

Exhibit C

Agency Correspondence



GREAT RIVER
ENERGY®

12300 Elm Creek Boulevard • Maple Grove, Minnesota 55369-4718 • 763-445-5000 • Fax 763-445-5050 • greatriverenergy.com

26 March 2015

Ms. Sarah Beimers, Manager
Government Programs and Compliance
Minnesota State Historic Preservation Office
345 Kellogg Boulevard West
St. Paul, MN 55102-1906

RE: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade
Hubbard County, Minnesota
T140N, R34W, Sections 5, 7, 17, 18, 20 and 29
T141N, R34W, Sections 28, 29 and 32

Dear Ms. Beimers:

Great River Energy, wholesale electric supplier to Itasca-Mantrap Cooperative Electrical Association (I-M), is proposing to construct a new 115 kilovolt (kV) transmission line to replace approximately six and half miles of existing 34.5 kV transmission line northeast of Park Rapids, Minnesota. The line is to support an upgrade to I-M's Mantrap Substation located in Section 28, T141N, R34W, Hubbard County. The project is necessary to strengthen the area's electric transmission system, avoid future low voltage issues and improve the reliability of the area's power supply. Great River Energy is seeking a permit for the project through Henrietta Township in Hubbard County.

Merjent conducted a Phase 1A Cultural Resources Assessment of the proposed project (see attached letter) that supports the finding that there will be no adverse impact on known or suspected cultural resources as a result of this project. Great River Energy is requesting information on the possible effects of the proposed project on cultural and historic properties in the project area.

The project will likely **not** require a Section 404 permit from the US Army Corps of Engineers (COE), therefore we do not believe it will be necessary for the COE to initiate Section 106 requirements and consult with the SHPO under your joint Programmatic Agreement.

Ms. Sarah Beimers
26 March 2015
Page 2

We would appreciate receiving any written comments from your office by Friday, April 17, 2015. If you have any questions about this proposed project, please contact me at (763) 445-5215. If you wish to respond by e-mail, my address is mparlow@greenergy.com.

Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY



Marsha Parlow
Transmission Permitting Analyst

Attachments: Fact Sheet/Project Map, Letter of 1-13-15 from Merjent

S:\Legal Services\Environmental\Transmission\Projects\76331 Mantrap\Agency Letters\Mantrap MHS.doc



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27 March 2015

Mr. Tom Hingsberger
US Army Corps of Engineers
St. Paul District Office
180 5th Street East, Suite 700
St. Paul, MN 55101-1678

RE: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade
Hubbard County, Minnesota
T140N, R34W, Sections 5, 7, 17, 18, 20 and 29
T141N, R34W, Sections 28, 29 and 32

Dear Mr. Hingsberger:

Great River Energy, wholesale electric supplier to Itasca-Mantrap Cooperative Electrical Association (I-M), is proposing to construct a new 115 kilovolt (kV) transmission line to replace approximately six and half miles of existing 34.5 kV transmission line northeast of Park Rapids, Minnesota. The line is to support an upgrade to I-M's Mantrap Substation located in Section 28, T141N, R34W, Hubbard County. The project is necessary to strengthen the area's electric transmission system, avoid future low voltage issues and improve the reliability of the area's power supply. Great River Energy is seeking a conditional use permit for the project through Henrietta Township.

Great River Energy is requesting information on the possible effects of the proposed project on floodplains, wetlands, and other important natural resources that occur in the project area. The transmission line will span one DNR public water (565W - see enclosed map). Great River Energy will apply to the DNR Division of Lands and Minerals for a license to cross that water.

The project will cross one NWI wetland (see enclosed map); however, if it is necessary to place poles in wetlands, it is anticipated that the amount of fill required will not trigger a Corps of Engineers permit. Great River Energy will file any required paperwork with the Corps and responsible local governing units once design details are available.

A literature survey of cultural resources in the project area was conducted by Merjent and supports the finding that there will be no adverse impact on known or suspected cultural resources as a result of this project. Merjent recommends that no additional archaeological or architectural review is appropriate for this project (see attached letter).

Mr. Tom Hingsberger
March 27, 2015
Page 2

We would appreciate a response to this request by Friday, April 17, 2015. If you require further information or have questions regarding this project, please feel free to call me at 763-445-5215. If you wish to respond by e-mail, my address is mparlow@greenergy.com. Thank you for your cooperation and assistance.

Sincerely,

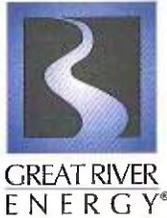
GREAT RIVER ENERGY



Marsha Parlow
Transmission Permitting Analyst

Attachments: Fact Sheet/Project Map, NWI/PWI Maps, Merjent Letter

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March 27, 2015

Ms. Lisa Joyal
Minnesota Department of Natural Resources
Natural Heritage and Nongame Research Program
500 Lafayette Road, Box 25
St. Paul, MN 55155

RE: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade
Hubbard County, Minnesota
T140N, R34W, Sections 5, 7, 17, 18, 20 and 29
T141N, R34W, Sections 28, 29 and 32

Dear Ms. Joyal:

Great River Energy, wholesale electric supplier to Itasca-Mantrap Cooperative Electrical Association (I-M), is proposing to construct a new 115 kilovolt (kV) transmission line to replace approximately six and half miles of existing 34.5 kV transmission line northeast of Park Rapids, Minnesota. The line is to support an upgrade to I-M's Mantrap Substation located in Section 28, T141N, R34W, Hubbard County. The project is necessary to strengthen the area's electric transmission system, avoid future low voltage issues and improve the reliability of the area's power supply. Great River Energy is seeking a conditional use permit for the project through Henrietta Township.

The upgraded transmission line will span one DNR public water (565W - see enclosed Hydrologic Features map). Great River Energy will apply to the DNR Division of Lands and Minerals for a license to cross that water once design details are available.

As shown on the enclosed Rare Features map, there are four features of interest in the vicinity of the project area: Bald Eagle (*Haliaeetus leucocephalus*), two Blanding's Turtles (*Emydoidea blandingii*) areas and a colonial bird nesting area. However, Great River Energy believes that construction and timing of construction can keep the impact on these features to a minimum.

Great River Energy is therefore seeking concurrence from the DNR regarding our assessment of no impacts to rare features in the Project area. A project description, PWI map, rare features map, Data Request Form and shape files are enclosed for your information. We would appreciate receiving any written comments from your office by Friday, April 17, 2015.

Ms. Lisa Joyal
March 27, 2015
Page 2

If you have any questions about this proposed project, please contact me at (763) 445-5215. If you wish to respond by e-mail, my address is mparlow@greenergy.com. Thank you for your attention to this important project

Sincerely,
GREAT RIVER ENERGY



Marsha Parlow
Transmission Permitting Analyst

Enclosures: Data Request Form, Fact Sheet/Project Map, Hydrologic Features Map, PWI Map, Rare Features Map, Route Shapefile



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27 March 2015

Mr. Andrew Horton, Habitat Conservation Biologist
United States Department of the Interior
Twin Cities Field Office
4101 East 80th Street
Bloomington, MN 55425-1665

RE: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade
Hubbard County, Minnesota
T140N, R34W, Sections 5, 7, 17, 18, 20 and 29
T141N, R34W, Sections 28, 29 and 32

Dear Mr. Horton:

Great River Energy, wholesale electric supplier to Itasca-Mantrap Cooperative Electrical Association (I-M), is proposing to construct a new 115 kilovolt (kV) transmission line to replace approximately six and half miles of existing 34.5 kV transmission line northeast of Park Rapids, Minnesota. The line is to support an upgrade to I-M's Mantrap Substation located in Section 28, T141N, R34W, Hubbard County. The project is necessary to strengthen the area's electric transmission system, avoid future low voltage issues and improve the reliability of the area's power supply. Great River Energy is seeking a conditional use permit for the project through Henrietta Township.

The Fish and Wildlife Service website list for threatened and endangered species includes the Northern long-eared bat (proposed as endangered) and the Gray Wolf (threatened) in Hubbard County. Great River Energy does not believe the proposed transmission project will affect either species, but should the Northern long-eared bat be listed, guidance associated with the bat will be considered. The DNR Rare features database indicates there are four rare features along the route (see enclosed Rare Features map).

Great River Energy is requesting concurrence or information on the possible effects of the proposed project on any listed or proposed threatened or endangered species and designated or proposed critical habitat that may be present in the project area. The proposed project does not represent a "major construction activity" as defined in 50 CFR 402.02.

Mr. Andrew Horton
27 March 2015
Page 2

We would appreciate receiving any written comments from your office by Friday, April 17, 2015. If you have any questions about this proposed project, please contact me at (763) 445-5215. If you wish to respond by e-mail, my address is mparlow@greenergy.com.

Sincerely,

GREAT RIVER ENERGY



Marsha Parlow
Transmission Permitting Analyst

Enclosures: Fact Sheet/Project Map, Rare Features Map

S:\Legal Services\Environmental\Transmission\Projects\76331 Mantrap\Agency Letters\Mantrap FWS.doc



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27 March 2015

Mr. Brian Conklin
Office of Aeronautics
Minnesota Department of Transportation
222 E. Plato Blvd.
St. Paul, MN 55107-1618

RE: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade
Hubbard County, Minnesota
T140N, R34W, Sections 5, 7, 17, 18, 20 and 29
T141N, R34W, Sections 28, 29 and 32

Dear Mr. Conklin:

Great River Energy, wholesale electric supplier to Itasca-Mantrap Cooperative Electrical Association (I-M), is proposing to construct a new 115 kilovolt (kV) transmission line to replace approximately six and half miles of existing 34.5 kV transmission line northeast of Park Rapids, Minnesota. The line is to support an upgrade to I-M's Mantrap Substation located in Section 28, T141N, R34W, Hubbard County. The project is necessary to strengthen the area's electric transmission system, avoid future low voltage issues and improve the reliability of the area's power supply. Great River Energy is seeking a permit for the project through Henrietta Township.

The transmission line will be constructed with wood single poles that will generally range between 60 to 80 feet in height. Elevations in the project area range from 1,427 feet (NE ¼ NE ¼ of Section 19, T140N, R34W) to 1,523 feet (SE ¼ NE ¼ of Section 29, T141N, R34W). From my research, I find that the closest public airport to the project is the Park Rapids Municipal Konshok Field Airport (2.6 nm SW) and the closest private airport is the Falk Private Airport (3.8 nm SW). A project description is enclosed for your information.

Great River Energy is requesting information on the possible effects of the proposed project on airports or airstrips in the project area. We would appreciate receiving any written comments from your office by Friday, April 17, 2015. If you have any questions about this proposed project, please contact me at (763) 445-5215. If you wish to respond by e-mail, my address is mparlow@GREnergy.com. Thank you for your cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow
Transmission Permitting Analyst

Attachment: Fact Sheet/Project Map

S:\Legal Services\Environmental\Transmission\Projects\76331 Mantrap\Agency Letters\Mantrap MNDO.doc

Enclosures

Long Lake to Mantrap 115 kV Transmission Line Upgrade



GREAT RIVER ENERGY
 12300 Elm Creek Blvd
 Maple Grove, MN 55369-4718
 1-888-521-0130
www.greatriverenergy.com



ITASCA-MANTRAP COOPERATIVE ELECTRICAL ASSOCIATION
 16930 County Highway 6
 P.O. Box 192
 Park Rapids, MN 56470-0192
 1-888-713-3377
www.itasca-mantrap.com

Project Description/Need

Great River Energy, wholesale electric supplier to Itasca-Mantrap Co-op Electrical Association (I-M), is proposing to upgrade an existing 34.5 kilovolt (kV) transmission line between Great River Energy's Long Lake Substation and I-M's Mantrap Substation with a new 115 kV and 115/34.5 kV transmission line (see map on back). The existing 34.5 kV Mantrap Substation will be converted to 115 kV. This upgrade would:

- Strengthen the electric transmission system north of Park Rapids, as the existing 34.5 kV system serving the area is becoming outdated and reaching its maximum capacity, and
- Avoid future low voltage issues and improve the reliability of the area's power supply.

Proposed Project

This project will include:

- Conducting 0.50 miles of Great River Energy's existing "IM-BL" 34.5 kV line, already built to double-circuit standard with a new 115 kV circuit (see top photo, right);
- Overtaking 1.25 miles of Minnesota Power's existing 34.5/19.9 kV line and rebuilding it to 115 kV with 34.5 kV underbuild and placing the 19.9 kV circuit underground (see center photo, right);
- Replacing Great River Energy's 4.75 mile long existing 34.5 kV "PM" line with the new 115 kV line (see bottom photo, right); and
- I-M will replace the existing 34.5 kV equipment at the Mantrap Substation with new 115 kV rated equipment.

The new 115 kV transmission line will primarily be single wood poles ranging 60-80 feet in height. Spacing between poles will range from 300 to 350 feet for the double-circuit and 115/34.5 kV underbuild sections, and 325 to 400 feet for the single-circuit section. The new transmission centerline may be offset from the existing line and crossing locations changed for design and construction purposes.

Permitting

The project will be permitted through a local alternative process, with Henrietta Township taking the lead in the preparation of the Environmental Assessment (EA) and grant of the permit for the project. The public and regulatory agencies will have numerous opportunities to provide input on the proposed project. Construction of the project cannot begin until permit approval is obtained.

Easements/Trees

Once the project has been approved, Great River Energy will contact landowners to present an easement and offer of compensation. At this time, information will be shared on tree removal, construction access and practices, and restoration of the right-of-way (ROW). Although the new line is proposed to be located on existing cleared ROW, it will be necessary to widen the ROW in most areas for the safe operation and maintenance of the 115 kV line.

Project Schedule

Public contacts and/or notifications -----	Early 2015
Project permitting -----	Spring 2015 to Summer 2015
Survey/design -----	Summer 2015
Easement acquisition/right-of-way permits -----	Fall 2015 to early 2016
Transmission line construction -----	Starts early 2016
Energization -----	Fall 2016

For project updates and information, visit greatriverenergy.com/mantrap or contact:

Michelle Lommel
 Sr. Field Representative
 Great River Energy – Land Rights Department
 (763) 445-5977 or 1-888-521-0130
mlommel@grenergy.com

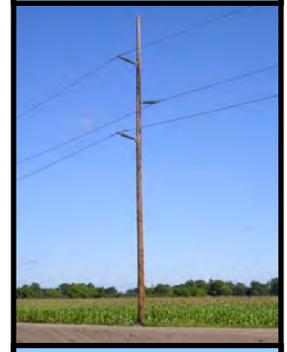
Tony Nelson
 Engineering & Operations Manager
 Itasca-Mantrap Co-op
 Electrical Association
 (218) 732-0695
tnelson@itasca-mantrap.com



*Double-circuit
 115 kV structure with
 distribution underbuild*

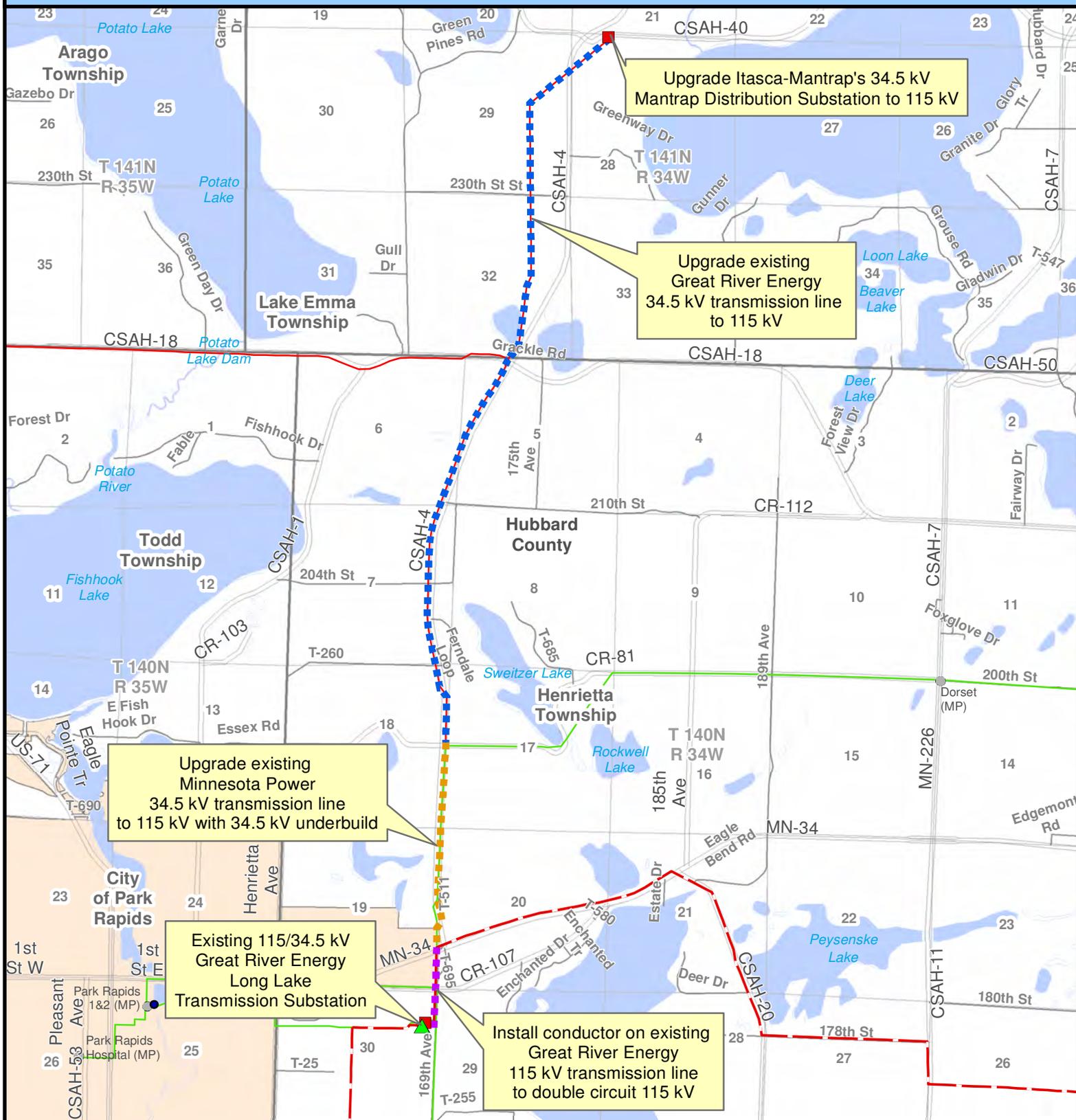


*Single-circuit
 115 kV structure with
 34.5 kV underbuild*



*Single-circuit
 115 kV structure*

Project Map



Great River Energy

- ■ ■ ■ Upgrade existing Great River Energy 34.5 kV line to 115 kV
- ■ ■ ■ Upgrade existing Minnesota Power 34.5 kV line to 115 kV with 34.5 kV underbuild
- ■ ■ ■ Upgrade existing Great River Energy 115 kV Line to double circuit 115 kV
- Existing 34.5 kV Transmission Line
- Existing 115 kV Transmission Line
- ▲ Existing Transmission Substation

Itasca-Mantrap Cooperative Electrical Association

- Existing Distribution Substation
- Existing 34.5 kV Transmission Line
- Existing Distribution Substation

Minnesota Power





January 13, 2015

Marsha Parlow
Transmission Permitting Specialist
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369-4718

Re: Phase IA Cultural Resources Assessment of the proposed Mantrap 115 kilovolt (kV) Transmission Line Conversion Project, Hubbard County, Minnesota.

Dear Ms. Parlow:

Merjent was contacted in January 2015 by Great River Energy to conduct a Phase IA Cultural Resources Assessment in support of the proposed Mantrap 115 kilovolt (kV) Transmission Line Conversion Project (Mantrap Conversion Project) in Hubbard County, Minnesota. Great River Energy proposes the construction of new 115kV transmission line to replace approximately six miles of existing 34.5V transmission line north and east of Park Rapids, Minnesota, to support an upgrade to the Mantrap Substation (Figure 1). The Project is necessary to ensure continued reliability of electric service and to support future regional growth.

Project Description

The Mantrap Conversion Project would consist of a generally north-south section of primarily single-circuit 115 kV line (approximately 6.0 miles) between the existing Mantrap Substation and the existing Long Lake Substation.

Proposed Mantrap Conversion Project activities may occur in the following counties and legal locations, which served as the Phase IA study area:

County	Township	Range	Sections
Hubbard	140N	34W	5-8, 17-20, 29, 30
Hubbard	141N	34W	20, 21, 28, 29, 32, 33

Literature Review

The main objective in reviewing the cultural resources literature is to identify the recorded cultural sites and assess the potential for unrecorded sites within the study area. The standard for considering a cultural property as significant is whether it meets the criteria for listing on the National Register of Historic Places (NRHP). The initial criterion for such listing is an age of 50 or more years. Beyond age, a property must retain integrity and be associated with significant historic trends, historic persons, building styles and craftsmanship, or the property must have the potential to provide significant information about the past.

Merjent reviewed and followed the published guidelines for conducting cultural resources literature reviews in Minnesota. In January 2015 Merjent Cultural Resource Specialist Dean Sather examined prehistoric and historic archaeological site files, historic standing structure inventory files, and field survey reports held at the Minnesota State Historic Preservation Office (SHPO), which is located in the Minnesota History Center in St. Paul.

Mr. Sather also examined the current topographic maps and aerial photographs to understand the modern land use of the study area and to provide a baseline for examining the historic maps and documents. Mr. Sather reviewed primary sources that have been digitized and made available online, such as the original land survey maps and the original land patent records.

Previously Recorded Archaeological Resources

Merjent identified no previously recorded archaeological site in the study area. No previous archaeological inventories have been conducted within the study area. Based on review of the current topographic maps and aerial photographs, Merjent recommends that intact and significant archaeological resources are unlikely to exist within the Mantrap Conversion Project area.

Previously Recorded Standing Historic Structures

Merjent identified ten (10) previously recorded standing historic structures in the study area.

Site Number/Site Name/Site Type	County, Location (TRS)	National Register Eligibility	Likely Location to Project
HB-PRC-092/Residential Structure	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-093/Residential Structure	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-094/Residential Structure	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-095/Motel	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-096/Greenwood Cemetery	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-097/Farmstead	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-098/Commercial Building	Hubbard, 140N/34W/19	Ineligible	West of project
HB-PRC-099/Residential Structure	Hubbard, 140N/34W/19	Ineligible	Adjacent to project
HB-HEN-005/Hamilton's Island Park Lodge	Hubbard, 140N/34W/20	Unevaluated	South and east of project
HB-HEN-006/Island Park Lodge – Log Structure	Hubbard, 140N/34W/20	Unevaluated	South and east of project

Seven of the ten previously recorded historic structures (HB-PRC-092 through HB-PRC-098) are located within the City of Park Rapids and do not overlap the proposed Mantrap Conversion Project area. The eighth previously recorded historic structure (HB-PRC-099), while also within the City of Park Rapids, appears to be adjacent to the Mantrap Conversion Project route near in the southeastern portion of section 19. All eight of the structures within the City of Park Rapids were inventoried during a 2004 survey and have been recommended as ineligible for listing on the National Register for Historic Places. The two remaining structures (HB-HEN-005 and HB-HEN-006) are located on an island in Long Lake, located south and east of the Mantrap Conversion Project. Both structures were inventoried during a 1986 survey.

Neither of these structures has been evaluated for National Register eligibility, however, neither structure is proximal to the current project and will not be impacted by the proposed construction. It is unlikely that other structures in the vicinity have become notable since that time, at least enough to warrant additional inventory along the project alignment.

Conclusions

Merjent recommends that there will be no adverse impact on known or suspected cultural resources as a result of this project. Merjent recommends that no additional archaeological or architectural review is appropriate for this project.

Merjent recommends that if construction plans are altered to affect areas that were not previously surveyed or disturbed, these locations should be examined for cultural resources. Further, if human remains are encountered during construction activities, all ground disturbing activity must cease and local law enforcement must be notified per MN 307.08.

Please contact me at 612.924.3984 or Mike Madson at 612.834.3074 if you have questions.

Sincerely,
Merjent, Inc.

A handwritten signature in black ink, appearing to read "Dean T. Sather". The signature is stylized and cursive.

Dean T. Sather, MA, RPA
Sr. Cultural Resource Specialist

Cc: Mike Madson, Merjent



Figure 1
GRE - Mantrap Area 115 kV Transmission Project
 Previously Identified Cultural Resources within One Mile
 Hubbard, Wadena and Becker Counties, Minnesota

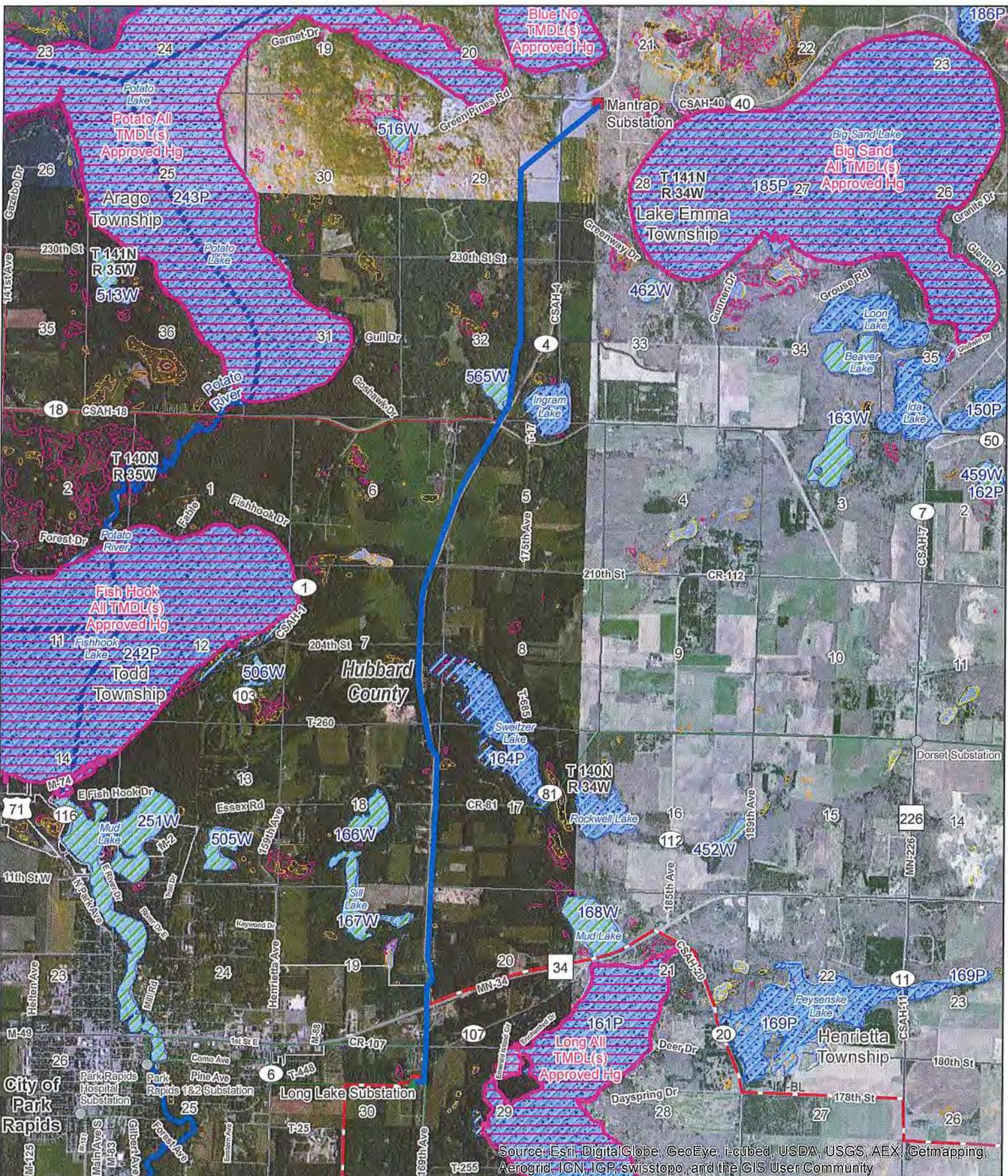
- Review Boundary
- Project Route
- Previously Identified Architectural/Historic Site
- Substation Location

0 0.5 1 Miles
 1 in = 1 miles

merjent

Copyright: © 2013 National Geographic Society, i-cubed

Date: (1/19/2015) Source: Z:\Clients\E_PIC\RE\ARC\SIS\201501\Mantrap_Cultural_Sites\Figure 1 GRE - Mantrap Area Transmission Line.mxd



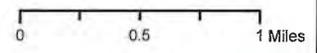
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Great River Energy**
- Proposed 115 kV transmission line
 - Existing transmission substation
 - Existing 34.5 kV transmission line
 - Existing 115 kV transmission line
- Itasca Mantrap Coop Electrical Assoc.**
- Existing distribution substation

- Minnesota Power**
- Existing 34.5 kV transmission line
 - Existing distribution substation
- Public Waters Inventory**
- PWI Lake
 - PWI Wetland
 - PWI River
 - Impaired Lakes

- NWI Wetlands**
- Freshwater Emergent Wetland
 - Freshwater Forested / Shrub Wetland
 - Freshwater Pond
 - Lake
 - Riverine

**Mantrap 115 kV Transmission Line
Figure 4-2 Hydrologic Features**



GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy. Aerial from ESRI Basemap service.



2012	For Agency Use Only:	#Sec _____	Contact Rqsted? _____	
	Received _____ Due _____	Inv _____	#EOs _____	Survey Rqsted? _____
	Search Radius _____ mi. L / I / D EM	Map'd _____	#Com _____	
	NoR / NoF / NoE / Std / Sub	Let _____	Log out _____	Related ERDB# _____

NATURAL HERITAGE INFORMATION SYSTEM (NHIS) DATA REQUEST FORM

Please read the instructions on page 3 before filling out the form. Thank you!

WHO IS REQUESTING THE INFORMATION?

Mr. Ms. Name and Title **Marsha Parlow**

Agency/Company **Great River Energy**

Mailing Address **12300 Elm Creek Blvd, Maple Grove, MN 55369**

(Street) (City) (State) (Zip Code)

Phone **763-445-5215** e-mail **mparlow@grenergy.cojm** Responses will be sent via email.
If you prefer US Mail check here:

THIS INFORMATION IS BEING REQUESTED FOR A:

- Federal EA State EAW PUC Site or Route Application Watershed Plan BER
 Federal EIS State EIS Local Government Permit Research Project
 NEPA Checklist Other (describe) _____
 Check here if this project is funded through any of the following grant programs: Lessard-Sams Outdoor Heritage Council (L-SOHC), Conservation Partners Legacy (CPL), or Legislative-Citizen Commission on Minnesota Resources (LCCMR).

INFORMATION WE NEED FROM YOU:

- 1) Enclose a map of the project boundary/area of interest (topographic maps or aerial photos are preferred).
- 2) Please provide a GIS shapefile* (NAD 83, UTM Zone 15N) of the project boundary/area of interest.
- 3) List the following locational information* (attach additional sheets if necessary):

<small>For Agency Use: Region/MCBS Status</small>	County	Township #	Range #	Section(s) (please list all sections)	<small>For Agency Use: TRS Confirmed <input type="checkbox"/></small>
	Hubbard	140N	34W	5, 6, 7, 8, 17, 18, 19, 20, 29, 30	
	Hubbard	141N	34W	28, 29, 32	

- 4) Please provide the following information (attach additional sheets if necessary):

Project Name: **Long Lake to Mantrap 115 kV Transmission Line Upgrade**

Project Proposer: **Great River Energy**

Description of Project (including types of disturbance anticipated from the project):
See attached factsheet.

Describe the existing land use of the project site. What types of land cover / habitat will be impacted by the proposed project?
Existing 34.5 kV transmission line right of way: 4 miles of the line follows along road right of way. 2 miles of the line is cross country in upland areas with scattered trees. There is one wetland crossing and lakes within a mile of the project.

List any waterbodies (e.g., rivers, intermittent streams, lakes, wetlands) that may be affected by the proposed project, and discuss how they may be impacted (e.g., dewatering, discharge, riverbed disturbance).
565W - There may be tree clearing on the additional right of way required for the upgrade. The impacts are expected to be minimal.

Does the project have the potential to affect any groundwater resources (e.g., groundwater appropriation, change in recharge, or contamination)?
No

To your knowledge, has the project undergone a previous Natural Heritage review? If so, please list the correspondence #: ERDB # _____. How does this request differ from the previous request (e.g., change in scope, change in boundary, project being revived, project expansion, different phase)?
NA

To your knowledge, have any native plant community or rare species surveys been conducted within the site? If so, please list:
No

List any DNR Permits or Licenses that you will be applying for or have already applied for as part of this project:
There is no water crossing license for the existing line. There is an existing trail crossing license:144-62-1215.

INFORMATION WE PROVIDE TO YOU:

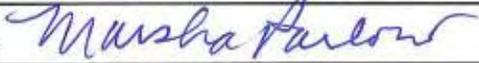
- 1) The response will include a Natural Heritage letter. If applicable, the letter will discuss potential effects to rare features.
 Check here if you are interested in a list of rare features in the vicinity of the area of interest but you do not need a review of potential effects to rare features. Please list the reason a review is not needed:

- 2) Depending on the results of the query or review, the response may include an Index Report of known aggregation sites and known occurrences of federally and state-listed plants and animals* within an approximate one-mile radius of the project boundary/area of interest. The Index Report and Natural Heritage letter can be included in any public environmental review document.
- 3) A Detailed Report that contains more information on each occurrence may also be requested. Please note that the Detailed Report may contain specific location information that is protected under *Minnesota Statutes*, section 84.0872, subd. 2, and, as such, the Detailed Report may not be included in any public document (e.g., an EAW).
 Check here if you would like to request a Detailed Report. Please note that if the results of the review are 'No Effects' or a standard comment, a Detailed Report may not be available.

FEES / TURNAROUND TIME

There is a fee* for this service. Requests generally take **3-4 weeks** from date of receipt to process, and are processed in the order received.

I have read the entire form and instructions, and the information supplied above is complete and accurate. I understand that material supplied to me from the Natural Heritage Information System is copyrighted and that I am not permitted to reproduce or publish any of this copyrighted material without prior written permission from the DNR. Further, if permission to publish is given, I understand that I must credit the Minnesota Division of Ecological and Water Resources, Minnesota Department of Natural Resources, as the source of the material.

Signature (required) 

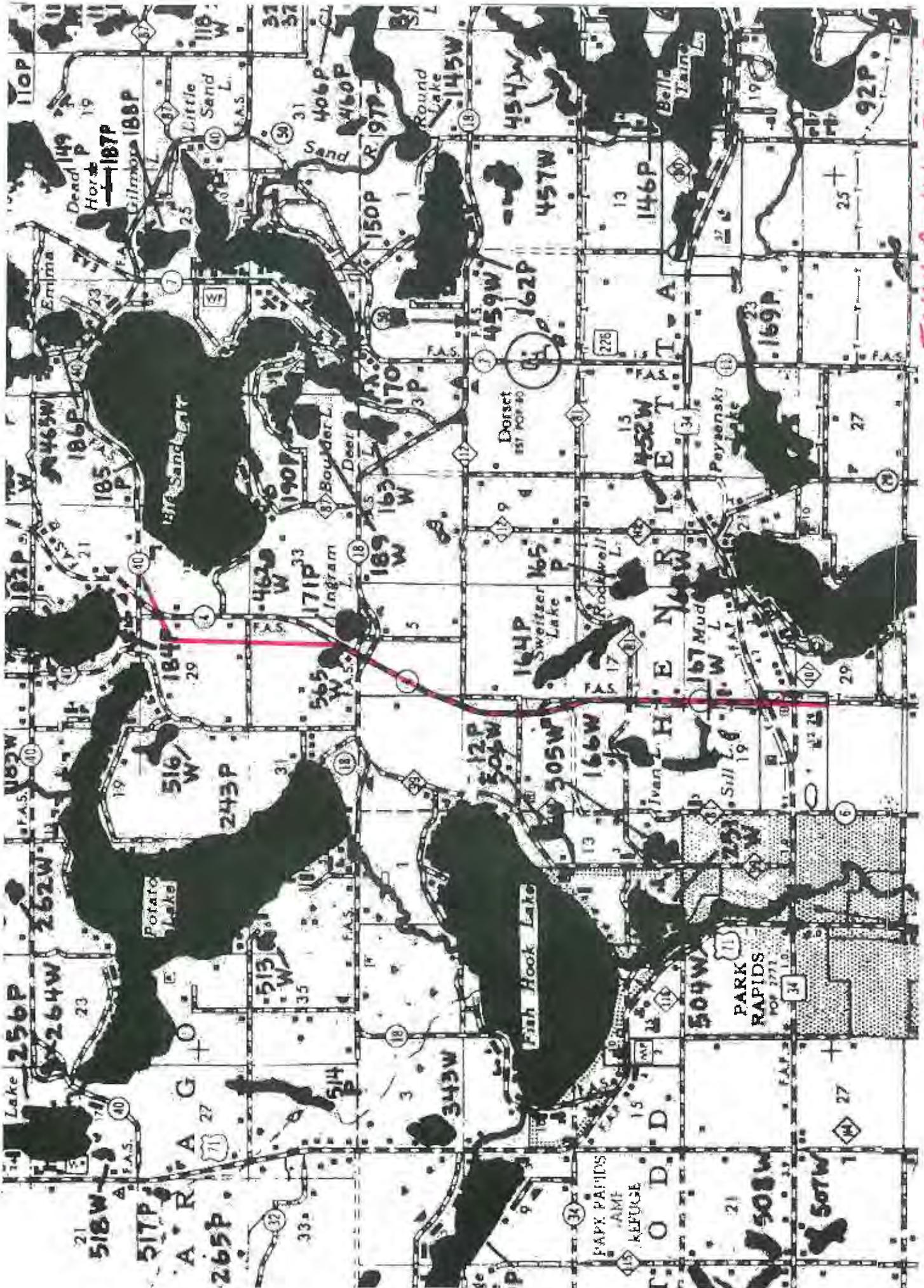
Note: Digital signatures representing the name of a person shall be sufficient to show that such person has signed this document.

Mail or email completed form to:
Lisa Joyal, Endangered Species Review Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155
Review.NHIS@state.mn.us

Form is available at
http://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf

Revised March 2, 2012

* Please see the instructions on page 3.



T141N, R34W 28, 29, 30
 T140N, R34W 5-8, 17-20, 29

Long Lake to Mantrap 115KV
 Transmission Line Upgrade

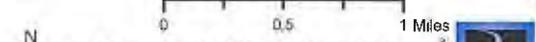
565W



Copyright (2014), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (12-10-2014). These data are not based on an exhaustive inventory of the state.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> — Proposed 115 kV transmission line — Existing 34.5 kV transmission line — Existing 115 kV transmission line ▲ Existing transmission substation | <ul style="list-style-type: none"> ■ Itasca Mantrap Cooperative Electrical Association Existing distribution substation — Minnesota Power Existing 34.5 kV transmission line ● Existing distribution substation | <ul style="list-style-type: none"> Rare Natural Feature (NHIS) Protection Status Special Concern Threatened Not listed | <p>Mantrap 115 kV Transmission Line
 Figure 4-3 Rare Features</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|



GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy. Topo from ESRI Basemap service.

Agency Responses

Parlow, Marsha GRE-MG

From: Jaka, Jonathan [jonathan_jaka@fws.gov]
Sent: Tuesday, April 07, 2015 4:12 PM
To: Parlow, Marsha GRE-MG
Cc: Andrew Horton
Subject: Proposed Long Lake to Mantrap 115 kV Transmission Upgrade Response

Dear Ms. Parlow-

I have reviewed the proposed Long Lake to Mantrap 115 kV transmission line upgrade in Sections 5,7,17,18,20, and 29, Township 140N, Range 34W, and Sections 28,29, and 32, Township 141N, Range 34W, Hubbard County, Minnesota. For the county listed, the following species may occur:

Hubbard	<u>Gray wolf</u> <i>Canis lupus</i>	Threatened	Northern forest
	<u>Northern long-eared bat</u> <i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.

We have no known records for federally listed or proposed species and/or designated or proposed critical habitat within the action area, however suitable summer roosting habitat may be present for the northern long-eared bat. We recommend that any tree removal at this location be conducted outside the the summer roost period for the species. Between the months of October 1st and March 30th, we would not anticipate the northern long-eared bat to be present in the action area.

We would also recommend the use of bird deflectors in the southeast corner of Section 32, Township 141N, Range 34W where the project crosses between two small wetlands in the event that any migratory birds may be utilizing the area.

If project plans change, additional information on listed or proposed species becomes available, or new species are listed that may be affected by the project, our office should be contacted. This concludes our technical assistance review of the proposed action at the above location. If you have any further endangered species questions, please contact Andrew Horton at (612) 725-3548 x2208.

For a quicker response regarding future projects, you may refer to our website <http://www.fws.gov/midwest/endangered/lists/minnesot-cty.html> to determine which species may be present and if any impacts are anticipated.

Thank you.

--

Jonathan JaKa
Pathways Student (Biologist)
Midwest Region
U.S. Fish and Wildlife Service
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

Telephone: 612-713-3548 x 2214

jonathan_jaka@fws.gov



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL MINNESOTA 55101-1678

RECEIVED

APR 21 2015

LAND RIGHTS

REPLY TO
ATTENTION

April 15, 2015

Operations
Regulatory (2015-01050-WAB)

Ms. Michelle L. Lommel
Great River Energy
12300 Elm Creek Blvd.
Maple Grove, Minnesota 55369-4718

Dear Ms. Lommel:

We have received the document entitled, "Proposed Long Lake to Mantrap 115 kV Transmission Project; Hubbard County" dated March 27th, 2015. Due to limited staff and resources and the general nature of the information, it is unlikely that U.S. Army Corps of Engineers Regulatory staff will review or comment on this document until we receive a jurisdictional determination request, a request for a pre-application consultation meeting, and/or a permit application. In lieu of a specific response, please consider the following general information concerning our regulatory program that may apply to the proposed project.

If the proposal involves activity in navigable waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

If the proposal involves discharge of dredged or fill material into waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404. Information about the Corps permitting process can be obtained online at <http://www.mvp.usace.army.mil/regulatory>.

The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404 permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

If the proposal requires a Section 404 permit application, the Guidelines specifically require that “no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences” (40 CFR § 230.10(a)). Time and money spent on the proposal prior to applying for a Section 404 permit cannot be factored into the Corps’ decision whether there is a less damaging practicable alternative to the proposal.

If an application for a Corps permit has not yet been submitted, the project proposer may request a pre-application consultation meeting with the Corps to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process. A pre-application consultation meeting is strongly recommended if the proposal has substantial impacts to waters of the United States, or if it is a large or controversial project.

For further information or to request a pre-application consultation meeting, please contact Bill Baer at (651) 290-5338, the Corps’ project manager for the County in which this proposal is located.

Sincerely,



Tamara E. Cameron
Chief, Regulatory Branch



RECEIVED

APR 27 2015

Using the Power of History to Transform Lives
PRESERVING > SHARING > CONNECTING HISTORIES

STATE HISTORIC PRESERVATION OFFICE

April 22, 2015

Marsha Parlow
Transmission Permitting Analyst
Great River Energy
12300 Elm Creek Blvd.
Maple Grove, MN 55369-4718

RE: Long Lake to Mantrap 115 kV Transmission Line Upgrade
T140 R34 S5, 7, 17, 18, 20, 29; T141 R34 S28, 29, 32, Hubbard County
SHPO Number: 2015-1610

Dear Ms. Parlow:

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.

Based on our review of the project information, we conclude that there are **no properties** listed in the National or State Registers of Historic Places, and no known or suspected archaeological properties in the area that will be affected by this project.

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 permit or license, it should be submitted to our office by the responsible federal agency.

Please contact our Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,

A handwritten signature in black ink that reads 'Sarah J. Beimers'.

Sarah J. Beimers, Manager
Government Programs and Compliance



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5091 E-mail: samantha.bump@state.mn.us

April 29, 2015

Correspondence # ERDB 20150323

Ms. Marsha Parlow
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369-4718

RE: Natural Heritage Review of the proposed Long Lake to Mantrap 115 kV Line;
Hubbard County

Dear Ms. Parlow,

As requested, the Minnesota Natural Heritage Information System (NHIS) 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, the following **rare species may be adversely affected** by the proposed project:

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported from the vicinity of the proposed project and may be encountered on site. For your information, I have attached a Blanding's turtle fact sheet that describes the habitat use and life history of this species. The fact sheet also provides two lists of recommendations for avoiding and minimizing impacts to this rare turtle. **Please refer to the first list of recommendations for your project.** In addition, if erosion control mesh will be used, the DNR recommends that the mesh be limited to wildlife-friendly materials (see enclosed fact sheet). If greater protection for turtles is desired, the second list of additional recommendations can also be implemented.

The attached flyer should be given to all contractors working in the area. If Blanding's turtles are found on the site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they should be moved by hand out of harm's way, otherwise they should be left undisturbed.

- Please include a copy of this letter in any DNR license or permit application.

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.

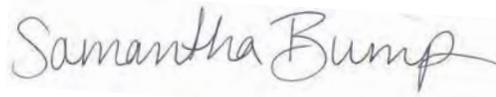
For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the

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.

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 cursive script that reads "Samantha Bump". The signature is written in black ink on a light-colored background.

Samantha Bump
Natural Heritage Review Specialist

enc. Blanding's Turtle Fact Sheet and Flyer
Wildlife Friendly Erosion Control

Environmental Review Fact Sheet Series

Endangered, Threatened, and Special Concern Species of Minnesota

Blanding's Turtle

(Emydoidea blandingii)

Minnesota Status: Threatened
Federal Status: none

State Rank¹: S2
Global Rank¹: G4

HABITAT USE

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

LIFE HISTORY

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

IMPACTS / THREATS / CAUSES OF DECLINE

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

*It is illegal to possess this threatened species.

RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

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

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

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

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

REFERENCES

- ¹Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). <http://www.natureserve.org/ranking.htm> (15 April 2001).
- Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

REFERENCES (cont.)

- Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.
- Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.
- Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding ' s turtle in central Minnesota. *Chelonian Conservation and Biology* 3(4):626-636.

CAUTION



BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-206-2820); or St. Paul (651-259-5772).

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

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

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

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

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

Wildlife Friendly Erosion Control

Wildlife entanglement in, and death from, plastic netting and other man-made plastic materials has been documented in birds (Johnson, 1990; Fuller-Perrine and Tobin, 1993), fish (Johnson, 1990), mammals (Derraik, 2002), and reptiles (Barton and Kinkead, 2005; Kapfer and Paloski, 2011). Yet the use of these materials continues in many cases, without consideration for wildlife impacts. Plastic netting is frequently used for erosion control during construction and landscape projects and can negatively impact terrestrial and aquatic wildlife populations as well as snag in maintenance machinery resulting in costly repairs and delays. However, wildlife friendly erosion control materials do exist, and are sold by several large erosion control material companies. Below are a few key considerations before starting a project.

Know Your Options

- Remember to consult with local natural resource authorities (DNR, USFWS, etc.) before starting a project. They can help you identify sensitive areas and rare species.
- When erosion control is necessary, select products with biodegradable netting (natural fiber, biodegradable polyesters, etc.).
- DO NOT use products that require UV-light to biodegrade (also called, "photodegradable"). These do not biodegrade properly when shaded by vegetation.
- Use netting with rectangular shaped mesh (not square mesh).
- Use netting with flexible (non-welded) mesh.



Woven 100% natural fiber erosion control materials being utilized along a central Minnesota stream. ©MN DNR, Nick Proulx

Know the Landscape

- It is especially important to use wildlife friendly erosion control around:
 - Areas with threatened or endangered species.
 - Wetlands, rivers, lakes, and other watercourses.
 - Habitat transition zones (prairie – woodland edges, rocky outcrop – woodland edges, steep rocky slopes, etc.).
 - Areas with threatened or endangered species.
- Use erosion mesh wisely, not all areas with disturbed ground necessitate its use. Do not use plastic mesh unless it is specifically required. Other erosion control options exist (open weave textile (OWT), rolled erosion control products (RECPs) with woven natural fiber netting).



Fish trapped and killed by welded-plastic square erosion control mesh improperly placed along a small central Minnesota stream, Photo courtesy of Ben Lowe.

Protect Wildlife

- Avoid photodegradable erosion control materials where possible.
- Use only biodegradable materials (typically made from natural fibers), preferably those that will biodegrade under a variety of conditions.
- Wildlife friendly erosion control material costs are often similar to conventional plastic netting.



Plains Gartersnake trapped and killed by welded-plastic square erosion control mesh placed along a newly installed cement culvert in southern Minnesota. ©MN DNR, Carol Hall



A small vole that was strangled and killed by plastic erosion control material with welded and square mesh. Photo taken in southern Minnesota and provided courtesy of Tom Jessen.



Literature Referenced

- Barton, C. and K. Kinkead. 2005. Do erosion control and snakes mesh? Soil and Water Conservation Society 60:33A-35A.
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Parlow, Marsha GRE-MG

From: Boerner, Daniel (DOT) [dan.boerner@state.mn.us]
Sent: Monday, May 04, 2015 8:38 AM
To: Parlow, Marsha GRE-MG
Subject: no issues with the Long Lake to Mantrap ... RE: MNDO Review: Proposed Long Lake to Mantrap 115 KV Project

Hi Marsha,

We have no issues with the Long Lake to Mantrap transmission line project.

Dan

From: Parlow, Marsha GRE-MG [mailto:mparlow@GREnergy.com]
Sent: Friday, April 24, 2015 1:22 PM
To: Boerner, Daniel (DOT)
Subject: MNDO Review: Proposed Long Lake to Mantrap 115 KV Project

Hi Dan,

My apologies, I think I have not been sending these to the correct people. Are you the contact for review on all of Minnesota or is it done by the area engineer?

Marsha Parlow
Transmission Permitting Analyst
Environmental Services
Great River Energy
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Maple Grove, MN 55369
Direct: 763-445-5215 | Fax: 763-445-5246 | Cell: 612-345-1212
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