

APPENDIX D

Agencies Contacted Regarding Project

(See attached)

**Agencies Contacted Regarding Project
Goodhue Wind Project**

Agency	Date of Project Notice	Date of Agency Response (as of February 13, 2009)
U.S. Fish and Wildlife Service - Twin Cities Ecological Services Office	October 6, 2008 December 19, 2008	December 19, 2008 (new USFWS contact) February 12, 2009
U.S. Army Corps of Engineers - Regulatory Project Managers	October 6, 2008 December 19, 2008	None
Federal Aviation Administration	October 6, 2008 December 19, 2008	October 14, 2008 (included in initial Site Permit Application (SPA))
Minnesota Pollution Control Agency – Lower Mississippi River Basin Manager	October 6, 20 December 19, 20088	None
Minnesota Pollution Control Agency – Environmental Review Unit	October 6, 2008 December 19, 2008	None
Minnesota Department of Health – Well Management Southern Region Supervisor	October 6, 2008 December 19, 2008	Oct. 29, 2008 (not included in initial SPA)
Minnesota Department of Agriculture – Senior Planner	October 6, 2008 December 19, 2008	None
Minnesota Department of Natural Resources (“MnDNR”) - Natural Heritage Program	October 6, 2008 December 19, 2008	Oct. 24, 2008 (not included in initial SPA)
MnDNR Region 4 – Southern Minnesota Lands and Minerals	October 6, 2008 December 19, 2008	Initial e-mail response from Wayne Barstad on Oct. 9, 2008 (included in SPA) Follow-up response Nov. 4, 2008 and Jan. 13, 2009 (not included in initial SPA)
MnDNR Region 3 Ecologist	October 6, 2008 December 19, 2008	See above
MnDNR Waters Region 3 - Regional Manager	October 6, 2008 December 19, 2008	See above
MnDNR Waters Area Hydrologist – Lake City Office	October 8, 2008 December 19, 2008	None
MnDNR Planning – Principal Planner	October 6, 2008 December 19, 2008	None

Agency	Date of Project Notice	Date of Agency Response (as of February 13, 2009)
Minnesota State Historic Preservation Office	October 6, 2008 December 19, 2008	None
Minnesota Board of Water and Soil Resources/Regional Office	October 6, 2008 December 19, 2008	None
Minnesota Department of Transportation (“MnDOT”)	October 6, 2008 December 19, 2008	Oct. 16, 2008 (included in initial SPA) January 5, 2009
MnDOT Office of Aeronautics	October 6, 2008 December 19, 2008	December 22, 2008
Goodhue County Zoning Division - Planning and Zoning Administrator	October 6, 2008 December 19, 2008	None
Goodhue County Commissioner - District 2	October 6, 2008 December 19, 2008	None
Goodhue County Commissioner - District 4	October 6, 2008 December 19, 2008	None
Goodhue Co. Soil and Water Conservation District 4- Vice Chair	October 6, 2008 December 19, 2008	None
Goodhue Co. Soil and Water Conservation District 5- Chair	October 6, 2008 December 19, 2008	None
Goodhue County Engineer/Public Works – Director	October 6, 2008 December 19, 2008	None
Goodhue Co. Environmental Health Department - Director	October 6, 2008 December 19, 2008	None
Goodhue Co. Soil and Water Conservation District Manager	October 6, 2008 December 19, 2008	Nov. 4, 2008 (not included in initial SPA)
Goodhue Co. NRCS – District Conservationist	October 6, 2008 December 19, 2008	None
City of Goodhue - Clerk	October 6, 2008 December 19, 2008	None (see below)
City of Goodhue - Mayor	October 6, 2008 December 19, 2008	Oct. 14, 2008 (included in initial SPA)
Goodhue Township Chair, Goodhue County	October 6, 2008 December 19, 2008	None
Belle Creek Township Town Chair, Goodhue County	October 6, 2008 December 19, 2008	None

Agency	Date of Project Notice	Date of Agency Response (as of February 13, 2009)
Belle Creek Watershed District	October 6, 2008 December 19, 2008	None
Minneola Township Chair, Goodhue County	December 19, 2008	None

APPENDIX E

Agency Correspondence and Responses

(See attached)

David Weetman

From: David Weetman
Sent: Wednesday, October 08, 2008 2:56 PM
To: 'Hartman, Peter - Rochester, MN'
Cc: Joe Sedarski
Subject: RE: Proposed Goodhue Wind Project

Thanks for your response Peter. We will look into this matter and get back to you.

Regards,
David

-----Original Message-----

From: Hartman, Peter - Rochester, MN [mailto:Peter.Hartman@mn.usda.gov]
Sent: Wednesday, October 08, 2008 2:49 PM
To: David Weetman
Cc: Steger, Thomas - Goodhue, MN
Subject: Proposed Goodhue Wind Project

David Weetman,

I received your letter to Thomas Steger, District Conservationist for Goodhue County, concerning the Proposed Goodhue Wind Project.

A concern for NRCS (Natural Resources Conservation Service) is if federal agencies are involved in the Proposed Goodhue Wind Project. The Farmland Protection Policy Act (FPPA) requires federal agencies involved in projects that may convert farmland, to determine whether the proposed conversion is consistent with FPPA. The purpose of FPPA is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of prime and important farmland to non-agricultural uses.

If a federal agency is involved, that federal agency will need to initiate a AD-1006 form.

Please let us know if a federal agency is involved in the Proposed Goodhue Wind Project, so that NRCS will know how to respond to your request for formal comments or concerns.

Peter Hartman
Area Resource Soil Scientist
USDA NRCS
330 Elton Hill Dr NW
Rochester, MN 55901

David Weetman

From: David Weetman
Sent: Wednesday, October 08, 2008 2:26 PM
To: 'Glen Roberson'
Subject: RE: Proposed Goodhue Wind Project [Spam score:8%]

Thanks Glen for taking the time to respond.

Regards,
David

-----Original Message-----

From: Glen Roberson [mailto:groberson@goodhueswcd.org]
Sent: Wednesday, October 08, 2008 2:13 PM
To: David Weetman
Subject: RE: Proposed Goodhue Wind Project [Spam score:8%]

David:

The Goodhue SWCD has briefly reviewed the Wind LLC proposal and have made a few comments. Our comments are somewhat limited due to the lack of information provided on this project. We will need to know specific locations of towers and access roads in order to make specific recommendations.

WETLANDS

-Although wind turbines are generally located on hill/ridge tops, access roads are can cross drainage swales and sometimes wetlands. Prior to installation, we will want to review the proposed access roads for these turbines to insure Wind LCC compliance with the Minnesota Wetland conservation Act.

EROSION

- Proper erosion and sediment control practices be carried out on all turbine sites and access roads. The soils present within the project boundary can be highly erosive in nature, and must be stabilized properly. We (and/or MPCA) will want to review erosion control plans prior to project commencement.

Other than that, we will have wait for more information on this project before we can comment further.

Sincerely,
Glen Roberson, Manager
Goodhue Co. SWCD
651-923-5286

From: David Weetman [mailto:David.Weetman@westwoodps.com]
Sent: Mon 10/6/2008 3:37 PM
To: Roberson, Glen - Goodhue, MN
Subject: Proposed Goodhue Wind Project

On behalf of Goodhue Wind, LLC (the "Applicant"), I am writing to request your formal comments or concerns regarding the Applicant's plans to obtain a site permit from the Minnesota Public Utilities Commission (PUC) for the Goodhue Wind Project (the "Project"). The purpose of the attached letter is to inform you that the Applicant will apply for a site permit from the PUC in late October.

David Weetman

From: David Weetman
Sent: Thursday, October 09, 2008 7:55 AM
To: 'Wayne Barstad'
Cc: Joe Sedarski
Subject: RE: Proposed Goodhue Wind Project

Okay. Thanks for responding Wayne. We look forward to receiving your comments.

Regards,
David

-----Original Message-----

From: Wayne Barstad [mailto:Wayne.Barstad@dnr.state.mn.us]
Sent: Thursday, October 09, 2008 7:52 AM
To: David Weetman
Subject: Re: Proposed Goodhue Wind Project

David, to maintain some order and consistency in response to your information requests, I am coordinating and compiling comments from area staff within the DNR Central Region. With any luck, we'll be able to provide you with a single response letter. The only additional letter will be coming from Lisa Joyal in the Natural Heritage program. ..wb

David Weetman

From: Dale Homuth [Dale.Homuth@dnr.state.mn.us]
Sent: Thursday, October 09, 2008 10:40 AM
To: David Weetman
Cc: Wayne Barstad
Subject: Re: Proposed Goodhue Wind Project

Mr. Weetman;

Our Regional Environmental Assessment Ecologist, Wayne Barstad, will be coordinating a very preliminary review of the proposal among a number of DNR staff who are familiar with Goodhue County. If you have any more specific information or probable tower locations, please send them to Wayne. I've copied him on this email, so you will have his address.
Thanks

Dale Homuth
Regional Waters Manager
DNR, Central Region Waters
1200 Warner Road
St. Paul, MN 55106
phone: 651-259-5766
fax: 651-772-7977
email: dale.homuth@dnr.state.mn.us

>>> David Weetman <David.Weetman@westwoodps.com> 10/6/08 1:53 PM >>>

On behalf of Goodhue Wind, LLC (the "Applicant"), I am writing to request your formal comments or concerns regarding the Applicant's plans to obtain a site permit from the Minnesota Public Utilities Commission (PUC) for the Goodhue Wind Project (the "Project"). The purpose of the attached letter is to inform you that the Applicant will apply for a site permit from the PUC in late October.

Goodhue Wind, LLC proposes to construct the Project in Goodhue County in southeastern Minnesota, 50 miles southeast of Minneapolis. The Project is located just west and north of the City of Goodhue and it is composed of over 16,600 acres which is mostly agricultural land. We appreciate your comments, questions or concerns you may have regarding the proposed Project. Please respond as soon as possible or within 30 days of the date of the attached letter.

Best Regards,

David M. Weetman
Senior Environmental Scientist
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344-7310
DIRECT 952-906-7419
EMAIL david.weetman@westwoodps.com<<mailto:david.weetman@westwoodps.com>>
MAIN 952-937-5150
FAX 952-937-5822
WEB www.westwoodps.com<<http://www.westwoodps.com/>>

GOODHUE COUNTY DEPARTMENT OF PUBLIC WORKS



Gregory Isakson, P.E.
Public Works Director
County Engineer

2140 Pioneer Road
P.O. Box 404
Red Wing, MN 55066
PHONE 651.385.3025
FAX 651.388.8437

HIGHWAYS ♦ PARKS ♦ RECYCLING ♦ SOLID WASTE ♦ HHW
www.co.goodhue.mn.us

October 10, 2008

David Weetman
Senior Environmental Scientist
Westwood Professional Services, Inc
7699 Anagram Drive
Eden Prairie Mn 55344

RECEIVED
OCT 15 2008
WESTWOOD
PROFESSIONAL SERVICES

RE: Proposed Goodhue Wind Project
Goodhue Wind, LLC

Dear Mr. Weetman:

This correspondence is in response to your request for Goodhue County Public Works to comment on the proposed Goodhue Wind, LLC project. The information that was forwarded to us is very vague and general. It is difficult for us to offer comment on the project proposal at this early stage.

Goodhue County Public Works will have jurisdiction over permitting access to county roads. Beyond that, you will need to work with Goodhue County's Land Use Management Office.

Public Works will be able to offer comments and address concerns once project details are available.

Respectfully,

A handwritten signature in black ink, appearing to read "Greg Isakson".

Greg Isakson, P.E.
Director, Public Works
Goodhue County

GI/jh

Cc: Lisa Hanni, Land Use Management Director
Richard Samuelson, County Commissioner District 2
James Bryant, County Commissioner District 4

VOGEL & GORMAN, PLC

Admitted in Minnesota & Wisconsin

*GEORGE F. VOGEL
RICHARD D. GORMAN
†CATHERINE G. JOHNSON

Admitted in Minnesota
ADAM J. ODERMEIER

*Qualified Neutral for Arbitrations and Mediations
†MSBA Board Certified Real Property Specialist

ATTORNEYS-AT-LAW
Masonic Building - Fourth and East Avenue
P.O. Box 39
RED WING, MN 55066-0039
www.vogelgormanplc.com

Phone: 651-388-2833

Facsimile: 651-388-2836

Retired

THOMAS A. ERDMANN

MILTON I. HOLST - (1900-1985)
ARNOLD F. VOGEL - (1903-1997)

www.vogelgormanplc.com

NOTE TO FACSIMILE OPERATOR: Please deliver this transmission to the below addressee. If you did not receive all of the pages in good condition, or if any other problems arise, please contact my office at 651-388-2833. Thank you.

Date: October 14, 2008

Facsimile # 952-937-5822

To: David Weetman

Re: Wind Farm Project

From: Richard D. Gorman - Fax 651-388-2836
E-Mail: rgorman@vogelgormanplc.com

Total Number of Pages (including cover sheet): 3

Notes:

VOGEL & GORMAN, PLC

Admitted in Minnesota & Wisconsin

*GEORGE F. VOGEL
†CATHERINE G. JOHNSON
RICHARD D. GORMAN

*Qualified Neutral for Arbitrations and Mediations
†MSBA Board Certified Real Property Specialist

ATTORNEYS-AT-LAW

Masonic Building - Fourth and East Ave.
P.O. Box 39
RED WING, MN 55066-0039

Phone: 651-388-2833 or 651-388-1511

Of Counsel

THOMAS A. ERDMANN

MILTON I. HOLST - (1900-1985)
ARNOLD F. VOGEL - (1903-1997)

FACSIMILE: 651-388-2836
www.vogelgormanplc.com

October 14, 2008

David Weetman
Senior Environmental Scientist
West Wood Professional Services

VIA FACSIMILE ONLY
952-937-5822

RE: Wind Farm Project

Dear Mr. Weetman:

Pursuant to your letter of October 6th which was sent to the Mayor, and the direction of the Goodhue City Council as discussed at our regular meeting on Wednesday October 8th, I am responding to your request for comments about the proposed Goodhue wind farm.

The council discussed the wind farm concept along with the siting process at our meeting. It was a consensus of the council that I should work with your company to determine how this will impact the City of Goodhue.

The council has asked me to pass along that while they are not against the project, and in fact think it is a good reliable alternative energy source. There concern on how this will affect the City of Goodhue.

The City of Goodhue has approximately 1000 residents and while our growth has some what slowed in the last year or two, prior to that time we had substantial growth. The city itself developed a number of single family residential homes in the townships just adjacent to the properties, you proposed to include in the wind farm site.

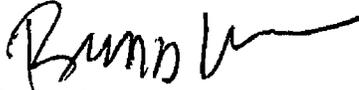
The City of Goodhue would like to continue to grow and expand in the future. We are extremely concerned about the placement of any wind generating towers at or near our city limits or just outside our city limits, as we feel this could greatly impact our growth in these areas, which are clearly our areas we intend to grow in.

I appreciate it if you could contact me and we could perhaps set up a meeting with the Mayor and council member to discuss this project and just what impact this will have on the City of Goodhue and whether or not we can be assured from you that this will not adversely affect our future goal plans. I look forward to hearing from you right away.

Thank you.

Very Truly Yours,

VOGEL & GORMAN, PLC



Richard D. Gorman

rgorman@vogelgormanplc.com

RDG/slr

Cc: Arland Voth
City of Goodhue Council Members

**z:\QQ-255

David Weetman

From: Kandice.Krull@faa.gov
Sent: Tuesday, October 14, 2008 8:38 AM
To: David Weetman
Subject: Re: Proposed Goodhue Wind Project
Attachments: Ltr to FAA.pdf; Exhibit 1 Project Area.pdf

Good Morning Mr. Weetman,

The information for the Goodhue Wind Project will need to be submitted to the Air Traffic Control division of the FAA for a hazard determination since the project is located off airport property. There is a website available for electronic submission: www.oaaaa.faa.gov. There is more information on the process and what is required on the website.

If you have any further questions or concerns, please do not hesitate to contact me.

Thank you,

Kandice Krull
Environmental Protection Specialist
FAA - Minneapolis Airport District Office
612-713-4362
Kandice.Krull@faa.gov

David Weetman <David.Weetman@westwoodps.com>

To: Kandice Krull/AGL/FAA@FAA

cc

Subject: Proposed Goodhue Wind Project

10/06/2008 01:51 PM

On behalf of Goodhue Wind, LLC (the "Applicant"), I am writing to request your formal comments or concerns regarding the Applicant's plans to obtain a site permit from the Minnesota Public Utilities Commission (PUC) for the Goodhue Wind Project (the "Project"). The purpose of the attached letter is to inform you that the Applicant will apply for a site permit from the PUC in late October.

Goodhue Wind, LLC proposes to construct the Project in Goodhue County in southeastern Minnesota, 50 miles southeast of Minneapolis. The Project is located just west and north of the City of Goodhue and it is composed of over 16,600 acres which is mostly agricultural land. We appreciate your comments, questions or concerns you may have regarding the proposed Project. Please respond as soon as possible or within 30 days of the date of the attached letter.

Best Regards,

David M. Weetman
Senior Environmental Scientist
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344-7310
DIRECT 952-906-7419
EMAIL david.weetman@westwoodps.com
MAIN 952-937-5150



Minnesota Department of Transportation

Minnesota Department of Transportation - District 6
2900 48th Street N.W.
Rochester, MN 55901-5848

Office Tel: 507-286-7594
Fax: 507-285-7279
E-mail: chris.moates@dot.state.mn.us

October 16, 2008

David Weetman, Senior Environmental Scientist
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

RECEIVED
OCT 20 2008
WESTWOOD
PROFESSIONAL SERVICES

RE: Proposed Goodhue Wind Project. Request for formal comments from Goodhue Wind, LLC. Project located in Goodhue County, Minnesota MN 58 CS 2510

Dear Mr. Weetman:

Minnesota Department of Transportation (Mn/DOT) District 6 Planning has reviewed the request for comments regarding your plan to obtain a site permit from the Minnesota Public Utilities Commission (PUC) for the Goodhue Wind Project in late October 2008. There is potential for impact to Mn/DOT interests in the vicinity of Minnesota State Highway 58. For your information, please be aware about State Project 2510-37 on MN 58 for bridge replacement (Bridge # 5188), and box culvert replacement (Bridge # 6160) over the north fork of the Zumbro River in Zumbrota, scheduled for 2010.

In addition, any work and possible placement of structures adjacent to and within Mn/DOT right of way is of concern. If work is required within Mn/DOT right of way for temporary or permanent accesses, it should be coordinated with Terry Condon, District 6 West Permits, at (507) 446-5505 or terry.condon@dot.state.mn.us. For the placement of utilities in the Mn/DOT Right of Way, a Utility Long Form Permit (TP-02525-03) issued through St. Paul and administered here in District 6 is required. For the temporary widening of field entrances (for equipment or construction) or a new access would be issued through Terry Condon, Mn/DOT District 6, using an Access Driveway Permit (TP-1721).

For additional information, please note that Mn/DOT's accommodation policy and procedures are listed on-line at:

<http://www.dot.state.mn.us/utility/files/pdf/appendix-b.pdf>.

Thank you for the opportunity to comment on this proposal.

Sincerely,

Chris Moates
District 6 Planning Director

cc: Nelrae Succio, Greg Paulson, Fausto Cabral, Peter Waskiw, Robert Hutton
Tracy Schnell, Terry Condon, Mark Trogstad-Isaacson, Stacy Kotch MS 678, File
DOCS-#646129



Minnesota Department of Natural Resources

Division of Ecological Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 Fax: (651) 296-1811 E-mail: lisa.joyal@dnr.state.mn.us

October 24, 2008

Mr. David Weetman
Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344

Re: Request for Natural Heritage information in the vicinity of the proposed Goodhue Wind Project,
Goodhue County
Correspondence # : ERDB 20090212

Township (N)	Range (W)	Section(s)
111	16	1-4, 9-17, 21-28, 33-36
111	15	5-9, 17-20, 29, 30

Dear Mr. Weetman,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, several rare features have been documented within the search area (for details, see the enclosed database reports). Please address the following issues in the Public Utilities Commission (PUC) Site Permit Application for this project:

- The loggerhead shrike (*Lanius ludovicianus*), a state-listed threatened bird, has been documented in the vicinity of the project site. The preferred habitat of this species is dry upland prairie or other open grassland with scattered hedgerows, shrubs, and small trees. Shrikes are also found around shelterbelts, old orchards, pastures, cemeteries, grassy roadsides, and farmsteads. Shrikes use the scattered trees and shrubs in these areas as nesting sites and hunting perches. Prey, however, are caught in the surrounding open grassy areas. As such, forests or dense brushlands do not provide suitable habitat for this bird. Likewise, open grasslands without any trees or shrubs do not provide suitable habitat either. Shrikes frequently shift territories between years so it is not unusual for a particular nesting area to be vacant for several years before it is used again. If suitable habitat remains, then it is possible that loggerhead shrikes will breed in the area. Please refer to the enclosed fact sheet for information regarding habitat use, life history, and reasons for the species' decline, as well as recommendations for protecting and enhancing habitat for this rare bird.
- A bald eagle (*Haliaeetus leucocephalus*) nesting site has been documented in the western portion of T111N R16W Section 17. Bald eagles are a state-listed species of special concern, and they are federally protected under the Migratory Bird Treaty Act and under the Bald and Golden Eagle Protection Act. Both acts prohibit killing, selling, or otherwise harming eagles, their nests or eggs. For assistance in determining whether an activity may disturb nesting bald eagles, please refer to the following USFWS website: <http://www.fws.gov/midwest/eagle/guidelines/index.html>.
- The Minnesota County Biological Survey (MCBS) has identified a Site of Outstanding Biodiversity Significance within T112N R16W Section 36 and T111N R15W Section 6 (GIS shapefiles of MCBS Sites of Biodiversity Significance can be downloaded from the DNR Data Deli at <http://deli.dnr.state.mn.us>). Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as Outstanding contain the best occurrences of the rarest species,

the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state. Although this particular Site appears to be outside the project boundary, potential indirect impacts (such as those from surface runoff or the spread of invasive species) should be considered during project design and implementation.

In addition, there are several forested areas in the northwest portion of the project boundary that, although they do not meet the minimum biodiversity threshold for statewide significance, may have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, or as areas with high potential for restoration of native habitat.

- Please send me a copy of the Preconstruction Biological Preservation Survey (Section III.D.1. of the Site Permit) required by the PUC.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

Please be aware that this letter focuses only on potential effects to *rare natural features*; there may be other natural resource concerns associated with the proposed project. This letter does not constitute review or approval by the Department of Natural Resources as a whole. If you would like further information on the environmental review process, please contact your Regional Environmental Assessment Ecologist, Wayne Barstad, at 651-259-5738.

An invoice in the amount of \$118.57 will be mailed to you under separate cover within two weeks of the date of this letter. You are being billed for the database search and printouts, and staff scientist review. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,



Lisa Joyal
Endangered Species Environmental Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Fact sheets: Loggerhead Shrike

cc: Wayne Barstad

Minnesota Natural Heritage Information System: Rare Features Database
 Index Report of records within 1 mile radius of:
 Goodhue Wind Project
 Multiple TRS
 Goodhue County

Printed October 2008
 Data valid for one year

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Goodhue County, MN						
<u>Besseyia bullii</u> (Kitten-tails) #16 Location Description: T112N R15W S17, T112N R15W S16, T112N R15W S30, T112N R15W S7, T [...]		THR	S2	G3	1893-08	3779
<u>Dry Hill Oak Savanna</u> (Southern) Type #8 Location Description: T111N R15W S6, T112N R15W S31, T112N R16W S36, T111N R16W S1		N/A	S1	GNR	1991-09-23	13255
<u>Freshwater Mussel Concentration Area</u> (Mussel Sampling Site) #275 Location Description: T111N R16W S18, T111N R16W S17		N/A	SNR	G3	1987	19225
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #2451 Location Description: T111N R16W S17		SPC	S3B,S3N	G5	2005-03-23	32910
<u>Hudsonia tomentosa</u> (Beach-heather) #26 Location Description: T112N R16W S32, T112N R16W S31, T111N R16W S6, T111N R16W S4, T [...]		SPC	S3	G5	1891-07	22932
<u>Lanius ludovicianus</u> (Loggerhead Shrike) #176 Location Description: T111N R15W S21, T111N R15W S27, T111N R15W S22, T111N R15W S28	No Status	THR	S2B	G4	1998-05-01	24890
<u>Red Oak - White Oak Forest Type</u> #1440 Location Description: T112N R16W S33		N/A	S3	GNR	1991-09-23	13256

Records Printed = 7

The Division of Ecological Resources recently adopted a new database system called Biotics. As a result of this change, the layout and contents of the database reports have been revised. Many of the fields included in the new reports are the same or similar to the previous report fields, however there are several new fields and some of the field definitions have been slightly modified. We recommend that you familiarize yourself with the latest field explanations.

Rare Features Database Reports: An Explanation of Fields

The Rare Features Database (Biotics) is part of the Natural Heritage Information System, and is maintained by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR).

Please note that the print-outs are copyrighted and may not be reproduced without permission

Field Name: [Full (non-abbreviated) field name, if different]. Further explanation of field.

-E-

Element Name and Occ #: [Element Name and Occurrence Number]. The Element is the name of the rare feature. For plant and animal species records, this field holds the scientific name followed by the common name in parentheses; for all other elements (such as native plant communities, which have no scientific name) it is solely the element name. Native plant community names correspond to Minnesota's Native Plant Community Classification (Version 2.0). The Occurrence Number, in combination with the Element Name, uniquely identifies each record.

EO Data: [Element Occurrence Data]. For species elements, this field contains data collected on the biology of the Element Occurrence* (EO), including the number of individuals, vigor, habitat, soils, associated species, peculiar characteristics, etc. For native plant community elements, this field is a summary text description of the vegetation of the EO, including structure (strata) and composition (dominant/characteristic species), heterogeneity, successional stage/dynamics, any unique aspects of the community or additional noteworthy species (including animals). Note that this is a new field and it has not been filled out for many of the records that were collected prior to conversion to the new database system. Some of the information meeting the field definition may be found in the General Description field.

EO ID#: [Element Occurrence Identification Number]. Unique identifier for each Element Occurrence record.

EO Rank: [Element Occurrence Rank]. An evaluation of the quality and condition of an Element Occurrence (EO) from A (highest) to D (lowest). Represents a comparative evaluation of: 1) quality as determined by representativeness of the occurrence especially as compared to EO specifications and including maturity, size, numbers, etc. 2) condition (how much has the site and the EO itself been damaged or altered from its optimal condition and character). 3) viability (the long-term prospects for continued existence of this occurrence - used in ranking species only). EO Ranks are assigned based on recent fieldwork by knowledgeable individuals.

Extent Known?: A value that indicates whether the full extent of the Element is known (i.e., it has been determined through field survey) at that location. If null, the value has not been determined.

-F-

Federal Status: Status of species under the U.S. Endangered Species Act: LE = endangered; LT = threatened; LE,LT = listed endangered in part of its range, listed threatened in another part of its range; LT,PDL = listed threatened, proposed for delisting; C = candidate for listing. If null or "No Status" the species has no federal status.

First Observed Date: Date that the Element Occurrence was first reported at the site in format YYYY-MM-DD. A year followed by "Pre" indicates that the observed date was sometime prior to the date listed, but the exact date is unknown.

-G-

General Description: General description or word picture of the area where the Element Occurrence (EO) is located (i.e., the physical setting/context surrounding the EO), including a list of adjacent communities. When available, information on surrounding land use may be included. Note that the information tracked in this field is now more narrowly defined than it was in the old database system, and some of the information still in this field more accurately meets the definition of the new EO Data field. We are working to clean up the records so that the information in the two fields corresponds to the current field explanations described herein. Also note that the use of uppercase in sentences in this field is not significant but rather an artifact of transferring data from the old database system to the new system.

Global Rank: The global (i.e., range-wide) assessment of the relative rarity or imperilment of the species or community. Ranges from G1 (critically imperiled due to extreme rarity on a world-wide basis) to G5 (demonstrably secure, though perhaps rare in parts of its range). Global ranks are determined by NatureServe, an international network of natural heritage programs and conservation data centers.

-L-

Last Observed Date: Date that the Element Occurrence was last observed to be extant at the site in format YYYY-MM-DD.

Last Survey Date: Date of the most recent field survey for the Element Occurrence, regardless of whether it was found during the visit. If the field is blank, assume the date is the same as the Last Observed Date.

Location Description: County or Counties in which the Element Occurrence was documented followed by Township, Range, and Section information (not listed in any particular order). Each unique Township, Range, and Section combination is separated by a comma. In some cases, there are too many Township, Range, and Section combinations to list in the field, in which case, the information will be replaced with, "Legal description is too lengthy to fit in allotted space".

-M-

Managed Area(s): Name of the federally, state, locally, or privately managed park, forest, refuge, preserve, etc., containing the occurrence, if any. If this field is blank, the element probably occurs on private land. If "(Statutory Boundary)" occurs after the name of a managed area, the location may be a private inholding within the statutory boundary of a state forest or park.

MN Status: [Minnesota Status]. Legal status of plant and animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; NON = tracked, but no legal status. Native plant communities, geological features, and colonial waterbird nesting sites do not have any legal status under the Endangered Species Law and are represented by a N/A.

-N-

NPC Classification (v1.5): Native plant community name in Minnesota's Native Vegetation: A Key to Natural Communities (Version 1.5). This earlier classification has been replaced by Minnesota's Native Plant Community Classification (Version 2.0).

-O-

Observed Area: The total area of the Element Occurrence, in acres, which is measured or estimated during fieldwork. If null, the value has not been determined.

Ownership Type: Indicates whether the land on which the Element Occurrence was located was publicly or privately owned; for publicly owned land, the agency with management responsibility is listed, if known.

-S-

Site Name: The name of the site(s) where the Element Occurrence is located. Sites are natural areas of land with boundaries determined and mapped according to biological and ecological considerations.

Survey Site #/Name: The name of the survey site, if applicable, where the Element Occurrence is located. Survey sites are sites that provide a geographic framework for recording and storing data, but their boundaries are not based on biological and ecological considerations. Minnesota County Biological Survey site numbers, if applicable, are also listed in this field.

Survey Type: Information on the type of survey used to collect information on the Element Occurrence.

Surveyor(s): Name(s) of the person(s) that collected survey information on the Element Occurrence.

State Rank: Rank that best characterizes the relative rarity or endangerment of the taxon or plant community in Minnesota. The ranks do not represent a legal status. They are used by the Minnesota Department of Natural Resources to set priorities for research, inventory and conservation planning. The state ranks are updated as inventory information becomes available. S1 = Critically imperiled in Minnesota because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. S2 = Imperiled in Minnesota because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. S3 = Vulnerable in Minnesota either because rare or uncommon, or found in a restricted range, or because of other factors making it vulnerable to extirpation. S4 = Apparently secure in Minnesota, usually widespread. S5 = Demonstrably secure in Minnesota, essentially ineradicable under present conditions. SH = Of historical occurrence in the state, perhaps having not been verified in the past 20 years, but suspected to be still extant. An element would become SH without the 20-year delay if the only known occurrences in the state were destroyed or if it had been extensively and unsuccessfully looked for. SNR = Rank not yet assessed. SU = Unable to rank. SX = Presumed extinct in Minnesota. SNA = Rank not applicable. S#S# = Range Rank: a numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the element. S#B, S#N = Used only for migratory animals, whereby B refers to the breeding population of the element in Minnesota and N refers to the non-breeding population of the element in Minnesota.

-V-

Vegetation Plot: Code(s) for any vegetation plot data that have been collected within this Element Occurrence (i.e., either Releve Number or the word "RELEVE" indicates that a releve has been collected).

* Element Occurrence – an area of land and/or water in which an Element (i.e., a rare species or community) is, or was, present, and which has practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location. Specifications for each species determine whether multiple observations should be considered 1 Element Occurrence or 2, based on minimum separation distance and barriers to movement.

Data Security

Locations of some rare features must be treated as sensitive information because widespread knowledge of these locations could result in harm to the rare features. For example, wildflowers such as orchids and economically valuable plants such as ginseng are vulnerable to exploitation by collectors; other species, such as bald eagles, are sensitive to disturbance by observers. For this reason, we prefer that publications not identify the precise locations of vulnerable species. We suggest describing the location only to the nearest section. If this is not acceptable for your purposes, please call and discuss this issue with the Endangered Species Environmental Review Coordinator at (651) 259-5109.

Landowners Guide for Maintaining and Encouraging Loggerhead Shrikes

Loggerhead shrikes are in trouble – but you may be able to help. Throughout the United States, and particularly in the Midwest, loggerhead shrikes are disappearing at an alarming rate. So serious is the decline that the loggerhead shrike is one of six bird species considered threatened in Minnesota.



What is a loggerhead shrike?

Loggerhead shrikes are special birds – an interesting cross between songbird and hawk. They feed on large insects such as grasshoppers and beetles, mice, small birds, frogs and toads. Shrikes spend much of their time perched on powerlines, fences or the top-most branches of trees and shrubs, scouting for prey and then swooping down to catch it. Then the bird either eats its prey, impales it on a nearby thorn or barbed wire fence or wedges it into the fork of a branch. Because shrikes lack the strong, sharp claws and feet of hawks, impaling food holds it in place as the bird tears at it with its bill. Your first clue that loggerhead shrikes are on your property may be finding an animal impaled on a fence barb or a thorn. This habit has earned the loggerhead shrike the nickname “butcher bird.”

What do loggerhead shrikes look like?

The robin-sized loggerhead shrike has a slate-gray back with a light breast. The most distinguishing markings of this bird are the black mask, which extends across the eye, and the black and white wing and tail patches which flash when the bird flies. Males and females are similar in size and color.

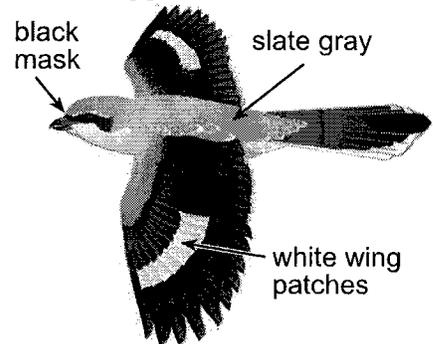
In Minnesota, loggerhead shrikes are most easily confused with eastern kingbirds and northern shrikes. However, eastern kingbirds have no mask, their heads are entirely dark, and they do not have white patches on their wings. The northern shrike looks very similar to the loggerhead shrike, but occurs in Minnesota from October through April, whereas the loggerhead shrike is here from March to October. During the early spring and fall, when both shrikes are in the state, they can be told apart by the loggerhead shrike’s completely black bill and its mask which extends across the top of the bill.

Where do they live?

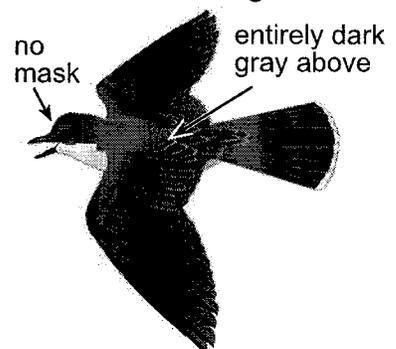
Loggerhead shrikes were once found throughout much of the unforested region of the state. Today, their numbers are very low. Recent surveys have located fewer than 30 nests in the state (Fig. 1). It is very important that we try to maintain habitat for the few shrikes that still breed in Minnesota.

Shrikes use grassy, open areas with scattered trees and shrubs such as pastures, prairie patches and grassy roadsides. A few trees and shrubs, along with fences and powerlines provide nesting sites and perches from

Loggerhead Shrike



Eastern Kingbird



continued on back

which to hunt. Red cedar, hawthorn and plum trees are often used for nesting. A pair may range over 2.5 - 30 acres.

Loggerhead shrikes are early nesters, arriving in Minnesota from their wintering areas in the southern U.S. and Mexico in early spring. Shrikes lay 4-6 eggs that hatch after about 16 days. The young birds remain with their parents for about 4 weeks after leaving the nest. It is at this time that the birds are most conspicuous. Shrikes tend to nest in the same general areas from year to year, although they may be absent for a year or two and then return again, as long as the habitat remains.

Why is the loggerhead shrike population declining?

The decline of the loggerhead shrike is likely the result a combination of factors, including loss of habitat resulting from the conversion of pasture and grasslands to houses or cropland and the encroachment of forest and brush on pastures and grasslands. In addition, changes in farming

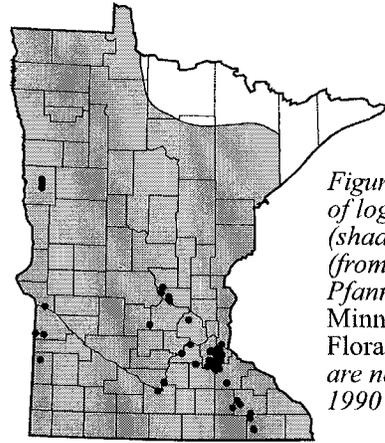


Figure 1. Historical range of loggerhead shrikes (shaded) in Minnesota. (from Coffin and Pfannmuller, 1988. Minnesota's Endangered Flora and Fauna). Dots are nests found between 1990 and 1996.

practices have resulted in larger fields and fewer trees, shrubs and fences scattered about. The increasing use of pesticides may also play a role in the decline of shrikes because these chemicals affect many animals that shrikes eat.

WHAT CAN YOU DO TO HELP LOGGERHEAD SHRIKES?

If there are shrikes nesting on your property, congratulations! You are one of a very few Minnesotans fortunate to share your property with such a unique bird. We hope you will want to help this bird continue its presence in your neighborhood. Obviously your land management practices and land use are already compatible if the birds have selected your land for nesting. While biologists continue to investigate the decline of the shrike there are things you can do on your property to encourage shrikes.

1. Leave fences standing for shrikes to use for perching and impaling food. If a fence must be removed, or if there are no fences near your grassland or pasture, you can create perch and impaling posts. To do this, wrap barbed wire near the top of a post. Place these posts along the edges of pastures and fields for shrikes to use. Your local nongame wildlife biologist can help you select the best locations for the posts.

2. Keep brush from encroaching upon grasslands by removal or burning, but only to the extent that the shrubs and trees don't dominate the grassland. A few scattered shrubs and trees are necessary to maintain the best shrike habitat.

3. Pastures and grassland are more attractive to shrikes than are row crops. Therefore, it is important to maintain existing pasture and grasslands. Investigate the Conservation Reserve Program (CRP) which pays farmers to retire highly erodible farmlands from production and to establish permanent grassland. Contact your local Natural Resources Conservation Service office (formerly the Soil Conservation Service) for more information about this program.

4. Take advantage of financial incentives for maintaining compatible land uses. In many counties, the Agricultural Preserve Program and/or the Green Acres Program provide tax adjustments and/or deferments to farmers to help them maintain their land for agricultural use. Contact your county assessor's office for more information about these programs.

5. Minimize use of pesticides. Pesticides can reduce the supply of large insects and other non-target animals that shrikes need. Also, because shrikes feed on animals at which pesticides are directed, these chemicals can build up in the birds and impair their ability to reproduce and reduce the survival of their young.

For more information about shrikes or to report loggerheads shrikes on your property please contact:

Nongame Wildlife Program
500 Lafayette Rd.,
St. Paul, MN 55155
(651) 297-3764
1-800 766-6000

or locally contact:



TELEPHONE RECORD

Project: Goodhue Wind Project – Site Permit Application

Date: October 30, 2008

Call To / Phone No.: Richard Samuelson, Goodhue County Commissioner, District 2
(651) 258-4295

Call From / Phone No.: David Weetman, Westwood Professional Services (952) 906-7419

Summary of Telephone Conference:

Mr. Samuelson contacted Westwood Professional Services to discuss the Goodhue Wind Project. He had the following questions:

1. What is the timeline for construction of a wind farm?
2. How are the wind turbine locations selected?
3. Is there opportunity for public comment on the Project?
4. Has Westwood worked on many other wind projects such as the Goodhue Wind Project?

Westwood responded as follows: 1) a typical wind farm timeline is 1 to 2 years, but this depends on a number of issues; 2) turbines are sited based on many factors including wind dynamics, natural resources, setbacks, etc.; 3) there is an opportunity for public comment during the Minnesota Public Utilities Commission (PUC)/Minnesota Department of Commerce (DOC) permitting process, including a public meeting; and 4) we have worked on a number of similar wind projects.



Protecting, maintaining and improving the health of all Minnesotans

RECEIVED

OCT 31 2008

WESTWOOD
PROFESSIONAL SERVICES

October 29, 2008

Mr. David Weetman
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

Dear Mr. Weetman:

Subject: Proposed Goodhue Wind Project Located in Belle Creek and Goodhue Townships of Goodhue County, Minnesota

This letter is in response to your request for comments regarding the subject wind project. The Well Management Section of the Minnesota Department of Health (MDH) regulates wells and borings in Minnesota. A boring drilled for this project will likely be an Environmental Bore Hole (EBH). EBH's are regulated by the MDH and the contractor drilling the EBH's must be a Minnesota licensed well contractor or Minnesota registered monitoring well contractor. The Minnesota licensed or registered contractor drilling the EBH's is responsible to drill, seal, and report the sealing of these borings in conformance with Minnesota Rules, Chapter 4725.

If you have any questions, please contact me at 507/292-5149.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Zimmerman", with a long horizontal flourish extending to the right.

Peter J. Zimmerman, P.G.
Southern Region Supervisor
Well Management Section
18 Wood Lake Drive Southeast
Rochester, Minnesota 55904-5506

PJZ:bar

David Weetman

From: Wayne Barstad [Wayne.Barstad@dnr.state.mn.us]
Sent: Tuesday, November 04, 2008 8:08 AM
To: David Weetman
Cc: Bill Huber; Bonita Eliason; Dale Homuth; Dirk Peterson; Don Nelson; Jaime Edwards; Kevin Stauffer; Lisa Joyal; Trina Ziemann
Subject: Goodhue Wind Project Information Request

Any change to the course, current or cross section of public waters would need a public waters permit. Contact area hydrologist Bill Huber, DNR Division of Waters (651 345-5601)

Utility crossings on public waters and public lands require licenses from the DNR. Contact Trina Ziemann, Lands and Minerals (651 259-5792)

Lisa Joyal, endangered species environmental review coordinator, received your information request on 10/6/08.

Downstream stretches of Hay Creek and Belle Creek are designated trout streams. It is important to protect the water quality of the headwaters areas of these streams. The headwaters are within the Goodhue Wind project area. The Hay Creek headwater area is located southeast of Ryan and part of the Belle Creek headwater area is south and west of Ryan.

The following are general points to consider in evaluating the potential for wind power project impacts to natural resources:

Landscape Level

- Landscape features - ridges, steep slopes, valleys, cliffs
- Vegetation - cropland, woodlands, wetland, grassland, native plant communities
- Weather conditions - large number of poor visibility days
- Conservation easements
- Habitats in wind resource area
- Cumulative impacts from multiple projects in the area

Project Level

- Facility configuration
- Roads, construction pads, hook-up, other related construction such as transmission lines (overhead or underground)
- Expansion of project area
- Utilizing existing right-of-way

Site Level

- Basic siting issues - immediate impacts to the site
- Vegetation - cropland, woodlands, wetland, grassland, native plant communities, e.g., prairie
- Tower and access road footprint
- Tower height, rotor diameter, lighting (security and aviation), blade speed

Habitat Impacts

- Species in wind resource area
- Habitat displacement and fragmentation affecting mammals, reptiles, amphibians, fish and invertebrates
- Large, contiguous tracts of wildlife habitat (core, edge, fragmentation)
- Threatened and endangered species - query the Natural Heritage Information System
- Erosion, sedimentation, water quality degradation, shadowing
- Bird or bat concentration areas - lakes and wetlands, riparian areas along streams, roosting areas, flyways, bat hibernation, flight paths between colonies and feeding areas, topographical features that may concentrate birds or bats (e.g., high ridges, woodlands)
- Waterbirds, shorebirds, raptors (including raptor nests) grassland birds, songbirds
- Breeding birds - timing of breeding, nesting, feeding, and fledging
- Migrating birds - temporal and spatial patterns (e.g., dispersed, diurnal vs nocturnal), routes, flight altitude relative to blades
- Bird behavior,

e.g., avoidance • Bat feeding habits and feeding altitude • Bats - high spots with woody terrain - potential impacts • Forest clearing for turbines, access roads and transmission lines

Impacts to Recreation

• Proximity to public lands - viewshed and designated uses • Site away from Wildlife Management Areas (WMA) and woods

Recommendations

• Post-construction monitoring to identify wildlife impacts - potential for cooperation • Invasive species - potential to transport on equipment entering or leaving site • Update bird strike avoidance equipment as it becomes available

Thank you for the opportunity to review this project proposal. Please call if you have any questions. ..wb

Wayne Barstad

Regional Environmental Assessment Ecologist Central Region

651 259-5738

wayne.barstad@dnr.state.mn.us

Nature bats last!



RECEIVED

NOV 05 2008

WESTWOOD
PROFESSIONAL SERVICES

GOODHUE COUNTY SOIL AND WATER
CONSERVATION DISTRICT

104 East 3rd Avenue
P.O. Box 335
Goodhue, MN 55027
651-923-5286
Fax: 651-923-5304

MINNESOTA SOIL AND WATER CONSERVATION DISTRICTS

November 4, 2008

Westwood Professional Services
David Weetman
Senior Environmental Scientist
7699 Anagram Drive
Eden Prairie, MN 55334

Dear Mr. Weetman:

In response to your letter of the proposed Goodhue wind project in Goodhue County, I wish to address some concerns that are not stated in the proposal.

- First concern would be construction site erosion and sedimentation effecting local streams and watershed structures.
- Second concern is compaction of the fields and wetlands from heavy equipment operation during construction.
- Third concern is the impact on local aggregate resources used for new access roads and township and county roads that are already in place.
- Fourth concern is damages to subsurface field tile from the installation of underground power lines both cutting and crushing of drainage tile.
- Fifth concern is impact of surface water diverted from constructions sites and impermeable surfaces of the access roads.
- Sixth concern is the impact on the soil productivity during construction and the time period after construction.
- And lastly there is nothing addressing the decommissioning of the wind farm and the productivity of the soils at the time of decommissioA.

If you have any questions on these concerns, please contact me at this office. Thank you for letting comment on this project.

Sincerely,

Edward McNamara

David Weetman

From: Scott Buscher
Sent: Tuesday, November 25, 2008 10:11 AM
To: David Weetman
Subject: FW: Attn: David Weetman, Goodhue Wind Project, MN

Scott Buscher, PHR
Director, Human Resources

Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344-7310

DIRECT 952-906-7415
EMAIL scott.buscher@westwoodps.com MAIN 952-937-5150 FAX
952-937-5822 WEB www.westwoodps.com

-----Original Message-----

From: Gary_Wege@fws.gov [mailto:Gary_Wege@fws.gov]
Sent: Tuesday, November 25, 2008 9:45 AM
To: Westwood Professional Services, Inc.
Subject: Attn: David Weetman, Goodhue Wind Project, MN

Dear David:

This responds to your October 6, 2008, letter requesting information on threatened and endangered species in the area of the following descriptions for the proposed Goodhue Wind Project in Goodhue County, Minnesota:

T111N, R16W, S1-4, 9-17, 21-28, 33-36
T111N, R15W, S5-9, 17-20, 29-30

There are currently no federally endangered or threatened species known to occur at the above project locations (although no longer listed, bald eagles are known to occur in T111N, R16W, S17). Therefore, this precludes the need for further action on this project as required under section 7 of the Endangered Species Act of 1973, as amended. However, if the project is modified or new information becomes available which indicates that listed species may occur in the affected areas, consultation with this office should be reinitiated.

We appreciate the opportunity to comment and look forward to working with you in the future. If you have questions regarding our comments, please call me at (612) 725-3548, extension 207.

Sincerely,

Gary Wege

David Weetman

From: Laurie_Fairchild@fws.gov
Sent: Friday, December 19, 2008 12:41 PM
To: David Weetman
Cc: Tony_Sullins@fws.gov; Gary_Wege@fws.gov
Subject: Re: Revised Goodhue Wind Project Area
Attachments: Ltr to USFWS Dec 2008.pdf; Exhibit 1.pdf

I no longer work at the Twin Cities Field Office so am forwarding your project to their office for review. Tony Sullins is the Field Supervisor there and I'd suggest you give him a call for status of the review if you sent a paper version of the project to the TCFO in October. His number is 612-725-3548.

Laurie

David Weetman <David.Weetman@westwoodps.com>

To "laurie_fairchild@fws.gov" <laurie_fairchild@fws.gov>

cc

12/19/2008 10:40 AM

Subject Revised Goodhue Wind Project Area

On behalf of Goodhue Wind, LLC, I write to request your formal comments or concerns regarding plans to obtain a site permit from the Minnesota Public Utilities Commission ("PUC") for the Goodhue Wind Project (the "Project"). We initially notified you of the Project on October 6, 2008. The purpose of the attached letter is to inform you that the size of the Project area has increased by approximately 7,700 acres and to inquire whether your office has any comments regarding this change to the Project. Additional land parcels were added at the southwest and northeast portions of the former Project area to address future development concerns of the City of Goodhue.

We appreciate any comments, questions or concerns you may have regarding the proposed Project and the updated Project area. Please respond as soon as possible or within 30 days of the date of this letter.

Best Regards,

David M. Weetman

Senior Environmental Scientist

Westwood Professional Services

7699 Anagram Drive

Eden Prairie, MN 55344-7310

DIRECT 952-906-7419

EMAIL david.weetman@westwoodps.com

MAIN 952-937-5150

FAX 952-937-5822

WEB www.westwoodps.com

David Weetman

From: Darlene Dahlseide [Darlene.Dahlseide@dot.state.mn.us]
Sent: Monday, December 22, 2008 9:06 AM
To: David Weetman
Subject: Goodhue Wind Project

Mr. Weetman,

I received a copy of your letter to Dick Theisen, Mn/DOT Aeronautics dated Dec 19th. Please provide FAA Aeronautical Study Numbers for the Goodhue Wind Project. I would also like the lat / long's (degrees-minutes-seconds) for each proposed sites. If you have a shapefile that would be better.

The Minnesota Statutes 360.81 to 360.91 require this office to issue a permit for the construction of some structures in Minnesota. A permit may be required for structures more than 200 feet above the highest point of land within one mile of an airport and for structures within ten miles of an airport. For more information: <http://www.dot.state.mn.us/aero/avoffice/talltowers.html>

It is always our concern to protect the airspace around Minnesota Airports. After receiving the above information, we will review the site locations and give our recommendations at that time.

Thank you for your assistance.

Darlene Dahlseide
Aviation Representative
Mn/DOT, Office of Aeronautics
222 Plato Blvd.
St. Paul, MN 55107-1618
Office: 651-234-7248
darlene.dahlseide@dot.state.mn.us
Fax: 651-234-7261



Minnesota Department of Transportation

Minnesota Department of Transportation - District 6
2900 48th Street N.W.
Rochester, MN 55901-5848

Office Tel: 507-286-7594
Fax: 507-285-7279

E-mail: chris.moates@dot.state.mn.us

January 5, 2009

David Weetman, Senior Environmental Scientist
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

RECEIVED
JAN 07 AM
WESTWOOD
PROFESSIONAL SERVICES

**RE: Proposed Goodhue Wind Project
Request for formal comments for Goodhue Wind Project
Goodhue Wind, LLC
Goodhue County, Minnesota
MN 58 CS 2510**

Dear Mr. Weetman:

Minnesota Department of Transportation (Mn/DOT) District 6 staff has reviewed the request for comments or concerns regarding your plan to obtain a site permit from the Minnesota Public Utilities Commission (PUC) for the Goodhue Wind Project in late October 2008. With the increase in size of the project area from 16,600 to 24,300 acres, there is potential for impact to Mn/DOT interests in the vicinity of Minnesota State Highway 58 and US Highway 52. Please be aware of State Project 2510-37 on MN 58, scheduled for 2010, which will replace Bridge 5188 and box culvert 6160 project over the north fork of the Zumbro River in Zumbrota. Also, a District 6 Access Management & Safety Plan is underway for US 52 in this area and is progressing toward the vision for US 52 becoming a Freeway/Expressway from Rochester to the Twin Cities area.

In addition, any work and possible placement of structures adjacent to and within Mn/DOT right of way is of concern. If work is required within Mn/DOT right of way for temporary or permanent accesses, it should be coordinated with Terry Condon, District 6 West Permits, at (507) 446-5505 or terry.condon@dot.state.mn.us. The placement of utilities would require a Utility Long Form Permit (TP-02525-03) issued through St. Paul and administered here in District 6. The temporary widening of field entrances (for delivery-if needed) or a new access would be issued through Mn/DOT District 6, using an Access Driveway Permit (TP-1721).

Please note that Mn/DOT's accommodation policy and procedures are listed on-line at: <http://www.dot.state.mn.us/utility/files/pdf/appendix-b.pdf>.

Thank you for the opportunity to comment.

Sincerely,



Chris Moates
District 6 Planning Director

cc: Nelrae Succio
Greg Paulson
Fausto Cabral
Mark Trogstad-Isaacson
Terry Condon
Peter Waskiw
Bob Hutton
Tracy Schnell
Stacy Kotch, MS 678
File

David Weetman

From: Wayne Barstad [Wayne.Barstad@dnr.state.mn.us]
Sent: Tuesday, January 13, 2009 9:44 AM
To: David Weetman
Subject: Re: Revised Goodhue Wind Project Area

I distributed your request to area staff and asked for review and comment. I received one response. The area hydrologist commented that the expanded area will encompass three public watercourses: the headwaters of Hay Creek and two tributaries to Belle Creek. None of these stream reaches are designated as trout streams. We assume that impacts to these streams can be completely avoided.

That's all I have for now. Thanks again for the opportunity to review this plan. ..wb

Wayne Barstad
Regional Environmental Assessment Ecologist Central Region
651 259-5738
wayne.barstad@dnr.state.mn.us
Nature bats last!

>>> David Weetman <David.Weetman@westwoodps.com> 12/19/2008 10:51 AM >>>
On behalf of Goodhue Wind, LLC, I write to request your formal comments or concerns regarding plans to obtain a site permit from the Minnesota Public Utilities Commission ("PUC") for the Goodhue Wind Project (the "Project"). We initially notified you of the Project on October 6, 2008. The purpose of the attached letter is to inform you that the size of the Project area has increased by approximately 7,700 acres and to inquire whether your office has any comments regarding this change to the Project. Additional land parcels were added at the southwest and northeast portions of the former Project area to address future development concerns of the City of Goodhue.

We appreciate any comments, questions or concerns you may have regarding the proposed Project and the updated Project area. Please respond as soon as possible or within 30 days of the date of this letter.

Best Regards,

David M. Weetman
Senior Environmental Scientist
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344-7310
DIRECT 952-906-7419
EMAIL david.weetman@westwoodps.com<<mailto:david.weetman@westwoodps.com>>
MAIN 952-937-5150
FAX 952-937-5822
WEB www.westwoodps.com<<http://www.westwoodps.com/>>

RECEIVED

JAN 23 2009

**WESTWOOD
PROFESSIONAL SERVICES**

January 21, 2009

Dean Sather
Westwood Professional Services, Inc.
7599 Anagram Dr.
Eden Prairie, MN 55344

RE: Goodhue Wind Project by Goodhue Wind, LLC
T111 R15 S1-4, 8-17, 21-28, 33-36 and T111 R16 S5-9, 16-21, 29-30; Goodhue County
SHPO Number: 2009-0723

Dear Mr. Sather:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

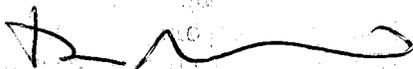
Due to the nature of the proposed project, we recommend that an archaeological survey be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. For your information, we have enclosed a list of consultants who have expressed an interest in undertaking such surveys.

If the project area can be documented as previously disturbed or previously surveyed, we will re-evaluate the need for survey. Previously disturbed areas are those where the naturally occurring post-glacial soils and sediments have been recently removed. Any previous survey work must meet contemporary standards.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal license or permit, it should be submitted to our office with reference to the appropriate federal agency.

If you have any questions on our review of this project, please contact me at (651) 259-3456.

Sincerely,



Dennis A. Gimmestad
Government Programs and Compliance Officer

Enclosure: List of Consultants



MINNESOTA HISTORICAL SOCIETY
State Historic Preservation Office
Contract Archaeologists
Last Updated: 4/2/08

This listing is comprised of individuals and firms who have expressed an interest in undertaking contract archaeology in the State of Minnesota. It is provided for informational purposes to those who may require the services of an archaeological consultant. Inclusion on the list does not constitute an endorsement of the consultant's professional qualifications or past performance. The SHPO may remove contractors from the list if no work is completed in Minnesota over a two year period. The SHPO reserves the right to reject contract reports if the principal investigator or other contract personnel do not meet certain minimal qualifications such as the Secretary of the Interior's professional qualifications standards (Federal Register 9/29/83).

It is recommended that work references be checked and multiple bids be obtained before initiating a contractual agreement. The SHPO will not recommend specific contractors, but may be able to comment on previous work reviewed pursuant to state and federal standards and guidelines. The SHPO can be contacted at the Minnesota History Center, 345 Kellogg Boulevard West, St. Paul, MN 55102, 651/259-3450.

10,000 Lakes Archaeology, Inc.

220 9th Avenue South
South St. Paul, MN 55075
612/670-6431
gronhovd@10000lakesarchaeology.com
www.10000lakesarchaeology.com

The 106 Group Limited

370 Selby Avenue
St. Paul, MN 55102
651/290-0977
Fax 290-0979

ALO Environmental Associates

Amy L. Ollendorf, Ph.D.
111 Pratt Street
Minneapolis, MN 55419
612/227-6697
Fax 612/866-7546
amy@aloenviro.com
www.aloenviro.com

AMEC Earth and Environmental

109 Woodward Avenue
Jefferson City, MO 65109
573/301-6084

Anthropology Research

University of North Dakota
236 Centennial Drive Stop 7094
Dennis L. Toom
Grand Forks, ND 58202
701/777-2436

ARCH3, LLC

Daniel R. Pratt, M.A.
1386 Idaho Avenue West
St. Paul, MN 55108
651/308-8749
Fax 651/917-9291
arch3llc@gmail.com
www.arch3llc.com

Archaeological Research Services

1812 15th Avenue South
Minneapolis, MN 55404
612/870-9775

Archaeology Laboratory

Augustana College
2032 South Grange Avenue
Sioux Falls, SD 57105
605/274-5493

Bear Creek Archaeology, Inc.
P. O. Box 347
24091 Yellow Avenue
Cresco, IA 52136
563/547-4545 FAX 563/547-5403

Louis Berger and Associates, Inc.
Attn. Randall M. Withrow
950 50th Street
Marion, IA 52302
319/373-3043

Black River Archaeology, LLC
Ryan J. Howell
447 North Youlon Street, Suite B
West Salem, WI 54669
608/498-0336

Bolton & Menk, Inc.
Dale Maul
1224 Nicollet Avenue
Burnsville, MN 55337-6857
952/890-0509
Fax 952/890-8065
dalema@bolton-menk.com
www.bolton-menk.com

Commonwealth Cultural Resources
Kathryn C. Egan-Bruhy
PO Box 1061
Minocqua, WI 54548
715/358-5686

Consulting Archaeological Services
PO Box 686
Creston, IA 50801
515/333-4607

Cultural Heritage Consultants
Todd Kapler
PO Box 3836
Sioux City, IA 51102-3836
Phone 712/239-9085
Fax 712/239-9086

Duluth Archaeology Center
5910 Fremont Street, Suite 1
Duluth, MN 55807
218-624-5489
archcenter@aol.com
www.dulutharchaeologycenter.com

Florin Cultural Resource Services
N12047 280th Street
Boyceville, WI 54725
715/643-2918

Foth and Van Dyke, Inc.
Curtis M. Hudak
Eagle Point II
8550 Hudson Boulevard North
Suite 100
Lake Elmo, MN 55042
651/288-8593
Fax 651/288-8551
www.foth.com

R.C. Goodwin and Associates
309 Jefferson Highway, Suite A
New Orleans, LA 70121
504/837-1940
neworleans@rcgoodwin.com

Great Lakes Arch. Research Center
427 East Stewart Street
Milwaukee, WI 53207
414/481-2093

Richard Grubb and Associates
22927 Wigeon Court
Plainfield, IL 60585
815/439-3501

HDR One Company
Michael Justin
701 Xenia Avenue South
Suite 600
Minneapolis, MN 55416
763/591-5423
Fax 763/591-5413
michael.justin@hdrinc.com

Historic Preservation Associates
Contact: Timothy Klinger
P.O. Box 1064
Fayetteville, AR 72702
501/442-3779

Jeff Kinney and Associates
PO Box 43
Manvel, ND 58256
701/696-2289

Larson-Tibesar Assoc., Inc.
421 South Cedar Street
Laramie, WY 82070
307/742-4371 or 701/696-2236

Leech Lake Heritage Sites Program
115 6th Street NW
Suite E
Cass Lake, MN 56633
218/335-8095

McFarlane Consulting, LLC

318 Goodhue Street
St. Paul, MN 55102
651/699-1921

Metcalf Archaeological Consultants

PO Box 2154
Bismarck, ND 58501
701/258-1215

Minnesota State University Moorhead

Michael Michlovic or George Holley
Department of Anthropology & Earth Science
Moorhead, MN 56560
218/477-2035 or 218/477-2680
michlovc@mnstate.edu
holley@mnstate.edu

Mississippi Valley Archaeology Center

1725 State Street
LaCrosse, WI 54601
608/785-8463
boszhard.robe@uwlax.edu
www.uwlax.edu/mnvac/contracts.htm

Parsons Engineering Science Inc.

400 Woods Mill Road
Chesterfield, MO 63017
314/576-7330

Pathfinder CRM

Robert Vogel
168 West Main Street
P.O. Box 503
Spring Grove, MN 55974
507/498-3810

Quality Services

3459 Jet Drive
Rapid City, SD 57703
605/388-5309 or
605/209-0265

Rolling Hills Consulting Services, LLC

Chad A. Goings
1221 East 3rd Street
Washington, IA 52353
319/461-7427
cagoings@aol.com

St. Cloud State University

Mark P. Muñiz, Ph.D., RPA
Assistant Professor
Director CRM Archaeology Graduate
Program
Department of Sociology and Anthropology
262 Stewart Hall

720 Fourth Avenue South
St. Cloud, MN 56301
320/308-4162
Fax 320/308-1694
mpmuniz@stcloudstate.edu

SOILS Consulting

PO Box 121
Longville, MN 56655
218/682-2110

Stemper and Associates

24505 Hardeggers Drive
Cleveland, MN 56017
507/931-0823
Fax 507/931-5356

Summit Envirosolutions

Andrea Vermeer
1217 Bandana Boulevard North
St. Paul, MN 55108
651/644-8080

Robert Thompson

13367 87th Place North
Maple Grove, MN 55369
612-788-7412

TRC Mariah

605 Skyline Drive
Laramie, WY 82070
307/742-3843

Trefoil Cultural & Environmental Heritage

Richard Rothaus, PHD
1965 W. Highview Drive
Sauk Rapids, MN 56379
320/761-9090
rothaus@trefoilcultural.com

Two Pines Resource Group

17711 260th Street
Shafer, MN 55074
651/257-4766

**University of South Dakota Archaeology
Laboratory**

Contact: Richard Fox
414 Clark Street
Vermillion, SD 57069
605/677-5594

WAPSI Valley Archaeology

PO Box 244
Anamosa, IA 52205
319/462-4760

Westwood Professional Services, Inc.

Steven Blondo
7699 Anagram Drive
Eden Prairie, MN 55344
952/937-5150
Fax 952/937-5822
www.westwoodps.com

Wilbur Smith Associates

465 E High Street, Suite 100
Lexington, KY 40507
859/254-5759

Wisconsin Ctr Ice Age Research

1659 North Jackson Street
Milwaukee, WI 53202
414/221-9030
Fax 414/221-9067



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Twin Cities Field Office
4101 American Blvd. E.
Bloomington, Minnesota, 55425-1665

July 9, 2009

Mr. David Weetman
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

re: Request for environmental review
Goodhue Wind Farm
Goodhue County, Minnesota

Dear Mr. Weetman:

This letter is in reference to your request dated December 19, 2008 for information on fish and wildlife resources that may be affected by the proposed Goodhue wind farm project in Goodhue County, Minnesota. These comments are provided under the authority of the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) and the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Federally-listed Species and Candidate Species

As stated in email correspondence (November 25, 2008) from our office, we currently have no records of federally-listed threatened or endangered species or critical habitat at the project site. However, there is a record of western prairie fringed orchid, a federally threatened species, less than 1 mile from the proposed project boundary. If there is any remnant prairie within the project boundary, these area(s) should be surveyed for presence of the plant. However, please be aware that over time, habitats near the project site may be utilized by listed or proposed species not present at this time. Therefore, if there is a time lag of more than 6 months between plan completion and execution, it is important to reassess the impact of the project on federally-listed or proposed species or designated critical habitat prior to start of construction activities.

Migratory Birds and Bats

The Migratory Bird Treaty Act (MBTA), as amended, prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of Interior. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible. We encourage the implementation of recommendations that minimize the potential impacts to migratory birds and bats.

Please see Appendix I for general recommendations with regard to wildlife and wind farm installation. We recommend that the Goodhue wind farm adopt those guidelines to minimize impacts to migratory birds and bats.

Comments Specific to Project Area Wildlife and Habitat

RJD Memorial Hardwood State Forest is within ½ mile from the northern project boundary and has high concentrations of hardwood forest dependent migratory bird species using the area as a stop-over site and for breeding habitat. Therefore, we recommend at minimum that turbines be concentrated in the southern portion of the project parcel, away from the state forest (unless pre-construction surveys find otherwise).

This project is within the Mississippi River Valley corridor, which is one of the most important bird migration routes in the Upper Midwest. It is utilized by hundreds of thousands of ducks, swans and geese during spring and fall migration in addition to countless numbers of land birds that follow the broad corridor during these same migrations (E. Nelson, USFWS, pers. comm.). Additionally, the Mississippi River corridor is a major raptor migration route for both spring and fall migration (http://www.fws.gov/midwest/eco%5Fserv/wind/wind_maps/SpringMigration.pdf and http://www.fws.gov/midwest/eco%5Fserv/wind/wind_maps/FallMigration.pdf). Raptors are known to be highly susceptible to wind turbines.

The Service recommends that impacts to streams and wetlands be avoided, and buffers surrounding these systems be maintained. Streams, wetlands and vegetated buffers provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. If streams and /or wetlands are proposed to be impacted, the U.S. Army Corps of Engineers should be contacted to determine if permits are necessary. Before applying for a section 404 permit, we recommend that project alternatives are selected that avoid and minimize impacts to streams or wetlands.

We also recommend that no turbines be located within ¼ mile of Conservation Reserve Program, Wetland Reserve Program, or other similar federally or state funded restoration projects.

Bird/Bat Survey Protocol

The Service recommends that the project proponent conduct rigorous assessments of bird and bat use of the area before proceeding with project design, (i.e., preliminary siting of specific turbines) especially due to the proximity to the Mississippi River. We have not yet seen a proposed protocol for bird/bat surveys at this site. We encourage Goodhue Wind LLC to apply consistency with other wind farm survey protocols, thus allowing us to compare results with other wind farm survey data. These comparisons will potentially provide valuable information that can be applied in future wind farm/turbine macro- and micro-siting.

In addition to on-the-ground (point or transect) surveys, we recommend that the assessments include the use of mobile horizontally and vertically scanning radar to study the direction, altitude, and numbers of flying animals moving through and within the project area during the

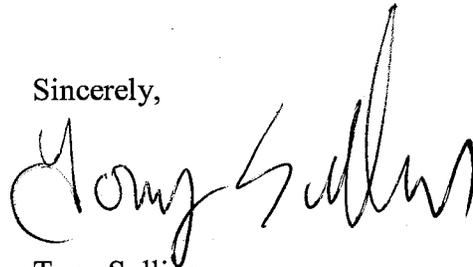
fall and spring migration of birds and bats, and the breeding period of birds in the area. We recommend that radar be employed for 24 hours a day, 7 days per week during migration and at a minimum from dawn to dusk during the breeding period. Radar studies are providing useful information in evaluating bird and bat activity at wind generation sites in Wisconsin, Vermont, Massachusetts, and other locations. The use of radar coupled with ground-truthing (surveys) can provide a more complete assessment of bird and bat use of a potential wind project area than point counts or other traditional survey methods alone. Such information could inform project design and minimize potential mortality associated with the project.

The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically robust, peer reviewed methodology of mortality surveys. We recommend that surveys be conducted for a minimum of three years following construction to assess impacts to birds and bats. We also recommend that the post-construction mortality studies be conducted by an independent third party contractor with expertise in bird/bat mortality monitoring. Results of mortality surveys and other forms of monitoring should be used to adjust operations to reduce mortality if necessary and feasible, as well as improve design and siting of future wind generation facilities. Goodhue Wind LLC or its contractor should provide to this office each year, no later than December 31, copies of annual bird/bat mortality monitoring reports.

Please provide us copies of any future documents that may be associated with this project, in particular, please send your bird/bat survey protocol.

Thank you for the opportunity to review the proposed project. We look forward to continuing to work with you, specifically with regard to the pre-and post-construction survey process. Should you have questions concerning this response, please contact Jill Utrup by telephone at (920) 866-1734.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Sullins". The signature is fluid and cursive, with a large initial "T" and "S".

Tony Sullins
Field Supervisor

Enclosure

cc: Kevin Mixon, Minnesota DNR
John Schladweiler, Minnesota DNR
Tiff Thompson, National Wind, LLC

Appendix I

Recommended Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines

Although the Service supports the continued development of wind power, wind farms can adversely impact wildlife and associated habitat. The Service is especially interested in minimizing the potential adverse impact with regard to birds and bats. In the fall of 2003 and 2004, it was estimated that thousands of migrating bats were killed each year at wind farms in West Virginia and Tennessee. Similar, but smaller mortality events have occurred at wind farms in several other states, including Pennsylvania and Minnesota. Similar numbers of birds are estimated to be killed each year at wind farms throughout the country. To assist in developing best practices for siting and monitoring of wind farms, the Service published *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines*. The Guidelines provide the following recommendations:

- 1) Pre-development evaluations of potential wind farm sites to be conducted by a team of Federal and/or State agency wildlife professionals with no vested interest in potential sites;
- 2) Ranking potential sites by risk to wildlife;
- 3) Avoid placing turbines in documented locations of federally-listed species;
- 4) Avoid locating turbines in known bird flyways or migration pathways, or near areas of high bird concentrations (i.e., rookeries, leks, refuges, riparian corridors, etc.);
- 5) Avoid locating turbines near known bat hibernation, breeding, or maternity colonies, in migration corridors, or in flight paths between colonies and feeding areas;
- 6) Configure turbine arrays to avoid potential avian mortality where feasible. Implement storm water management practices that do not create attractions for birds, and maintain contiguous habitat for area-sensitive species;
- 7) Avoid fragmenting large, contiguous tracts of wildlife habitat;
- 8) Use tubular supports with pointed tops rather than lattice supports to minimize bird perching and nesting opportunities;
- 9) If taller turbines (top of rotor-swept area is greater than 199 feet above ground level) require lights for aviation safety, the minimum amount of lighting specified by the Federal Aviation Administration (FAA) should be used. Unless otherwise requested by the FAA, only white strobe lights should be used at night, and should be of the minimum intensity and frequency of flashes allowable. Red lights should not be used, as they appear to attract night-migrating birds at a higher rate than white lights;
- 10) Adjust tower height to reduce risk of strikes in areas of high risk for wildlife.

The full text of the guidelines is available at <http://www.fws.gov/r9dhcbfa/wind.pdf>. The Service believes that implementing these guidelines may help reduce mortality caused by wind turbines. We encourage you to consider these guidelines in the planning and design of your project. We particularly encourage you to place turbines away from wetland or wooded areas, and avoid placing turbines between nearby habitat blocks. Because of their attractiveness to birds and bats, we recommend that turbines, from the outside edge of the rotor swept area, be located no closer than 100 meters from streams or other water bodies, riparian areas, and wooded edges. Minimum distance from turbines should be increased with the size and habitat quality of the resource.

Development of transmission infrastructure associated with wind facilities also poses risks to wildlife. These risks include potential avian mortality, particularly electrocution of raptors (hawks, eagles, kites, falcons, and owls), that could occur when they attempt to perch on uninsulated or unguarded power poles. Recently published information about which types of power line poles and associated hardware (e.g., wires, transformers and conductors) pose the greatest danger of electrocution to raptors and what modifications can be made to reduce this threat can be found on the internet at <http://www.aplic.org/>