

Appendix A

Agencies Contacted Regarding Project **Shell Rock Wind Farm** Freeborn County, Minnesota

This page is intentionally blank.

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|--|---|
| <p>U.S. Army Corps of Engineers (USACE)</p> | <p>David.A.Studenski U.S. Army Corps of Engineers Attn: OP-R 1114 South Oak Street La Crescent, MN 55947-1338 Fax: (507) 895-4116 Phone: (507) 895-2064 Email: David.A.Studenski@usace.army.mil</p> |
| <p>U.S. Fish and Wildlife Service (USFWS) (Region 3)</p> | <p>Tony Sullins U.S. Fish and Wildlife Service Twin Cities Ecological Services Office 4101 American Boulevard East Bloomington, Minnesota 55425-1665 Phone: (612) 725-3548, ext. 2201 Fax: (612) 725-3609 Email: Tony_Sullins@fws.gov</p> |
| <p>Environmental Protection Agency (Region 5) (EPA) in coordination with the Minnesota Pollution Control Agency (MPCA)</p> | <p>Alan Walts US EPA Region 5 Office of Enforcement and Compliance Assurance 77 W. Jackson Blvd. Chicago, IL 60604 Phone: 312-353-8894 Email: walts.alan@epa.gov</p> |
| <p>U.S. Department of Agriculture (USDA/NRCS)</p> | <p>Don Baloun, State Conservationist Minnesota State Office: USDA/NRCS 375 Steele Street, Suite 600 St. Paul, Minnesota 55101 Phone: (651) 602-7854 Fax: (651) 602-7914 Email: don.baloun@mn.usda.gov</p> |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|---|--|
| Natural Resources Conservation Service (NRCS) | Edward Moffett, District Conservationist Natural Resources Conservation Service Freeborn County SWCD 1400 W. Main Street Albert Lea, MN 56007-1816 Phone: (507) 373-5607 Fax: Fax (507) 373-7654 Email: edward.moffett@mn.usda.gov |
| U.S. Department of Agriculture Farm Service Agency (FSA) | Lee Crawford Freeborn County FSA Office 1400 W. Main Street Albert Lea, Minnesota 56007 Phone: (507) 373-7960 Email: crawford@mn.usda.gov |
| Federal Aviation Administration | Kandice Krull Environmental Protection Specialist Minneapolis Airports District Office MSP-ADO-600 6020 28th Avenue, South, Room 102 Minneapolis, Minnesota 55450 Phone: (612) 713-4362 Fax: (612) 713-4364 Email: Kandice.Krull@faa.gov |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|---|---|
| State | |
| <p>Minnesota Public Utilities Commission (PUC)</p> <p><u>Not contacted via letter for comment.</u> <u>On list for informational purposes only.</u></p> | <p>Bob Cupit, Manager Minnesota Public Utilities Commission Energy Facilities Permitting 121 7th Place East, Suite 350 St. Paul, Minnesota 55101 Phone: (651) 201-2255 Fax: (651) 297-7073 Email: Bob.Cupit@state.mn.us</p> <p>Burl W. Harr, Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, Minnesota 55101 Phone: (651) 201-2222 Fax: (651) 297-7073 Email: Burl.Haar@state.mn.us</p> |
| <p>Minnesota Department of Commerce – Office of Energy Security</p> <p><u>Not contacted via letter for comment.</u> <u>On list for informational purposes only.</u></p> | <p>Larry Hartman Energy Facility Permitting Office of Energy Security Minnesota Department of Commerce 85 7th Place East, Suite 500 St. Paul, MN 55101 Phone: (651) 296-5089 Fax: not available Email: larry.hartman@state.mn.us</p> |
| <p>Minnesota State Historic Preservation Office (SHPO)</p> | <p>Kelly Gragg-Johnson State Historic Preservation Office Minnesota Historical Society 345 Kellogg Boulevard West St. Paul, Minnesota 55102 Phone: (651) 259-3455 Fax: (651) 282-2374 Email: kelly.graggjohnson@mnhs.org</p> |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|---|--|
| MN BWSR Board Conservationist | Chris Hughes Board Conservationist MN BWSR Regional Office 1160 Victory Drive South, Suite 5 Mankato, MN 56001-5358 Phone: (507) 389-6784 Fax: (507) 345-6036 Email: chris.hughes@state.mn.us |
| Minnesota Department of Natural Resources (MnDNR) | Lisa Joyal Endangered Species Environmental Review Coordinator Natural Heritage Information System 500 Lafayette Road, Box 25 St. Paul, Minnesota 55155 Phone: (651) 259-5109 Fax: (651) 296-1811 Email: lisa.joyal@state.mn.us |
| Minnesota Department of Natural Resources (MnDNR) | Jaime Edwards, Nongame Wildlife Specialist Minnesota DNR Nongame Wildlife - South Region 2300 Silver Creek Road NE Rochester, MN 55906 Phone: (507) 206-2820 Email: jaime.edwards@state.mn.us |
| Minnesota Department of Natural Resources (MnDNR) | Mr. Kevin Mixon Regional Environmental Assessment Ecologist Minnesota Department of Natural Resources 261 Hwy 15 S New Ulm, MN 56073 Phone: 507-359-6003 Email: Kevin.Mixon@state.mn.us |
| Minnesota Department of Natural Resources (MnDNR) | Ken Varland, Regional Wildlife Manager Minnesota Department of Natural Resources 261 Highway 15 S New Ulm, MN 56073 Phone: 507-359-6030 Email: Kenneth.Varland@state.mn.us |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|---|---|
| Minnesota Department of Natural Resources (MnDNR) | Corey Hanson, Region 4 Area Hydrologist Minnesota Department of Natural Resources DNR Waters 2300 Silver Creek Rd NE Rochester, MN 55906 Phone: (507) 206-2852 Fax: (507) 285-7144 Email: Corey.Hanson@state.mn.us |
| Minnesota Department of Natural Resources (MnDNR) | Bob Hobart DNR Lands and Minerals, Region 4 261 Highway 15 South New Ulm, Minnesota 56073-8915 Phone: (507) 359-6071 Fax: (507) 359-6018 Email: bob.hobart@state.mn.us |
| Minnesota Pollution Control Agency (MPCA) | Karen Kromar Minnesota Pollution Control Agency Environmental Review and Operations Section Regional Division 520 Lafayette Road North St. Paul, Minnesota 55155-4194 Phone: (651) 757-2508 Fax: 651/296-9707 Email: Karen.Kromar@state.mn.us |
| Minnesota Pollution Control Agency (MPCA) | Zachary Klaus Minnesota Pollution Control Agency Tanks Compliance and Enforcement Southeast Region 18 Wood Lake Drive SE Rochester, MN 55904 Phone: (507) 206-2649 Fax: (507) 280-5513 Email: Zachary.Klaus@state.mn.us |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|--|--|
| Minnesota Department of Health (MDH) | Peter Zimmerman Well Management Southern Region Supervisor Minnesota Department of Health 18 Wood Lake Drive Southeast Rochester, MN 55904 Phone: (507) 206-2737 Email: Peter.Zimmerman@state.mn.us |
| Minnesota Department of Transportation | Nelrae Succio District Engineer 2900 48th Street NW Rochester, MN 55901-5848 Phone: (507) 286-7501 Fax: (507) 285-7355 Email: nelrae.succio@state.mn.us |
| Minnesota Department of Transportation | Ted Coulianos, Supervisor Minnesota Department of Transportation OFCVO – Transportation Permit Section 395 John Ireland Boulevard St. Paul, Minnesota 55155 Phone: (651) 355-0250 Fax: (651) 215-9677 Email: Ted.Coulianos@state.mn.us |
| Minnesota Department of Transportation | Darlene Dahlseide Mn/DOT-Office of Aeronautics 222 East Plato Boulevard St. Paul, Minnesota 55107-1618 Phone: (651) 234-7248 Fax: (651) 296-9089 Email: Darlene.Dahlseide@state.mn.us |

Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010

| Agency | Contact(s) |
|-----------------------------|---|
| Local | |
| Local Government Unit (LGU) | Donald Flatness Freeborn Soil & Water Conservation District 1400 W Main Street Albert Lea, MN 56007 Phone: (507) 373-5607 Fax: (507) 373-7654 Email: donald.flatness@mn.nacdnet.net |
| City of Albert Lea, Mayor | Vern Rasmussen, Jr., Mayor City of Albert Lea 1426 Edgewater Dr. Albert Lea, MN 56026 Phone: (507) 377-1540 Email: vrras@charter.net |
| City of Alden, Mayor | Jerry Reyerson, Mayor City of Alden P.O. Box 325 Alden, MN 56009 Phone: (507) 874-3620 Fax: (507) 874-3636 Email: cityofalden.mn@frontiernet.net |
| City of Conger, Mayor | Travis Henderson, Mayor City of Conger P.O. Box 278 Conger, MN 56020 Phone: (507) 265-3435 Fax: (507) 265-3443 Email: thender1973@live.com |
| City of Twin Lakes, Mayor | Attn: City of Twin Lakes, Mayor P.O. Box 428 Twin Lakes, MN 56089 |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|---|---|
| Freeborn County Planning and Zoning | Wayne Sorenson Freeborn County Planning and Zoning 411 South Broadway PO Box 1147 Albert Lea, MN 56007 Phone: (507) 377-5186 Fax: (507) 377-4688 Email: wayne.sorensen@co.freeborn.mn.us |
| Freeborn County Environmental Services | Dick Hoffman Freeborn County Environmental Services 411 South Broadway PO Box 1147 Albert Lea, MN 56007 Phone: (507) 377-5186 Fax: (507) 377-4688 Email: dick.hoffman@co.freeborn.mn.us |
| Freeborn County Highway Department | Sue Miller, County Highway Engineer Freeborn County Highway Department 3300 Bridge Avenue Albert Lea, MN 56007 Phone: (507) 377-5188 Fax: (507) 377-5189 Email: sue.miller@co.freeborn.mn.us |
| Freeborn County Commissioners District 1 | Commissioner Glen Mathiason Freeborn County Commissioners District 1 66337 220th St. Alden, MN 56009 Phone: (507) 383-8274 Email: glenmath@frontiernet.net ; glenmath@deskmedia.com |
| Freeborn County Commissioners District 2 | Commissioner Dan Belshan Freeborn County Commissioners District 2 85486 157th St. Glenville, MN 56036 Phone: (507) 448-3332 Email: dbelshan@clear.lakes.com |

**Shell Rock Wind Farm Project
Agency Contact List
December 20, 2010**

| Agency | Contact(s) |
|--|--|
| Freeborn County Commissioners District 3 | Commissioner Jim Nelson Freeborn County Commissioners District 3 16720 785th Ave. Albert Lea, MN 56007 Phone: (507) 383-2605 |
| Freeborn County Commissioners District 4 | Commissioner Christopher Shoff Freeborn County Commissioners District 4 405 Garden Rd. Albert Lea, MN 56007 Phone: (507) 373-0980 Email: christopher.shoff@co.freeborn.mn.us |
| Freeborn County Commissioners District 5 (Vacant) | Freeborn County Commissioners District 5 (Vacant) Albert Lea, MN 56007 Email: john.kluever@co.freeborn.mn.us |
| Pickereel Lake Township | Nordeen Krueger, Chair Pickereel Lake Township 19633 720 th Avenue Albert Lea, MN 56007 Phone: (507) 373-5014 |
| Alden Township | George Wichmann, Clerk Alden Township 64090 170 th Street Alden, MN 56009 Phone: (507) 265-3436 |

Appendix B

Agency Responses **Shell Rock Wind Farm** Freeborn County, Minnesota

This page is intentionally blank.



Minnesota Department of Natural Resources

Division of Ecological Resources – Reg. 4

261 Hwy 15 South

New Ulm, MN 56073-8915

Phone: (507) 359-6073 Fax: (507) 359-6018 E-mail: kevin.mixon@dnr.state.mn.us

October 22, 2010

RECEIVED
OCT 27 2010
WESTWOOD
PROFESSIONAL SERVICES

Brie L. Anderson
Westwood Professional Service
7699 Anagram Drive
Eden Prairie, MN 55344

In re: Confidential LWECS
Preliminary Review
Freeborn County, MN

Dear Brie:

The Minnesota Department of Natural Resources (DNR) has received information concerning the above referenced wind project located in Freeborn County, MN. The DNR is providing the following comments as a mechanism to collaboratively work together to identify potential natural resource issues that should be considered during project development.

Issues concerning rare features should be identified and resolved prior to applying for the PUC Site Application Permit. To receive information regarding rare features in the vicinity of the proposed project, submit a Natural Heritage Information System (NHIS) request form (http://files.dnr.state.mn.us/eco/nhrp/nhis_data_request.pdf). The NHIS contains important information on the distribution of Minnesota's rare plants, animals, and native plant communities. This information will be useful in the planning of your wind project and should be requested early in the planning process. In addition, significant natural areas identified by the Minnesota County Biological Survey (MCBS Sites of Biodiversity Significance, MCBS Native Plant Communities, and MCBS Railroad Rights-of-Way Prairies) are available as GIS shape files and can be downloaded at no cost from the DNR Data Deli at <http://deli.dnr.state.mn.us/>. Please contact Lisa Joyal, Natural Heritage Review Coordinator, at 651-259-5109 for more information on the NHIS review process.

Bryson Wildlife Management Area (WMA) is adjacent to the project area. The DNR recommends that no direct impacts occur to the WMA from tower construction, transmission lines, substations, or access roads associated with the project. In addition, the DNR recommends a buffer should be established around all WMA's that is a minimum of five times the rotor blade diameter. This buffer may be re-evaluated as the project progresses if more information on sensitive resources associated with the WMA are discovered. State Wildlife Management Area boundaries can be downloaded from the DNR Data Deli (<http://deli.dnr.state.mn.us/>).

Placing turbines, access roads, or other infrastructure in close proximity to wetlands (non-meandered, non-public water) may result in avian avoidance of the wetland and its associated habitat and may result in increased avian and bat fatalities. The general DNR recommended buffer to wetlands (FWS Circular 39 Type III-VIII) and perennial streams that provide significant habitat value is 600 feet. The DNR may recommend buffers for some Type I and II wetlands that contain high habitat value based on a project-by-project basis. The DNR wetland buffer is consistent with prior DNR recommendations to counties during their development of county wind ordinances. Numerous counties have adopted the 600 foot wetland setback distance into their wind ordinance. Further coordination should occur with the DNR in situations where the project proponent feels the wetland buffer should not apply.

The DNR has identified the Bear Lake watershed as an area to focus wetland restoration activities. Please be cognizant of currently drained wetlands that have potential to be restored. Please consider placing project infrastructure (turbines, collector lines, access roads, substations) in a manner that would not preclude future wetland restorations.

Project developers crossing (over, under, or across) any state land or public water with any utility (power lines, including feeder lines) need to secure a DNR license to cross (Minnesota Statute 84.415). Information on how to obtain a License for Utility can be found at http://www.dnr.state.mn.us/permits/utility_crossing/index.html. For information on where the Public Waters are located in your project area go to the following site and click on the Public Waters Inventory (PWI) Maps Download button: http://www.dnr.state.mn.us/waters/watermgmt_section/pwi/download.html

Grassland habitat that is greater than 40 acres in size has been shown to have an increased diversity of species and provide habitat for area sensitive species. Area sensitive species select larger blocks of habitat for nesting and when that habitat is fragmented by turbines, access roads, or substations it may result in species avoiding the area or lower nesting success. Consideration should also be given to a complex of smaller sized grassland patches that are in close proximity to each other and when combined provide suitable habitat for colonization by grassland birds. In many instances this habitat will be Conservation Reserve Program, Conservation Reserve Enhancement Program, Reinvest In Minnesota (RIM), restored prairie, or be in another easement program. Large grassland habitat should be avoided and an appropriate buffer should be established in order to avoid and minimize the fragmentation affect. In addition, fatality from operational turbines is likely to increase when they are constructed in close proximity to large blocks of grassland habitat that have concentrated bird and bat activity.

Project areas may contain parcels in state (Reinvest In Minnesota), federal (USFWS conservation easements), or private conservation easements. Turbines are prohibited in Reinvest In Minnesota easement areas and DNR Native Prairie Bank easements. The easement language prohibits the development of new structures within the area under easement. Statewide GIS (shapefiles) information on the location of Native Prairie Bank easements can be requested from the Scientific and Natural Areas Program at <http://www.dnr.state.mn.us/prairierestoration/prairiebank.html>

The United States Fish & Wildlife Service (USFWS), resource agencies, wind industry, and non-profit environmental groups have collaboratively developed the Wind Advisory Committee Recommendations (WACR) that currently is under review by the Secretary of Interior. The wind industry will be encouraged to review and consider the draft WACR during project development. The WACR guidelines can be viewed at:
http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html.

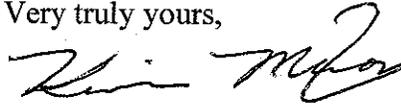
The DNR considers portions of this site to be high risk for bird and bat fatalities from operational turbines due to the proximity of the project to Upper Twin Lake and Bear Lake (Designated Wildlife Lake/Waterfowl Resting and Feeding Area/Public Water) and Lower Twin Lake (Designated Wildlife Lake/Public Water). Designated Wildlife Lakes and Waterfowl Resting and Feeding Areas restrict the use of motorized boats as a mechanism to reduce disturbance to waterfowl. The limited disturbance on the lakes is designed to increase the number of birds using the area. The large lakes and associated wetlands provide habitat that attracts birds and bats and as such increases the risk of fatalities. The DNR recommends avian flight characteristic surveys be conducted to help determine the fatality risk of the project and to assist with turbine placement. The DNR may recommend post-construction fatality studies for this site based on the avian flight characteristic survey results. The DNR is in the process of developing standardized avian flight characteristic methods that can be used for the surveys. The DNR recommends the surveys be conducted prior to the permitting process. Conducting the surveys prior to permitting is consistent with the Wind Advisory Committee Recommendations.

This review constitutes a preliminary review of the project and is not a substitute for reviewing potential turbine placement. Further review of the project should be conducted when the preliminary turbine locations are determined. The DNR will provide a second review of the project that is site specific to the proposed turbine locations, transmission lines, substations, and access roads.

In order to address the above referenced issues, prior to submitting the LWECS Site Application with the PUC, a meeting should occur. The purpose of the meeting is to address all of the identified issues and how the company plans to avoid and minimize impacts. The company should be prepared during the meeting to provide maps that depict strategies to avoid and minimize impacts and that show all of the setbacks. The company should also be prepared to make commitments for surveys and the corresponding methods.

The DNR looks forward to working in a positive and collaborative manner on this project to ensure that sustainable energy sources are developed while protecting Minnesota's natural resources. The DNR would appreciate a timely response to the above referenced issues in order to facilitate a collaborative resolution. Please contact me directly at 507-359-6073 if you have any questions.

Very truly yours,



Kevin Mixon
Regional Environmental Assessment Ecologist
Division of Ecological and Water Resources

Cc: Lisa Joyal, DNR
Jamie Schrenzel, DNR
Randall Doneen, DNR
John Schladweiler, DNR
Skip Wright, DNR
Ken Varland, DNR
Jeanine Vorland, DNR
Paul Hansen, DNR
Lisa Gelvin-Innvaer, DNR
Bob Hobart, DNR
Rich Davis, U.S. FWS

RECEIVED

NOV 01 2010

WESTWOOD
PROFESSIONAL SERVICES

October 29, 2010

Mr. Ryan Grohnke
Westwood Professional Services, Inc.
7699 Anagram Dr.
Eden Prairie, MN 55344

RE: Wind Energy Project west of Albert Lea and south of I-90
T102 R22 S1 – S34, Freeborn County
Westwood Project Number: 20101239.00
SHPO Number: 2011-0038

Dear Mr. Grohnke:

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,



Mary Ann Heidemann
Manager, Government Programs and Compliance

Enclosure: List of Consultants



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 American Blvd E.
Bloomington, Minnesota 55425-1665

RECEIVED
NOV 29 2010
WESTWOOD
PROFESSIONAL SERVICES

November 24, 2010

Brie Anderson
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

Re: Confidential Wind Energy Project, Freeborn County, Minnesota
FWS TAILS #32410-2011-CPA-0011

Dear Ms. Anderson:

This is in response to your September 30, 2010 request for our review of a proposed Confidential Wind Energy Project in Freeborn County, Minnesota. The proposed project includes the installation of wind turbines, and associated infrastructure including roads, transmission lines, and staging areas. The macro-siting project boundary sent to our office covers a total area of approximately 19,200 acres located in all or parts of sections 3-10, 15-22 and 27-34, Township 102 North, Range 22 West; and sections 1, 12, 13, 24, 25 and 36, Township 102 North, Range 23 West, in Freeborn County, Minnesota.

The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making an informed decision regarding wildlife issues, site selection, project design, and compliance with applicable laws.

The Service has been in contact with the Minnesota Department of Natural Resources (MnDNR) as they have developed recommended survey protocols and site evaluations that will satisfy both state and federal wildlife statutes, and this letter describes these measures, in part. We appreciate your early coordination with both the Service and the MnDNR, and recommend continued collaboration on this project to ensure wildlife and habitat issues are fully and appropriately addressed.

The Fish and Wildlife Service supports the development of wind power as an alternative energy source. However, wind farms can have negative impacts on wildlife and their habitats if not sited and designed with potential wildlife and habitat impacts in mind. Selection of the best sites for turbine placement is enhanced by ruling out sites with known, high concentrations of birds and/or bats passing within the rotor-swept area of the turbines or where the effects of habitat fragmentation will be detrimental. In support of wind power generation as a wildlife-friendly,

renewable source of power, development sites with comparatively low bird, bat and other wildlife values would be preferable and would have relatively lower impacts on wildlife.

The Service recommends that impacts to streams and wetlands be avoided, and buffers surrounding these systems be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally-vegetated buffers surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. Furthermore, forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region.

The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to the aquatic resource. If water resources will be impacted, the St. Paul District of the Corps of Engineers should be contacted for possible need of a Section 404 permit.

Federally-listed Threatened, Endangered, and Candidate Species

Because of the potential for wind power projects to impact federally-listed species, they are subject to the Endangered Species Act (16 U.S.C. 1531-1544) section 9 provisions governing "take," similar to any other development project. "Take" incidental to a lawful activity may be authorized through the initiation of formal consultation, if a Federal agency is involved. If a federal agency, federal funding, or a federal permit are not involved in the project, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA may be obtained upon completion of a satisfactory habitat conservation plan for the listed species. However, there is no mechanism for authorizing incidental take after the project is constructed and operational.

Currently, there are no federally-listed candidate, threatened, or endangered species present within Freeborn County, Minnesota. At any point during project planning, construction, or operation should additional information on listed or proposed species become available, or new species are listed that may be affected by the project, consultation should be reinitiated with the Twin Cities Field Office.

Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Bald and golden eagles are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Unlike the Endangered Species Act, neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of "incidental take" of migratory birds.

The Service recommends that a raptor nest survey be completed within the proposed project boundary and up to two miles from the macro-siting project boundary prior to leaf-out in the spring of the year. Monitoring should be conducted to assess the daily movement patterns of any species of raptor whose nest is located within the proposed project site or within two miles of the proposed project site. During the incubation and rearing stage, the location of adult birds should be tracked for at least four hours twice per week until consistent activity patterns are established. These monitoring dates will be determined based upon identified species within two miles of the project boundary. Alternate monitoring strategies that assess the degree to which nesting birds utilize the proposed project site will be considered. Information collected will be used to document how frequently the birds enter the proposed project site, and this information can be utilized during micro-siting to minimize substantial risks to birds within close proximity of the project site.

The Service recommends that surveys be completed to determine bird species that may be moving through this area during spring and fall migration, and bird species that may be in the area throughout the summer. These surveys will help assess the overall value of the proposed project area to migratory bird species, and it will also assist us in determining the need for post construction monitoring.

The Service's Office of Law Enforcement serves its mission to protect federal trust wildlife species in part by actively monitoring industries known to negatively impact wildlife, and assessing their compliance with Federal law. These industries include oil/gas production sites, cyanide heap/leach mining operations, industrial waste water sites, and wind power sites. There is no threshold as to the number of birds incidentally killed by wind power sites, or other industry, past which the Service will seek to initiate enforcement action. However, the Service is less likely to prioritize enforcement action against a site operator that is cooperative in seeking and implementing measures to mitigate take of protected wildlife.

Migratory Bird Concentration Areas and Conservation Lands

We 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.

Service-owned Lands

The Iowa, Chicago, and Eastern Waterfowl Production Area (WPA) is within the proposed macro-siting boundary in Sec 6, T102N, R22W. We recommend that the Iowa, Chicago, and Eastern WPA be removed from the proposed project boundary. There are three other WPAs within close proximity of the proposed macro-siting boundary. The Twin Lake WPA is approximately ¼-mile to the southeast, the Halls Lake WPA is approximately 1½ miles to the north, and the Foster Creek WPA is approximately 2¾ miles to the west. The Service generally recommends a minimum turbine setback distance of ½-mile from WPAs, but a one mile turbine setback from WPAs would be preferred if practical and feasible.

Interim Service Guidelines

Research into the actual causes of bat and bird collisions with wind turbines is limited. To assist Service field staffs in review of wind farm proposals, as well as aid wind energy companies 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* (2003). We encourage any company/licensee proposing a new wind farm to consider the following excerpted suggestions from the guidelines in an effort to minimize impacts to migratory birds and bats.

- 1) Pre-development evaluations of potential wind farm sites to be conducted by a team of Federal and/or State agency wildlife professions with no vested interest in potential sites;
- 2) Rank 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/habitatconservation/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 the project. We particularly encourage placement of turbines away from any large wetland, stream corridor, or wooded areas, and avoiding placing turbines between nearby habitat blocks.

If this proposal is to move forward, we strongly recommend that on-the-ground surveys using radar, infrared, and/or acoustic monitoring be conducted during the peak of spring and fall bird migrations and during the breeding season over a period of several years (consistent with the Service's *Interim Guidelines, op. cit.*) to identify breeding and feeding areas and migration stopover sites. Observations made from greater than ¼-mile from target areas are likely to be insufficient to accurately assess bird use of the landscape, particularly if the observer is moving. Generalized ground research survey protocols, such as those followed in the Waterfowl Breeding Population and Habitat Survey (Smith 1995) and the North American Breeding Bird Survey (Pardieck 2001), among others, often do not accept observations made at greater than ¼-mile from the observer, due in part to high probabilities of missed detections (R. Russell, personal communication). Furthermore, spring and fall raptor migration surveys may be necessary, as will surveys to document movement patterns of bald eagles that may use the project area or surrounding habitat. We request that any on-the-ground survey protocols be consistent with the Service's *Interim Guidelines* (2003), and be coordinated with this office and with the Minnesota Department of Natural Resources prior to implementation.

Pre-construction Surveys

The Service recommends that project proponent and their consultants conduct rigorous assessments of bird and bat use of the area before proceeding with project design (i.e., preliminary siting of specific turbines). We encourage the project proponent to maintain 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, seven days a 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.

We recommend installation of two AnaBat SDI detectors per meteorological tower to be used within the project area, and data should be collected from March 15 - November 15, 2011 and 2012. One AnaBat detector should be mounted at 5 meters above ground, and the other should be mounted as close to the rotor-swept area as possible. The AnaBat's sensitivity should be adjusted to detect a calibration tone at 20 meters. AnaBat units must monitor from 0.5 hour before sunset until 0.5 hour after sunrise. This will help to gauge bat activity and to some degree,

to determine bat species/guild composition within the project area during spring and fall migration and the maternity season.

Post-construction Surveys

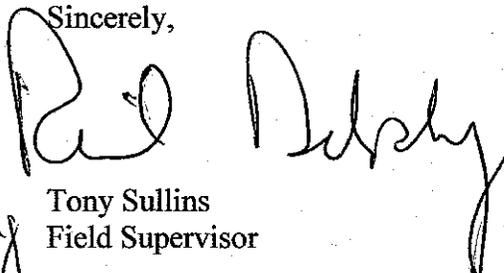
The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically robust, peer reviewed methodology of mortality surveys. Generally the Service recommends that surveys be conducted for a minimum of three years following construction to assess impacts to birds and bats. The duration of post construction surveys is project specific and will be determined based upon pre construction survey results. 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. **The Developer or its contractor should provide to this office each year, no later than December 31, copies of annual bird/bat mortality monitoring reports.**

Infrastructure Considerations

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/>.

Thank you for the opportunity to provide comments on this proposed project. Please contact me at (612) 725-3548, ext. 2201, or Rich Davis, Fish and Wildlife Biologist, at (612) 725-3548, ext. 2214, if we can be of further assistance.

Sincerely,



Acting
Tony Sullins
Field Supervisor

cc: Barry Christenson, USFWS – Windom WMD
Kevin Mixon, MN DNR



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

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

November 30, 2010

Correspondence # ERDB 20110155

Ms. Brie Anderson
Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344

RE: Natural Heritage information in the vicinity of the proposed Confidential LWECS;
T102N R22W Sections 3-10, 15-22, & 27-34 and T102N R23W Sections 1, 12, 13, 24, 25, & 36; Freeborn County

Dear Ms. Anderson,

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, rare features have been documented within the search area (for details, please see the enclosed database reports). We recommend coordinating with the Department of Natural Resources and the Office of Energy Security to resolve the following issue prior to submitting a Site Permit Application to the Public Utilities Commission:

- The loggerhead shrike (*Lanius ludovicianus*), a state-listed threatened bird, was documented in the vicinity of the project site in July 1998. 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 the project boundary contains suitable habitat, then it is possible that loggerhead shrikes may breed in the area. Please refer to the DNR Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of this rare species.

Wind farms can affect birds due to collision mortality, displacement due to disturbance, habitat fragmentation, and habitat loss. Even if collision mortality rates are low, the additional mortality may be significant for rare species. Given the potential for a state-listed threatened bird to occur and breed in the area, the DNR recommends that a loggerhead shrike habitat assessment be conducted within the permitting boundary. Based on the results of this assessment, the DNR may have further recommendations on turbine siting and pre- and post-construction avian monitoring. Please contact me to discuss appropriate methodology for the habitat assessment.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Department of Natural Resources, Division of Ecological and Water 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.

DNR Information: 651-296-6157

● 1-888-646-6367

● TTY: 651-296-5484

● 1-800-657-3929

An Equal Opportunity Employer Who Values Diversity

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.**

Locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

The Natural Heritage Review and the enclosed database reports are valid for environmental review purposes for one year; they are only valid for the project location and description provided on the NHIS Data Request Form. Please contact me if project details change or if a data update is needed.

This letter does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. Please refer to Kevin Mixon's letter dated 22 October 2010 for these concerns.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,



Lisa Joyal
Natural Heritage Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Regional Early Coordination Letter dated 22 October 2010

cc: Jamie Schrenzel
Rich Baker
Kevin Mixon
Lisa Gelvin-Innvaer

Printed October 2010
Data valid for one year

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20110155 - Confidential Wind Project
Multiple TRS
Freeborn County

Rare Features Database:

| Element Name and Occurrence Number | Federal Status | MN Status | State Rank | Global Rank | Last Observed Date | EO ID # |
|---|----------------|-----------|------------|-------------|--------------------|---------|
| Vertebrate Animal | | | | | | |
| <u>Gallinula chloropus</u> (Common Moorhen) #8 T102N R22W S35, T101N R22W S3, T102N R22W S36, T101N R22W S2, T [...]; Freeborn County | No Status | SPC | S3B | G5 | 1955-08-26 | 1823 |
| <u>Lanius ludovicianus</u> (Loggerhead Shrike) #210 T103N R22W S31, T103N R23W S36, T103N R22W S29, T103N R22W S30, T [...]; Freeborn County | No Status | THR | S2B | G4 | 1998-07-03 | 34420 |

Records Printed = 2

Minnesota's endangered species law (*Minnesota Statutes*, section 84.0895) and associated rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit. For plants, taking includes digging or destroying. For animals, taking includes pursuing, capturing, or killing.

From: John Kluever [John.kluever@co.freeborn.mn.us]
Sent: Monday, December 27, 2010 8:12 AM
To: David Weetman
Subject: RE: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL
ROCK WIND FARM

Mr. Weetman: The special election for this vacancy is in March, so should have a Commissioner as of March 28th and will forward this to them.

John W. Kluever, County Administrator
Freeborn County
411 South Broadway
P.O. Box 1147
Albert Lea, MN 56007-1147
507-377-5115

From: David Weetman [mailto:David.Weetman@westwoodps.com]
Sent: Thursday, December 23, 2010 3:22 PM
To: John Kluever
Subject: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM

Mr. Kluever,

I am providing this letter to you in hopes that you will pass it to the next District Commissioner when that spot is filled.

Best Regards,
David

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

From: Koehler, Tim - St. Paul, MN [Tim.Koehler@mn.usda.gov]
Sent: Wednesday, January 05, 2011 4:19 PM
To: David Weetman
Cc: Baloun, Don - St. Paul, MN; Corrigan, John - St. Paul, MN; Xiong, John - St. Paul, MN; Olson, Krista - St. Paul, MN; Moffett, Edward - Albert Lea, MN
Subject: FW: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM
Attachments: shell_rock_wind.pdf

David

See the attached map. Currently there are no recorded or pending WRP easements in your project area.

Tim Koehler
ASTC
MN NRCS

From: Corrigan, John - St. Paul, MN
Sent: Wednesday, January 05, 2011 3:43 PM
To: Koehler, Tim - St. Paul, MN; Taylor, Myron - St Paul, MN; Olson, Krista - St. Paul, MN
Cc: Baloun, Don - St. Paul, MN; Xiong, John - St. Paul, MN
Subject: RE: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM

Please see the attached map.

Currently there are no recorded NRCS administered easements in the project area.

There are also no pending 2009 or 2010 easements.

John P. Corrigan
Easement Specialist
NRCS
375 Jackson, Suite 600
St. Paul, MN 55101
Phone:(651) 602-7876
FAX: (651) 602-7926

From: Koehler, Tim - St. Paul, MN
Sent: Wednesday, January 05, 2011 10:16 AM
To: Corrigan, John - St. Paul, MN; Taylor, Myron - St Paul, MN; Olson, Krista - St. Paul, MN
Subject: FW: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM

Please look at closed and pending easements I this area to see if we have any easements in this area.

From: Baloun, Don - St. Paul, MN
Sent: Tuesday, January 04, 2011 10:29 PM
To: Koehler, Tim - St. Paul, MN; Xiong, John - St. Paul, MN
Subject: FW: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM

Tim,
Please review our GIS layer to make certain we have no easement impacted by this activity..
Thanks
don

From: David Weetman [mailto:David.Weetman@westwoodps.com]
Sent: Thursday, December 23, 2010 2:33 PM
To: Baloun, Don - St. Paul, MN
Subject: PLEASE SEE ATTACHED LETTER AND EXHIBIT REGARDING PROPOSED SHELL ROCK WIND FARM

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



Minnesota Department of Natural Resources

Division of Ecological Resources – Reg. 4

261 Hwy 15 South

New Ulm, MN 56073-8915

Phone: (507) 359-6073 Fax: (507) 359-6018 E-mail: kevin.mixon@dnr.state.mn.us

January 7, 2011

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

In re: Shell Rock LWECs
Revised Project Boundary
Freeborn County, MN

Dear David:

The Minnesota Department of Natural Resources (DNR) received your letter and the revised project boundary (dated December 23, 2010) concerning the above referenced wind project located in Freeborn County, MN. The revised project boundary is located in an area with less potential impacts to natural resources than previous project boundaries. The DNR is providing the following comments as a mechanism to collaboratively work together to identify potential natural resource issues that should be considered during project development.

The Board of Water and Soil Resources (BWSR) conservation easement areas prohibit construction of turbines and an appropriate setback should be established in order to reduce potential mortality and avoidance of the habitat by avian species. Conservation Reserve Enhancement Program (CREP), RIM-Wetland Reserve Program, and Permanent Wetland Preserve easements are all considered RIM Reserve Easements for program policy and administration. Conservation easement information can be found at: <http://www.bwsr.state.mn.us/easements/index.html> under Download Our Statewide GIS (shapefile) of all RIM easements. For additional site specific information you can contact the Soil and Water Conservation District (SWCD) for the county where the land is located. The SWCD directory can be found at: <http://www.bwsr.state.mn.us/directories/SWCDs.pdf>

The DNR recommends appropriate buffers be established around all wetlands with significant habitat value in order to reduce potential avian avoidance and to reduce avian and bat fatalities. Avian avoidance of wetlands (including public waters) occurs when birds no longer use the habitat for resting, feeding, or nesting because the turbines height, noise, shadow flicker, or use of the access road creates a stress factor that results in them avoiding the area. Avian and bat fatalities occur when they strike the turbine and are injured or killed. Buffalo Ridge fatality studies indicated turbines with avian fatalities were significantly closer to wetlands (1430.45 feet) than turbines without avian fatalities (1,948.82 feet). The presence of NHIS tracked species will also be considered by the DNR when making buffer recommendations. The buffers may be re-evaluated if more information on sensitive resources associated with the area is known or as the project becomes more defined.

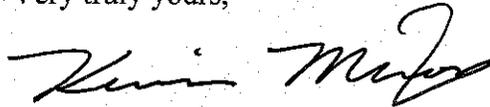
The United States Fish & Wildlife Service (USFWS), resource agencies, wind industry, and non-profit environmental groups have collaboratively developed the Wind Advisory Committee Recommendations (WACR) that currently is under review by the Secretary of Interior. The wind industry will be encouraged to review and consider the draft WACR during project development. The WACR guidelines can be viewed at:
http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html.

The DNR considers the revised project area to be low/moderate risk for bird and bat fatalities from operational turbines. Baseline fatality studies should be conducted for a minimum of one year to determine the impacts to birds and bats. One year of fatality studies is consistent with WACR for low risk sites.

This review constitutes a preliminary review of the project and is not a substitute for reviewing potential turbine placement. Further review of the project should be conducted when the preliminary turbine locations are determined. The DNR will provide a second review of the project that is site specific to the proposed turbine locations, transmission lines, collector lines, substations, and access roads.

The DNR looks forward to working in a positive and collaborative manner on this project to ensure that sustainable energy sources are developed while protecting Minnesota's natural resources. Please contact me directly at 507-359-6073 if you have any questions.

Very truly yours,



Kevin Mixon
Regional Environmental Assessment Ecologist
Division of Ecological Resources

Cc: Lisa Joyal, DNR
Jamie Schrenzel, DNR
Randall Doneen, DNR
Skip Wright, DNR
Ken Varland, DNR
Jeanine Vorland, DNR
Lisa Gelvin-Innvaer, DNR
Bob Hobart, DNR
Rich Davis, U.S. FWS
Deb Pile, OES



Protecting, maintaining and improving the health of all Minnesotans

January 6, 2011

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

Dear Mr. Weetman:

Subject: Proposed Shell Rock Wind Farm Project from Shell Rock Wind Farm, LLC, owned by the Minnesota Municipal Power Agency, Located in Sections 7-9, 16-21, 28-30, of Pickerel Lake Township and Section 12 of Alden Township all in Township 102 North, Range 22 West), Freeborn 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 507/206-2737.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Zimmerman", is written over a faint, circular stamp.

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

JAN 18 2011

REPLY TO THE ATTENTION OF: **E-19J**

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

**RE: Shell Rock Wind Farm Proposal, Freeborn County, MN
Project Scoping Comments**

Dear Mr. Weetman:

The U.S. Environmental Protection Agency (U.S. EPA) has received your request for scoping information regarding the above project. Under the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations, and Section 309 of the Clean Air Act, U.S. EPA reviews and comments on major federal actions. Typically, these reviews focus on Environmental Impact Statements (EIS), but we also have the discretion to review and comment on other environmental documents prepared under NEPA if interest and resources permit. Your project does not appear to involve any Federal actions that would trigger NEPA. Instead, it is being evaluated under Minnesota state law. Nevertheless, we are providing some comments to you on the project.

We have done a preliminary review of the materials and location described in your letter of December 23, 2010. This project does not appear to involve any significant impacts that would warrant our further review. However, we reserve the right to reconsider undertaking a review at future planning stages if significant new data on the project is made available by the sponsoring agency or other interested parties.

The project will be located mostly in Pickerel Lake Township, which, as your letter indicates, has few natural resources. We do note that the seven (7) creeks or county ditches originating within the project perimeter all flow away from Pickerel Township, indicating the site is a headwaters area. We therefore recommend construction and maintenance activities for this project be specified to avoid spill and waste disposal on-site. Use of leach-proof, nontoxic materials for coatings, lubricants, roadways and buried cable connections should be designated.

Several small freshwater emergent wetlands are scattered across the southern sections of the site and a few along the west side. One larger wetland is located approximately one-half mile north of 170th Street and just west of County Road 14. These should be avoided both for turbine siting and access road construction. If connection cables need to pass through a wetland area or cross one of the creeks/ditches, lateral drilling under the resource should be utilized if circumventing it is not feasible. Please coordinate with the U.S. Army Corps of Engineers, St. Paul District, and the

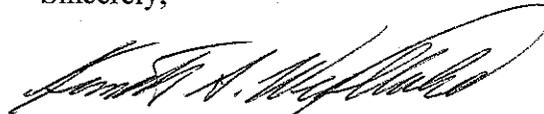
Minnesota Department of Natural Resources (MDNR) to determine if your project may impact wetlands subject to Corps or state jurisdiction.

You are probably aware that a petroleum products pipeline passes northwest to southeast through the most northeastern section of the proposed site. A contact for that purpose is Mr. Bill Aston, Williams Pipe Line Company, WS II, 4th Floor, 1717 S. Boulder, Tulsa, OK 74119, phone: 918-574-8473.

Please coordinate with the U.S. Fish and Wildlife Service and the MDNR to minimize and mitigate any wind turbine impacts to local and migratory birds and wildlife in this area.

Thank you for the opportunity of reviewing this proposal at an early stage. If you have any questions regarding our comments, please call Norm West, of my staff, at 312-353-5692 or by e-mail at west.norman@epa.gov.

Sincerely,



Kenneth A. Westlake
Chief, NEPA Implementation Section
Office of Enforcement and Compliance Assurance



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us

January 19, 2011

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

Re: Shell Rock Wind Farm Project, Freeborn County, Minnesota

Dear Mr. Weetman:

Thank you for the opportunity to review and comment on the Shell Rock Wind Farm Project (Project), a 44 MW Large Wind Energy Conversion System located in Freeborn County, Minnesota. Based on the limited information provided and regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, MPCA staff has the following comments for your consideration.

- If the Project will disturb a total of one acre or more of land, including clearing for equipment staging areas, work pads, or even temporary roads that will be graded, a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit is required from the MPCA. The owner and operator (usually the general contractor) are jointly responsible for obtaining and complying with the conditions of the permit. A detailed Stormwater Pollution Prevention Plan (SWPPP), containing stormwater management requirements both during and post construction, as well as erosion control and sediment control requirements during construction must be prepared prior to submitting a permit application. Permit coverage is required prior to commencing land disturbing activities (i.e., clearing, grading, filling, or excavating) relating to the Project. For an overview of this permit and program, please refer to the following fact sheet: <http://www.pca.state.mn.us/publications/wq-strm2-05.pdf>. Questions regarding construction stormwater permit requirements should be directed to Larry Zdon at 651-757-2839.
- We recommend you check the current listing of impaired waters on the MPCA Draft 2010 303(d) Total Maximum Daily Load (TMDL) list of impaired waters on the Web site located at: <http://www.pca.state.mn.us/water/tmdl/tmdl-303dlist.html>. Certain impairments will dictate additional increased stormwater treatment both during construction and require additional increased permanent treatment post construction. These requirements will be included in any NPDES/SDS Construction Stormwater Permit. The Project proposer should determine that compliance with these increased stormwater water quality treatments can be achieved on the Project site or elsewhere. Information regarding the MPCA's Construction Stormwater Program can be found on the MPCA's Web site at: <http://www.pca.state.mn.us/water/stormwater/stormwater-c.html>.

In addition, any project that will result in over 50 acres of disturbed area and has a discharge point within one mile of a special or impaired water is required to submit their SWPPP to the MPCA for review at least 30 days prior to the commencement of land disturbing activities. If the SWPPP is found to be out of compliance with the terms and conditions of the General Permit, further delay may occur. The MPCA encourages the Project proposer to meet with staff at preliminary points to avoid this situation. Questions regarding SWPPPs should be directed to Todd Smith at 651-757-2732.

Mr. David Weetman

January 19, 2011

Page 2

- Please be aware that if a U.S. Army Corps of Engineers (Corps) Section 404 Individual Permit is required for any Project related wetland impacts, an MPCA Clean Water Act (CWA) Section 401 Water Quality Certification or waiver must also be obtained as part of the permitting process. The Section 401 Water Quality Certification ensures that the activity will comply with the state water quality standards. Any conditions required within the MPCA 401 Certificate are then incorporated into the Corps 404 Permit. You can find additional information about the MPCA's 401 Certification process at www.pca.state.mn.us/water/401.html. For further information about the 401 Water Quality Certification process, please contact Kevin Molloy at 651-757-2577 or Bill Wilde at 651-757-2825.
- It is not uncommon for projects to encounter contamination, especially petroleum-contaminated soil from storage tanks or spills. Efforts should be made prior to construction to determine if and where any petroleum or other contamination is likely to be encountered during the Project. Utilization of the MPCA's database and mapping tool, *What's In My Neighborhood?* can be helpful in evaluating the Project area or areas for potential contamination. This mapping tool can be found at: <http://www.pca.state.mn.us/wimn/index.cfm>. It is the responsibility of the Project sponsor to complete the Project safely through any areas of contamination and to properly manage any contaminated soil that is excavated during the Project. The fact sheet, *Managing Petroleum Contaminated Soil at Public Works Projects*, is available to assist with this process, including how to identify potential sources of contamination. The fact sheet can be found at: <http://www.pca.state.mn.us/publications/c-prp5-01.pdf>. If contamination is found, it must be reported immediately to the State Duty Officer at 651-649-5451 or 800-422-0798.

Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this Project, please contact me by e-mail at karen.kromar@state.mn.us or by telephone at 651-757-2508.

Sincerely,



Karen Kromar
Planner Principal
Environmental Review and Feedlot Section
Regional Division

KK:mbo

cc: Craig Affeldt, MPCA, St. Paul
Bob Finley, MPCA Regional Manager, Mankato

 **Minnesota
Historical Society**
STATE HISTORIC PRESERVATION OFFICE

January 25, 2011

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

RE: Shell Rock Wind Farm
T102 R22 S7-9, 16-21, 28-30 & T102 R23 S12, Freeborn County
Westwood Project Number: 20101239
SHPO Number: 2011-0969

Dear Mr. Weetman:

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,


Mary Ann Heidemann
Manager, Government Programs and Compliance

Enclosure: List of Consultants



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

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

February 25, 2011

Correspondence # ERDB 20110155-0003

Ms. Brie Anderson
Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344

RE: Natural Heritage Review of the proposed Shell Rock Wind Farm;
T102N R22W Sections 7-9, 16-21, and 28-30; Freeborn County

Dear Ms. Anderson,

As requested, the above project has been reviewed for potential effects to known occurrences of rare features. A search of the Minnesota Natural Heritage Information System (NHIS) did identify rare features within an approximate one-mile radius of the proposed project, but these records were either historical or not of concern given the project details that were provided with the data request form. As such, I do not believe the proposed project will adversely affect any known occurrences of rare features.

The Natural Heritage Information System, a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water 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.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed.

Please note that locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

Furthermore, the Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,

A handwritten signature in black ink that reads "Lisa Joyal".

Lisa Joyal
Natural Heritage Review Coordinator

Appendix C

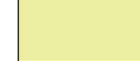
Freeborn County Land Use Map
Shell Rock Wind Farm
Freeborn County, Minnesota

This page is intentionally blank.

FREEBORN COUNTY LAND USE MAP 1-21-10



Legend

-  UTM_Roads
-  City Limits
-  UR-1
-  R-H
-  I
-  B-2
-  R-1
-  Ag
-  PD
-  B-1
-  R-2

This map for reference purpose only. Definitive zoning determinations will be verified by the Freeborn County Zoning Administrator. WPS 1-21-2010.

Appendix D

City of Albert Lea 2008 Growth

Boundary Map

Shell Rock Wind Farm

Freeborn County, Minnesota

This page is intentionally blank.

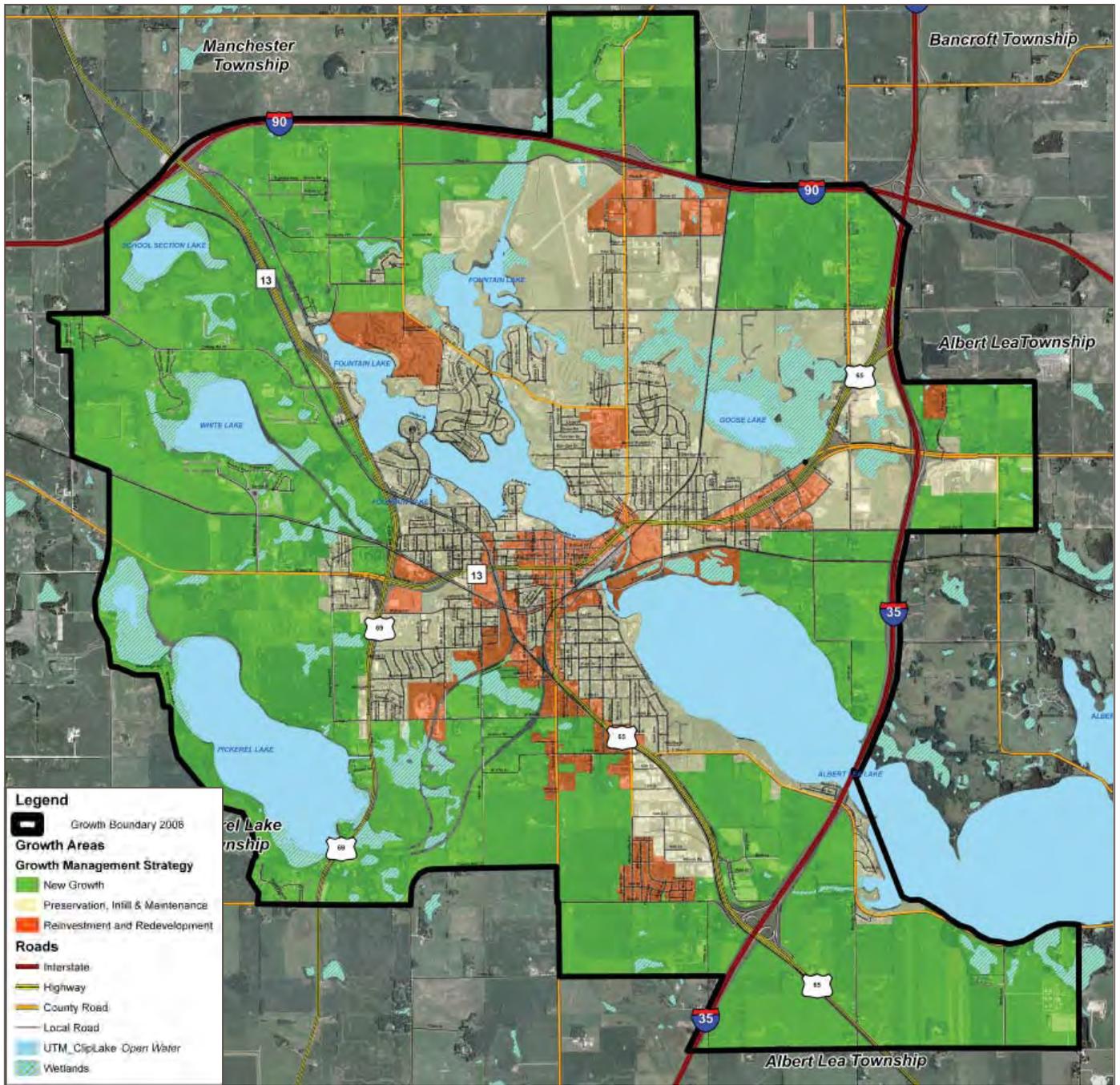


Figure 3-2: Map of Policy Directions and Table 3-2, tabulation of vacant lands by policy areas. The Growth Boundary was established based on the ridges and valleys forming a bowl around Albert Lea. Significant discussion occurred regarding inclusion of the four quadrants of the I-35 and I-90 cloverleaf. The boundary was not expanded at this time, but it was acknowledged that future amendments will consider this area as potential growth.

| Vacant Lands by Growth Management Policy Areas | Current City Limits | | Growth Areas Only | | Grand Total | |
|--|---------------------|----------------|--------------------|----------------|--------------------|----------------|
| | Vacant or Ag Acres | % of Total | Vacant or Ag Acres | % of Total | Vacant or Ag Acres | % of Total |
| Reinvestment and Redevelopment | 189 | 11.60% | 3 | 0.05% | 191 | 2.72% |
| Preservation, Infill and Maintenance | 601 | 36.95% | 110 | 2.04% | 712 | 10.09% |
| New Growth | 837 | 51.45% | 5,311 | 97.91% | 6,148 | 87.19% |
| Total | 1,627 | 100.00% | 5,424 | 100.00% | 7,051 | 100.00% |

Appendix E

Comsearch Telecommunications Studies

Shell Rock Wind Farm
Freeborn County, Minnesota

This page is intentionally blank.

Wind Power GeoPlanner™

Licensed Microwave Report

Shell Rock Wind Farm



Prepared on Behalf of
Minnesota Municipal
Power Agency

January 28, 2011





Table of Contents

| | |
|------------------------------|--------------|
| 1. Introduction | - 1 - |
| 2. Summary of Results | - 2 - |
| 3. Tables and Figures | - 4 - |
| 4. Contact Us | - 8 - |

1. Introduction

The use of wind energy, one of the oldest forms of harnessing a natural energy source, is now one of the world's fastest growing alternative energy sources. The United States is committed to the use of wind energy, and over the next several years billions of dollars will be spent on wind power projects. However, as new wind turbine generators are installed around the country, it is important to note that they may pose an interference threat to existing microwave systems and broadcast stations licensed to operate in the United States.

Wind turbines can interfere with microwave paths by physically blocking the line-of-sight between two microwave transmitters. Additionally, wind turbines have the potential to cause blockage and reflections (“ghosting”) to television reception. Blockage is caused by the physical presence of the turbines between the television station and the reception points. Ghosting is caused by multipath interference that occurs when a broadcast signal reflects off of a large reflective object—in this case a wind turbine—and arrives at a television receiver delayed in time from the signal that arrives via direct path.

Many states and other jurisdictions recognize the need for regulations addressing interference to radio signal transmissions from the wind turbine installations. Specifically, local planning authorities typically require project developers to ensure wind turbines will not cause interference. In some cases they require developers to notify the telecommunication operators in the area of the proposed wind turbine installation. Other factors prompting developers to undertake proactive investigation into potential interference include the need to prevent legal and regulatory problems and the desire to promote goodwill within the community—a good neighbor approach.

Comsearch has developed and maintains comprehensive technical databases containing information on licensed microwave networks throughout the United States. Microwave bands that may be affected by the installation of wind turbine facilities operate over a wide frequency range (900 MHz – 23 GHz). These systems are the telecommunication backbone of the country, providing long-distance and local telephone service, backhaul for cellular and personal communication service, data interconnects for mainframe computers and the Internet, network controls for utilities and railroads, and various video services.

This report focuses on the potential impact of wind turbines on licensed non-federal government microwave systems. Comsearch provides additional wind energy services, a description of which is available upon request.

2. Summary of Results

An overall summary of results appears below.

Project Information

Name: Shell Rock Wind Farm

County: Freeborn

State: Minnesota

| Total Microwave Paths | Paths with Obstructions | Total Turbines | Turbine Obstructions |
|-----------------------|-------------------------|----------------|----------------------|
| 1 | N/A | 0 | N/A |

Methodology

Our obstruction analysis was performed using Comsearch's proprietary microwave database, which contains all non-government licensed paths from 0.9 - 23 GHz¹. First, we determined all microwave paths that intersect the area of interest². The area of interest was defined by the client and encompasses the planned turbine locations. Next, for each microwave path that intersected the project area, we calculated a Worst Case Fresnel Zone (WCFZ). The mid-point of a full microwave path is the location where the widest (or worst case) Fresnel zone occurs. Fresnel zones were calculated for each path using the following formula.

$$R_n \cong 17.3 \sqrt{\frac{n}{F_{GHz}} \left(\frac{d_1 d_2}{d_1 + d_2} \right)}$$

Where,

- R_n = Fresnel Zone radius at a specific point in the microwave path, meters
- n = Fresnel Zone number, 1
- F_{GHz} = Frequency of microwave system, GHz
- d₁ = Distance from antenna 1 to a specific point in the microwave path, kilometers
- d₂ = Distance from antenna 2 to a specific point in the microwave path, kilometers

For worst case Fresnel zone calculations, d₁ = d₂

¹ Please note that this analysis does not include unlicensed microwave paths or federal government paths that are not registered with the FCC.

² We use FCC-licensed coordinates to determine which paths intersect the area of interest. It is possible that as-built coordinates may differ slightly from those on the FCC license.



The calculated WCFZ radius, giving the linear path an area or swath, buffers each microwave path in the project area. See the Tables and Figures section for a summary of paths and WCFZ distances. In general, this is the two-dimensional area where the planned wind turbines should be avoided, if possible. A depiction of the WCFZ overlaid on topographic basemaps can be found in the Tables and Figures section, and is also included on the enclosed spreadsheet and shapefiles^{3,4}.

Discussion of Potential Obstructions

For this project, turbine locations were not provided; thus we could not determine if any potential obstructions exist between the planned wind turbines and the incumbent microwave paths. If the latitude and longitude values for turbine locations are provided, Comsearch can identify where a potential conflict might exist. As long as the turbines, buffered with their 45-meter planned blade radius, are located outside of the WCFZ, there should be no impact to the microwave paths.

³ The ESRI® shapefiles enclosed are in NAD 83 UTM Zone 15 projected coordinate system.

⁴ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report.

3. Tables and Figures

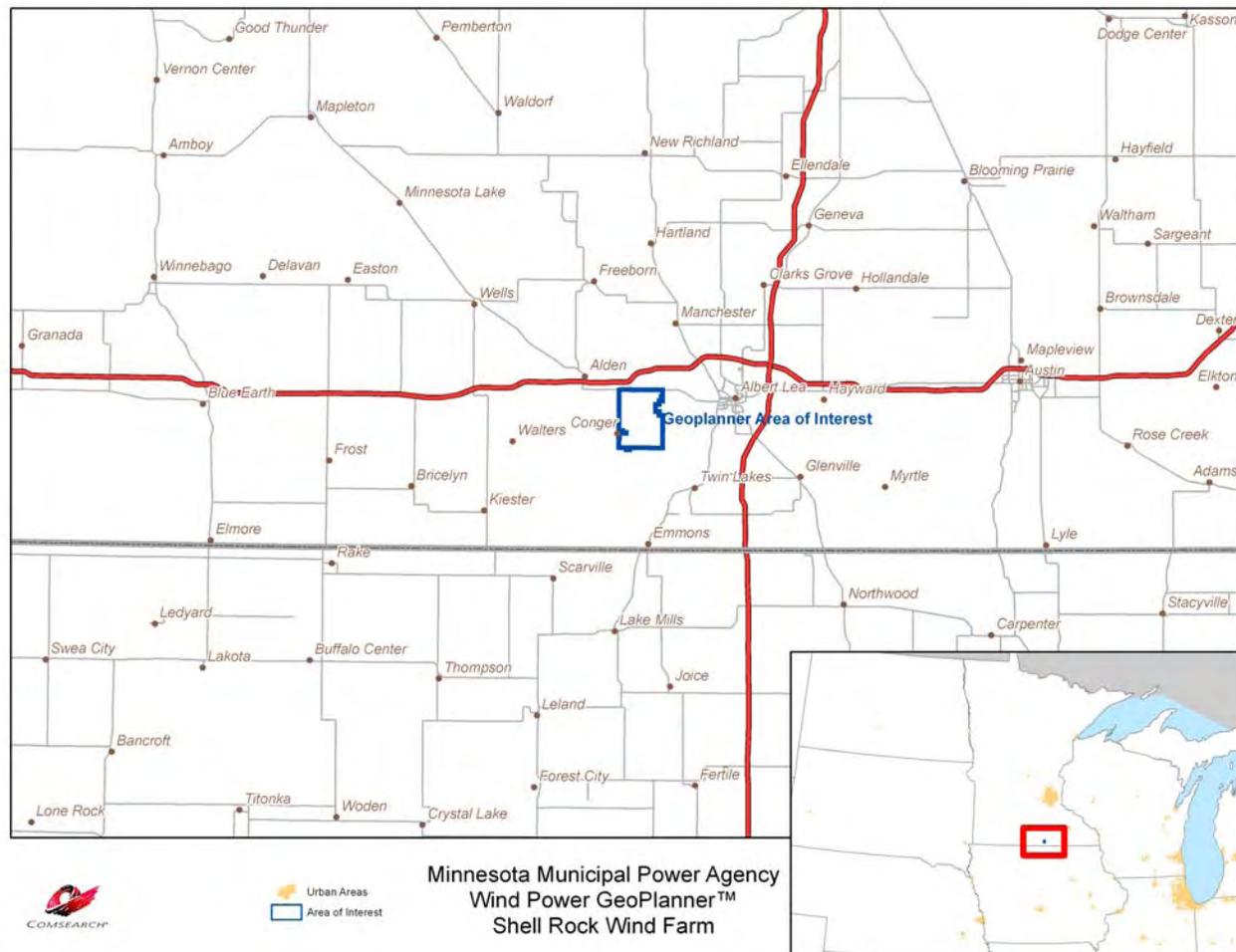


Figure 1: Area of Interest

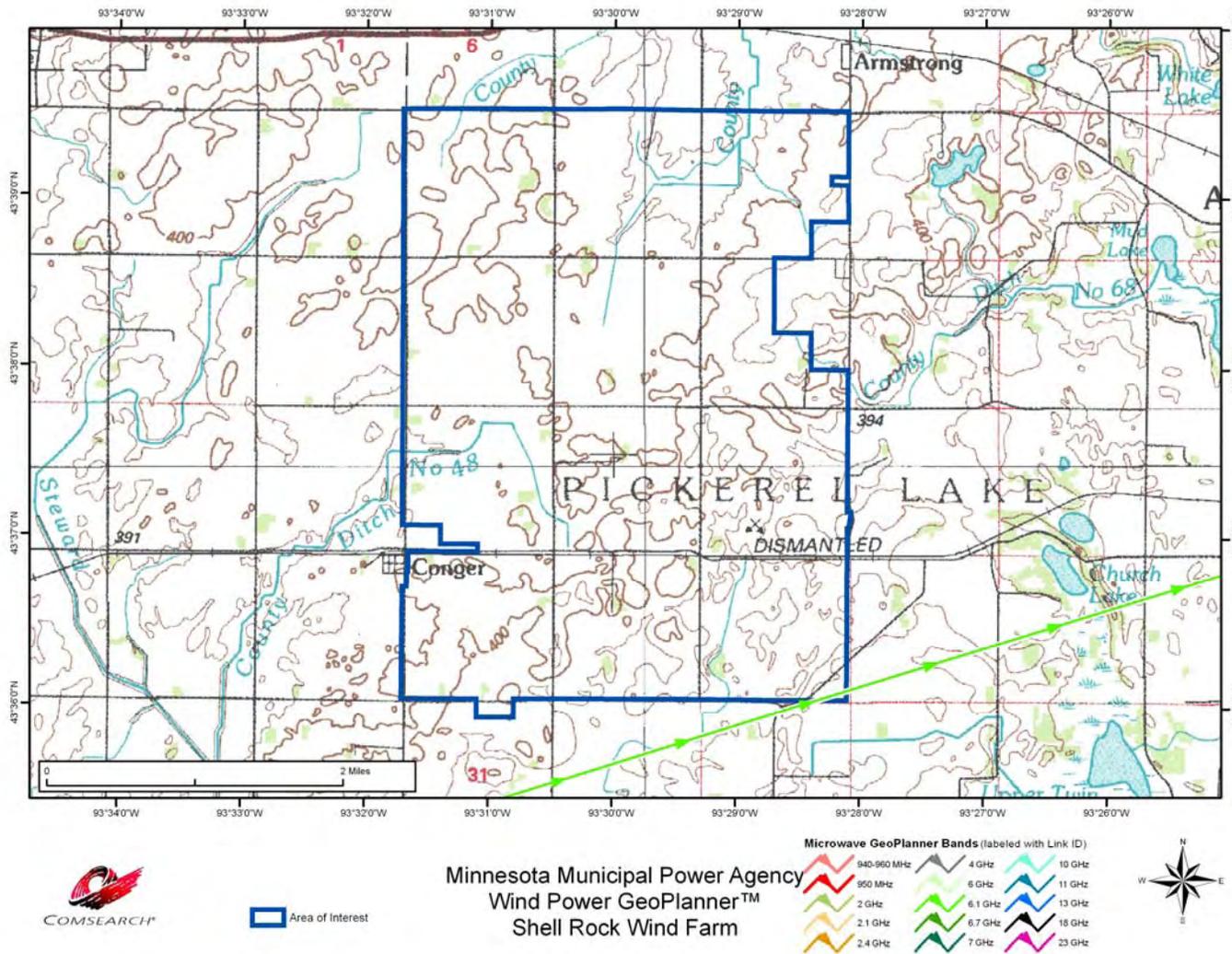


Figure 2: Microwave Path that Intersects the Area of Interest

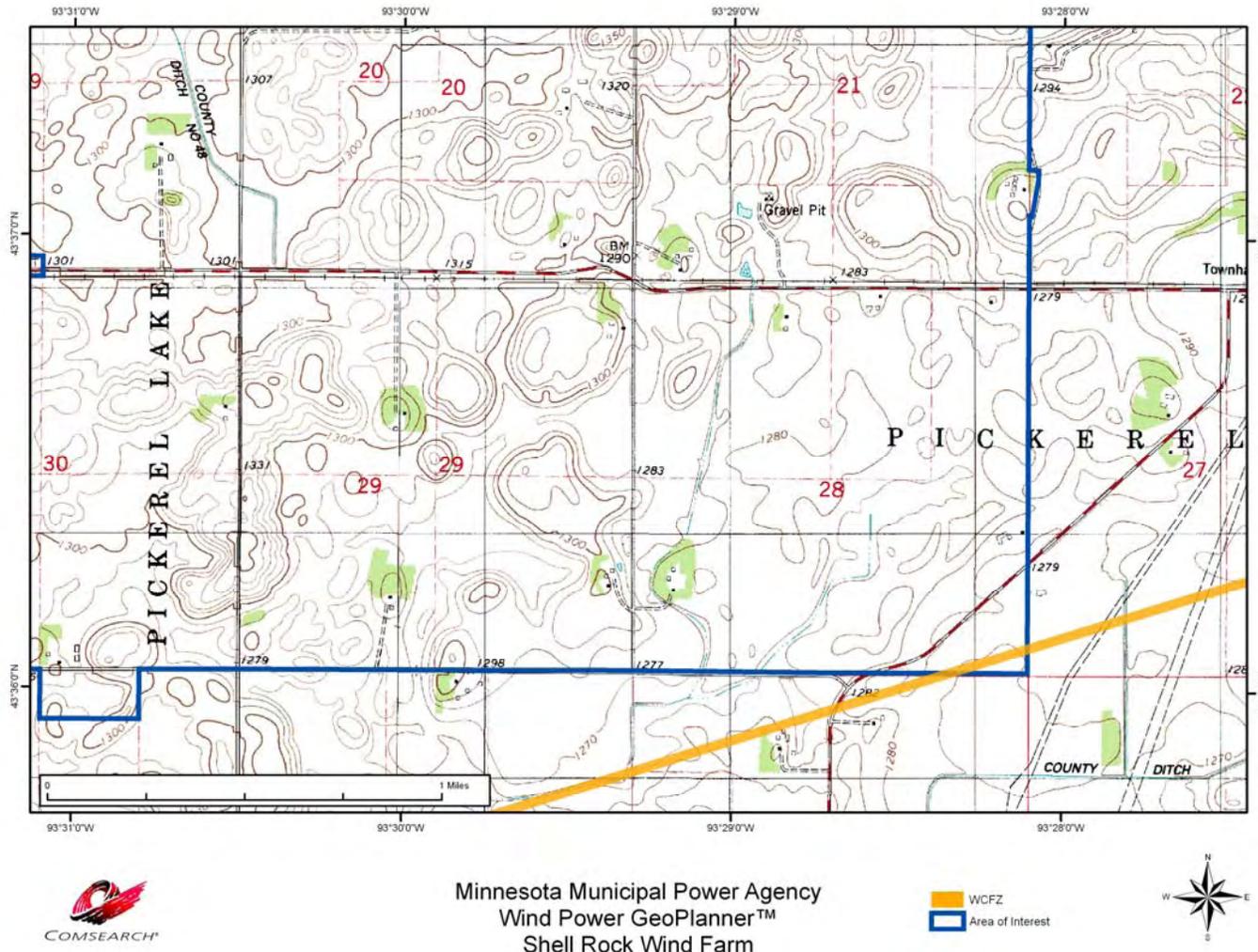


Figure 3: Microwave Path with WCFZ Buffer



| Site Name 1 | Site Name 2 | Callsign 1 | Callsign 2 | Band | Licensee | WCFZ (m) |
|-------------|-------------|------------|------------|-------------|------------------------------------|----------|
| WALTERS | HAYWARD | WNTP305 | WEG336 | Lower 6 GHz | INTERSTATE POWER AND LIGHT COMPANY | 20.06 |

Table 1: Microwave Paths that Intersect the Area of Interest

*(See enclosed mw_geopl.xls for more information and
GP_dict_matrix_description.xls for detailed field descriptions)*



4. Contact Us

For questions or information regarding the Licensed Microwave Report, contact:

| | |
|-----------------|--|
| Contact person: | Denise Finney |
| Title: | Account Manager |
| Company: | Comsearch |
| Address: | 19700 Janelia Farm Blvd., Ashburn, VA 20147 |
| Telephone: | 703-726-5650 |
| Fax: | 703-726-5595 |
| Email: | dfinney@comsearch.com |
| Web site: | www.comsearch.com |

Wind Power GeoPlanner™

AM and FM Radio Report

Shell Rock Wind Farm



**Prepared on Behalf of
Minnesota Municipal
Power Agency**

February 3, 2011



COMSEARCH
A CommScope Company



Table of Contents

| | |
|------------------------------|--------------|
| 1. Introduction | - 1 - |
| 2. Summary of Results | - 1 - |
| 3. Contact Us | - 5 - |



1. Introduction

Comsearch was contracted by the Minnesota Municipal Power Agency to determine if there would be any degradation to the operational coverage of AM and FM radio broadcast stations located in the vicinity of their proposed Shell Rock Wind Farm project located in Freeborn County, Minnesota.

2. Summary of Results

AM Radio Analysis

Comsearch identified one record for an AM station within 25 miles of the project site, as shown in Table 1. The database record¹ represents one non-directional operational station at 6.42 miles from the center of the project area. Potential problems with broadcast coverage are only anticipated when AM broadcast stations with directive antennas are within 2 miles of turbine towers and AM broadcast stations with non-directive antennas are within 0.5 miles. Figure 1 shows the location of the AM transmitter antennas with respect to the project site.

| ID | Callsign | Status | Frequency | Transmit ERP | City | ST | Distance from center of AOI |
|----|----------|--------|-----------|--------------|------------|----|-----------------------------|
| 1 | KATE | LIC | 1450 kHz | 1.0 kW | ALBERT LEA | MN | 6.42 mi |

Table 1: AM Radio Stations

LIC = Licensed and Operational
kHz = kilohertz
kW = kilowatt

ERP = transmit effective radiated power
LIC = licensed and operational station
mi = mile

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the TV station's FCC license.

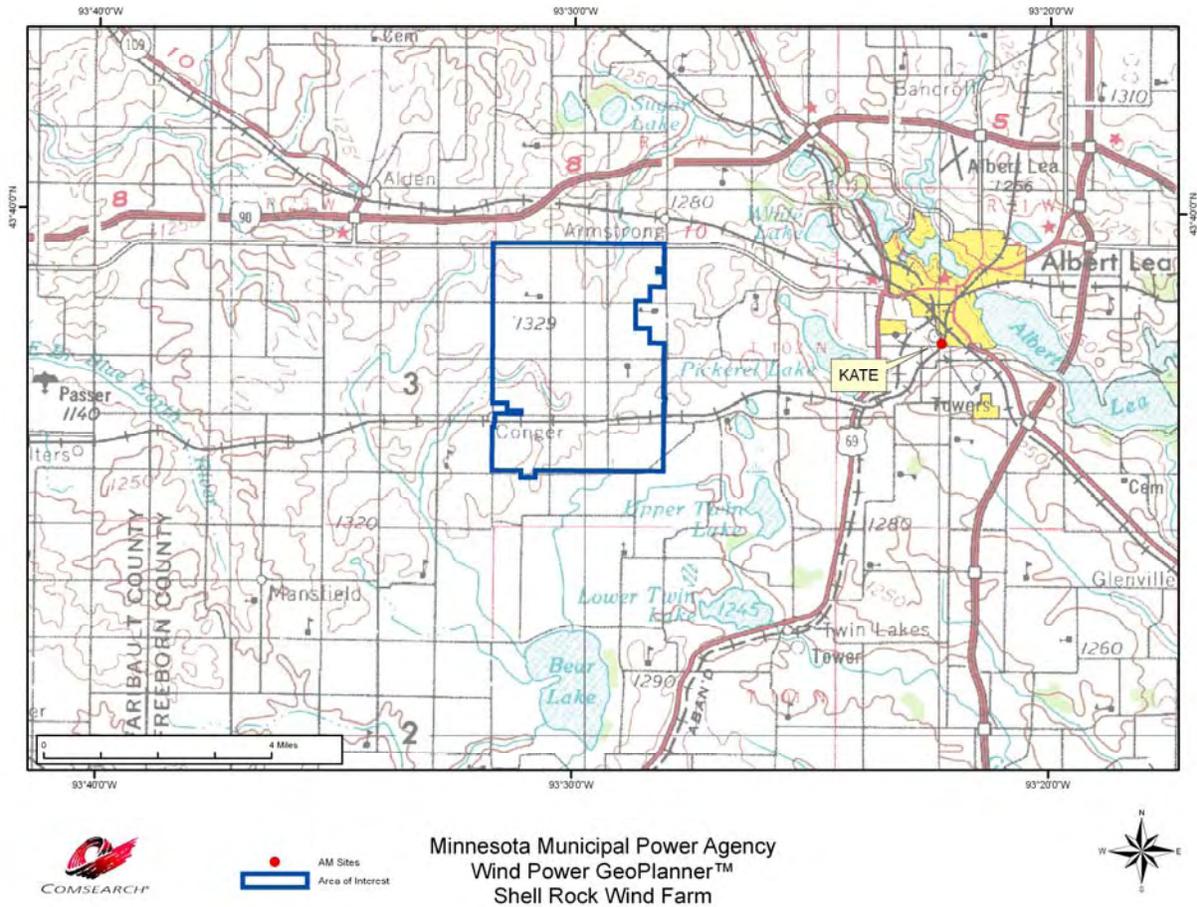


Figure 1: Plot of AM Radio Stations

FM Radio Analysis

Comsearch determined that there were 15 records for FM stations within a 25 mile radius of the project center point, representing 12 licensed and operational stations. The records are listed in Table 2 of this report and Figure 2 shows the location of the FM transmitter antennas with respect to the project site. All of the FM stations are outside of the project area-of-interest with the closest station antenna being located 6.44 miles from the center of the project area.

FM stations' coverage when they are at distances greater than 2.5 miles from wind turbines are not subject to degradation. As long as all wind turbines in this project are not located closer than 2.5 miles from the FM stations' antennas, we do not expect degradation of the FM stations' coverage.

| ID | Call Sign | Status | Frequency | Transmit ERP | City | ST | Distance from center of AOI |
|----|-----------|--------|-----------|--------------|-------------|----|-----------------------------|
| 1 | KBDC | LIC | 88.5 MHz | 0 kW | MASON CITY | IA | 21.18 mi |
| 2 | KNSE | LIC | 90.1 MHz | 6 kW | AUSTIN | MN | 17.65 mi |
| 3 | K220AR | LIC | 91.9 MHz | 0.014 kW | ALBERT LEA | MN | 5.86 mi |
| 4 | K224DM | LIC | 92.7 MHz | 0 kW | ALBERT LEA | MN | 6.80 mi |
| 5 | KCPI | LIC | 94.9 MHz | 5 kW | ALBERT LEA | MN | 6.44 mi |
| 6 | NEW | APP | 95.7 MHz | 0.205 kW | WELLS | MN | 14.25 mi |
| 7 | KQPR | LIC | 96.1 MHz | 25 kW | ALBERT LEA | MN | 14.38 mi |
| 8 | KAUS-FM | LIC | 99.9 MHz | 100 kW | AUSTIN | MN | 17.34 mi |
| 9 | K271AI | CP | 101.9 MHz | 0.25 kW | NORTHWOOD | IA | 14.35 mi |
| 10 | K271AI | LIC | 102.1 MHz | 0 kW | NORTHWOOD | IA | 11.33 mi |
| 11 | KYTC | LIC | 102.7 MHz | 25 kW | NORTHWOOD | IA | 16.40 mi |
| 12 | K280EB | LIC | 103.9 MHz | 0.01 kW | ALBERT LEA | MN | 6.74 mi |
| 13 | KIOW | LIC | 107.3 MHz | 25 kW | FOREST CITY | IA | 24.75 mi |
| 14 | K299AL | LIC | 107.7 MHz | 0.25 kW | ALBERT LEA | MN | 6.79 mi |
| 15 | NEW | APP | 107.9 MHz | 0.205 kW | WELLS | MN | 14.25 mi |

Table 2: FM Radio Stations

MN = Minnesota
IA = Iowa
AOI = Area-of-Interest
MHz = kilohertz
kW = kilowatt
mi = mile

LIC = Licensed and Operational
ERP= transmit effective radiated power
APP = License Applied for but station is Not Yet Operational
NEW = New Station Call Sign Not Assigned, Not operational
CP = Construction Permit

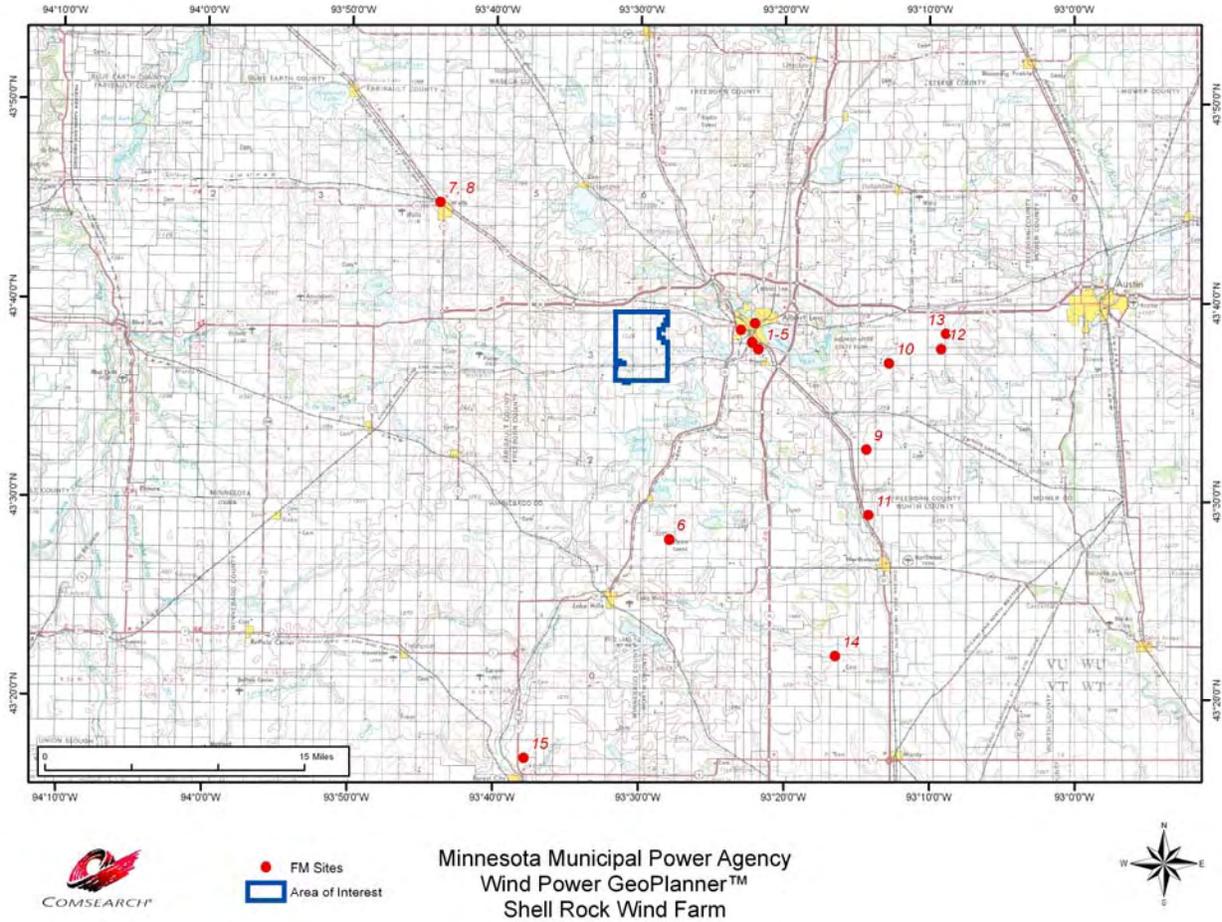


Figure 2: Plot of FM Radio Stations



3. Contact Us

For questions or information regarding the AM and FM Radio Report, please contact:

| | |
|-----------------|---|
| Contact person: | Lester Polisky |
| Title: | Senior Principal Engineer |
| Company: | Comsearch |
| Address: | 19700 Janelia Farm Blvd., Ashburn, VA 20147 |
| Telephone: | 703-726-5860 |
| Fax: | 703-726-5595 |
| Email: | lpolisky@comsearch.com |
| Web site: | www.comsearch.com |

Wind Power GeoPlanner™

Land Mobile Report

Shell Rock Wind Farm



Prepared on Behalf of
Minnesota Municipal
Power Agency

February 4, 2011



COMSEARCH
A CommScope Company



Table of Contents

| | |
|------------------------------|--------------|
| 1. Introduction | - 1 - |
| 2. Summary of Results | - 2 - |
| 3. Contact Us | - 4 - |



1. Introduction

Comsearch compiles and provides information on land mobile sites identified within or near a defined area of interest related to proposed wind energy facilities. This information is useful in the planning stages of the wind energy facilities to identify fixed land mobile stations where critical telecommunication services are provided such as emergency (police, fire, 911, e.g.) response, public safety and local government communications, or industrial and business wireless radio operations. This data can be used in support of the wind energy facilities communications needs or to avoid any potential impact to the current land mobile services provided in that region.

2. Summary of Results

Methodology

Our land mobile report is derived from the FCC's Universal Licensing System (ULS). The data is imported into GIS software and the land mobile sites are geographically mapped with the wind energy area of interest defined by the customer. Each site on the map is identified with an ID number associated with site information provided in a data table.

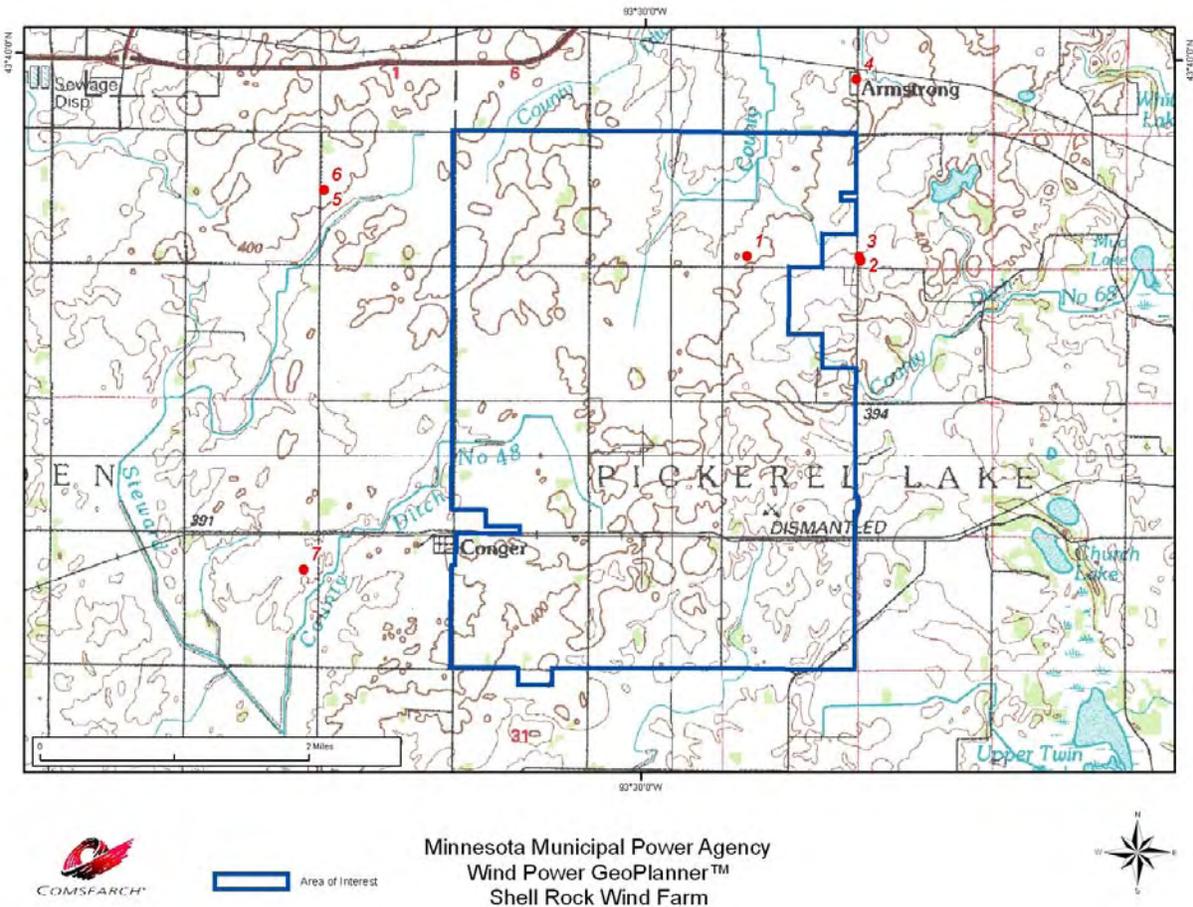


Figure 1: Land Mobile Sites in the Area of Interest

Results

Figure 1 identifies seven land mobile sites in the vicinity of the wind energy area of interest using the data sources described in our methodology above. Specific information about these sites is provided in Table 1 including location coordinates, frequency band, antenna height above ground level, and licensee name. Most of the land mobile sites licensed to county and state entities are providing critical public safety and emergency communications.

| ID | Callsign | Frequency Band (MHz) | Licensee | Antenna Height AGL (m) | City | ST | Latitude (NAD83) | Longitude (NAD83) |
|----|----------|----------------------|---------------------------------|------------------------|------------|----|------------------|-------------------|
| 1 | WPIF629 | 450 - 470 MHz | 21ST CENTURY WIRELESS GROUP INC | 48.0 | ALBERT LEA | MN | 43.645222 | -93.484667 |
| 2 | WQKE746 | 450 - 470 MHz | FRONTIER FAMILY FARMS | 50.6 | ALBERT LEA | MN | 43.644750 | -93.467722 |
| 3 | WNNU894 | 450 - 470 MHz | MR SAM COMMUNICATIONS | 48.0 | ALBERT LEA | MN | 43.645222 | -93.468000 |
| 4 | WXY816 | 450 - 470 MHz | PESTORIOUS INC | 32.0 | ARMSTRONG | MN | 43.664389 | -93.468556 |
| 5 | WQHK535 | 800/900 MHz | MINNESOTA, STATE OF | 59.5 | ALDEN | MN | 43.652028 | -93.547556 |
| 6 | WQNG466 | 150 - 174 MHz | MINNESOTA, STATE OF | 95.1 | ALBERT LEA | MN | 43.652028 | -93.547556 |
| 7 | WNMQ521 | 450 - 470 MHz | DRESCHER, CRAIG D | 23.0 | ALDEN | MN | 43.611056 | -93.550222 |

Table 1: Summary of Land Mobile Sites

The land mobile sites as described in this report are typically unaffected by the presence of wind turbines and we do not anticipate any significant harmful effect to these services. The frequencies of operation for these services have characteristics that allow the signal to propagate through wind turbines. As a result, very little, if any, change in their coverage should occur when the wind turbines are installed.

In the unlikely event that a land mobile licensee believes their coverage has been compromised by the presence of the wind energy facility, they have many options to improve their signal coverage to the area through optimization of a nearby base station or even adding a repeater site. Utility towers, meteorological towers or even the turbine towers within the wind project area can serve as the platform for a land mobile base station or repeater site.



3. Contact Us

For questions or information regarding the Land Mobile Report, please contact:

| | |
|-----------------|--|
| Contact person: | Denise Finney |
| Title: | Account Manager |
| Company: | Comsearch |
| Address: | 19700 Janelia Farm Blvd., Ashburn, VA 20147 |
| Telephone: | 703-726-5650 |
| Fax: | 703-726-5595 |
| Email: | dfinney@comsearch.com |
| Web site: | www.comsearch.com |

Wind Power GeoPlanner™

Off-Air TV Analysis

Shell Rock Wind Farm Project



**Prepared on Behalf of
Minnesota Municipal
Power Agency**

February 3, 2011



COMSEARCH
A CommScope Company



Table of Contents

| | |
|--|--------------|
| 1. Introduction | - 1 - |
| 2. Summary of Results | - 1 - |
| 3. Contact Us | - 5 - |
| 4. Appendix A: TV Stations within 100 miles of Project Area | - 6 - |

1. Introduction

Comsearch was contracted by the Minnesota Municipal Power Agency to analyze the off-air television stations where service could potentially be affected by the Shell Rock Wind Farm project located in Freeborn County, Minnesota. Off-air stations are television broadcasters that transmit signals which can be received directly on a television receiver from terrestrially located broadcast facilities. Comsearch examined the coverage of the off-air TV stations and the communities in the area that could potentially have degraded television reception due to the proposed wind energy project.

2. Summary of Results

The proposed wind energy project area and local communities are depicted in Figure 1 below.

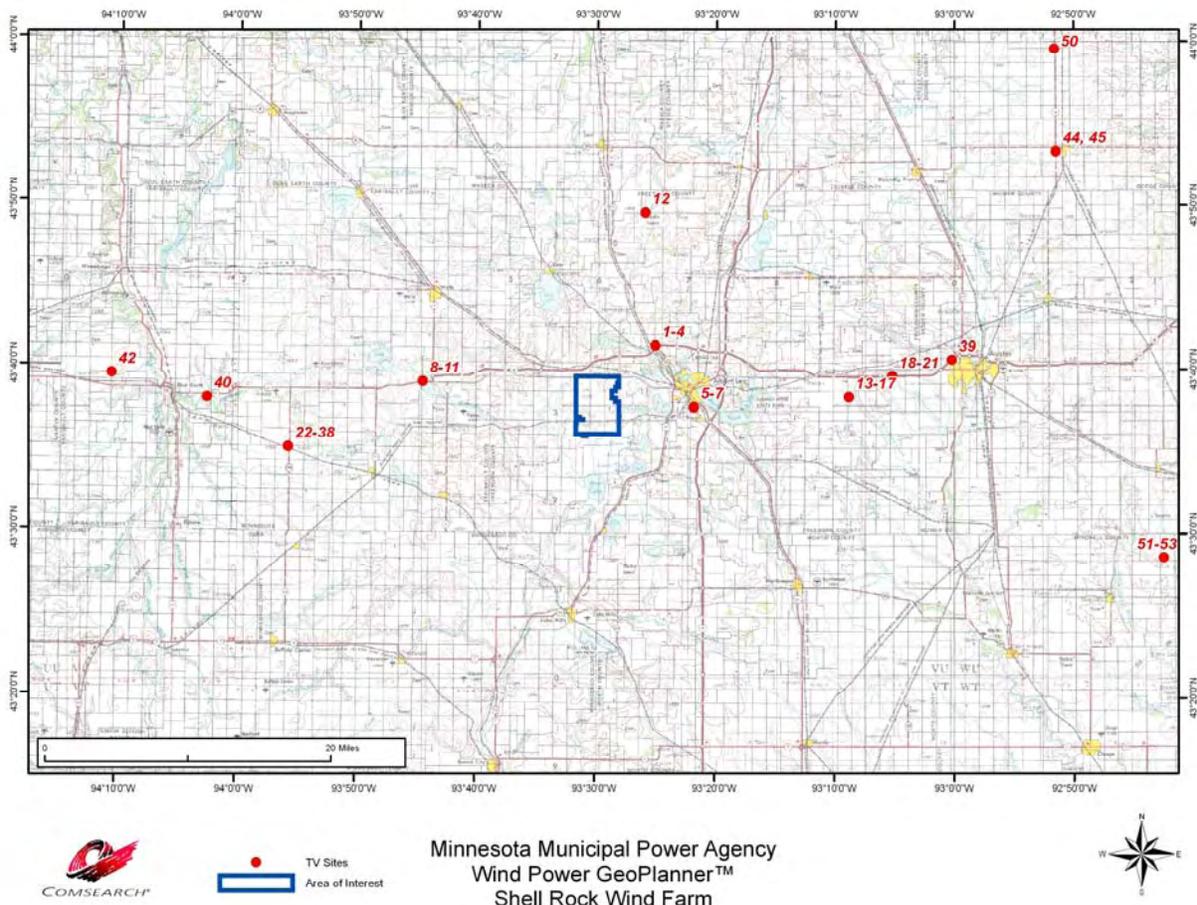


Figure 1: Wind Farm Project Area, Local Communities and TV Stations within 40 miles of Project Area

To begin the analysis, Comsearch compiled all off-air television stations¹ within 100 miles of the wind project area of interest (AOI). Appendix A contains a tabular summary of these stations. A plot depicting their locations appears in Figure 2 below.

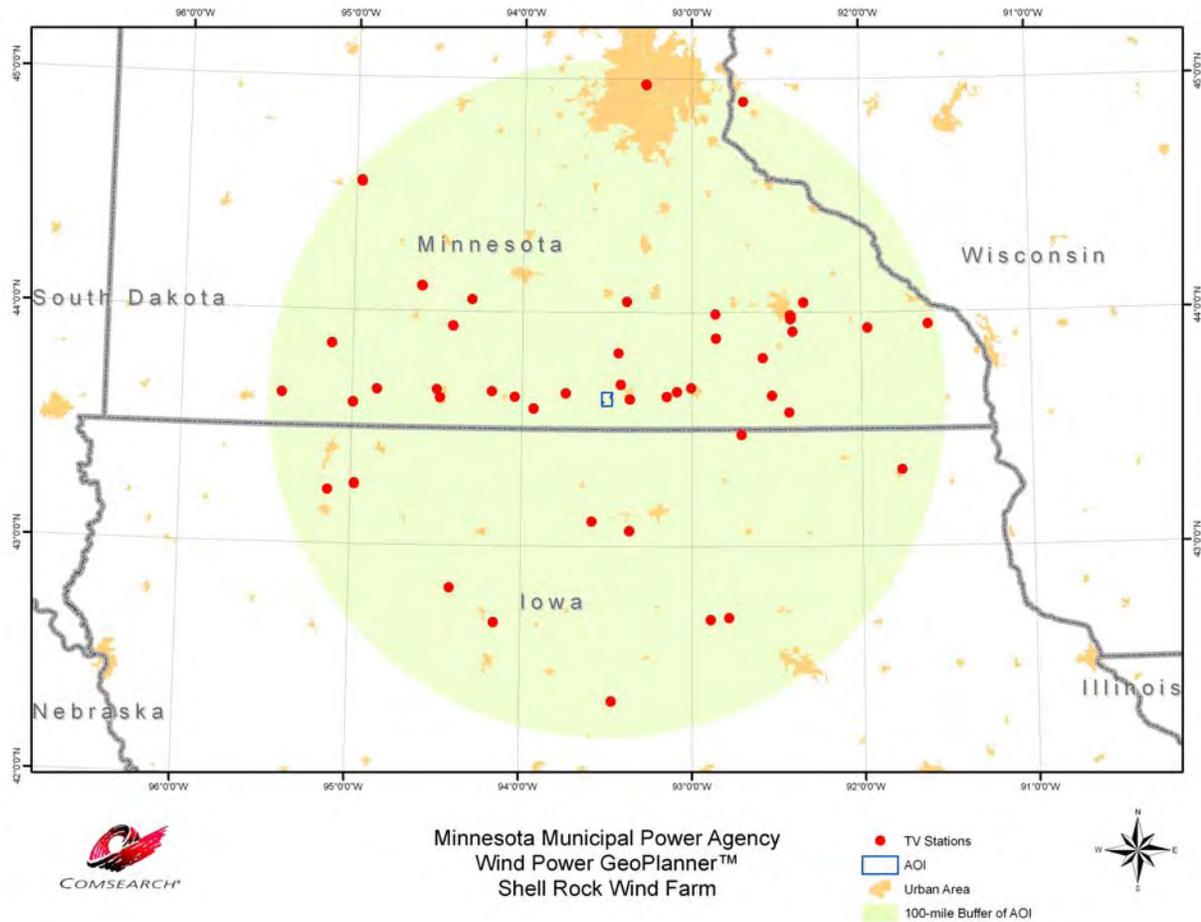


Figure 2: Plot of Off-air TV Stations within 100 miles of Project Area

The most likely TV stations that will produce off-air coverage to the project area will be those stations at a distance of 40 miles or less. The stations within 40 miles are listed in Table 1 below and their locations are shown in Figure 1. There are a total of 50 station records within approximately 40 miles of the center of the project area. Of these 50 records, only 18 are currently licensed and operating (i.e. status is LIC in Table 1). None of the stations are full-power digital stations. All of the operating stations are low power. Twelve are low-power digital

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the TV station's FCC license.



stations and six are translators. Translator stations receive signals from distant broadcasters and retransmit the signal to a local audience.

Since there are no full power stations servicing the area, it is not expected that off-air television stations are the primary mode of television service for the local communities. TV cable service, (where available) and direct satellite broadcast (DBS) are probably the dominant delivery mode of TV service to the project facility's surrounding communities. These services will be unaffected by the presence of the wind turbine facility. These modes of TV service may be offered to those residents who can show that their off-air TV reception has been disrupted by the presence of the wind turbines after they are installed. However, we do not expect that the number of residents making this claim to be significant based on the lack of full power stations in the area and the findings of a recent report which states that only 10% of households rely solely on off-air television. This would likely apply to this area since there are no full-power television stations available.

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to center of the project (mi) |
|----|-----------|--------|----------------------|---------|------------|----|--|
| 1 | NEW | APP | LD | 30 | ALBERT LEO | MN | 5.87 mi |
| 2 | NEW | APP | LD | 32 | ALBERT LEO | MN | 5.87 mi |
| 3 | NEW | APP | LD | 38 | ALBERT LEO | MN | 5.87 mi |
| 4 | NEW | APP | LD | 44 | ALBERT LEO | MN | 5.87 mi |
| 5 | K40JT | APP | TX | 40 | ALBERT LEA | MN | 6.80 mi |
| 6 | K40JT | LIC | TX | 40 | ALBERT LEA | MN | 6.80 mi |
| 7 | K56JM | CP | TX | 56 | ALBERT LEA | MN | 6.80 mi |
| 8 | NEW | APP | LD | 22 | WELLS | MN | 12.28 mi |
| 9 | NEW | APP | LD | 26 | WELLS | MN | 12.28 mi |
| 10 | NEW | APP | LD | 28 | WELLS | MN | 12.28 mi |
| 11 | NEW | APP | LD | 50 | WELLS | MN | 12.28 mi |
| 12 | K48KJ-D | LIC | LD | 48 | GENEVA | MN | 13.93 mi |
| 13 | DK43DH | LIC | TX | 43 | AUSTIN | MN | 17.67 mi |
| 14 | DK53DI | LIC | TX | 53 | AUSTIN | MN | 17.67 mi |
| 15 | DK55FJ | LIC | TX | 55 | AUSTIN | MN | 17.67 mi |
| 16 | DK57EU | LIC | TX | 57 | AUSTIN | MN | 17.67 mi |
| 17 | DK61EU | LIC | TX | 61 | AUSTIN | MN | 17.67 mi |
| 18 | NEW | APP | LD | 14 | OAKLAND | MN | 20.79 mi |
| 19 | NEW | APP | LD | 19 | OAKLAND | MN | 20.79 mi |
| 20 | NEW | APP | LD | 34 | OAKLAND | MN | 20.79 mi |
| 21 | NEW | APP | LD | 47 | OAKLAND | MN | 20.79 mi |
| 22 | DK19GW-D | CP MOD | LD | 19 | FROST | MN | 21.79 mi |
| 23 | DK34JZ-D | LIC | LD | 34 | FROST | MN | 21.79 mi |
| 24 | DK39JI | APP | TX | 39 | FROST | MN | 21.79 mi |
| 25 | K14KD-D | LIC | LD | 14 | FROST | MN | 21.79 mi |
| 26 | K21KF-D | CP | LD | 21 | FROST | MN | 21.79 mi |
| 27 | K23FY-D | LIC | LD | 23 | FROST | MN | 21.79 mi |
| 28 | K27FI-D | LIC | LD | 27 | FROST | MN | 21.79 mi |



| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to center of the project (mi) |
|----|-----------|--------|----------------------|---------|--------------|----|--|
| 29 | K29IF-D | CP MOD | LD | 29 | FROST | MN | 21.79 mi |
| 30 | K29IF-D | LIC | LD | 29 | FROST | MN | 21.79 mi |
| 31 | K31EF-D | LIC | LD | 31 | FROST | MN | 21.79 mi |
| 32 | K35IU-D | LIC | LD | 35 | FROST | MN | 21.79 mi |
| 33 | K40JS-D | CP | TX | 40 | FROST | MN | 21.79 mi |
| 34 | K40JS-D | LIC | LD | 40 | FROST | MN | 21.79 mi |
| 35 | K47MI-D | CP | LD | 47 | FROST | MN | 21.79 mi |
| 36 | K49JG-D | LIC | LD | 49 | FROST | MN | 21.79 mi |
| 37 | K51KB-D | APP | TX | 51 | FROST | MN | 21.79 mi |
| 38 | K51KB-D | LIC | LD | 51 | FROST | MN | 21.79 mi |
| 39 | KBVD-LP | CP | TX | 44 | AUSTIN | MN | 25.07 mi |
| 40 | K70DR | CP | LD | 16 | BLUE EARTH | MN | 27.28 mi |
| 41 | K48KJ-D | APP | LD | 48 | GENEVA | MN | 29.34 mi |
| 42 | NEW | APP | LD | 45 | BLUE EARTH | MN | 34.02 mi |
| 43 | KAAL | LIC | LD | 33 | MASON CITY | IA | 36.41 mi |
| 44 | NEW | APP | LD | 24 | DODGE CENTER | MN | 36.73 mi |
| 45 | W39DD-D | CP | LD | 39 | DODGE CENTER | MN | 36.73 mi |
| 46 | NEW | APP | LD | 22 | MASON CITY | IA | 39.43 mi |
| 47 | NEW | APP | LD | 27 | MASON CITY | IA | 39.43 mi |
| 48 | NEW | APP | LD | 35 | MASON CITY | IA | 39.43 mi |
| 49 | NEW | APP | LD | 38 | MASON CITY | IA | 39.43 mi |
| 50 | W39DD-D | APP | LD | 39 | DODGE CENTER | MN | 40.62 mi |

Table 1: Off-air TV Stations within 40 miles of Project Area

² Definitions of Service codes:

- TV –Normal Broadcast Station
- DS-Digital Service Television, Temporary Operation, STA Operation
- DT-Digital Television Broadcast Station
- DR- Indicates Station has Applied for FCC Rule Making
- DN-New Digital Station, Not Yet Operational
- GRA(NT)-Indicates Rule Making was granted by FCC
- LP-Low Power Television Broadcast Station
- TX-Translator Television Broadcast Station
- TA-Vacant channel
- LIC – Licensed and operational station
- CP – License approved construction permit granted
- APP – License application, not yet operational
- STA – Special transmit authorization, usually granted by FCC for temporary operation
- LD – Digital Low Power Television Station
- DC – Digital Class A Television Station
- CA- Low-Power analog station Class A



3. Contact Us

For questions or information regarding the Off-Air TV Analysis, please contact:

Contact person: Lester Polisky
Title: Senior Principal Engineer
Company: Comsearch
Address: 19700 Janelia Farm Blvd., Ashburn, VA 20147
Telephone: 703-726-5860
Fax: 703-726-5595
Email: lpolisky@comsearch.com
Web site: www.comsearch.com



4. Appendix A: TV Stations within 100 miles of Project Area

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|----|-----------|--------|----------------------|---------|------------|----|--|
| 1 | NEW | APP | LD | 30 | ALBERT LEO | MN | 5.87 mi |
| 2 | NEW | APP | LD | 32 | ALBERT LEO | MN | 5.87 mi |
| 3 | NEW | APP | LD | 38 | ALBERT LEO | MN | 5.87 mi |
| 4 | NEW | APP | LD | 44 | ALBERT LEO | MN | 5.87 mi |
| 5 | K40JT | APP | TX | 40 | ALBERT LEA | MN | 6.80 mi |
| 6 | K40JT | LIC | TX | 40 | ALBERT LEA | MN | 6.80 mi |
| 7 | K56JM | CP | TX | 56 | ALBERT LEA | MN | 6.80 mi |
| 8 | NEW | APP | LD | 22 | WELLS | MN | 12.28 mi |
| 9 | NEW | APP | LD | 26 | WELLS | MN | 12.28 mi |
| 10 | NEW | APP | LD | 28 | WELLS | MN | 12.28 mi |
| 11 | NEW | APP | LD | 50 | WELLS | MN | 12.28 mi |
| 12 | K48KJ-D | LIC | LD | 48 | GENEVA | MN | 13.93 mi |
| 13 | DK43DH | LIC | TX | 43 | AUSTIN | MN | 17.67 mi |
| 14 | DK53DI | LIC | TX | 53 | AUSTIN | MN | 17.67 mi |
| 15 | DK55FJ | LIC | TX | 55 | AUSTIN | MN | 17.67 mi |
| 16 | DK57EU | LIC | TX | 57 | AUSTIN | MN | 17.67 mi |
| 17 | DK61EU | LIC | TX | 61 | AUSTIN | MN | 17.67 mi |
| 18 | NEW | APP | LD | 14 | OAKLAND | MN | 20.79 mi |
| 19 | NEW | APP | LD | 19 | OAKLAND | MN | 20.79 mi |
| 20 | NEW | APP | LD | 34 | OAKLAND | MN | 20.79 mi |
| 21 | NEW | APP | LD | 47 | OAKLAND | MN | 20.79 mi |
| 22 | DK19GW-D | CP MOD | LD | 19 | FROST | MN | 21.79 mi |
| 23 | DK34JZ-D | LIC | LD | 34 | FROST | MN | 21.79 mi |
| 24 | DK39JI | APP | TX | 39 | FROST | MN | 21.79 mi |
| 25 | K14KD-D | LIC | LD | 14 | FROST | MN | 21.79 mi |
| 26 | K21KF-D | CP | LD | 21 | FROST | MN | 21.79 mi |
| 27 | K23FY-D | LIC | LD | 23 | FROST | MN | 21.79 mi |

² Definitions of Service codes:

- TV –Normal Broadcast Station
- DS-Digital Service Television, Temporary Operation, STA Operation
- DT-Digital Television Broadcast Station
- DR- Indicates Station has Applied for FCC Rule Making
- DN-New Digital Station, Not Yet Operational
- MN-Analog TV Channel Change
- GRA(NT)-Indicates Rule Making was granted by FCC
- LP-Low Power Television Broadcast Station
- TX-Translator Television Broadcast Station
- TA-Vacant channel
- LIC – Licensed and operational station
- CP – License approved construction permit granted
- APP – License application, not yet operational
- STA – Special transmit authorization, usually granted by FCC for temporary operation
- LD – Digital Low Power Television Station
- DC – Digital Class A Television Station
- CA- Low-Power analog station Class A



**Shell Rock Wind Farm Project
Wind Power GeoPlanner™
Off-Air Television Analysis
Minnesota Municipal Power Agency**

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|----|-----------|--------|----------------------|---------|--------------|----|--|
| 28 | K27FI-D | LIC | LD | 27 | FROST | MN | 21.79 mi |
| 29 | K29IF-D | CP MOD | LD | 29 | FROST | MN | 21.79 mi |
| 30 | K29IF-D | LIC | LD | 29 | FROST | MN | 21.79 mi |
| 31 | K31EF-D | LIC | LD | 31 | FROST | MN | 21.79 mi |
| 32 | K35IU-D | LIC | LD | 35 | FROST | MN | 21.79 mi |
| 33 | K40JS-D | CP | TX | 40 | FROST | MN | 21.79 mi |
| 34 | K40JS-D | LIC | LD | 40 | FROST | MN | 21.79 mi |
| 35 | K47MI-D | CP | LD | 47 | FROST | MN | 21.79 mi |
| 36 | K49JG-D | LIC | LD | 49 | FROST | MN | 21.79 mi |
| 37 | K51KB-D | APP | TX | 51 | FROST | MN | 21.79 mi |
| 38 | K51KB-D | LIC | LD | 51 | FROST | MN | 21.79 mi |
| 39 | KBVD-LP | CP | TX | 44 | AUSTIN | MN | 25.07 mi |
| 40 | K70DR | CP | LD | 16 | BLUE EARTH | MN | 27.28 mi |
| 41 | K48KJ-D | APP | LD | 48 | GENEVA | MN | 29.34 mi |
| 42 | NEW | APP | LD | 45 | BLUE EARTH | MN | 34.02 mi |
| 43 | KAAL | LIC | LD | 33 | MASON CITY | IA | 36.41 mi |
| 44 | NEW | APP | LD | 24 | DODGE CENTER | MN | 36.73 mi |
| 45 | W39DD-D | CP | LD | 39 | DODGE CENTER | MN | 36.73 mi |
| 46 | NEW | APP | LD | 22 | MASON CITY | IA | 39.43 mi |
| 47 | NEW | APP | LD | 27 | MASON CITY | IA | 39.43 mi |
| 48 | NEW | APP | LD | 35 | MASON CITY | IA | 39.43 mi |
| 49 | NEW | APP | LD | 38 | MASON CITY | IA | 39.43 mi |
| 50 | W39DD-D | APP | LD | 39 | DODGE CENTER | MN | 40.62 mi |
| 51 | KIMT | LIC | DT | 42 | MASON CITY | IA | 41.12 mi |
| 52 | KIMT | APP | DS | 42 | MASON CITY | IA | 41.12 mi |
| 53 | KYIN | LIC | DT | 18 | MASON CITY | IA | 41.12 mi |
| 54 | NEW | APP | LD | 43 | RACINE | MN | 47.58 mi |
| 55 | NEW | APP | LD | 45 | RACINE | MN | 47.58 mi |
| 56 | KAAL | CP | DT | 36 | AUSTIN | MN | 48.79 mi |
| 57 | KSMQ-TV | LIC | DT | 20 | AUSTIN | MN | 48.79 mi |
| 58 | KXLT-TV | CP MOD | DT | 46 | ROCHESTER | MN | 48.79 mi |
| 59 | K17IU | CP | TX | 17 | FAIRMONT | MN | 49.34 mi |
| 60 | K17IU | APP | LD | 20 | FAIRMONT | MN | 49.34 mi |
| 61 | K43JE-D | LIC | LD | 43 | LAKE CRYSTAL | MN | 49.49 mi |
| 62 | DK28AE | LIC | TX | 28 | FAIRMONT | MN | 50.27 mi |
| 63 | K08NI | CP | TX | 8 | MANKATO | MN | 50.29 mi |
| 64 | KEYC-TV | CP MOD | DT | 12 | MANKATO | MN | 50.33 mi |
| 65 | KTTC | CP | DT | 10 | ROCHESTER | MN | 53.95 mi |
| 66 | NEW | APP | LD | 41 | ROCHESTER | MN | 58.28 mi |
| 67 | NEW | APP | LD | 41 | ROCHESTER | MN | 58.28 mi |
| 68 | K12QK | CP | TX | 12 | ROCHESTER | MN | 58.96 mi |
| 69 | NEW | APP | LD | 15 | ROCHESTER | MN | 59.11 mi |
| 70 | NEW | APP | LD | 25 | ROCHESTER | MN | 59.11 mi |



**Shell Rock Wind Farm Project
Wind Power GeoPlanner™
Off-Air Television Analysis
Minnesota Municipal Power Agency**

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|-----|-----------|--------|----------------------|---------|-----------|----|--|
| 71 | NEW | APP | LD | 28 | ROCHESTER | MN | 59.11 mi |
| 72 | NEW | APP | LD | 33 | ROCHESTER | MN | 59.11 mi |
| 73 | KRRD-LD | CP | LD | 22 | ROCHESTER | MN | 59.12 mi |
| 74 | NEW | APP | LD | 14 | ROCHESTER | MN | 59.12 mi |
| 75 | NEW | APP | LD | 24 | ROCHESTER | MN | 59.41 mi |
| 76 | NEW | APP | LD | 31 | ROCHESTER | MN | 59.42 mi |
| 77 | K08OQ-D | CP | LD | 8 | ST. JAMES | MN | 63.92 mi |
| 78 | K13YZ-D | CP | LD | 13 | ST. JAMES | MN | 63.92 mi |
| 79 | K14KE-D | LIC | LD | 14 | ST. JAMES | MN | 63.92 mi |
| 80 | K21DG-D | LIC | LD | 21 | ST. JAMES | MN | 63.92 mi |
| 81 | K26CS-D | LIC | LD | 26 | ST. JAMES | MN | 63.92 mi |
| 82 | K30FN-D | LIC | LD | 30 | ST. JAMES | MN | 63.92 mi |
| 83 | K32GX-D | LIC | LD | 32 | ST. JAMES | MN | 63.92 mi |
| 84 | K34JX-D | LIC | LD | 34 | ST. JAMES | MN | 63.92 mi |
| 85 | K41IZ-D | CP | TX | 41 | ST. JAMES | MN | 63.92 mi |
| 86 | K41IZ-D | LIC | LD | 41 | ST. JAMES | MN | 63.92 mi |
| 87 | K44AD-D | LIC | LD | 44 | ST. JAMES | MN | 63.92 mi |
| 88 | K49HE | LIC | TX | 49 | ST. JAMES | MN | 63.92 mi |
| 89 | K53JS-D | CP | LD | 53 | ST. JAMES | MN | 63.92 mi |
| 90 | K57KD-D | CP | LD | 57 | ST. JAMES | MN | 63.92 mi |
| 91 | K58IZ-D | CP | LD | 58 | ST. JAMES | MN | 63.92 mi |
| 92 | NEW | APP | LD | 38 | ST. JAMES | MN | 63.92 mi |
| 93 | K16CG | LIC | TX | 16 | ST. JAMES | MN | 64.08 mi |
| 94 | K16CG | CP | LD | 16 | ST. JAMES | MN | 64.08 mi |
| 95 | K18IH-D | CP | LD | 18 | ST. JAMES | MN | 64.08 mi |
| 96 | K19CA | LIC | TX | 19 | ST. JAMES | MN | 64.08 mi |
| 97 | K24CP | LIC | TX | 24 | ST. JAMES | MN | 64.08 mi |
| 98 | K26CS-D | CP | TX | 26 | ST. JAMES | MN | 64.08 mi |
| 99 | K29IE-D | LIC | LD | 29 | ST. JAMES | MN | 64.08 mi |
| 100 | K31KV-D | CP | LD | 31 | ST. JAMES | MN | 64.08 mi |
| 101 | K35DC | LIC | TX | 35 | ST. JAMES | MN | 64.08 mi |
| 102 | K40BU | LIC | TX | 40 | ST. JAMES | MN | 64.08 mi |
| 103 | K40BU | CP | LD | 40 | ST. JAMES | MN | 64.08 mi |
| 104 | K40BU | CP MOD | TX | 40 | ST. JAMES | MN | 64.08 mi |
| 105 | K42AV | LIC | TX | 42 | ST. JAMES | MN | 64.08 mi |
| 106 | K42AV | CP MOD | TX | 42 | ST. JAMES | MN | 64.08 mi |
| 107 | K46AA | CP | LD | 45 | ST. JAMES | MN | 64.08 mi |
| 108 | K46AA | LIC | TX | 46 | ST. JAMES | MN | 64.08 mi |
| 109 | K48AA | CP | LD | 24 | ST. JAMES | MN | 64.08 mi |
| 110 | K48AA | LIC | TX | 48 | ST. JAMES | MN | 64.08 mi |
| 111 | K49HE | CP MOD | LD | 49 | ST. JAMES | MN | 64.08 mi |
| 112 | K50AB | CP | LD | 35 | ST. JAMES | MN | 64.08 mi |
| 113 | K50AB | LIC | TX | 50 | ST. JAMES | MN | 64.08 mi |



**Shell Rock Wind Farm Project
Wind Power GeoPlanner™
Off-Air Television Analysis
Minnesota Municipal Power Agency**

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|-----|-----------|--------|----------------------|---------|-------------|----|--|
| 114 | K52AB | CP | LD | 51 | ST. JAMES | MN | 64.08 mi |
| 115 | K52AB | LIC | TX | 52 | ST. JAMES | MN | 64.08 mi |
| 116 | K52AB | CP | TX | 52 | ST. JAMES | MN | 64.08 mi |
| 117 | NEW | APP | LD | 49 | ROCHESTER | MN | 64.50 mi |
| 118 | K58GC | CP MOD | LD | 51 | ROCHESTER | MN | 64.52 mi |
| 119 | K58GC | CP | LD | 51 | ROCHESTER | MN | 64.52 mi |
| 120 | K56HW | LIC | TX | 56 | ROCHESTER | MN | 64.54 mi |
| 121 | K58GC | LIC | TX | 58 | ROCHESTER | MN | 64.54 mi |
| 122 | NEW | APP | LD | 33 | SHERBURN | MN | 67.92 mi |
| 123 | NEW | APP | LD | 39 | SHERBURN | MN | 67.92 mi |
| 124 | NEW | APP | LD | 14 | CEDAR FALLS | IA | 72.05 mi |
| 125 | NEW | APP | LD | 17 | CEDAR FALLS | IA | 72.05 mi |
| 126 | NEW | APP | LD | 21 | CEDAR FALLS | IA | 72.05 mi |
| 127 | NEW | APP | LD | 32 | CEDAR FALLS | IA | 72.05 mi |
| 128 | KTIN | LIC | DT | 25 | FORT DODGE | IA | 72.54 mi |
| 129 | NEW | APP | LD | 28 | FORT DODGE | IA | 73.92 mi |
| 130 | NEW | APP | LD | 36 | FORT DODGE | IA | 73.92 mi |
| 131 | NEW | APP | LD | 43 | FORT DODGE | IA | 73.92 mi |
| 132 | NEW | APP | LD | 45 | FORT DODGE | IA | 73.92 mi |
| 133 | NEW | APP | LD | 34 | CEDAR FALLS | IA | 74.02 mi |
| 134 | NEW | APP | LD | 46 | CEDAR FALLS | IA | 74.02 mi |
| 135 | K17IS-D | CP | LD | 17 | JACKSON | MN | 74.93 mi |
| 136 | K19HZ-D | APP | TX | 19 | JACKSON | MN | 74.93 mi |
| 137 | K19HZ-D | LIC | LD | 19 | JACKSON | MN | 74.93 mi |
| 138 | K19HZ-D | CP | TX | 26 | JACKSON | MN | 74.93 mi |
| 139 | K23FO-D | LIC | LD | 23 | JACKSON | MN | 74.93 mi |
| 140 | K30KQ-D | CP | LD | 30 | JACKSON | MN | 74.93 mi |
| 141 | K35IZ-D | LIC | LD | 35 | JACKSON | MN | 74.93 mi |
| 142 | K36IV-D | LIC | LD | 36 | JACKSON | MN | 74.93 mi |
| 143 | K40LA-D | APP | TX | 40 | JACKSON | MN | 74.93 mi |
| 144 | K40LA-D | APP | LD | 40 | JACKSON | MN | 74.93 mi |
| 145 | K40LA-D | LIC | LD | 40 | JACKSON | MN | 74.93 mi |
| 146 | K41EG-D | LIC | LD | 41 | JACKSON | MN | 74.93 mi |
| 147 | K43MJ-D | APP | LD | 43 | JACKSON | MN | 74.93 mi |
| 148 | K43MJ-D | LIC | LD | 43 | JACKSON | MN | 74.93 mi |
| 149 | K45EH-D | LIC | LD | 45 | JACKSON | MN | 74.93 mi |
| 150 | K50KL-D | CP | TX | 50 | JACKSON | MN | 74.93 mi |
| 151 | K50KL-D | LIC | LD | 50 | JACKSON | MN | 74.93 mi |
| 152 | K51KT-D | APP | LD | 36 | JACKSON | MO | 74.93 mi |
| 153 | K51KT-D | APP | TX | 51 | JACKSON | MN | 74.93 mi |
| 154 | K51KT-D | LIC | LD | 51 | JACKSON | MN | 74.93 mi |
| 155 | K17IR-D | CP | LD | 17 | SPENCER | IA | 78.66 mi |
| 156 | K55FL | LIC | TX | 55 | SPENCER | IA | 78.66 mi |



**Shell Rock Wind Farm Project
Wind Power GeoPlanner™
Off-Air Television Analysis
Minnesota Municipal Power Agency**

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|-----|-----------|--------|----------------------|---------|-------------------|----|--|
| 157 | K55FL | APP | TX | 55 | SPENCER | IA | 78.66 mi |
| 158 | KBVK-LP | LIC | TX | 52 | SPENCER | IA | 78.66 mi |
| 159 | K19IT-D | CP | LD | 19 | ST CHARLES | MN | 79.67 mi |
| 160 | K27KL-D | CP | LD | 27 | ST CHARLES | MN | 79.67 mi |
| 161 | K29JH-D | CP | LD | 29 | ST CHARLES | MN | 79.67 mi |
| 162 | K31KX-D | CP | LD | 31 | ST CHARLES | MN | 79.67 mi |
| 163 | NEW | APP | LD | 40 | ST CHARLES | MN | 79.67 mi |
| 164 | K56AH | LIC | TX | 56 | WINDOM | MN | 82.85 mi |
| 165 | K58AF | LIC | TX | 58 | WINDOM | MN | 82.85 mi |
| 166 | K60AD | LIC | TX | 60 | WINDOM | MN | 82.85 mi |
| 167 | K62AI | LIC | TX | 62 | WINDOM | MN | 82.85 mi |
| 168 | K64AK | LIC | TX | 64 | WINDOM | MN | 82.85 mi |
| 169 | KBVK-LD | CP | LD | 34 | SPENCER | IA | 86.70 mi |
| 170 | DK33ED | LIC | TX | 33 | IOWA FALLS, ETC. | IA | 89.29 mi |
| 171 | DK49DZ | LIC | TX | 49 | IOWA FALLS | IA | 89.29 mi |
| 172 | DK51EP | LIC | TX | 51 | IOWA FALLS | IA | 89.29 mi |
| 173 | DK57GN | LIC | TX | 57 | IOWA FALLS | IA | 89.29 mi |
| 174 | DK59FM | LIC | TX | 59 | IOWA FALLS, ETC. | IA | 89.29 mi |
| 175 | K28KK-D | LIC | LD | 28 | DECORAH | IA | 89.60 mi |
| 176 | WUMN-LP | LIC | TX | 13 | MINNEAPOLIS | MN | 93.50 mi |
| 177 | K14KH | LIC | TX | 69 | MINNEAPOLIS | MN | 93.55 mi |
| 178 | DWTMS-CA | LIC | CA | 7 | MINNEAPOLIS, ETC. | MN | 93.66 mi |
| 179 | K14KH | LIC | CA | 14 | MINNEAPOLIS | MN | 93.66 mi |
| 180 | K14KH | CP | DC | 14 | MINNEAPOLIS | MN | 93.66 mi |
| 181 | K14KH | APP | DC | 33 | MINNEAPOLIS | MN | 93.66 mi |
| 182 | K16HY-D | LIC | LD | 16 | ST. PAUL | MN | 93.66 mi |
| 183 | K16HY-D | APP | TX | 19 | ST. PAUL | MN | 93.66 mi |
| 184 | K25IA-D | LIC | LD | 25 | MINNEAPOLIS | MN | 93.66 mi |
| 185 | K43HB | LIC | TX | 43 | MINNEAPOLIS | MN | 93.66 mi |
| 186 | K43HB | CP | LD | 43 | MINNEAPOLIS | MN | 93.66 mi |
| 187 | NEW | APP | LD | 35 | ST. PAUL | MN | 93.66 mi |
| 188 | WDMI-LD | CP | TX | 31 | MINNEAPOLIS | MN | 93.66 mi |
| 189 | NEW | APP | LD | 20 | BREWSTER | MN | 96.01 mi |
| 190 | NEW | APP | LD | 24 | BREWSTER | MN | 96.01 mi |
| 191 | NEW | APP | LD | 44 | BREWSTER | MN | 96.01 mi |
| 192 | W47CO-D | LIC | LD | 47 | RIVER FALLS | WI | 96.63 mi |
| 193 | DW56EL | APP | TX | 56 | REDWOOD FALLS | MN | 96.80 mi |
| 194 | K17BV | LIC | TX | 17 | REDWOOD FALLS | MN | 96.80 mi |
| 195 | K19CV | LIC | TX | 19 | REDWOOD FALLS | MN | 96.80 mi |
| 196 | K46FY | LIC | TX | 46 | REDWOOD FALLS | MN | 96.80 mi |
| 197 | K48GQ | LIC | TX | 48 | REDWOOD FALLS | MN | 96.80 mi |
| 198 | K50KF | APP | TX | 50 | REDWOOD FALLS | MN | 96.80 mi |
| 199 | K50KF | LIC | TX | 50 | REDWOOD FALLS | MN | 96.80 mi |



Shell Rock Wind Farm Project
Wind Power GeoPlanner™
Off-Air Television Analysis
Minnesota Municipal Power Agency

| ID | Call Sign | Status | Service ² | Channel | City | ST | Distance to the Center of the Project (mi) |
|-----|-----------|--------|----------------------|---------|---------------|----|--|
| 200 | K52GU | LIC | TX | 52 | REDWOOD FALLS | MN | 96.80 mi |
| 201 | K58AS | LIC | TX | 58 | REDWOOD FALLS | MN | 96.80 mi |
| 202 | K62AA | CP | TX | 33 | REDWOOD FALLS | MN | 96.80 mi |
| 203 | K62AA | LIC | TX | 62 | REDWOOD FALLS | MN | 96.80 mi |
| 204 | K66BB | CP | TX | 28 | REDWOOD FALLS | MN | 96.80 mi |
| 205 | K66BB | LIC | TX | 66 | REDWOOD FALLS | MN | 96.80 mi |
| 206 | K68BJ | CP | TX | 36 | REDWOOD FALLS | MN | 96.80 mi |
| 207 | K68BJ | LIC | TX | 68 | REDWOOD FALLS | MN | 96.80 mi |
| 208 | K25II | LIC | TX | 25 | REDWOOD FALLS | MN | 97.02 mi |
| 209 | K39CH | LIC | TX | 39 | REDWOOD FALLS | MN | 97.02 mi |
| 210 | K58AS | CP | TX | 22 | REDWOOD FALLS | MN | 97.02 mi |
| 211 | K24JA-D | CP | LD | 24 | WINONA | MN | 97.31 mi |
| 212 | K25LC-D | CP | LD | 25 | WINONA | MN | 97.31 mi |

Appendix F

Mapped Soil Series

Shell Rock Wind Farm

Freeborn County, Minnesota

This page is intentionally blank.

Mapped Soil Series - Shell Rock Wind Farm

| Soil Number | Soil Name | Hydric Soil | Drainage Class | Prime Farmland Classification | Acres |
|-------------|--|-------------|------------------------------|----------------------------------|-------|
| 521 | Adrian muck | All hydric | Very poorly drained | Not prime farmland | 12.0 |
| 62 | Barrington silt loam, 1 to 3 percent slopes | Not hydric | Moderately well drained | All areas are prime farmland | 8.0 |
| 392 | Biscay loam | All hydric | Poorly drained | Prime farmland if drained | 45.0 |
| 35 | Blue Earth silt loam | All hydric | Very poorly drained | Farmland of statewide importance | 36.3 |
| 84 | Brownton silty clay loam | All hydric | Poorly drained | Prime farmland if drained | 0.5 |
| 86 | Canisteo clay loam | All hydric | Poorly drained | Prime farmland if drained | 254.1 |
| 350 | Canisteo clay loam, depressional | All hydric | Very poorly drained | Prime farmland if drained | 44.7 |
| 524 | Caron muck | All hydric | Very poorly drained | Not prime farmland | 147.5 |
| 102D | Clarion loam, 12 to 18 percent slopes | Not hydric | Well drained | Not prime farmland | 22.8 |
| 102B | Clarion loam, 2 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 865.7 |
| 102C | Clarion loam, 6 to 12 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 443.5 |
| 920B | Clarion-Estherville-Storden complex, 2 to 6 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 187.7 |
| 921D | Clarion-Storden loams, 12 to 18 percent slopes | Not hydric | Well drained | Not prime farmland | 50.9 |
| 921E | Clarion-Storden loams, 18 to 25 percent slopes | Not hydric | Well drained | Not prime farmland | 9.6 |
| 921B | Clarion-Storden loams, 2 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 25.4 |
| 921C | Clarion-Storden loams, 6 to 12 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 103.0 |
| 920C | Clarion-Storden-Estherville complex, 6 to 12 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 244.0 |
| 129 | Cylinder loam | Not hydric | Somewhat poorly drained | All areas are prime farmland | 9.2 |
| 300 | Dassel mucky loam | All hydric | Very poorly drained | Prime farmland if drained | 1.4 |
| 27 | Dickinson fine sandy loam, 0 to 2 percent slopes | Not hydric | Well drained | All areas are prime farmland | 32.1 |
| 27B | Dickinson fine sandy loam, 2 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 56.3 |
| 27C | Dickinson fine sandy loam, 6 to 16 percent slopes | Not hydric | Well drained | Not prime farmland | 90.0 |
| 123 | Dundas silt loam | Not hydric | Somewhat poorly drained | Prime farmland if drained | 3.8 |
| 41 | Estherville sandy loam, 0 to 2 percent slopes | Not hydric | Somewhat excessively drained | Farmland of statewide importance | 47.7 |
| 41D | Estherville sandy loam, 12 to 18 percent slopes | Not hydric | Somewhat excessively drained | Not prime farmland | 54.7 |
| 41B | Estherville sandy loam, 2 to 6 percent slopes | Not hydric | Somewhat excessively drained | Farmland of statewide importance | 13.9 |
| 41C | Estherville sandy loam, 6 to 12 percent slopes | Not hydric | Somewhat excessively drained | Not prime farmland | 42.8 |
| 160 | Fieldon loam | All hydric | Poorly drained | Prime farmland if drained | 60.3 |
| 114 | Glencoe clay loam | All hydric | Very poorly drained | Prime farmland if drained | 501.3 |
| 259B | Grays silt loam, 1 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 4.5 |
| 259C | Grays silt loam, 6 to 12 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 7.5 |
| 414 | Hamel loam | All hydric | Poorly drained | Prime farmland if drained | 80.2 |
| 282 | Hanska loam | All hydric | Poorly drained | Prime farmland if drained | 10.5 |
| 112 | Harps clay loam | All hydric | Poorly drained | Prime farmland if drained | 112.4 |
| 447 | Harpster silty clay loam | All hydric | Poorly drained | Prime farmland if drained | 4.1 |
| 238B | Kilkenny clay loam, 2 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 3.5 |
| 239 | Le Sueur loam, 1 to 3 percent slopes | Not hydric | Somewhat poorly drained | All areas are prime farmland | 7.3 |
| 138B | Lerdal silty clay loam, 2 to 6 percent slopes | Not hydric | Somewhat poorly drained | All areas are prime farmland | 2.9 |
| 1806B | Lerdal silty clay loam, silty substratum, 2 to 10 percent slopes | Not hydric | Somewhat poorly drained | All areas are prime farmland | 0.6 |
| 106D2 | Lester loam, 12 to 18 percent slopes, eroded | Not hydric | Well drained | Not prime farmland | 26.1 |
| 106B | Lester loam, 2 to 6 percent slopes | Not hydric | Well drained | All areas are prime farmland | 24.6 |
| 106C2 | Lester loam, 6 to 12 percent slopes, eroded | Not hydric | Well drained | Farmland of statewide importance | 36.0 |
| 944D2 | Lester-Estherville complex, 12 to 18 percent slopes, eroded | Not hydric | Well drained | Not prime farmland | 20.5 |
| 944B | Lester-Estherville complex, 2 to 6 percent slopes | Not hydric | Well drained | Farmland of statewide importance | 12.7 |

Mapped Soil Series - Shell Rock Wind Farm

| Soil Number | Soil Name | Hydric Soil | Drainage Class | Prime Farmland Classification | Acres |
|-------------|--|-------------|-------------------------|----------------------------------|--------|
| 944C2 | Lester-Estherville complex, 6 to 12 percent slopes, eroded | Not hydric | Well drained | Farmland of statewide importance | 50.7 |
| 247 | Linder sandy loam, 0 to 3 percent slopes | Not hydric | Somewhat poorly drained | All areas are prime farmland | 25.5 |
| 110 | Marna silty clay loam | All hydric | Poorly drained | Prime farmland if drained | 16.2 |
| 252 | Marshan silt loam | All hydric | Poorly drained | Prime farmland if drained | 3.9 |
| 255 | Mayer loam | All hydric | Poorly drained | Prime farmland if drained | 30.2 |
| 318 | Mayer loam, swales | All hydric | Very poorly drained | Prime farmland if drained | 26.0 |
| 287 | Minnetonka silty clay loam | All hydric | Poorly drained | Prime farmland if drained | 5.3 |
| 525 | Muskego muck | All hydric | Very poorly drained | Not prime farmland | 80.3 |
| 130 | Nicollet clay loam, 1 to 3 percent slopes | Not hydric | Somewhat poorly drained | All areas are prime farmland | 396.4 |
| 134 | Okoboji silty clay loam | All hydric | Very poorly drained | Prime farmland if drained | 73.6 |
| 539 | Palms muck | All hydric | Very poorly drained | Not prime farmland | 219.1 |
| 519 | Palms muck, calcareous | All hydric | Very poorly drained | Not prime farmland | 5.1 |
| 1029 | Pits, gravel | Unknown | | Not prime farmland | 9.3 |
| 517 | Shandep loam | All hydric | Very poorly drained | Prime farmland if drained | 28.6 |
| 286B | Shorewood silty clay loam, 1 to 6 percent slopes | Not hydric | Moderately well drained | All areas are prime farmland | 16.2 |
| 140 | Spicer silt loam | All hydric | Poorly drained | Prime farmland if drained | 37.5 |
| 391 | Spicer silt loam, depressional | All hydric | Very poorly drained | Farmland of statewide importance | 7.4 |
| 920D | Storden-Clarion-Estherville complex, 12 to 18 percent slopes | Not hydric | Well drained | Not prime farmland | 136.1 |
| 94B | Terril loam, 3 to 8 percent slopes | Not hydric | Moderately well drained | All areas are prime farmland | 197.1 |
| 1033 | Udipsamments | Unknown | | Not prime farmland | 10.3 |
| 400 | Wacousta silt loam | All hydric | Very poorly drained | Prime farmland if drained | 8.1 |
| 229 | Waldorf silty clay loam | All hydric | Poorly drained | Prime farmland if drained | 74.3 |
| W | Water | Unknown | | Not prime farmland | 1.1 |
| 113 | Webster clay loam | All hydric | Poorly drained | Prime farmland if drained | 2201.9 |

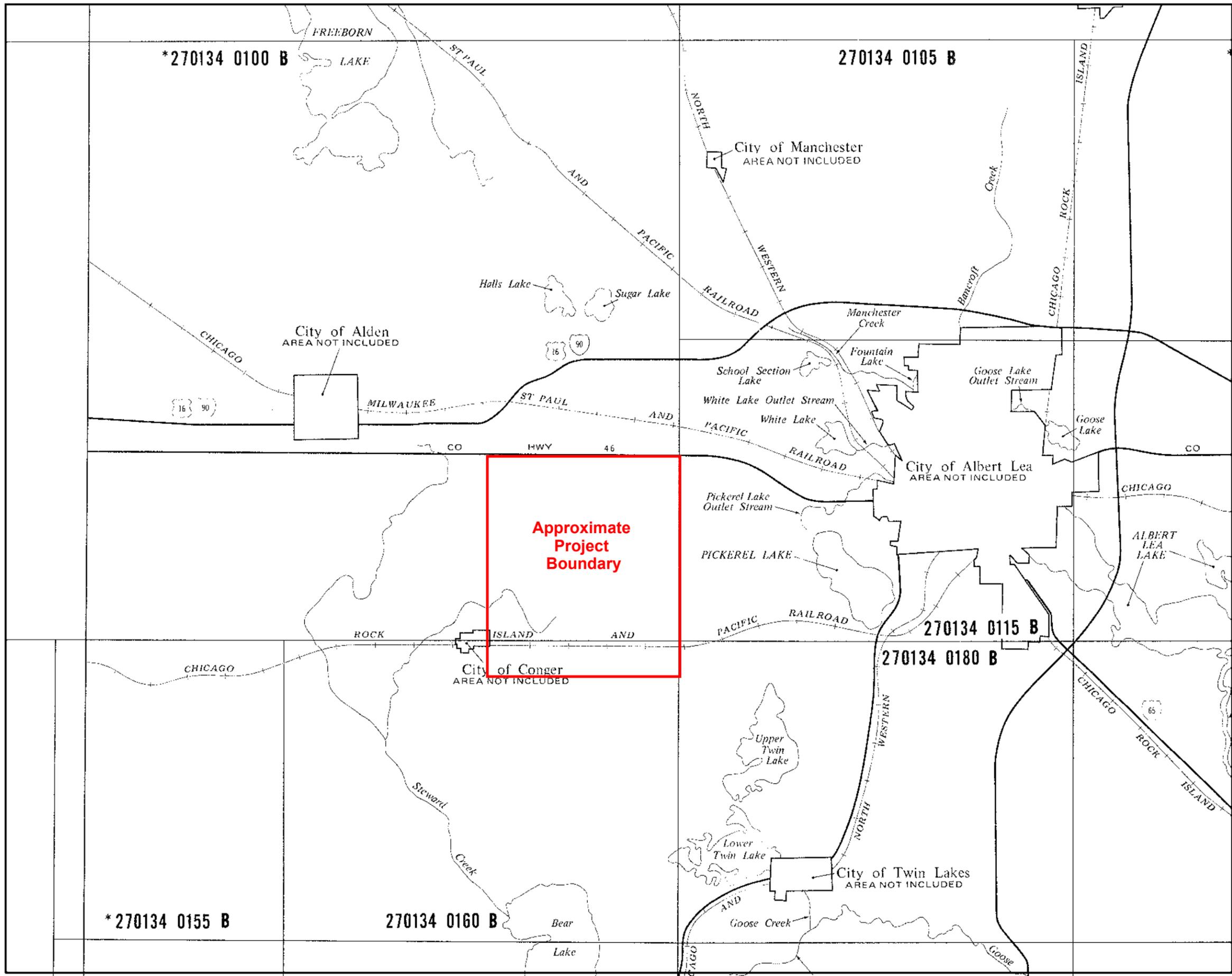
Appendix G

FEMA Floodplain Panels

Shell Rock Wind Farm

Freeborn County, Minnesota

This page is intentionally blank.



*270134 0165 B

*PANEL NOT PRINTED - AREA IN ZONE C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

COUNTY OF
FREEBORN,
MINNESOTA
(UNINCORPORATED AREAS)

MAP INDEX
PANELS PRINTED: 105, 115, 120,
150, 160, 170, 180, 185,
190, 195, 225

COMMUNITY-PANEL NUMBERS
270134 0001-0225

EFFECTIVE DATE:
MAY 3, 1982



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

R R.

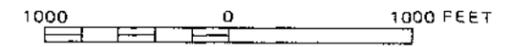
Chicago

Rock

Island



APPROXIMATE SCALE



**CITY OF CONGER
(AREA NOT INCLUDED)**

25

R 23 W

R 22 W

30

Approximate
Project
Area

ZONE C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

COUNTY OF
FREEBORN,
MINNESOTA
(UNINCORPORATED AREAS)

PANEL 160 OF 225
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
270134 0160 B

EFFECTIVE DATE:
MAY 3, 1982



Federal Emergency Management Agency

36

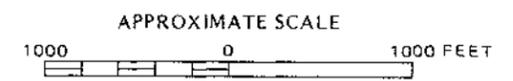
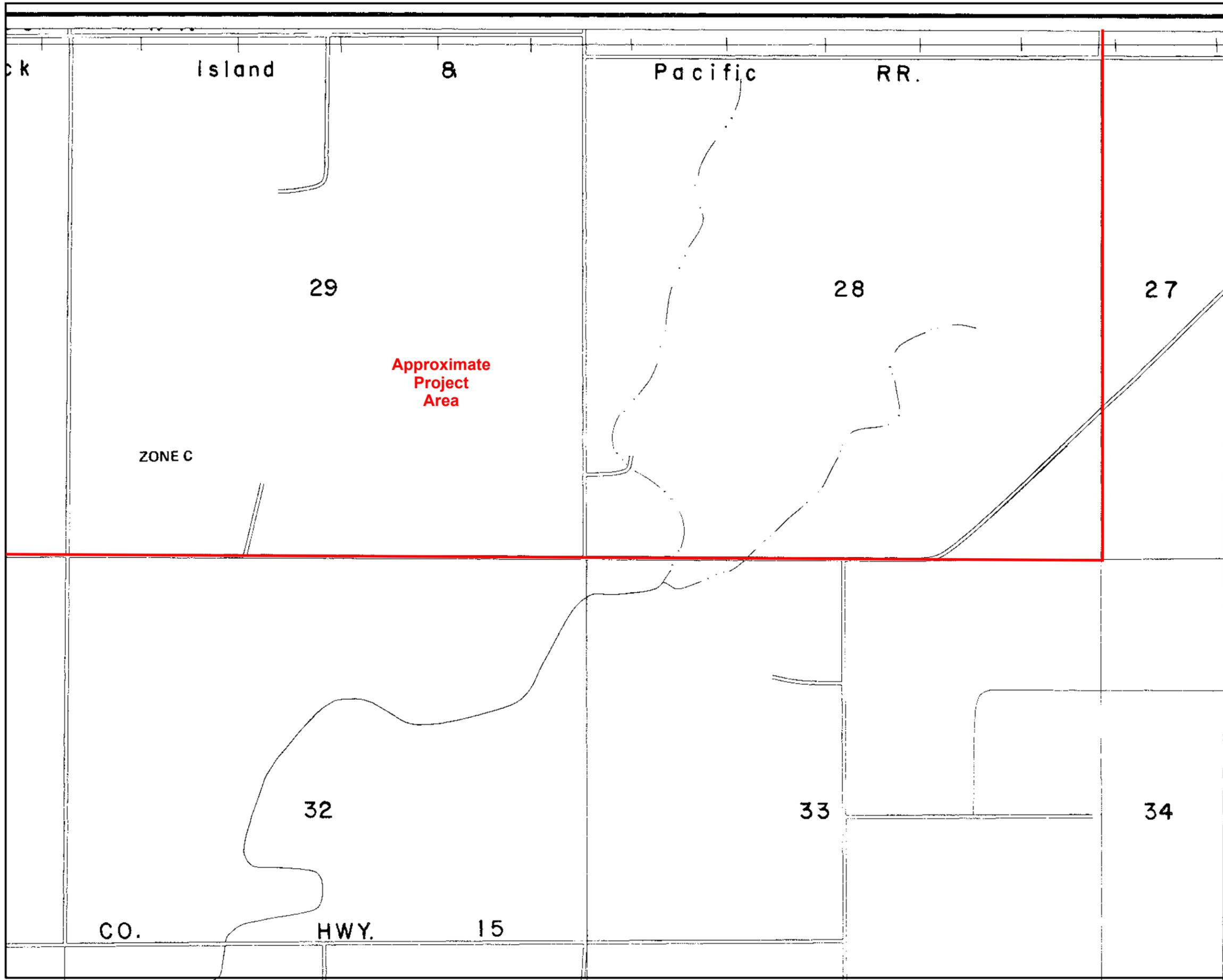
O. HWY. 12

31

CO.

ZONE C

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
FLOOD INSURANCE RATE MAP**

COUNTY OF
**FREEBORN,
MINNESOTA**
(UNINCORPORATED AREAS)

PANEL 160 OF 225
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
270134 0160 B

EFFECTIVE DATE:
MAY 3, 1982



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov