minnesota DNR
USDA FSA

11/5/2010



PAYNESVILLE WIND FARM

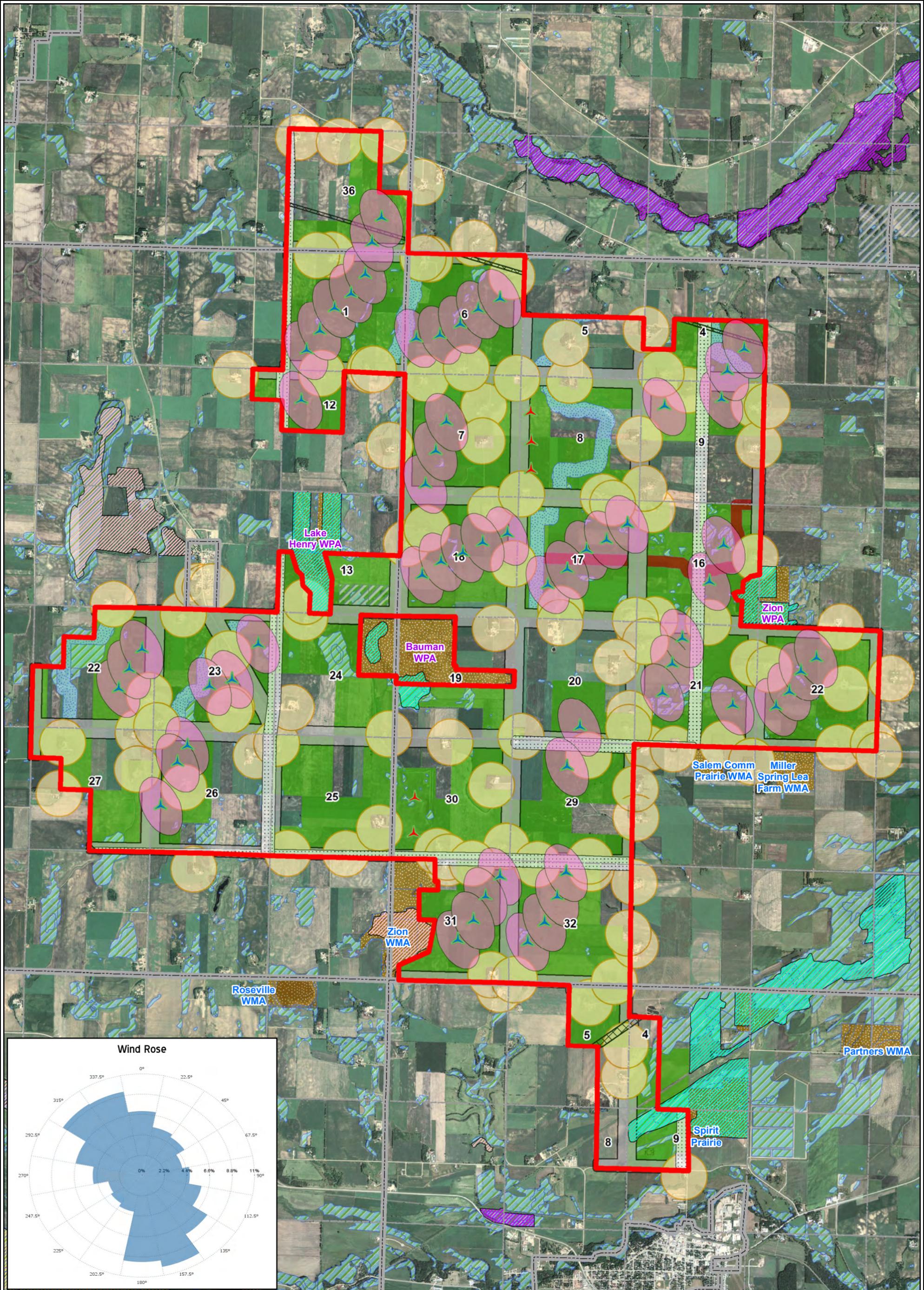
Vestas V90 Draft Turbine Layout and Associated Facilities



- | | | | | |
|-------------------------|---|---|----------------|-----------------------|
| Draft Turbine Locations | Draft Collector | Alternate Wind Farm Substation and Metering (Draft) | Sodar Location | Met Towers (Proposed) |
| Draft Alternate Turbine | 69kV Tap to Paynesville Sub (Draft) | Paynesville Substation | | 80m Met Tower |
| Draft Access Road | Wind Farm Substation and Metering (Draft) | Temporary 60m Met Towers | | Alternate Met Tower |

SOURCES:
Geronimo Wind Energy
US Fish and Wildlife Service
Minnesota DNR
USDA FSA

11/5/2010



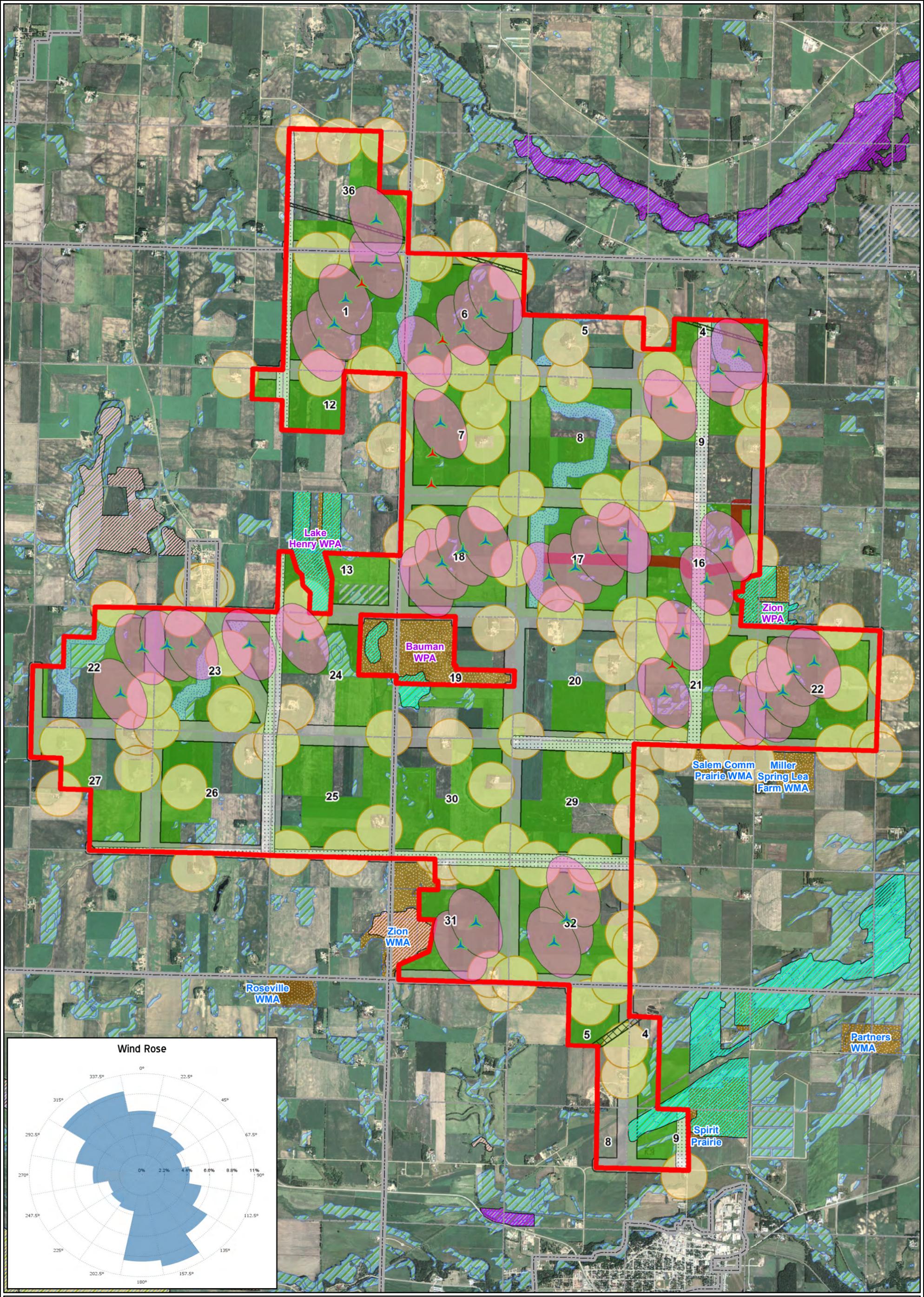
PAYNESVILLE WIND FARM

Preliminary GE 1.6MW Turbine Layout with Constraints

	Draft Turbine Locations		Occupied Structure Setback (1000ft)		Transmission Setback (330ft)		Conservation Easement
	Draft Alternative Turbine		Trails Setback (250ft)		Wetlands		MCBS BioSignificance
	3x5 Wind Access Buffer		Stearns County Shoreland Overlay		High		Moderate
	Wind Easement Area		Microwave Beam Path - Worst Case Fresnel Zone		Below		
	Road Right of Way Setback (250ft + Blade)		Waterfowl Production Area/Wildlife Management Area	SOURCES: Geronimo Wind Energy US Fish and Wildlife Service Minnesota DNR USDA FSA			

11/4/2010

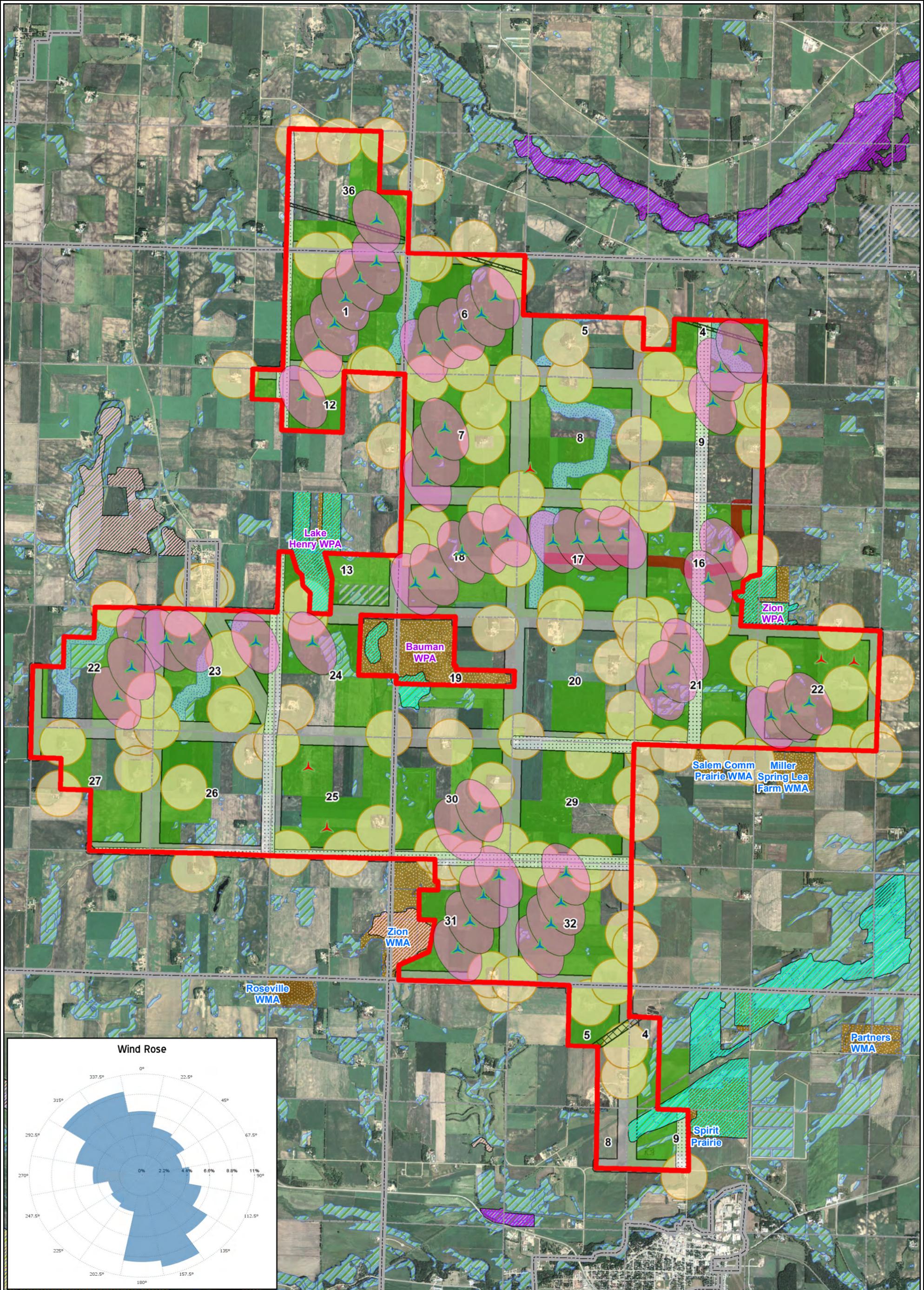
0 0.25 0.5
Miles



PAYNESVILLE WIND FARM

Preliminary Siemens 2.3MW Turbine Layout with Constraints

<ul style="list-style-type: none"> Draft Turbine Locations Draft Alternate Turbine 3x5 Wind Access Buffer Wind Easement Area 	<ul style="list-style-type: none"> Occupied Structure Setback (1000ft) Trails Setback (250ft) Stearns County Shoreland Overlay Road Right of Way Setback (250ft + Blade) 	<ul style="list-style-type: none"> Transmission Setback (330ft) Wetlands Microwave Beam Path - Worst Case Fresnel Zone Waterfowl Production Area/Wildlife Management Area 	<ul style="list-style-type: none"> Conservation Easement 	<p>MCBS BioSignificance</p> <ul style="list-style-type: none"> Outstanding High Moderate Below 	 <p>11/4/2010</p>	<p style="font-size: small;">SOURCES: Geronimo Wind Energy US Fish and Wildlife Service Minnesota DNR USDA FSA</p> <p style="font-size: small;">0 0.25 0.5 Miles</p>
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PAYNESVILLE WIND FARM

Preliminary Vestas V90 1.8MW Turbine Layout with Constraints

Draft Turbine Locations	Occupied Structure Setback (1000ft)	Transmission Setback (330ft)	Conservation Easement	MCBS BioSignificance	 11/4/2010	SOURCES: Geronimo Wind Energy US Fish and Wildlife Service Minnesota DNR USDA FSA
Draft Alternative Turbine	Trails Setback (250ft)	Wetlands	Microwave Beam Path - Worst Case Fresnel Zone	Outstanding		
3x5 Wind Access Buffer	Stearns County Shoreland Overlay	Waterfowl Production Area/Wildlife Management Area	Wind Easement Area	High		
Road Right of Way Setback (250ft + Blade)				Moderate		
				Below		

