RECEIVED NOV 0 3 2010

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

REPLY TO
ATTENTION OF
Operations
Regulatory (2010-04578-TJF)

October 29, 2010

Mr. Mark Strohfus
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, Minnesota 55369

Dear Mr. Strohfus:

This is in response to a letter we received from you regarding a proposed 115 kV transmission line project in conjunction with Anoka Municipal Utilities and Connexus Energy. The proposed project would connect the Crooked Lake substation in Coon Rapids to the Enterprise Park substation in Anoka.

We believe that you may need a Department of the Army permit for this activity. The Army Corps of Engineers regulates the installation of structures, such as utility lines, over navigable waters, such as the Rum River, under Section 10 of the Rivers and Harbors Act of 1899. More information will be required regarding the installation method before a determination could be made whether the proposed crossing will require a Corps permit. Also, the discharge of dredged or fill material into any water of the United States, including most wetlands, is subject of Army Corps of Engineers jurisdiction under Section 404 of the Federal Clean Water Act.

Depending on the scope of your project, we may be required to notify certain other agencies and the public about your project and provide them a reasonable opportunity to comment. You can help expedite this procedure if you --

* Fill out the application completely and specifically – application forms can be found at: http://www.mvp.usace.army.mil/regulatory/

* provide a map and construction/grading plans that show the project location and details and limits of the proposed work. Thorough descriptions of the work activity within waters and wetlands or over navigable waters will aid in the determinations of what type of Corps permit evaluation is necessary.

* Please describe any alternatives considered when planning the project. This consideration should include other potential sites and other methods of accomplishing the desired result. Our regulations often prevent issuance of permits when there are less-environmentally-damaging alternatives available. For instance, if the project

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involves placing fill in a water or wetland, there may be a way to accomplish the project purpose but without filling, or without filling as large of wetland area.

If your project would include any temporary placement of excavated or fill material into a waterbody or wetland, you may also need authorization for that work. Be sure to include that information in your permit application.

You may also need state, county, and/or city permits. It is advisable to make inquiries early in the planning process and to promptly provide those agencies enough information to evaluate your project.

Replies may be addressed to the U. S. Army Corps of Engineers, Regulatory Branch, 180 Fifth Street East, Suite 700, Saint Paul, MN 55101-1678. If we do not hear from you within 30 days of this letter, we will assume that you are no longer interested in obtaining this permit, and we will close our file.

If you have any questions, contact Tim Fell in our St. Paul office at (651) 290-5360. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

for Tamara E. Cameron
Chief, Regulatory Branch

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

February 25, 2011

Mr. Nick Rowse
Habitat Conservation Biologist
United States Department of Interior - Ecological Services Field Office
4101 American Boulevard East
Bloomington, MN 55425

RE: Proposed Crooked Lake Substation to Enterprise Park Substation 115-kV Transmission Line Project
Anoka County, Minnesota
T 32N R 25W Sections 25, 35 & 36
T 32N R 24W Sections 29 – 31
T 31N R 24W Sections 5, 6 & 8 **WO# 40011**

Dear Mr. Rowse:

Great River Energy requests information on the possible effects of a proposed project in Anoka County, Minnesota, on any listed or proposed threatened or endangered species and designated or proposed critical habitat in the project area. We respectfully request written comments by Friday, March 25, 2011.

Great River Energy proposes to construct a new 115-kV transmission line between the existing Crooked Lake Substation in Coon Rapids, Minnesota, and the existing Enterprise Park Substation in Anoka, Minnesota. The project is needed to ensure the continued reliability of electric service and support economic development in the northwest metro region. The project will be constructed primarily with single wood pole structures approximately 65 to 80 feet tall. A project fact sheet is enclosed with more details and a map of the proposed transmission line routes. The proposed route is shown in blue and an alternate route is shown in purple.

The Fish and Wildlife Service website (http://www.fws.gov/midwest/endangered/section7/sppranges/minnesot-cty.html) does not indicate any threatened or endangered species in Anoka County.

If you have any questions, please contact me by telephone at 763-445-5210 or by email at MStrohfus@GREnergy.com. If you wish, you can also email me your written comments. Thank you for your cooperation and assistance.

Sincerely,

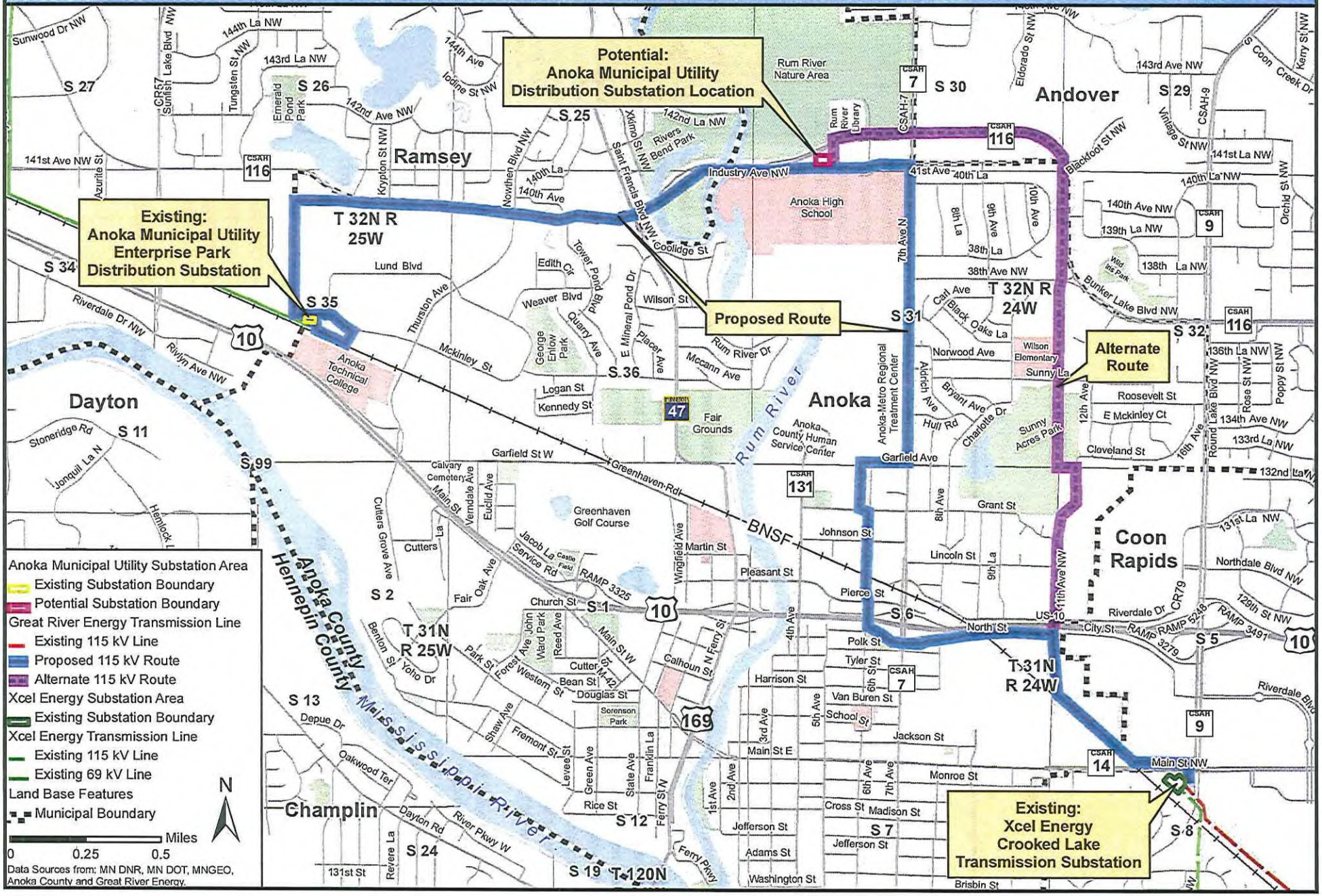
GREAT RIVER ENERGY
Mark Strohfus

Mark Strohfus
Environmental Project Lead

Enclosure

\\erntfs\shared\Legal\Environmental\Transmission\Projects\4001 Enterprise Park\Agency Contacts\FWS.docx

Proposed Project



Enterprise Park 115 kV Substation and Transmission Line

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Great River Energy
12300 Elm Creek Blvd
Maple Grove, MN 55369-4718
1-888-521-0130
www.greatriverenergy.com

ANOKA MUNICIPAL UTILITY

Anoka Municipal Utility
2015 1st Ave
Anoka, MN 55303
763-576-2750
www.anokaelectric.govoffice3.com/

Project Need

Great River Energy proposes to build a new single circuit 115 kV (115,000 volt) overhead electric transmission line to connect the existing Crooked Lake Substation to the existing Enterprise Park Substation. Great River Energy is the wholesale power supplier to Connexus Energy and 27 other distribution cooperatives in Minnesota and Wisconsin and is the owner of a critical portion of the high voltage transmission system that delivers electricity to Anoka Municipal Utility. This project will ensure continued reliable electric service and support economic development in the northwest metro region.

Planned Project

Great River Energy will build the transmission line connecting the two substations (see map) and Anoka Municipal Utility and Xcel Energy will modify the two substations as necessary. Most of the transmission line poles will be single wood structures (top photo) approximately 65 to 80 feet tall with 250- to 400-foot spans between poles. Angles along the line and certain soil conditions will require the use of laminated wood poles or steel monopoles; guy wires with anchors or multi-pole structures may be needed in some areas. The 115 kV transmission line will carry three energized wires and one non-energized shield wire for lightning protection. In some areas, lower voltage distribution lines owned by Anoka Municipal Utility may be underbuilt (attached with cross-arms) on the new transmission line structures (bottom photo).

Typical 115 kV Wood Single Circuit Transmission Line Structure

Typical 115 kV Wood Single Circuit Transmission Line Structure with Distribution Underbuild

A public open house about this project was hosted by Great River Energy, Connexus Energy and Anoka Municipal Utility in October 2010 to provide information and gather public input. Great River Energy anticipates applying to the Minnesota Public Utility Commission (MPUC) for a Route Permit in spring 2011. The public will have opportunities to participate and provide feedback on the project during the MPUC permitting process. If a Route Permit is approved by the MPUC, representatives of Great River Energy will contact landowners and business owners along the approved transmssion line route to discuss the details of the project and easements. The width of the easements will vary from one location to another, but will not exceed 70 feet.

Project Schedule

Open house and public notifications	Completed October 2010
MPUC route permitting process	Spring 2011 to winter 2011
Easement acquisition	Winter 2011 to spring 2012
Construction	Summer 2012 to winter 2012

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

Mark Strohfus
Environmental Project Lead
Great River Energy
763-445-5210 or 1-888-521-0130
MStrohfus@GREnergy.com

Carolyn Braun
Planning Director
City of Anoka
763-576-2722
cbraun@ci.anoka.mn.us

Date last revised: 2/18/2011

Strohfus, Mark GRE-MG

From: Andrew_Horton@fws.gov
Sent: Tuesday, August 23, 2011 1:40 PM
To: Strohfus, Mark GRE-MG
Subject: Re: FW: Enterprise Park 115-kV Transmission Line Project
Attachments: FWS.docx; EnterpriseParkFactSheet_20110218.pdf

Mark Strohfus
Environmental Project Lead
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN. 55369-4718

Mr. Strohfus,

Our records indicate there are no federally listed or proposed species and/or designated or proposed critical habitat for listed species within the action area of the proposed project. The proposed 115 kV route however crosses the Rum River at a point designated as "Scenic", under the Minnesota Wild and Scenic Rivers Act of 1973. Given that the line crosses this designated corridor, we recommend working with Minnesota Department of Natural Resources to ensure that all requirements pertaining to this law are met. If the proposed route is allowable under the Minnesota Wild and Scenic Rivers Act, we recommend that bird flight diverters be installed on
the shield wire of the transmission line that crosses the Rum River. 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, consultation should be reinitiated. This concludes section 7 consultation for proposed construction at the above location. Thank you for your cooperation in meeting our joint responsibilities under section 7 of the Endangered Species Act. If you have any further endangered species questions, please contact me at (612) 725-3548 x2208.

Andrew Horton
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Twin Cities ES Field Office
4101 American Blvd East
Bloomington, MN 55425-1665
(612) 725-3548 ext. 2208

"Strohfus, Mark GRE-MG" <MStrohfu@GREnergy.com> 08/18/2011 09:02 AM		To cc Subject
	"Andrew_Horton@FWS.gov" <Andrew_Horton@FWS.gov>	
	FW: Enterprise Park 115-kV Transmission Line Project	

Mr. Horton,
Great River Energy is in the process of developing a new 115-kV transmission line through the City of Anoka. We are required to get a Route Permit from the MN Public Utilities Commission (MPUC). The permitting process requires environmental review.

Attached is a letter that I sent to Nick Rowse regarding the project. Mr. Rowse indicated that you are now the appropriate contact for this area.

Please review the attached information and provide me any comments you may have. The Draft Route Permit Application is currently being reviewed by some of our project partners. We expect to submit a draft to the MPUC Division of Energy Resources next week and the final Application the week of Labor Day. If you can get me your comments before we submit the final, I will incorporate them into the Application.

If you have any questions, please contact me.

Sincerely,
Mark Strohfus
Environmental Project Lead
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN. 55369-4718
direct: 763-445-5210 / fax: 763-445-5241 / cell: 612-961-9820 www.GreatRiverEnergy.com

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(See attached file: FWS.docx)(See attached file: EnterpriseParkFactSheet_20110218.pdf)

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February 25, 2011

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 Crooked Lake Substation to Enterprise Park Substation 115-kV Transmission Line Project
Anoka County, Minnesota
T 32N R 25W Sections 25, 35 & 36
T 32N R 24W Sections 29 – 31
T 31N R 24W Sections 5, 6 & 8 **WO# 40011**

Dear Ms. Joyal:

Great River Energy requests concurrence of our interpretation of rare features, waters/wetlands, threatened and endangered species, and other important state natural resources in the area of a proposed project in Anoka County, Minnesota. Please also advise if there is specific guidance relative to the rare features in the project area. We respectfully request written comments by Friday, March 25, 2011.

Great River Energy proposes to construct a new 115-kV transmission line between the existing Crooked Lake Substation in Coon Rapids, Minnesota, and the existing Enterprise Park Substation in Anoka, Minnesota. The project is needed to ensure the continued reliability of electric service and support economic development in the northwest metro region. The project will be constructed primarily with single wood pole structures approximately 65 to 80 feet tall. A project fact sheet is enclosed with more details and a map of the proposed transmission line routes. The proposed route is shown in blue and an alternate route is shown in purple. Rare Features and PWI maps are also enclosed.

The DNR Rare Features map indicates a few features of interest in the vicinity of the project. Blanding's Turtles are indicated in Sections 31 and 32, T 32N R 24W and Section 35 T 32N R 25W. The Creek Heelsplitter is indicated in Section 36, T 32N R 25W. The DNR Public Water Inventory lists the Rum River, which the transmission will span, a forested wetland that the alternate route would cross, and several other wetlands adjacent to the proposed and alternate route.

Great River Energy will apply to the DNR Division of Land and Minerals for a license to cross the Rum River.

If you have any questions, please contact me by telephone at 763-445-5210 or by email at MStrohfus@GREnergy.com. If you wish, you can also email me your written comments. Thank you for your cooperation and assistance.

Sincerely,

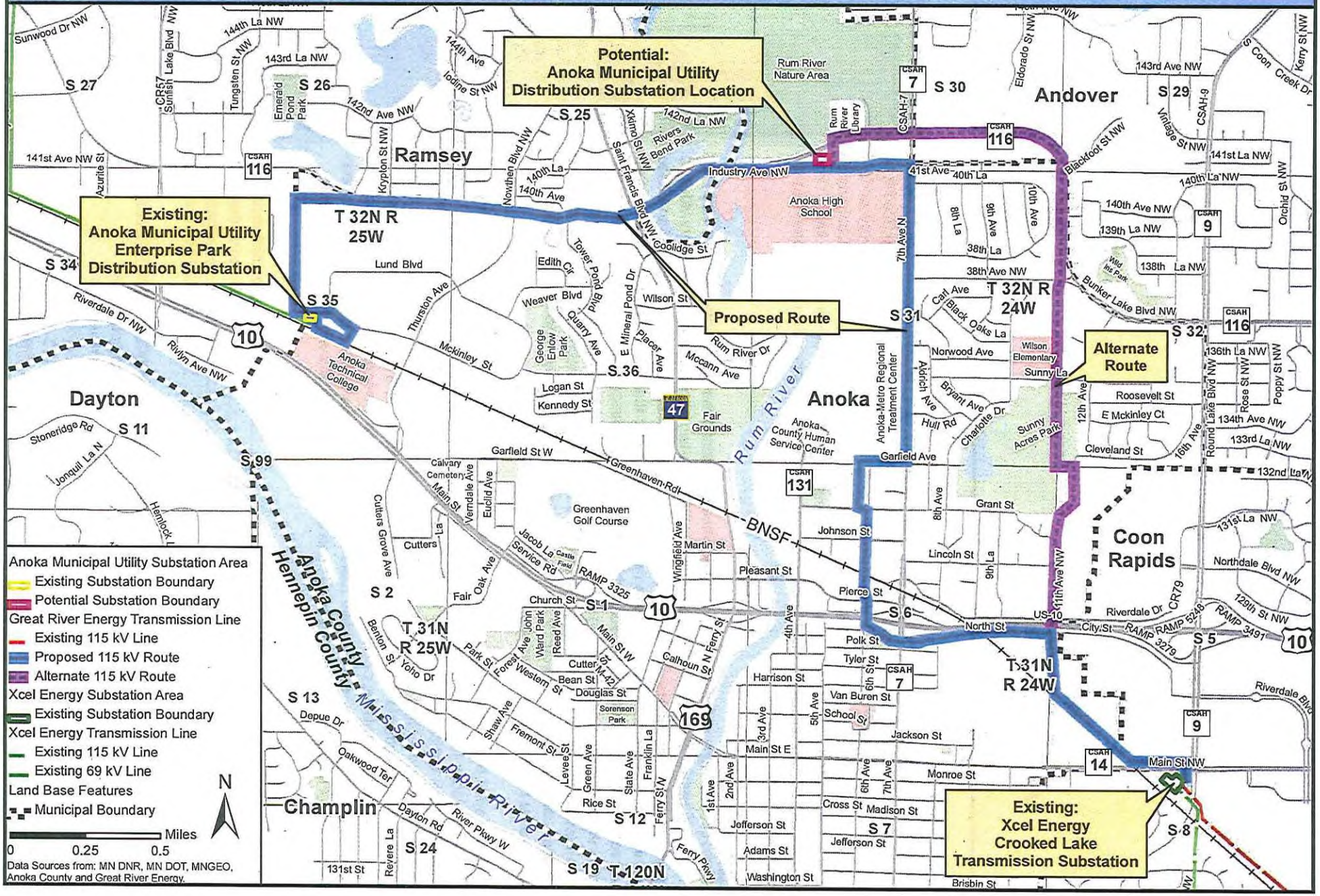
GREAT RIVER ENERGY

Mark Strohfus
Environmental Project Lead

Enclosure

S:\Legal\Environmental\Transmission\Projects\4001 Enterprise Park\Agency Contacts\MDNR.docx

Proposed Project


Potential:
Anoka Municipal Utility
Distribution Substation Location
Existing:
Anoka Municipal Utility
Enterprise Park
Distribution Substation
Proposed Route
Alternate
Route
Existing:
Xcel Energy
Crooked Lake
Transmission Substation
Andover
Ramsey
Anoka
Dayton
Champlin
Coon
Rapids
Rum River
Anoka County
Mississippi River
Hennepin County
T 32N R
25W
T 32N R
24W
T 31N
R 25W
T 31N
R 24W
T 120N
Anoka High
School
Anoka
Technical
College
Fair
Grounds
Rum River
Nature Area
Anoka-Metro Regional
Treatment Center
Anoka County Human
Service Center
Greenhaven
Golf Course
Sunny
Acres Park
Rum
River
Library
Wilson
Elementary
Rivers
Bend Park
Emerald
Pond
Park
Keystone
Park
Wild
Iris
Park
Sorenson
Park
Industry Ave NW
Goodlige St
Lund Blvd
Weaver Blvd
Edith Cir
Tower Pond Blvd
Wilson St
Thurston Ave
Mckinley St
George
Enlow
Park
Quarry Ave
E Mineral Pond Dr
Placer Ave
Rum River Dr
Mccann Ave
Logan St
Kennedy St
Garfield St W
Greenhaven Rd
Garfield Ave
Riverdale Dr NW
Rivlyn Ave NW
Stoneridge Rd
Jonquil La N
Hemlock L
Calvary
Cemeten
Main St
Verndale Ave
Euclid Ave
Cutters Grove Ave
Cutters
La
Jacob La
Castle
Field
Service Rd
RAMP 3325
Wingfield Ave
Martin St
Pleasant St
Church St
Fair Oak Ave
Benton St
Yoho Dr
Park St
Forest Ave
John
Ward Park
Reed Ave
Main St W
Cutter St
Bean St
Douglas St
Western St
Shaw Ave
Fremont St
Depue Dr
Oakwood Ter
Levee St
Green Ave
State Ave
Franklin La
Ferry St N
Rice St
Dayton Rd
River Pkwy W
Revere La
131st St
Calhoun St
N Ferry St
Ferry Pkwy
Harrison St
Van Buren St
School St
Jackson St
Main St E
Monroe St
Cross St
Madison St
Jefferson St
Adams St
Washington St
Brisbin St
Johnson St
Lincoln St
Pierce St
Polk St
Tyler St
North St
City St
Grant St
Riverdale Dr
RAMP 5248
RAMP 3279
RAMP 3491
Riverdale Blvd
Main St NW
Northdale Blvd NW
129th St NW
131st La NW
132nd La NW
133rd La NW
134th Ave NW
136th La NW
Roosevelt St
E Mckinley Ct
Cleveland St
Hull Rd
Bryant Ave
Charlotte Dr
Norwood Ave
Sunny La
Carl Ave
Black Oaks La
Bunker Lake Blvd NW
Blackfoot St NW
Eldorado St NW
Vintage St NW
Orchid St NW
Round Lake Blvd NW
Rose St NW
Poppy St NW
Coon Creek Dr
Kerry St NW
143rd Ave NW
141st La NW
140th La NW
140th Ave NW
139th La NW
138th La NW
38th Ave NW
41st Ave
40th La
38th La
8th La
9th Ave
10th Ave
7th Ave N
12th Ave
16th Ave
8th Ave
9th La
11th Ave NW
4th Ave
5th Ave
3rd Ave
2nd Ave
1st Ave
6th Ave
7th Ave
6th St
5th St
Sunwood Dr NW
144th La NW
143rd La NW
142nd Ave NW
142nd La NW
144th Ave
Iodine St NW
Tungsten St NW
CR57
Sunfish Lake Blvd NW
141st Ave NW St
Azurite St
Krypton St NW
Nowthen Blvd NW
140th La
140th Ave
Xkimo St NW
Saint Francis Blvd NW
Tower Pond Blvd
Edith Cir
Iris Ln NW
Iris Ct NW
Iris Ln NW
Iris Ct NW
Iris Ln NW
Iris Ct NW

Enterprise Park 115 kV Substation and Transmission Line

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12300 Elm Creek Blvd
Maple Grove, MN 55369-4718
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AMU
ANOKA MUNICIPAL UTILITY

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Project Need

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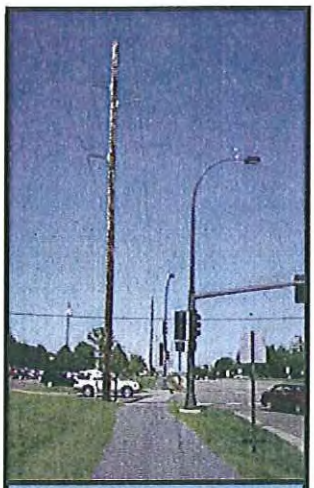


Typical 115 kV Wood Single Circuit Transmission Line Structure

Typical 115 kV Wood Single Circuit Transmission Line Structure with Distribution Underbuild

A public open house about this project was hosted by Great River Energy, Connexus Energy and Anoka Municipal Utility in October 2010 to provide information and gather public input. Great River Energy anticipates applying to the Minnesota Public Utility Commission (MPUC) for a Route Permit in spring 2011. The public will have opportunities to participate and provide feedback on the project during the MPUC permitting process. If a Route Permit is approved by the MPUC, representatives of Great River Energy will contact landowners and business owners along the approved transmssion line route to discuss the details of the project and easements. The width of the easements will vary from one location to another, but will not exceed 70 feet.

Project Schedule

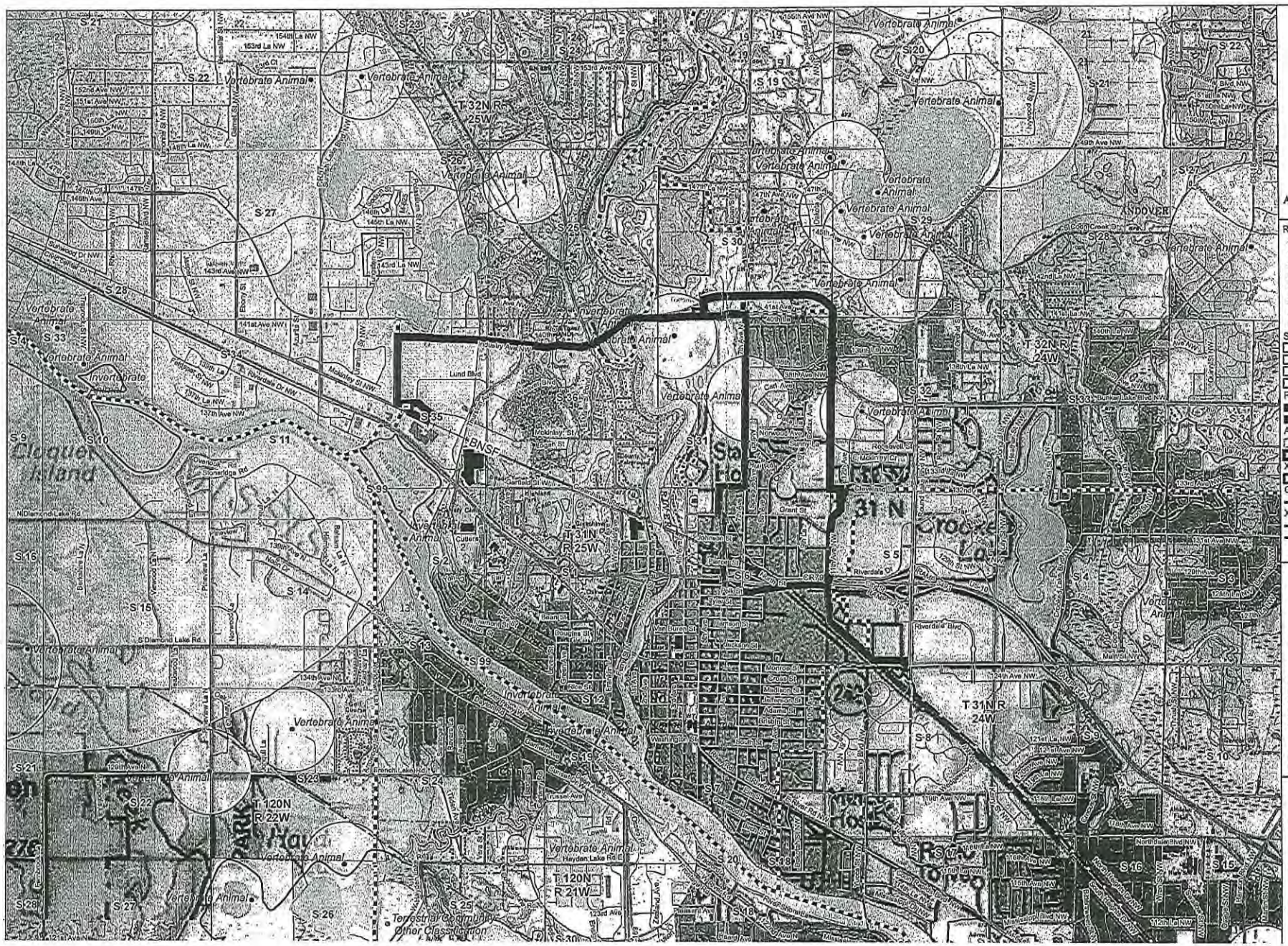
Open house and public notifications	Completed October 2010
MPUC route permitting process	Spring 2011 to winter 2011
Easement acquisition	Winter 2011 to spring 2012
Construction	Summer 2012 to winter 2012

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

Mark Strohfus
Environmental Project Lead
Great River Energy
763-445-5210 or 1-888-521-0130
MStrohfus@GREnergy.com

Carolyn Braun
Planning Director
City of Anoka
763-576-2722
cbraun@ci.anoka.mn.us

Date last revised: 2/18/2011



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Rare Natural Features Points
- Animal Assemblage
- Fungus
- Invertebrate Animal
- Nonvascular Plant
- Terrestrial Community
- Vascular Plant
- Vertebrate Animal
- Other (Ecological)

Sites of Biodiversity Significance
- Outstanding
- High
- Moderate
- Below

Proposed Route
- Proposed 115 kV Route
- Alternate 115 kV Route

Anoka Municipal Utility Substation Area
- Existing Substation Boundary
- Potential Substation Boundary

Xcel Energy Substation Area
- Existing Substation Boundary

Great River Energy Transmission Line
- Existing 115 kV Line

Xcel Energy Transmission Line
- Existing 115 kV Line
- Existing 69 kV Line

N

Updated: Feb 19, 2010

0 1,000 2,000 3,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy
NGS US Topo Map from ESRI ArcGIS Data Web Service

Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115 kV Substation and Transmission Line

Rare Features

113W
673W
665W
680W
89P
114P
675W
676W
610W
116W
115W
T 32N
R 25W
T 32N
R 24W
612W
119W
BNSF
Rum River
630W
84P
107W
711W
629W
108W
631W
T 31N
R 24W
T 31N R
25W
T 120N
R 22W
T 120N
R 21W
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S 12
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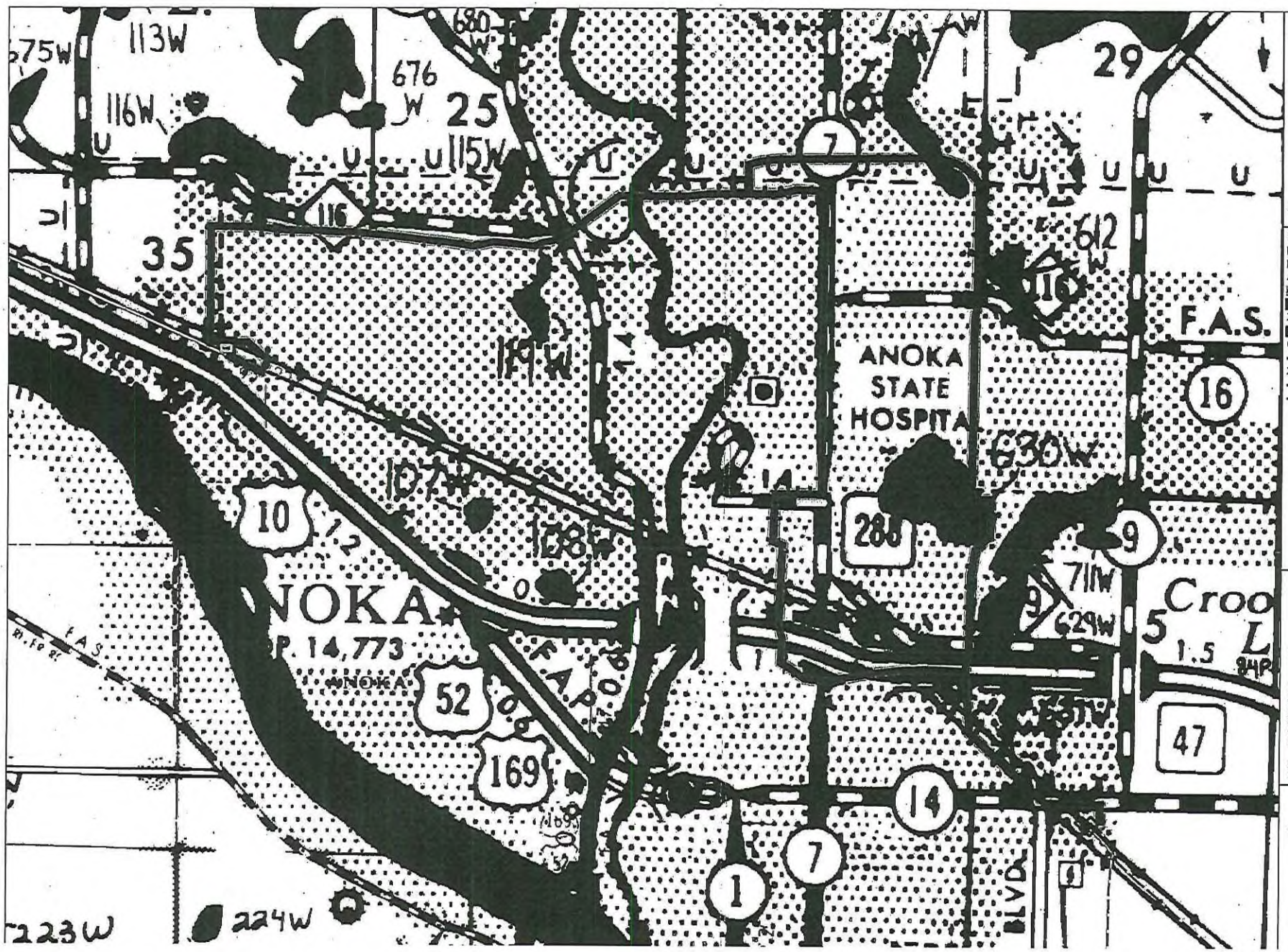
S 69
Bunker Lake Blvd
Industry Ave NW
Main St NW
Bridge St NW
Ramsey St NW
Weaver Blvd
Garfield St NW
Monroe St
Madison St
Jefferson St
Adams St
Washington St
Van Buren St
Buchanan St
Polk St
Pierce St
Lincoln St
Grant St
Johnson St
Harrison St
Taylor St
Monroe St
Cedar Creek Rd
Bunker Lake Blvd NW
Crosstown Blvd NW
Sunwood Dr NW
Bridge St
Main St
Buchanan St
Van Buren St
Jackson St
Madison St
Monroe St
Jefferson St
Adams St
Washington St
Quincy St
Roosevelt St
Taylor St
Lincoln St
Pierce St
Polk St
Grant St
Johnson St
Harrison St
Garfield St
Weaver Blvd
Industry Ave NW
Bunker Lake Blvd
Crosstown Blvd NW
Sunwood Dr NW
Bridge St NW
Main St NW
Ramsey St


113W
116W
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115W
680
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612
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F.A.S.
ANOKA
STATE
HOSPITA
630W
16
119W
107W
168W
14
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280
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711W
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ANOKA
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47
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7
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223W
224W
GREAT RIVER
ENERGY®
A Touchstone Energy® Cooperative
Proposed Route
Proposed 115 kV Route
Alternate 115 kV Route
Anoka Municipal Utility Substation Area
Existing Substation Boundary
Potential Substation Boundary
Xcel Energy Substation Area
Existing Substation Boundary
Great River Energy Transmission Line
Existing 115 kV Line
Xcel Energy Transmission Line
Existing 115 kV Line
Existing 69 kV Line
N
Updated: Feb 19, 2010
0 500 1,000 1,500 Feet
Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Aerial Photograph from MNGEO Web Service and FSA.
PWI Layer from MNDNR
Map Projection:
UTM, NAD83, Zone15, Meters
Enterprise Park
115 kV Substation and
Transmission Line
Public Water
Inventory
(PWI)

Strohfus, Mark GRE-MG

From: Joyal, Lisa (DNR) [lisa.joyal@state.mn.us]
Sent: Thursday, April 07, 2011 10:50 PM
To: Strohfus, Mark GRE-MG
Subject: Crooked lake Substation to Enterprise Park Substation 115 kV Transmission Line
Attachments: Ebfactsheet2008.pdf; Ebflyer2008.pdf

I have reviewed your letter dated February 25, 2011. I concur with your assessment of the rare features in the vicinity of the project. Please refer to the attached documents for recommendations regarding the Blanding's turtle.

Thank you for notifying us of this project, and for the opportunity to provide comments.

Sincerely,

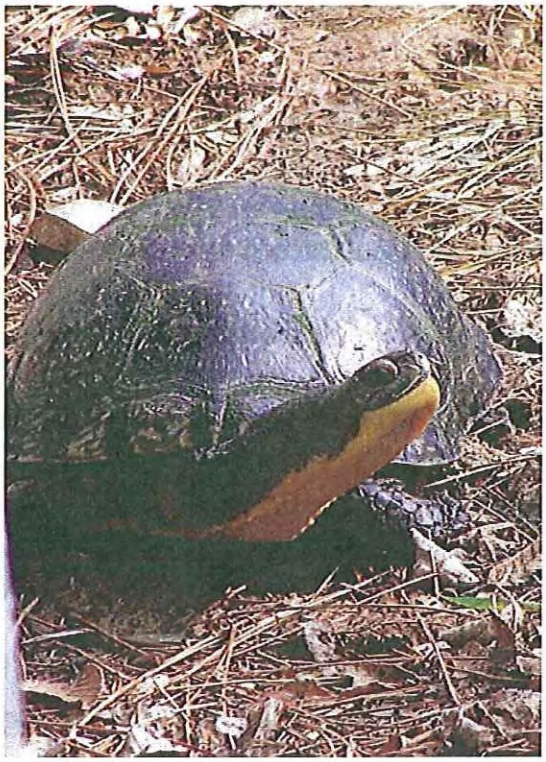
Lisa Joyal

~~~~~~

Lisa Joyal
Natural Heritage Review Coordinator
NHIS Data Distribution Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155

phone: 651-259-5109
lisa.joyal@state.mn.us
www.mndnr.gov/eco
~~~~~~

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 (507-280-5070); or St. Paul (651-259-5764).

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

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 harms 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).

Compiled by the Minnesota Department of Natural Resources Division of Ecological Resources, Updated March 2008
Endangered Species Environmental Review Coordinator, 500 Lafayette Rd., Box 25, St. Paul, MN 55155 / 651-259-5109

Environmental Review Fact Sheet Series

Endangered, Threatened, and Special Concern Species of Minnesota

Blanding's Turtle

(Emydoidea blandingii)

Minnesota Status:	Threatened	State Rank[1]:	S2
Federal Status:	none	Global Rank[1]:	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 critical 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 1st and before June 1st).	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 <u>before August 1st</u>** so the young turtles can escape from the nest when they hatch!

REFERENCES

[1]Association 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).

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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.

City of RAMSEY

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April 26, 2011

Mark Strohfus, Environmental Project Lead
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369-4718

RE: Enterprise Park-to-Crooked lake 115-kV Transmission Line
City of Ramsey Comment

Mark:

Thank you for the opportunity to review the proposed project at the Open House this evening. The City of Ramsey appreciates the efforts of Great River Energy in supplying the City of Ramsey with consistent and reliable service well into the future. We look forward to continued collaboration as we look to achieve our future land use goals.

As it relates to the current preferred alignment, the City of Ramsey does have several ideas to provide an acceptable route along Bunker Lake Boulevard in conjunction with our goals as well as what we believe are the goals of the City of Anoka. Our principal concern with the current preferred alignment is in relation to Bunker Lake Boulevard as the proposed alignment crosses the Rum River to the west. The City is concerned with the impacts to Rivers Bend Park, a City-owned community park. Consistent with a letter from our Parks Supervisor dated April 19, 2011. Our recommendation would be for an alignment on the north side of Bunker Lake Boulevard in this area in order to avoid the active portion of this park. We would look forward to working with the City of Anoka to explore the ideal means to achieve this goal without negatively impacting future plans for this area within their community.

Secondly, the City of Ramsey notes that we prefer to avoid multiple crossings of Bunker Lake Boulevard whenever possible.

Finally, the City of Ramsey would like to discuss Phase II of this project inclusive of our comments to this current Phase I. We desire a route for Phase II that is complementary to our desire for visibility of, and the investment we've made in our downtown development, The COR as well as our appreciation for providing reliable service to our planned future employment areas along Highway 10 and protecting existing investment as well.

Thank you for your opportunity to comment,

CITY OF RAMSEY

Tim Gladhill
Senior Planner

Memorandum on proposed Enterprise Park Transmission Line 115-kv

To: The Dept of Commerce - Division of Energy Resource

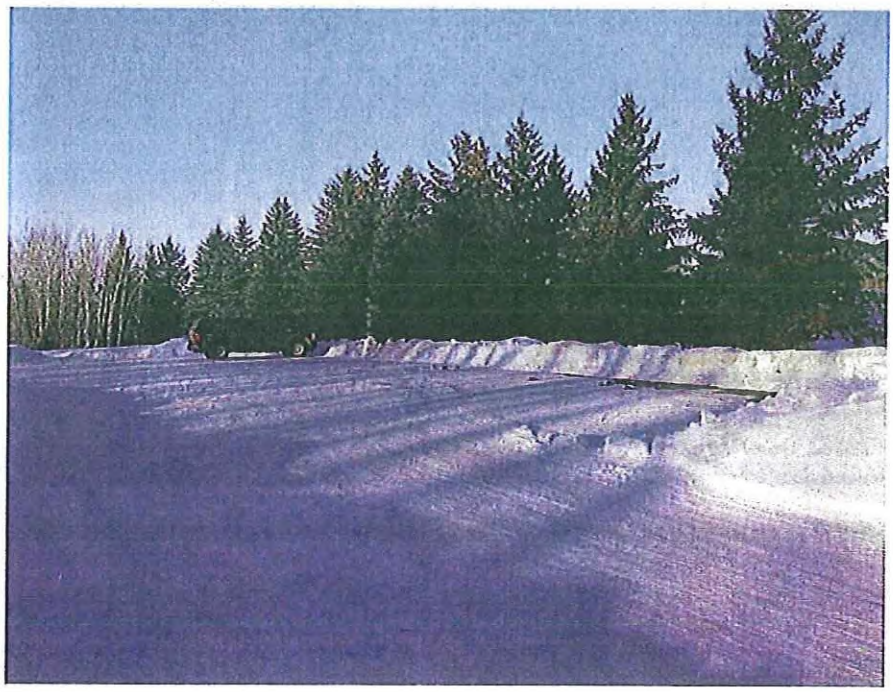
Fm: Mark Riverblood, Parks Supervisor

DT: 19 April 2011

Re: Route Permitting and Environmental Assessment

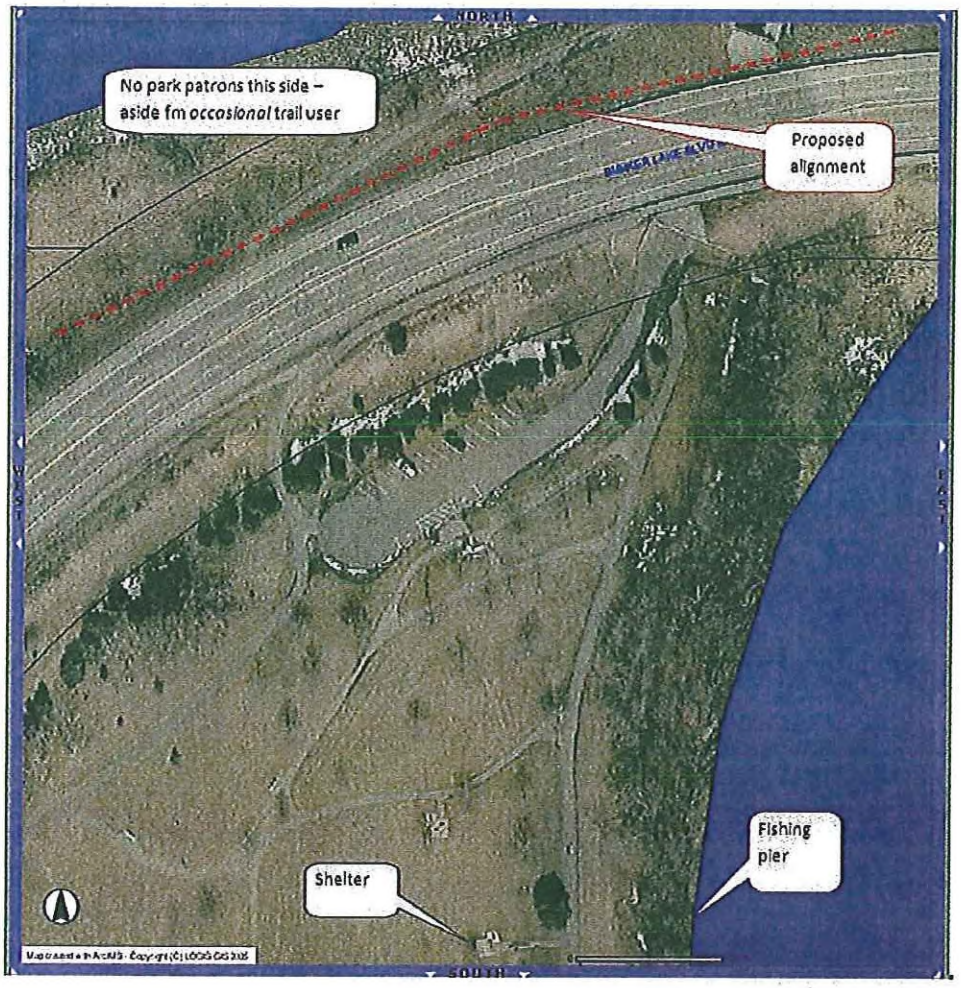
The City of Ramsey acknowledges that the above mentioned transmission line is proposed to parallel Bunker Lake Boulevard in the vicinity where the road bisects Rivers' Bend Park. The purpose of this correspondence is to strongly urge that the power line be sited north of Bunker Lake as it would traverse over the park.

Locating the transmission line on the south side of the roadway would have significant socioeconomic, and negative physical and environmental effects – as it would require either the removal of the spruce screening plantation established in 1988; or the location of the line over the most prominent part of the south half of the park. The image below shows the scale of these trees that separate and mitigate park patrons from the 18,200 vehicles per day (2009) on Bunker Lake Boulevard.



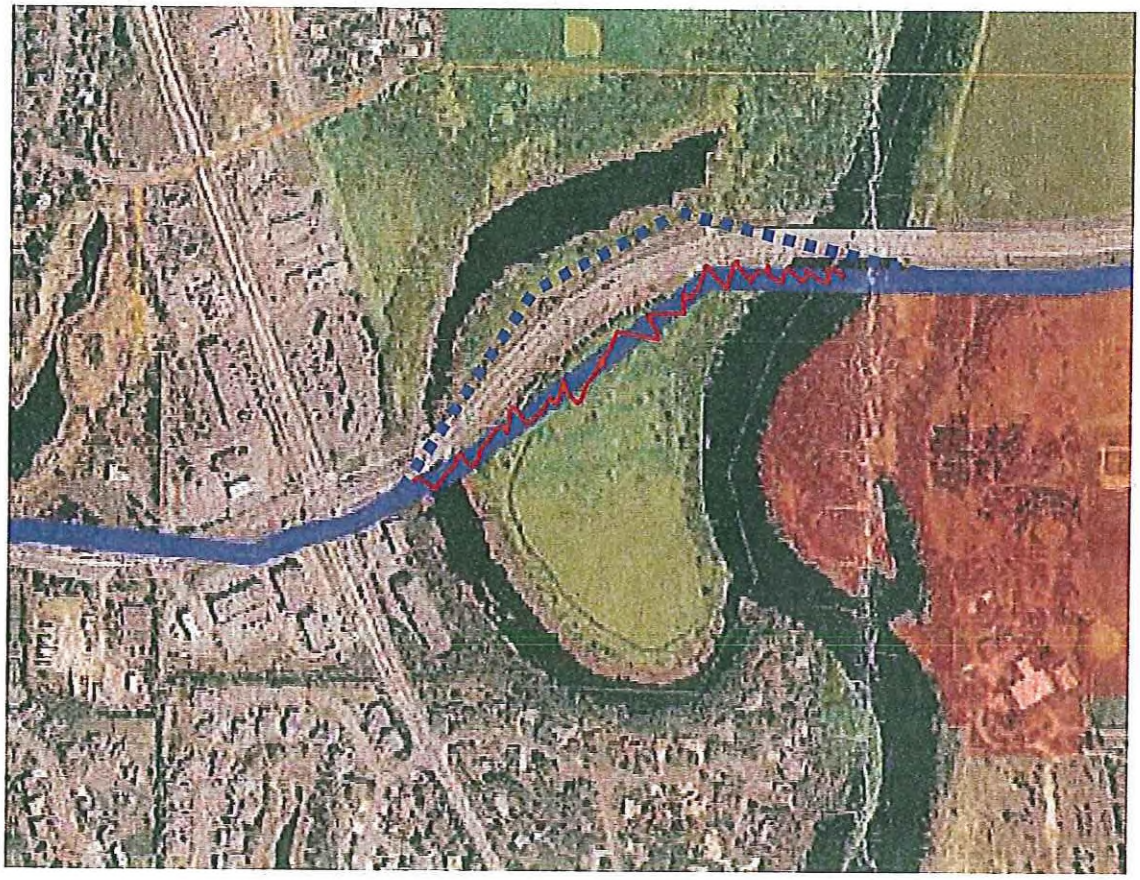
The deleterious and perpetual effects of locating the transmission line as mentioned above may be greatly mitigated by shifting the alignment to the north side of the road (even if it may require one or more roadway crossings elsewhere). This portion of the park (within and adjacent to the ROW) is not a high use area, and further the city is willing to grant an easement for the transmission line there for fair compensation. Conversely, if proposed on the south side of Bunker Lake Boulevard over the park, the city would need to carefully assess all the negative impacts and diminution of quietude (if the spruce trees would be removed), and aesthetics if the high voltage transmission line with poles would loom over the most frequented portion of this passive use park.

Below is an image of the preferred alignment in relation to Rivers' Bend Park (depicted in red dashed line).



Rivers' Bend Park – portion of south half with Bunker Lake Boulevard to the north

If the south side of the Co. Rd. #116 is the preferred side for the transmission line on either side of the park, the 'shift' can be performed at and over the river and oxbow bridges. A shift at these two locations also would elminate vegatation managent under the powerline at these two locations (those locations where the line was over pavement) as well.



In summary, the city is steadfastly opposed to impacts to the park south of Bunker Lake Boulevard. Conversely, the city will cooperate fully and effectively for minimizing negative impacts to those areas; thereby maintaining the integrity and significant investments in this park space that are so valued by our citizenry.

Please let me know if I can be of further assistance - you may reach me at either 763 238 1733, or mriverblood@ci.ramsey.mn.us