

**Environmental Assessment
for the Proposed**

**West St. Cloud to Quarry
115 kV Transmission Line Project**

Stearns County, Minnesota

Stearns County

March 2015

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List of Acronyms Used in this Document

ACRONYMS	
ACSS	Aluminum Conductor Steel Supported
CapX	CapX2020 (Capital Expansion 2020)
CSAH	County State Aid Highway
Commission	Minnesota Public Utilities Commission
CR	County Road
dB dB(A)	Decibel Decibel, A-weighted
DNR	Minnesota Department of Natural Resources
EA	Environmental Assessment
EMF	Electromagnetic fields
EQB	Minnesota Environmental Quality Board
IEEE	Institute of Electrical and Electronics Engineers
kV	Kilovolt
kV/m	Kilovolts per meter
MHS	Minnesota Historical Society
MnDOT	Minnesota Department of Transportation
MPCA	Minnesota Pollution Control Agency
NAC	Noise Area Classification
NESC	National Electric Safety Code
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetland Inventory
OSHA	Occupational Safety and Health Administration
ROW	Right-of-way
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

1.0 Introduction

Great River Energy is a not-for-profit generation and transmission cooperative based in Maple Grove, Minnesota. Great River Energy provides electrical energy and related services to 28 member cooperatives. Great River Energy's distribution cooperatives, in turn, supply electricity and related services to approximately 650,000 residential, commercial and industrial customers in Minnesota and Wisconsin.

Great River Energy has submitted an application to Stearns County for a conditional use permit to build approximately two miles of new overhead 115 kilovolt (kV) transmission line between the existing Xcel Energy Quarry Substation and the existing Great River Energy West St. Cloud Substation near St. Cloud, Minnesota.

Stearns County is tasked with conducting environmental review on transmission line project requests when the applicant seeks local permitting. Following release of this Environmental Assessment (EA), a public hearing will be held for the conditional use permit application.

1.1 Project Need and Proposed Project

Great River Energy has identified a need to add a transmission line to strengthen the electric transmission system, improve reliability and prevent overloading and voltage collapse in the Greater St. Cloud, Minnesota area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs, the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area, as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

Great River Energy is proposing to build a new 115 kV transmission line (approximately two miles) near the City of St. Cloud in Stearns County, Minnesota (**Figure 1-1**).

The approximate two-mile route will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St. Cloud Substation (**Figure 1-2**).

The Xcel Energy Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. Great River Energy's West St. Cloud Substation will have its south fence line expanded by 73 feet providing space for additional infrastructure and the new transmission line.

The project is discussed in more detail below and in Section 3.0.

FIGURE 1-1 GENERAL VICINITY MAP

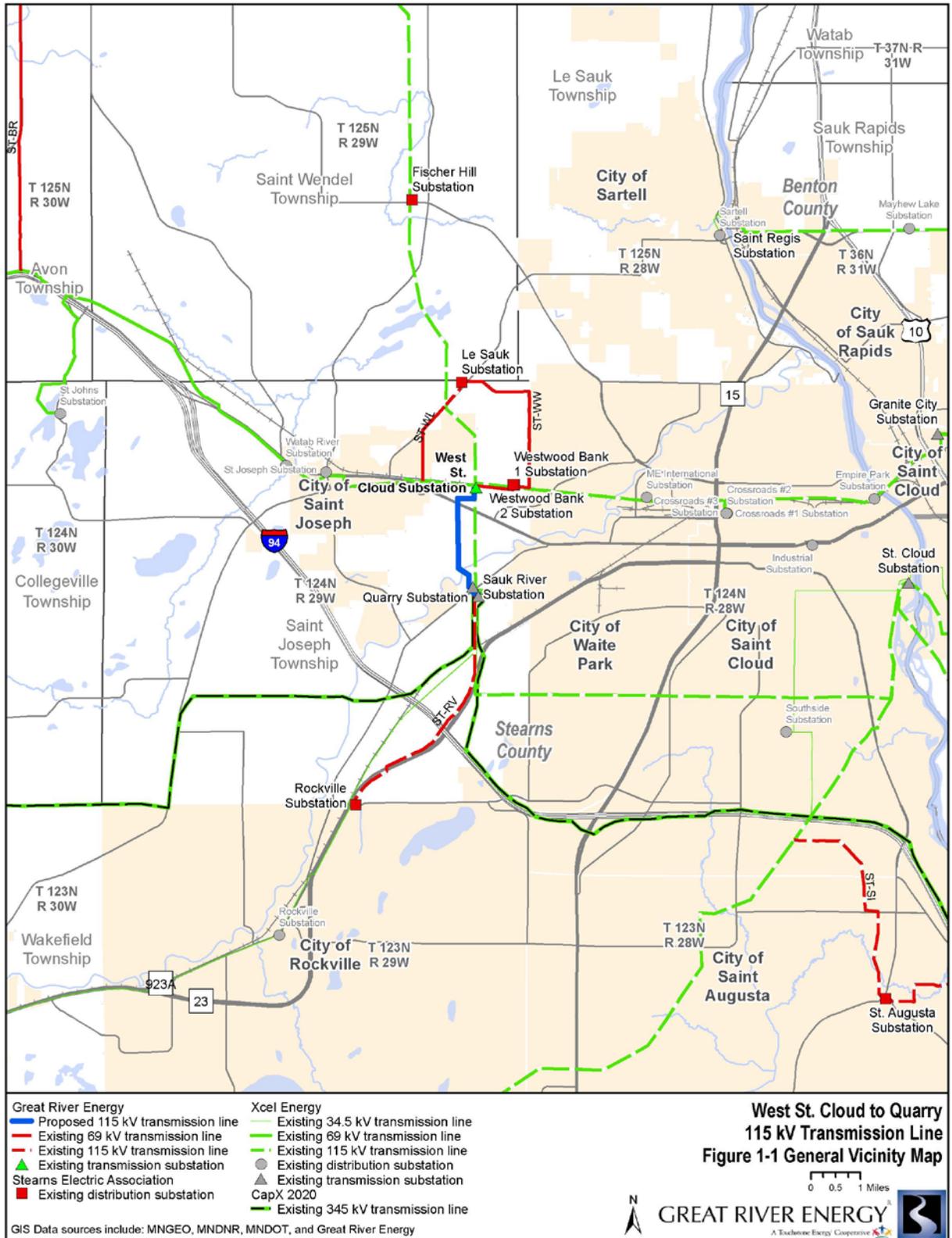
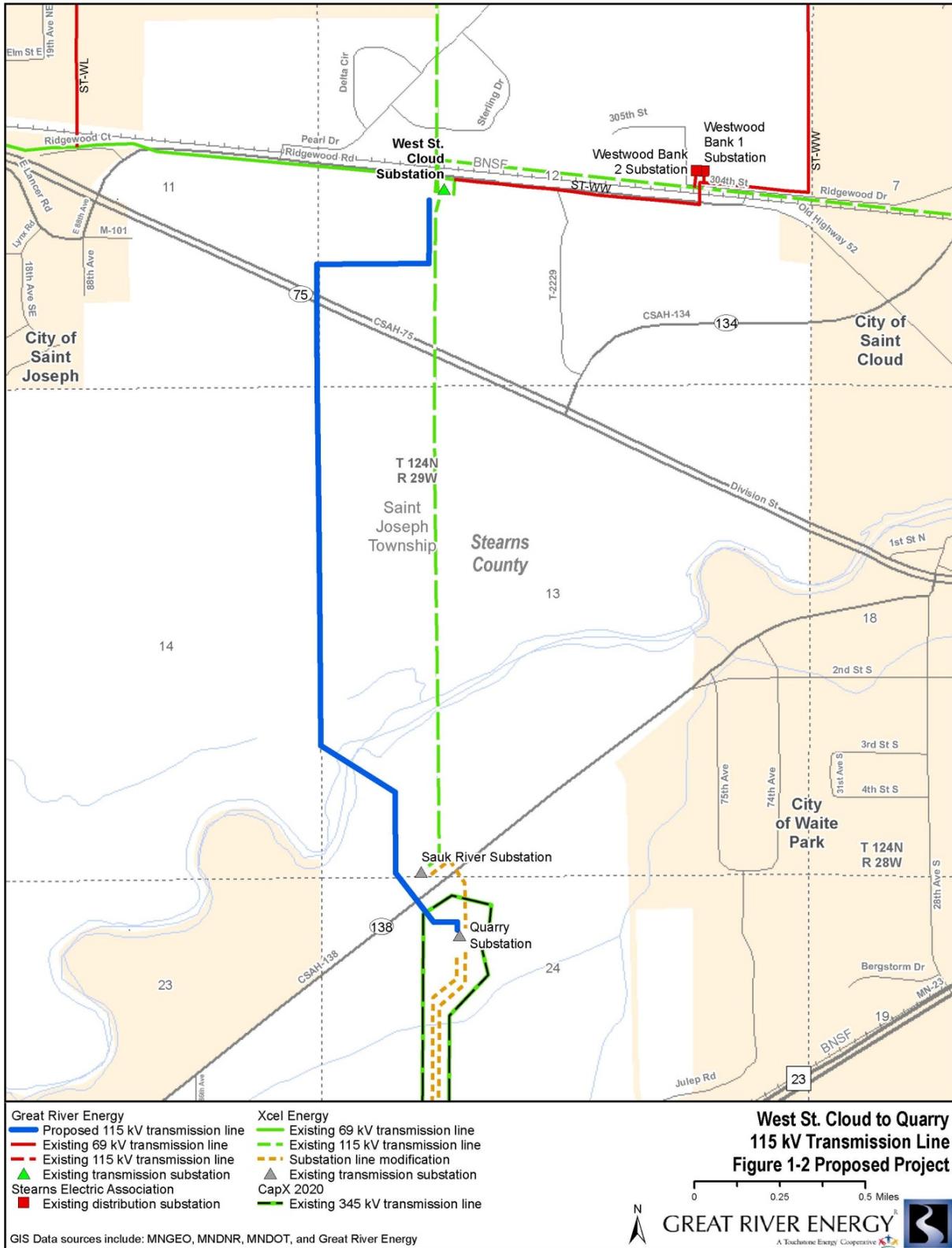


FIGURE 1-2 PROPOSED PROJECT



1.2 Project Location and Schedule

The proposed single circuit 115 kV transmission line will be located in Sections 11, 12, 13, 14 and 24, T124N, R29W, St. Joseph Township near St. Cloud, Minnesota (**Figures 1-1 and 1-2**). After exiting the Quarry Substation, the new 2-mile line will cross Stearns County State Aid Highway (CSAH) 138 and CSAH 75 to the Great River Energy West St. Cloud Substation.

Project permitting will occur in 2015 and construction will occur in late 2016 - 2017.

1.3 Project Cost Estimate

Estimated project costs are listed below.

Substation Upgrades

Great River Energy's West St. Cloud Substation	\$ 3,800,000
Xcel Energy Quarry Substation	\$ 3,041,000
Great River Energy Transmission Line Construction	\$ 1,900,000
Total Estimated Project Cost	\$ 8,741,000

2.0 Regulatory Framework

2.1 Permit Requirement

This project falls under the State of Minnesota's Power Plant Siting Act, (Minnesota Statutes § 216E.01-.18 and Minnesota Rules Chapter 7850) for transmission projects over 100 kV and requires a permit from the Minnesota Public Utilities Commission (Commission). However, for eligible projects, a utility may apply to the local unit of government that has jurisdiction over the project for approval instead of applying to the Commission (Minn. Rules 7850.5300). This proposed 115 kV project is eligible for local review.

Great River Energy is seeking approvals for the project from Stearns County, the City of St. Joseph and St. Joseph Township. Stearns County has agreed to act as the lead local unit of government with jurisdiction to conduct the environmental assessment for the entire project. Stearns County has 60 days to relinquish its jurisdiction after receipt of the conditional use permit (CUP) application on February 2, 2015.

As required by Minn. Rules 7850.5300 Subp.3, a project notice (see **Appendix A**) was sent by Great River Energy to the Commission and to those persons on the Power Plant Siting General Notification list indicating that Great River Energy is seeking local approval of the project. A letter from the Division of Energy Resources confirming that the Commission received notification that Great River Energy intends to seek local approval is also included in **Appendix A**.

2.2 Environmental Assessment Requirement

In accordance with Minn. Rules 7850.5300 Subp.5, an environmental assessment (EA) prepared by the local unit of government with jurisdiction over the project must be completed. The EA contains information on the human and environmental impacts of the proposed project and addresses methods to mitigate such impacts.

When the EA is complete, Stearns County must publish a notice in the Environmental Quality Board (EQB) Monitor that the EA is available for review, how a copy of the document may be reviewed, that the public may comment on the document, and the procedure for submitting comments to the County. A final decision on the project cannot be made until at least ten days after the notice appears in the EQB Monitor.

2.3 Public Participation/Scoping of Environmental Assessment

Stearns County sent a survey to the property owners within ¼ mile of the proposed project on February 19, 2015, to solicit input on the scope of the EA (see Appendix B). The comment period ended on March 13, 2015. During this process, Stearns County staff received a number of written comments and phone calls regarding the project. Survey responses are provided in **Appendix B** and are summarized below.

Survey responses were received from owners of three parcels along the route.

Comment 1: A landowner inquired on how close the starting point will be to their land.

Response: Great River Energy contacted C&L Excavating and provided the requested information.

Comment 2: A landowner expressed concern that the project will box in their property, by having transmission line on three sides. They also inquired on the option to bury the line.

Response: The transmission line was routed to stay along property lines. The National Wetland Inventory shows a large amount of wetland along the property line, therefore use of this part of the property is limited. However, this concern can be discussed further in the CUP hearing process. Due to the high voltage of transmission lines, burying is only done in rare urban cases where overhead is not possible (i.e. airports, tall downtown buildings).

Comment 3: A landowner expressed concern that the new line will not run parallel to the existing Xcel Energy transmission line.

Response: It is true that Great River Energy will usually seeks to follow existing utility corridors, however, the purpose of this new transmission line is to provide a contingency source to the West St Cloud substation. Separation of the proposed and existing lines are essential to allow for repairs due to storm damage, failed equipment and for routine maintenance. Both of these circuits will be vital redundant sources to the electrical service of a large geographical area.

2.4 Conditional Use Permit

Stearns County is the legal governing body for all activities that may require permitting south of the Sauk River. Although this portion of the project is in the City of Waite Park/St. Joseph Township Orderly Annexation Area, Stearns County is the permitting authority. The City of St. Joseph/St. Joseph Township Joint Planning Board is the legal governing body for remainder of the line north of the Sauk River. The City and Township have an Orderly Annexation Agreement in place for this area. All officials have deferred the Environmental Assessment authority to Stearns County.

Stearns County and the Joint Planning Board require a CUP for this project. Stearns County facilitates the CUP for the Joint Planning Board. Great River Energy submitted a CUP application to Stearns County on February 2, 2015. After the EA is finalized, notice of the EA has been published in the EQB Monitor, and the comment period requirements have been met, Stearns County and the Joint Planning Board will each hold a public hearing and make a decision on Great River Energy's request for a CUP.

The CUP process is also open to the public as part of the respective review by the Stearns County Planning Commission and by the Joint Planning Board at their regularly scheduled meetings. The public hearing for the Joint Planning Board is scheduled to be held on May 12, 2015 and for Stearns County is scheduled to be held on May 21, 2015. Prior to the public hearing, notices are sent out to landowners located within one-quarter mile of the project corridor, St. Joseph Township, the City of St. Joseph and the City of Waite Park. Public hearing notices are published in the legal section of the *Cold Spring Record*, the County's official newspaper, and in the local paper for the area (*The St. Cloud Times*). After a recommendation is made by the Planning Commission, the Stearns County Board of Commissioners makes the final decision to approve or deny the CUP application for the portion south of the Sauk River. The Joint Planning Board makes the final decision for the portion north of the Sauk River.

3.0 Engineering Design, Right-of-Way Acquisition, and Construction

3.1 Substation Upgrades

Quarry Substation

The Quarry transmission substation (**Figure 3-1**) owned by Xcel Energy is located in Section 24, Township 124N, Range 29W in St. Joseph Township. The substation is enclosed in a fenced area. The upgrades will take place inside the substation and will not change the location of the fence.

The primary components of the upgraded Quarry Substation will include:

- Two 115 kV breakers;
- Two dead end steel structures inside the fence; and
- Additional aluminum bus, switches and associated foundations.

The two existing 115 kV transmission lines on the west side of the Quarry Substation will be rerouted to enter from the south. Great River Energy's proposed 115kV line will exit out of the north, parallel to the existing Xcel Energy 115 kV line(**Figure 3-2**). Great River Energy will have a permanent easement for its facilities at the Quarry Substation, and Xcel Energy will continue to own the property and the control building, which contains metering and telecommunications equipment, instrumentation and battery bank.

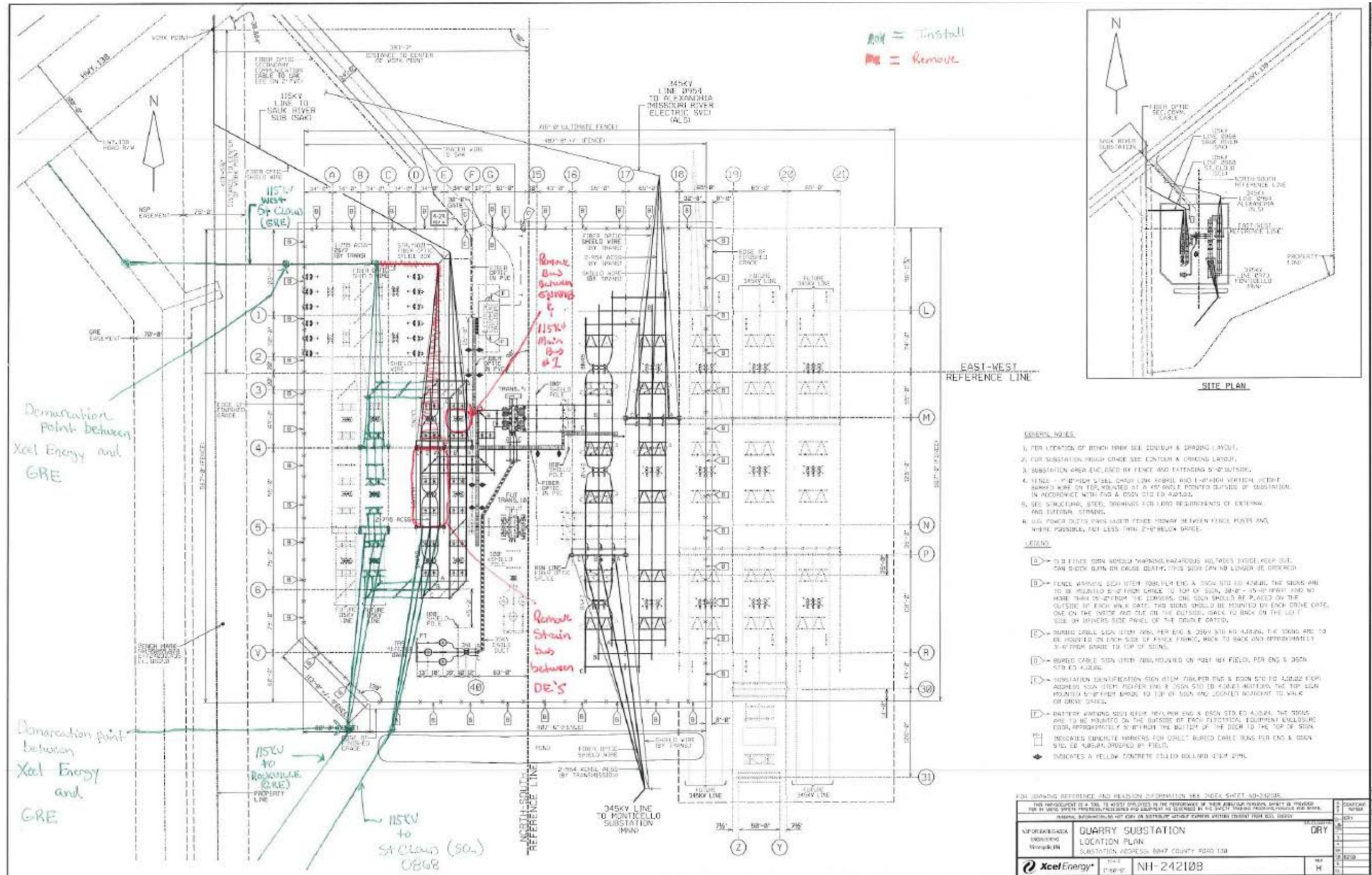
West St. Cloud Substation

The West St. Cloud transmission Substation (**Figure 3-3**) owned by Great River Energy is located in Section 12, Township 124N, Range 29W in Saint Joseph Township. The substation is enclosed in a fenced area. The south fence line will be expanded 73 feet further south on Great River Energy's property.

The primary components of the upgraded West St. Cloud Substation will include:

- Five new 115 kV breakers;
- One new 69 kV breaker to replace an existing breaker;
- One dead end steel structure inside the fence;
- Additional aluminum bus, switches and associated foundations within the expanded sub fence;
- Replace existing control building; and
- Add rock and ground grid to the expanded fenced in area.

Figure 3-1 Quarry Substation Plot Plan



Demarcation point between Xcel Energy and GRE

Demarcation point between Xcel Energy and GRE

115KV to Rockville (GRE) PROPERTY LINE

115KV to St. Cloud (SO.) 0868

345KV LINE TO MONTICELLO SUBSTATION (MNN)

FOR DRAWING REFERENCE AND REVISION INFORMATION SEE INDEX SHEET NO-242108

THIS INSTRUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS/ON PERSONAL QUALITY OF SERVICE FOR BY USER'S STRICTLY PROFESSIONAL AND LIMITED TO THE SCOPE AND PURPOSE OF THE PROJECT AND NOT BE USED FOR ANY OTHER PURPOSE.

ISSUED: 08/20/2014 NOT COPY OR REPRODUCE WITHOUT EXPRESS WRITTEN CONSENT FROM XCEL ENERGY

PROJECT NO.	QUARRY SUBSTATION	REVISION NO.	001
LOCATION	LOCATION PLAN	DATE	08/20/2014
ADDRESS	SUBSTATION ADDRESS 8047 COUNTY ROAD 130	SCALE	AS SHOWN
CLIENT	Xcel Energy	PROJECT NO.	NH-242108
DATE	11/20/14	SCALE	AS SHOWN
PROJECT NO.	QUARRY SUBSTATION	REVISION NO.	001
LOCATION	LOCATION PLAN	DATE	08/20/2014
ADDRESS	SUBSTATION ADDRESS 8047 COUNTY ROAD 130	SCALE	AS SHOWN
CLIENT	Xcel Energy	PROJECT NO.	NH-242108
DATE	11/20/14	SCALE	AS SHOWN

FIGURE 3-2 QUARRY SUBSTATION LINE REROUTES



- | | |
|---------------------------------------|-------------------------------------|
| Great River Energy | Xcel Energy |
| — Proposed 115 kV transmission line | — Existing 115 kV transmission line |
| - - Existing 115 kV transmission line | - - Substation line modification |
| | ▲ Existing transmission substation |
| | CapX 2020 |
| | — Existing 345 kV transmission line |

GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy

**West St. Cloud to Quarry
115 kV Transmission Line
Figure 3-2**



The new 115 kV transmission line will enter at the south side of the West St. Cloud Substation. Great River Energy will own the control building, which contains metering and telecommunications equipment, instrumentation and a battery bank.

The substations are inspected monthly for visual leaks.

3.2 Proposed Transmission Line

The proposed transmission line will be located approximately 1,200 feet west of the centerline of the existing Xcel Energy transmission line. The separation of the lines is necessary to limit the chance of damage to both the transmission lines, in the event of a natural disaster. Pole locations will have adequate setbacks from field access roads and driveways that are considered in pole placement.

The proposed transmission line will exit the Xcel Energy Quarry Substation to the north, cross over CSAH 138 for approximately 1.3 miles to CSAH 75, and continue to the Great River Energy West Saint Cloud Substation.

The line will be constructed using single pole wood structures with horizontal post insulators (**Figure 3-4**). The poles will range in height from 80 to 95 feet above ground and will be spaced approximately 400 to 500 feet apart. Structures, pole heights and spans may vary somewhat depending upon topography and environmental constraints (such as road crossings, stream crossings, and required angle structures). The single circuit structures will have three single conductor phase wires and one shield wire. The phase wires will be 795 thousand circular mil Aluminum Conductor Steel Supported (ACSS) with seven steel core strands and 26 outer aluminum strands. The shield wire will be optical ground wire.

Horizontal deflections in the transmission line alignment may require guying (the use of anchors and support cables) or specialty structures. Where guying is not practicable, direct embedded laminated wood poles or steel poles on drilled pier concrete foundations will be utilized to avoid the need for support guying.

FIGURE 3-4 PROPOSED 115 KV SINGLE CIRCUIT STRUCTURES



The transmission line will be designed to meet the National Electric Safety Code (NESC) and the Institute of Electrical and Electronics Engineers (IEEE) standards. The NESC recommends minimum strength and safety standards for clearances over roadways, buildings, signs, light standards, and other facilities.

Great River Energy intends to meet or exceed the NESC requirements. Clearances over highways and roadways will be a minimum of 23.6 feet, which meets the requirements of the NESC and may be increased by Minnesota Department of Transportation (MnDOT) or local county highway permitting. Although the existing standards give recommended clearances over buildings, Great River Energy indicates that they generally do not locate transmission lines directly over a building unless it cannot be avoided. Horizontal clearances to buildings, signs, light standards, and other installations will be determined by calculating the blowout of the wire, structure deflection, and safe electrical clearance from the line.

3.3 Right-of-Way Management Practices

After project approvals to build the transmission line project are secured from the local governing authorities, landowners will be contacted by a Great River Energy representative to begin direct negotiations to acquire an easement for the transmission line.

Once easements, permits and land rights have been acquired, and immediately prior to construction, individual property owners will be notified of the construction schedules, access to the site and vegetation clearing required for the project. The total right-of-way (ROW) needed is a 120 foot wide corridor. Trees and vegetation will be cleared from the entire right of way to enable the safe construction, operation and maintenance of the line. Some low maturing vegetation may be allowed to remain on the outer edges of the easement subject to access requirements. Wood from the clearing operation will be offered to the landowner or removed from the site. Brush will be chipped and disposed of on the ROW. It is standard practice to remove any vegetation species that would be a danger to the line when at a mature height. Also, any vegetation that is in the way of construction equipment may have to be removed.

Some structure locations may require soil analysis to assist with the design of the line. Soil borings would be conducted to determine the soil properties for engineering analysis. An independent geotechnical testing company would take and analyze these borings. Site access would be required and landowners would be contacted for permission.

In addition to the ROW required for adequate clearance of the proposed transmission line, temporary construction easements may be obtained from landowners for the duration of construction. These construction easements would need to be limited to special construction access needs or any additional staging or laydown areas required

outside of the proposed transmission line ROW. Where possible, staging and laydown areas would be located within the ROW and limited to previously disturbed or developed areas. Upon completion of construction activities, landowners will be contacted to determine if any additional clean-up and restoration needs to be completed.

3.4 Construction Procedures

The proposed 115 kV transmission line would be constructed at grade elevations; therefore, no pole locations would require grading unless it is necessary to provide a level area for construction access and activities. Construction would comply with the latest industry standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, ROW widths, erecting power poles, and stringing of transmission line conductors. Any temporary impacts to wetlands will comply with the Wetland Conservation Act. Erosion control measures will be employed in and around wetlands, the Sauk River and its floodplain.

Typical pole structures would require a drilled hole 10 to 15 feet deep and 3 to 4 feet in diameter for each pole. Pole structures in wet environments or angle structures may require additional foundation support, typically consisting of a concrete foundation or placement of the pole base inside a vertical galvanized steel culvert. Erosion control methods would be implemented to minimize runoff during construction. Great River Energy or approved contractors are required to perform transmission line construction in compliance with local, state, NESC, IEEE, Occupational Safety and Health Administration (OSHA), and industry standards.

Poles would be delivered to either the staked location or a project storage yard. If the poles were delivered to a staked site, they would be placed on the ROW out of the clear zone of any adjacent roadways or designated pathways. Insulators and other hardware would typically be attached while the pole was on the ground. The pole would then be lifted, placed and secured on the foundation by a bucket truck or crane.

Once the structures have been erected, conductors would be installed by establishing stringing setup areas within the ROW. The stringing setup areas would usually be established every two miles along the project route. Conductor stringing operations also require brief access to each structure to secure the conductor wire to the insulators or to install shield wire clamps once final sag is established. Temporary guard or clearance poles would be installed, as needed, over existing distribution or communication lines, streets, roads, highways, railways or other obstructions after any necessary notifications were made or permits obtained. This ensures that conductors would not obstruct traffic or contact existing energized conductors or other cables. In addition, the conductors would be protected from damage.

3.5 Restoration/Maintenance Procedures

During construction, limited ground disturbance at the structure sites may occur. Disturbed areas would be restored to their original condition to the maximum extent practicable as negotiated with the landowner. Post-construction reclamation activities

include:

- Removing and disposing of debris;
- Removing all temporary facilities (including staging and laydown areas);
- Employing appropriate erosion control measures;
- Reseeding and mulching areas disturbed by construction activities with vegetation similar to that which was removed; and
- Restoring the areas to their original condition to the extent possible.

In cases where soil compaction has occurred in cropland areas, the construction crews or a restoration contractor will use various methods to alleviate the compaction as negotiated with landowners. In cases where it is determined there could be a future reduction in anticipated crop yields due to compaction, compensation for the value of the reduced yield will be offered to the crop owner. Any replanting of vegetation in the easement area must be approved in writing by Great River Energy.

Great River Energy will periodically use the transmission line ROW to perform inspections, maintain equipment, and repair any damage. Regular route maintenance for weed control and removal of undesired vegetation will also be conducted in accordance with terms of the easements and any state or local permitting requirements.

4.0 Assessment of Environmental Impacts and Mitigation

Impacts to the environment are expected to be minimal and short-term, with little mitigation required. Great River Energy indicates that they will minimize environmental impacts during construction of the project.

Correspondence relative to environmental conditions in the project area and responses received from state and federal agencies that reviewed the project are provided in **Appendix C**.

4.1 Description of Environmental Setting

Stearns County is characterized by rolling hills, farms, scenic lakes, rivers, wetlands, prairies, savannas, and woodlands of a mixture of coniferous and deciduous trees.

The proposed transmission line corridor is located in areas that are zoned Industrial and Urban Expansion (see Zoning Map, **Figure 4-1**). Approximately 0.75 miles of the line will run through the shoreland and floodplain district of the Sauk River. Land use in the area is mainly rural commercial/industrial, agricultural and open space/wetlands.

4.2 Impacts on Human Settlement

There are very few residences in the immediate project area. There is one residence within 700 feet of the ROW. The remaining residences are over 900 feet away from the project. Pole placement will be reviewed and discussed with each landowner to minimize tree loss and visual impacts in those areas close to homes.

4.2.1 Socioeconomics

Stearns County leads the state in agriculture and the economy is also driven by manufacturing, retail and service industries, health care and tourism.

Approximately 15-25 workers will be required for construction of the project. During construction, there would be a small impact on the local community due to revenue created from expenditures of the construction crew (local community services, hotels, restaurants, construction materials). No permanent jobs will be created by this project.

4.2.2 Displacement

The construction of the transmission line will not cause the displacement of any residence and will not affect any public services.

4.2.3 Noise

Noise is composed of a variety of sounds of different intensities across the entire frequency spectrum. Humans perceive sound when sound pressure waves encounter the auditory components in the ear. These components convert these pressure waves into perceivable sound. Transmission conductors produce noise under certain conditions. The level of noise or its loudness depends on conductor conditions, voltage level, and weather conditions.

Noise is measured in units of decibels (dB) on a logarithmic scale. Because human hearing is not equally sensitive to all frequencies of sound, certain frequencies are given more "weight." The A-weighted scale (dBA) corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in dBA, the A-weighted sound level recorded in units of decibels. A noise level change of 3 dBA is barely perceptible to human hearing. A 5-dBA change in noise level, however, is clearly noticeable. A 10-dBA change in noise levels is perceived as a doubling of noise loudness, while a 20-dBA change is considered a dramatic change in loudness.

Table 4-1 below shows noise levels associated with common, everyday sources. Noise levels for a 115 kV transmission line would typically be between 0 and 20 dBA, depending on the weather.

TABLE 4-1 COMMON NOISE LEVELS AND SOURCES

Sound Pressure Level (dB)	Typical Sources
120	Jet aircraft takeoff at 100 feet
110	Jet aircraft at 400 feet
90	Motorcycle at 25 feet
80	Garbage disposal
70	City street corner
60	Conversational speech
50	Typical office
40	Living room (without TV)
30	Quiet bedroom at night

Source: Environmental Impact Analysis Handbook, ed. By Rau and Wooten, 1980

In Minnesota, state rules have been established to regulate noise levels by land use types. The most stringent noise limit is assigned to places with a Noise Area Classification (NAC) of 1, which generally applies to areas where people may normally be expected to sleep. The various NACs are described in the Minnesota Pollution Control Agency (MPCA) noise regulations and the applicable limits for each NAC are shown in **Table 4-2**.

TABLE 4-2 NOISE AREA CLASSIFICATIONS

NAC	Day (0700-2200)		Night (2200-0700)	
	L ₅₀	L ₁₀	L ₅₀	L ₁₀
1	60	65	50	55
2	65	70	65	70
3	75	80	75	80

Noise emission from a transmission line increases during heavy rain and wet conductor conditions. In foggy, damp, or rainy weather conditions, power lines can create a crackling sound due to the small amount of electricity ionizing the moist air near the wires. During heavy rain, the general background noise level is usually greater than the noise from the transmission line and few people would be out near the transmission line. As a result, people do not normally notice audible noise from a transmission line during heavy rain. This is confirmed by calculated levels during a heavy rain (one inch per hour) that shows noise levels for a 115 kV line at less than 25% of the most sensitive state NAC (NAC 1). During light rain, dense fog, snow, and other times when there is moisture in the air, transmission lines will produce audible noise at approximately household background levels. During dry weather, audible noise from transmission lines is barely perceptible.

Please note, that the proposed updates to both substations will not change noise emissions from those sites.

4.2.4 Aesthetics

The project will have limited impact on aesthetics of the area. The proposed transmission line will be visible along the roads that it crosses. The nearest home to the project is over 700 feet away and is just west of the existing Quarry and Sauk River substations. Existing homes would not have a substantial change in viewshed. The Sauk River crossing of the transmission line will still maintain a buffer of trees on each side of the 120 foot wide right of way. Low maturing vegetation and the existing root structure of trees will not be removed to assist with bank stabilization along the river.

The proposed 115 kV transmission line structures will have a narrow profile that is designed to be less intrusive than other types of structures in the area.

Although the proposed transmission line will be a contrast to surrounding land uses, Great River Energy has indicated that they will work with landowners to identify concerns related to the proposed transmission line using the following strategies:

- Location of structures, right-of-way and other disturbed areas will be determined by considering input from landowners or land management agencies to minimize visual impacts.
- Care will be used to preserve the natural landscape; construction and operation will be conducted to prevent any unnecessary destruction of the natural surroundings in the vicinity of the work.
- To the extent practicable, new transmission lines will parallel existing transmission lines and other rights-of-way, to the extent that such actions do not violate sound engineering principles or system reliability criteria.
- Structures will be placed at the maximum feasible distance from highway, trail and water crossings, within limits of structure design.
- Landowners will be compensated for removal of mature yard trees, either through easement negotiations or on a separate basis.

4.2.5 Human Health and Safety

No threats to public health and safety are anticipated for this project. All facilities will be constructed in accordance with all applicable standards, including the NESC and other industry standards. Construction personnel will be required to follow OSHA regulations. Other safety measures such as warning signs, fencing, and gates will be utilized as needed.

Electric and Magnetic Fields (EMF)

The term electromagnetic fields (EMF) refers to electric and magnetic fields that are coupled together, such as in high frequency radiating fields. For the lower frequencies associated with power lines, EMF should be separated into electric fields and magnetic fields. For any specific line design, the height of the set of phase conductors above ground has a marked influence on the maximum electric and magnetic fields.

Voltage on a wire produces an electric field in the area surrounding the wire. The voltage on the conductors of a transmission line generates an electric field extending from the energized conductors to other nearby objects, such as the ground, towers, vegetation, buildings, and vehicles. The intensity of electric fields, measured in kilovolts/meter (kV/m), is proportional to the voltage of the line and the magnitude of the electric field rapidly decreases with distance from

the transmission line conductors. The presence of trees, buildings, or other solid structures nearby can also significantly reduce the magnitude of the electric field. Electric fields of transmission lines above ground are designated by the difference in voltage between two points (usually one meter).

Magnetic fields arise from the flow of electricity (current) in the transmission line. The intensity of the magnetic field is related to the current flow through the conductors. The magnetic field associated with the transmission line surrounds the conductor and rapidly decreases as the distance from the conductor increases. Magnetic field density is expressed in the unit of gauss or milligauss.

Considerable research has been conducted in recent decades to determine whether exposure to power-frequency (60 hertz) electric and magnetic fields can cause biological responses and adverse health effects. The multitude of epidemiological and toxicological studies has shown at most a weak association (i.e., no statistically significant association) between EMF exposure and health risks.

In 1999, the National Institute of Environmental Health Sciences (NIEHS) issued its final report on “Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields” in response to the Energy Policy Act of 1992. In the report, the NIEHS concluded that the scientific evidence linking EMF exposures with health risks is weak and that this finding does not warrant aggressive regulatory concern. However, in light of the weak scientific evidence supporting some association between EMF and health effects and the fact that exposure to electrical systems is common in the United States, the NIEHS stated that passive regulatory action, such as providing public education on reducing exposures, is warranted.¹

The United States Environmental Protection Agency (EPA) comes to a similar conclusion about the link between adverse health effects, specifically childhood leukemia, and power-frequency EMF exposure. On its website, the EPA states:

Many people are concerned about potential adverse health effects. Much of the research about power lines and potential health effects is inconclusive. Despite more than two decades of research to determine whether elevated EMF exposure, principally to magnetic fields, is related to an increased risk of childhood leukemia, there is still no definitive answer. The general scientific consensus is that, thus far, the evidence available is weak and is not sufficient to establish a definitive cause-effect relationship.²

Minnesota, California, and Wisconsin have each conducted their own literature reviews or research to examine this issue. In 2002, Minnesota formed an

¹ Report is available at <http://www.niehs.nih.gov/health/topics/agents/emf/>

² <http://www.epa.gov/radtown/power-lines.html>

Interagency Working Group to evaluate the research and develop policy recommendations to protect the public health from any potential problems arising from EMF effects associated with HVTLs. The Minnesota Department of Health published the Working Group's findings in *A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options*. The Working Group summarized its findings as follows:

*Research on the health effects of EMF has been carried out since the 1970s. Epidemiological studies have mixed results – some have shown no statistically significant association between exposure to EMF and health effects, some have shown a weak association. More recently, laboratory studies have failed to show such an association, or to establish a biological mechanism for how magnetic fields may cause cancer. A number of scientific panels convened by national and international health agencies and the United States Congress have reviewed the research carried out to date. Most researchers concluded that there is insufficient evidence to prove an association between EMF and health effects; however many of them also concluded that there is insufficient evidence to prove that EMF exposure is safe.*³

Based on findings like those of the Working Group and NIEHS, the Minnesota Public Utilities Commission has consistently found that “there is insufficient evidence to demonstrate a causal relationship between EMF exposure and any adverse human health effects.”⁴ This conclusion was further justified in the recent Route Permit proceedings for the Brookings County – Hampton 345 kV Project (“Brookings Project”). In the Brookings Project Route Permit proceedings, the Applicants (Great River Energy and Xcel Energy) and one of the intervening parties both provided expert evidence on the potential impacts of electric and magnetic fields on human health. The administrative law judge (ALJ) in that proceeding evaluated written submissions and a day-and-a-half of testimony from the two expert witnesses. The ALJ concluded: “there is no demonstrated impact on human health and safety that is not adequately addressed by the existing State standards for [EMF] exposure.”⁵ The Commission adopted this finding on July 15, 2010.⁶

³ Minnesota Department of Health. 2002. *A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options*

⁴ See, for example, *In the Matter of the Application for a HVTL Route Permit for the Tower Transmission Line Project*, Docket No. ET-2, E015/TL-06-1624, Findings of Fact, Conclusions of Law and Order Issuing a Route Permit to Minnesota Power and Great River Energy for the Tower Transmission Line Project and Associated Facilities (August 1, 2007).

⁵ *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, ALJ Findings of Fact, Conclusions and Recommendation at Finding 216 (April 22, 2010 and amended April 30, 2010).

⁶ *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, Order Granting Route Permit (September 14, 2010).

There is no federal standard for transmission line electric fields. The maximum electric field for the proposed Quarry project is 1.402 kV/m, which is well under the maximum limit of 8 kV/m that has been a permit condition imposed by EQB in other transmission line routing proceedings.

There are no federal or Minnesota exposure standards for magnetic fields. The EQB and the Commission have recognized Florida (a 150-mG limit) and New York (a 200-mG limit) state standards. Both state standards are to be considered at the edge of ROW. The magnetic field at the edge of ROW for the proposed West St. Cloud to Quarry project is 27.6 mG.

4.2.6 Public Services

Impacts to other utilities (gas, telephone, electric, water, sewer) will be avoided or minimized. Public services would not be affected by the construction and operation of the substations or proposed transmission line.

4.2.7 Transportation

The two-mile transmission line will cross existing ROW of CSAH 138 and CSAH 75. Temporary road closures or lane reductions may be necessary during construction. Great River Energy will obtain the necessary permits from the County Highway Department for such road closures or lane reductions and any work in the County right-of-way. Operation of the proposed transmission line will not affect the major roads in the area.

There are no airports in the vicinity of the proposed project (St. Cloud Regional Airport is approximately 9 miles away).

The MnDOT Office of Aeronautics was contacted regarding any potential impacts to airports in the vicinity. In a reply email dated February 10, 2015 (**Appendix C**), the Office of Aeronautics indicated they did not have any issues with the proposed project.

4.3 Impacts on Land-based Economies

4.3.1 Recreation/Tourism

Stearns County has many year-round recreational, cultural and social opportunities in both urban and rural areas. The numerous lakes and rivers in Stearns County support a thriving tourist trade, and the Stearns County Parks system offers opportunities for hiking, biking, boating, fishing, swimming, rock climbing and scuba diving. The project is not expected to affect recreational or tourism opportunities in the area.

4.3.2 Agriculture

The proposed project will run along the edge of agricultural areas; however, the project will not impact farmland in a detrimental manner. The proposed project will not impact prime farmland.

4.3.3 Mining and Forestry

There are gravel resources in the area; however, there are currently no mining operations in the vicinity of the proposed project.

Although two-thirds of Stearns County was originally covered with forest, much of the remaining woodland is in small tracts and wood production is limited.

The line will cross privately-owned woodland. Great River Energy will replace trees or compensate as determined through negotiations with individual landowners.

4.4 Archaeological and Historic Resources

Merjent, Inc. conducted a cultural resources literature review (see letter dated December 16, 2014, **Appendix C**) for the project. A review of records indicated no previously recorded archaeological sites or historic structures in the project area.

The Minnesota Historical Society (MHS) was contacted to obtain comments regarding cultural resources in the project area. In a reply letter dated January 15, 2015 (**Appendix C**), MHS “recommend[s] that a Phase I archaeological survey be completed within 500 feet of the Sauk River crossing.”

Great River Energy will follow MHS’s recommendation and have the Phase I archaeological survey completed within 500 feet of the Sauk River crossing.

4.5 Natural Environment

4.5.1 Air Quality

The only potential air emissions from a transmission line result from corona, which may produce ozone and oxides of nitrogen. This can occur when the electric field intensity exceeds the breakdown strength of the air. For a 115 kV transmission line, the conductor surface gradient is typically below the air breakdown level. As such, it is unlikely that any measurable emissions would occur from the conductor surface.

During construction of the proposed transmission line, there would be emissions from vehicles and other construction equipment and fugitive dust from ROW clearing. Temporary air quality impacts caused by the proposed construction-related emissions would be expected to occur during this phase of activity. The

magnitude of these emissions is influenced heavily by weather conditions and the specific construction activity taking place. Adverse impacts to the surrounding environment would be minimal because of the short and intermittent nature of the emission and dust-producing construction phases. Appropriate dust control measures will be implemented.

4.5.2 Water Resources, Wetlands and Soils

Streams and Lakes

The proposed transmission line will cross one Minnesota Department of Natural Resources (DNR) Public Water (Sauk River, **Figure 4-2**) (Section 13, T124N, R29W). The transmission line will span this water crossing; therefore impacts from construction will be minimal. Great River Energy will apply to the DNR for a license to cross the Sauk River.

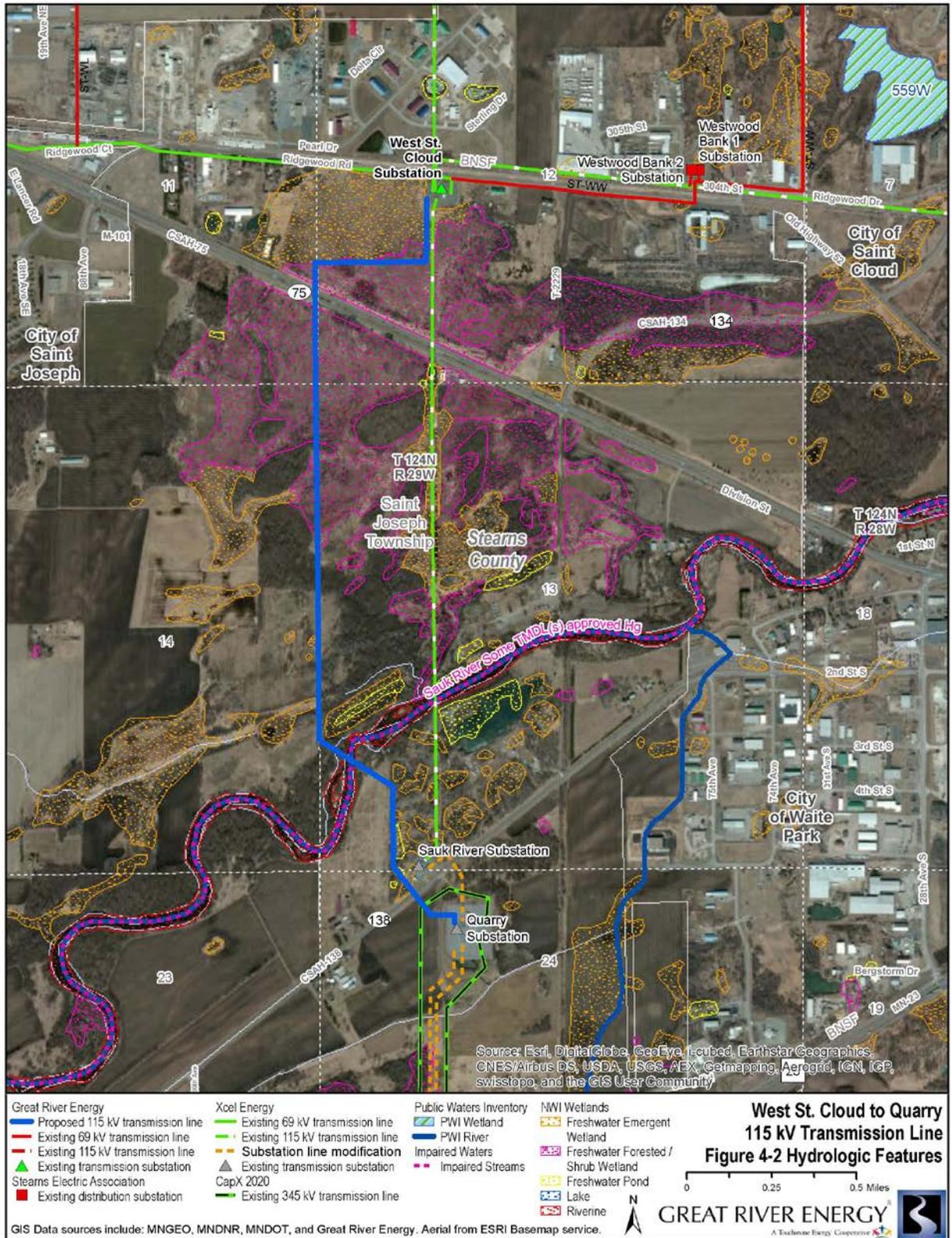
Approximately 0.75 miles of the transmission line will go through the 100 year floodway and 100 year flood fringe of the Sauk River.

Once the project is completed, there would be no significant impact on surface water quality because no transmission structures will be located within the stream, and no lakes in the area will be affected.

The applicant has indicated that sound water and soil conservation practices will be maintained during construction and operation of the project to protect topsoil and adjacent water resources and minimize soil erosion. These practices may include:

- Containment of stockpiled material away from stream banks and lake shorelines;
- Stockpiling and re-spreading topsoil;
- Reseeding and re-vegetating disturbed areas;
- Implementing erosion and sediment controls; and
- Structures and disturbed areas located as far away from rivers and streams as practicable.

FIGURE 4-2 HYDROLOGIC FEATURES



Wetlands

Wetlands are important resources for flood abatement, wildlife habitat, and water quality. The United States Fish and Wildlife Service (USFWS) produced maps of wetlands based on aerial photographs and Natural Resources Conservation Service soil surveys starting in the 1970s. These wetlands are known as the National Wetland Inventory (NWI). Wetlands listed on the NWI may be inconsistent with current wetland conditions; however, NWIs are the most accurate and readily available database of wetland resources in the vicinity of the project and were therefore used to identify wetlands along the proposed transmission line route. Wetlands in the project area are shown on **Figure 4-2**.

The United States Army Corps of Engineers (USACE) was contacted requesting information on the possible effects of the proposed project on floodplains, waters, and wetlands. The USACE typically only provides a general response on a project until it receives a jurisdictional determination request and/or a permit application. In a reply letter dated December 10, 2014 (**Appendix C**), the USACE did address its' regulatory jurisdiction and permitting requirements.

Although it will be possible to span some of the wetland areas along the route, a small amount of fill material will be discharged into wetland areas due to pole installation. If the discharge exceeds permitting thresholds, Great River Energy will apply for a Regional General Permit from the USACE under Section 404 of the Clean Water Act once design details are available. Great River Energy will work with Stearns County to ensure the expansion of the West St. Cloud Substation complies with the Wetland Conservation Act.

Wetland impacts will be minimized and mitigated, disturbed soil will be restored to previous conditions or better, and the amount of land area converted to an impervious surface will be very small.

Soils

Soils in the project corridor are dominated by very poorly drained muck-type soils (Markey, Seelyeville), poorly-drained sandy loams (Dassel), gravel and coarse sandy loams (Dafur). Along the route there are also small patches of farmland with loamy sand (Litchfield), loams (Osakis) and sandy loams (Arvilla, Dickman). Slopes generally range from 0 to 6 percent.

The soil type at the West St. Cloud Substation is a loamy fill (Udorthents). The soil types at the Quarry Substation are sandy loams (Arvilla, Darfur) and loamy sand (Litchfield).

There are no prime farmland soils in the project area that will be impacted.

4.5.3 Vegetation and Wildlife/Rare and Unique Natural Resources

The DNR and the USFWS were contacted regarding vegetation and wildlife resources in the vicinity of the project.

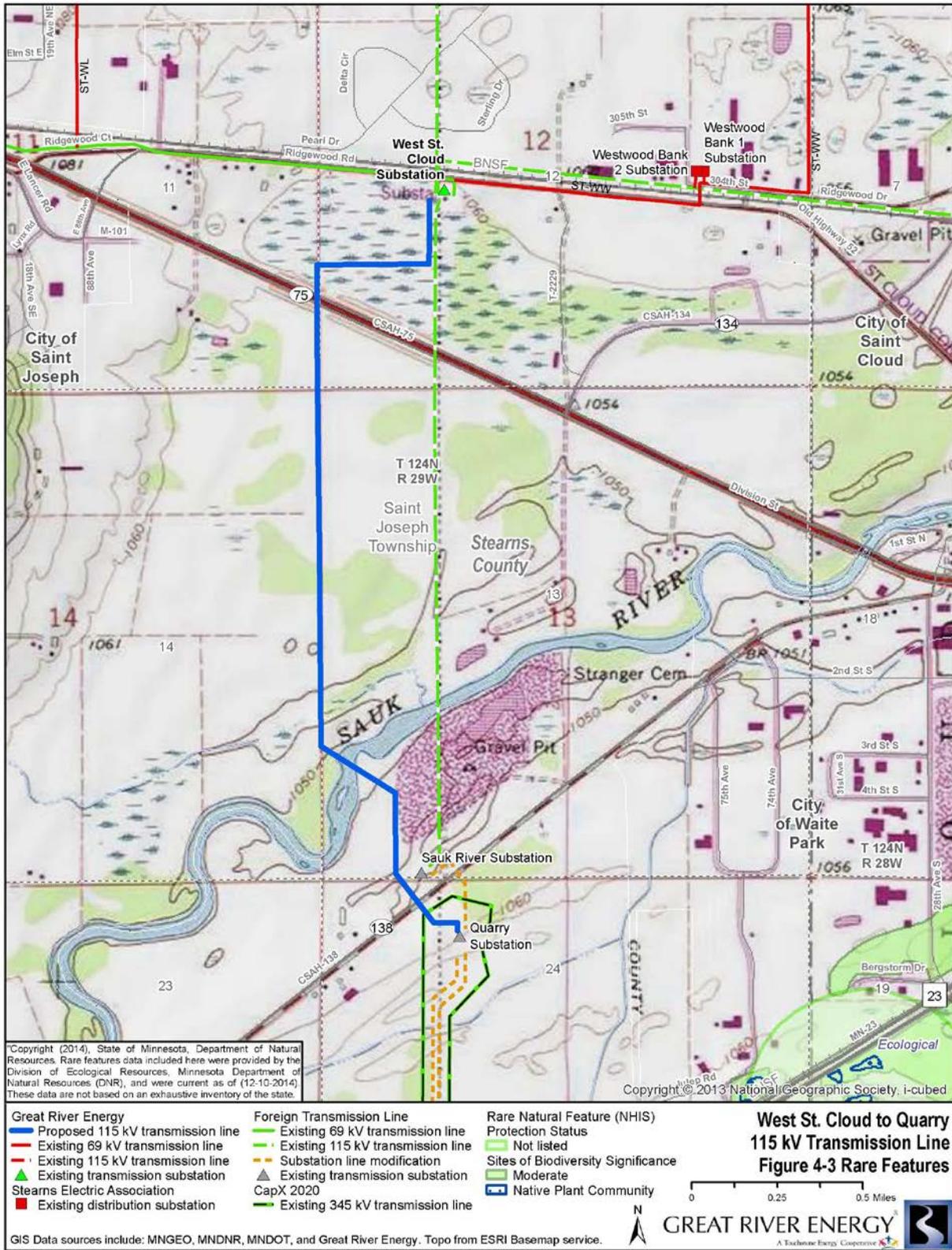
The DNR Rare Features database indicates that there are no rare features in the vicinity of the proposed project (**Figure 4-3**). In an email response dated January 22, 2015 (**Appendix C**), the DNR reviewed Great River Energy's assessment and indicated that the black sandshell (*Ligumia recta*), a state-listed mussel of special concern, has been documented in the Sauk River in the vicinity of the proposed project. The DNR indicated that effective erosion prevention and sediment control practices will need to be implemented and maintained throughout the duration of the project.

Great River Energy will follow the DNR's recommendation to implement and maintain effective erosion prevention and sediment control practices. Also, no work will be conducted in the Sauk River.

In an email response dated January 30, 2015 (**Appendix C**), the USFWS indicated that the nearest recorded Northern long-eared bat (*Myotis septentrionalis*) is approximately 6 miles from the project and potential summer roosting habitat may exist within the proposed action area. The USFWS recommended that all tree clearing be conducted outside of the species' summer roost season (October 1 to March 30).

Great River Energy will follow USFWS's recommendation and conduct tree removal outside of the species' summer roost season.

FIGURE 4-3 RARE FEATURES



5.0 Regulatory Permits and Approvals Required

Permit requirements or approvals anticipated for this project and the status of each are shown below in **Table 5-1**.

TABLE 5-1 REGULATORY PERMITS AND APPROVALS REQUIRED

Government Unit	Type of Approval	Regulated Activity	Status
US Dept. of Interior Fish and Wildlife Service (USFWS)	Threatened and Endangered Species Review	Review of records for federally threatened or endangered species that may exist at or near the proposed transmission facilities	Northern Long-eared bat (<i>Myotis septentrionalis</i>) is proposed for the endangered list. USFWS recommendation is that all tree clearing be conducted outside of the species' summer roost season (email of 1/30/15).
US Dept. of the Army Corps of Engineers (USACE)	Wetland and Waterways Review	Review navigable water and the dredging or filling of US waters including wetlands	A Section 404 permit will likely not be required for the project (letter of 12/10/14). If required, Great River Energy will apply for a permit once design details are available.
MN Dept. of Natural Resources (DNR)	Environmental Review – Wetlands, Water, Trails, Threatened and Endangered Species	Comprehensive review of transmission line impacts	Black sandshell (<i>Ligumia recta</i>) has been documented in the Sauk River. Effective erosion prevention and sediment control practices will need to be implemented and maintained throughout the duration of the project (email of 1/22/15).
MN Historical Society State Historic Preservation Office (SHPO)	SHPO Review of Nationally Registered Historic Places	Historic preservation	Due to the nature and location of the project, MHS recommend that a Phase I archaeological survey be completed within 500 feet of the Sauk River Crossing. (letter of 1/15/15).
Minnesota Department of Transportation-Aeronautics Division	Airspace Concerns	Public and private airports/airstrips	No effects on publicly-owned airports anticipated; no objection to the project (email of 2/10/15).
Minnesota Pollution Control Agency (MPCA)	National Pollutant Discharge Elimination System (NPDES) Permit	Stormwater Pollution Prevention Plan (SWPPP) and stormwater permit required for disturbance of \geq one acre.	If soil disturbance will be \geq one acre for the project, a SWPPP will be prepared and a stormwater permit obtained.
DNR Lands and Minerals	License to Cross Public Water	License required if project crosses DNR Public Waters	Great River Energy will apply to the DNR for a license to cross the Public Water, Sauk River.
Stearns County Highway Department	County Highway Crossing Permit	Permit required prior to construction.	All required permits will be acquired for construction.
Stearns County	Conditional Use Permit	Construction of new facilities	The application was submitted and is in process.
St. Joseph Township	Building permit	Construction of new facilities	
City of St. Joseph/ St. Joseph Township Joint Planning Board	Conditional Use Permit	Construction of new facilities	The application was submitted and is in process.

Exhibit A

Notice to PUC

Letter from PUC Confirming Local Review



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

February 4, 2015

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: Quarry 115 kV Transmission Line Project

Dear Mr. Wolf:

In accordance with the Power Plant Siting Act, Minn. Stat. § 216E.05, subd. 3, this letter, filed via eFiling, serves as the required notice to the Minnesota Public Utilities Commission (Commission) that Great River Energy has elected to seek local approval for construction of approximately two miles of 115 kilovolt (kV) transmission line in Stearns County, Minnesota.

The proposed Project will strengthen the area's electric transmission system, improve reliability and guard against overloading in the greater St. Cloud area. The proposed single circuit 115 kV transmission line is located in Saint Joseph Township, in Sections 24, 14, 13, 12, T24N, R29W in Stearns County. A project description/site map is enclosed for your information.

Stearns County has agreed to act as the lead local unit of government that will conduct the Environmental Assessment for the project. A Conditional Use Permit application was submitted to Stearns County on February 2, 2015. The County has been informed that it has 60 days to refer the permitting process to the Commission.

Questions regarding this project should be directed to Jennifer Buckentine, Stearns County Environmental Services Department, at 320-656-3613; or Dale Aukee of Great River Energy at (763) 445-5978; or me at (763) 445-5215. Thank you for your attention to this matter.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow
Transmission Permitting Analyst

Enclosure

cc: Affidavit of service on: General List of Interested Persons – w/encl.
Jennifer Buckentine, Stearns County Environmental Services – w/encl.
Deborah Pile, Department of Commerce – w/encl.
Dale Aukee, GRE – w/encl.

Quarry 115 kV Transmission Line Project

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

GREAT RIVER ENERGY[®]
A Touchstone Energy Cooperative



Project Need

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

Transmission Line Route and Substation Modifications

The two mile route (see back for the proposed transmission line route) will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St Cloud Substation.

The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation's south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

Construction

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

Permitting and Easements

Great River Energy will seek local approval for the project. An Environmental Assessment must be prepared and accepted as complete by the local permitting authority before final project approval. Landowners along the proposed transmission line route will be provided information on the project and approval process.

New easements will be required to construct this project. Landowners will be contacted to discuss the easement and review the necessary tree removal.

Project Schedule

Public notice and approval process -----	2014-15
Easement Acquisition/Environmental permits -----	2015
Survey/Design -----	2015-16
Construction Activities -----	2016-17



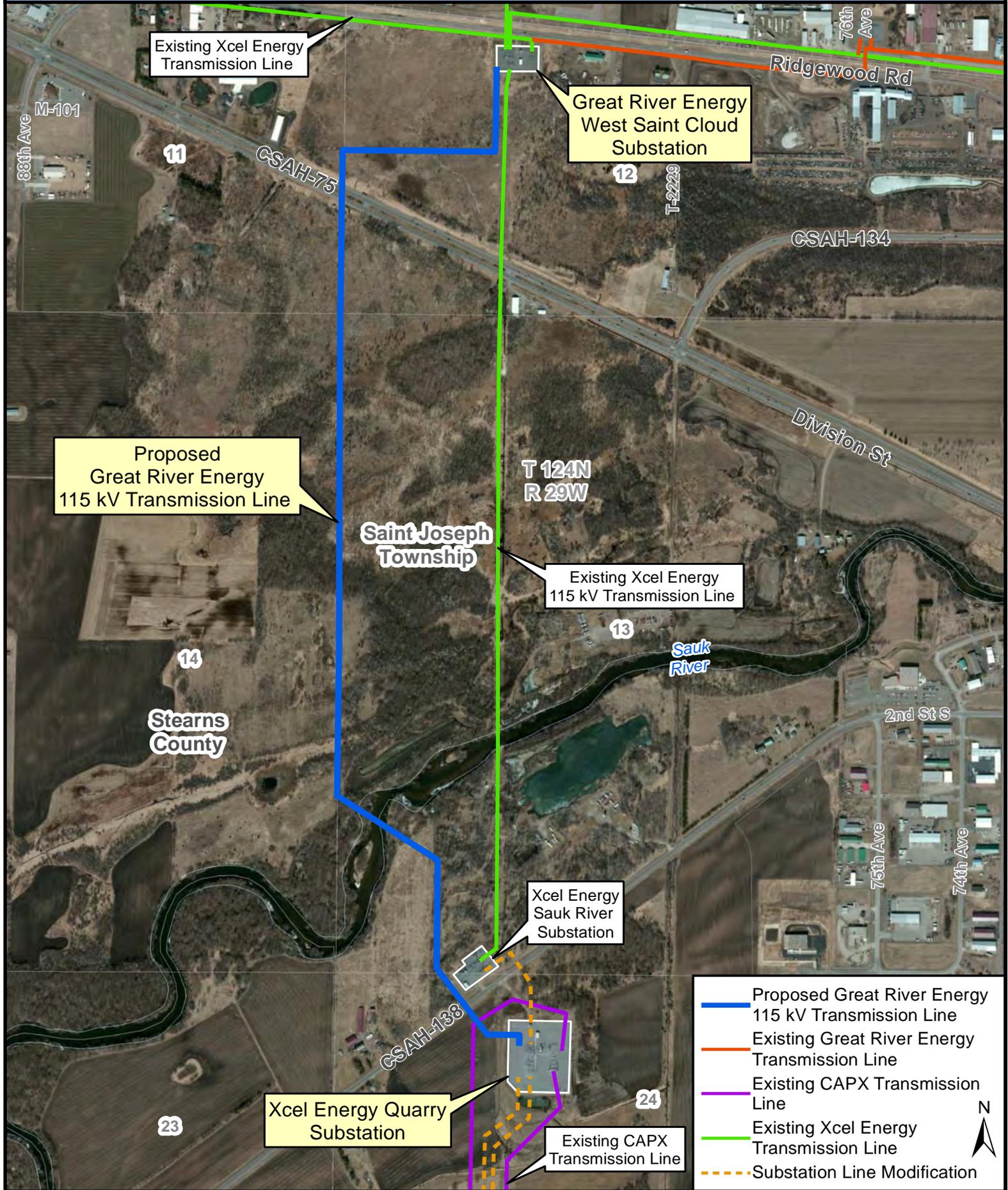
*Typical 115 kV Wood
Single Circuit Structure
with brace post insulators*

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

Dale Aukee
Senior Field Representative
Land Rights Department
(763) 445-5978
dauke@greenergy.com

Marsha Parlow
Transmission Permitting Analyst
Environmental Services Department
763-445-5215
mparlow@greenergy.com

Proposed Project





STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

February 9, 2015

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

Jennifer Buckentine
Stearns County Environmental Services
Administration Center, Room 343
705 Courthouse Square
St. Cloud, MN 56303

RE: Local Review of Great River Energy's Quarry 115 kV Transmission Line Project in
Stearns County, Minnesota
Docket No. ET-2/LR-15-128

Dear Ms. Parlow and Ms. Buckentine:

This letter confirms that the Minnesota Public Utilities Commission (Commission) has received Great River Energy's (GRE) letter dated February 4, 2015, indicating that it has elected to pursue local review approval to construct approximately two miles of new 115 kilovolt (kV) overhead transmission line between the existing Quarry and West St. Cloud substations in St. Joseph Township, Stearns County, Minnesota.

Under the Minnesota Statutes Chapter 216E, a route permit from the Commission is required for most high-voltage transmission lines that are greater than 100 kV. However, certain projects may be eligible for review and permitting by local units of government with jurisdiction instead of filing with the Commission. The transmission line and substation upgrade proposed by GRE is eligible for local review under Minn. Stat. § 216E.05.

GRE has indicated that Stearns County is the local government unit with jurisdiction to conduct environmental review and permit the proposed project.

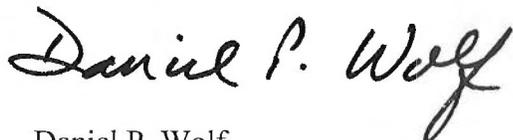
Under Minn. Stat. § 216E.05, subd. 1(b), a local unit of government may relinquish its jurisdiction by requesting the Commission to assume jurisdiction and make a decision on the permit. The request must be filed within 60 days after an application for the proposed project has been filed. A conditional use permit application for the project was filed with Stearns County on February 2, 2015.

Under Minn. R. 7850.5300, subp. 5, an environmental assessment must be prepared by the local unit of government with jurisdiction over the project. Specific requirements with regard to the environmental review process include providing an opportunity for the public to participate in the development of the scope of the environmental assessment before it is prepared; publishing notice in the *EQB Monitor* of when the assessment is available for review and of the procedure for commenting on the assessment; and withholding a final decision on the project until at least 10 days after the notice appears in the *EQB Monitor*. A copy of the environmental assessment and other relevant documents must be provided to the Commission upon completion. The environmental assessment may be filed using the Commission's electronic filing system (<https://www.edockets.state.mn.us/EFiling>).

This letter acknowledges that GRE has also sent the required notice under Minn. R. 7850.5300, subp. 3, to those persons on the Commission's general notification list that a permit has been applied for from the local unit of government.

If you have any questions, please direct them to Scott Ek of the Commission staff at 651-201-2255 or scott.ek@state.mn.us.

Sincerely,

A handwritten signature in black ink that reads "Daniel P. Wolf". The signature is written in a cursive, flowing style.

Daniel P. Wolf
Executive Secretary

Exhibit B

Survey Letter and Responses



COUNTY OF STEARNS

Environmental Services Department

Administration Center Rm 343 • 705 Courthouse Square • St. Cloud, MN 56303
320-656-3613 • Fax 320-656-6484 • 1-800-450-0852

February 19, 2015

To: Property Owners within ¼ mile of Proposed Transmission Line Project
St Joseph Township Chair & Clerk
City of St. Joseph
City of Waite Park

RE: Survey on Proposed Substation/Transmission Line Upgrade Project near St. Joseph, MN

Dear Interested Party:

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The project will include the construction of two miles of new 115 kV transmission lines and modifications to the Quarry and West St Cloud substations. Inside the Quarry substation new apparatus will be added to accommodate the rerouting of two existing 115 kV transmission lines. The West St Cloud substation's fence line will expand 75 feet south to accommodate the new transmission line. A project description/site map is enclosed for your information.

Great River Energy is seeking approval for the project from Stearns County. As part of the permitting process, Stearns County must prepare an Environmental Assessment (EA) on the project and afford the public an opportunity to participate in the development of the scope of the EA before it is prepared.

The attached survey is intended to allow the public to comment on the project and provide input on the content of the EA. A preliminary Table of Contents for the EA is attached as a starting point for what should be covered in the EA. We encourage you to provide comments on the project and additional topics you want to see addressed in the EA.

Great River Energy requested environmental review of the project from several federal and state agencies. The status of those reviews is provided below.

United States Corps of Engineers – general information letter, specific comments to be provided once design details are available (letter of 12/10/14).

United States Fish and Wildlife Service – reviewed the project and recommended all tree clearing outside of Northern long-eared bat (*Myotis septentrionalis*) roost season. The species is anticipated to not be present between the dates of October 1st to March 30th (email of 1/30/15).

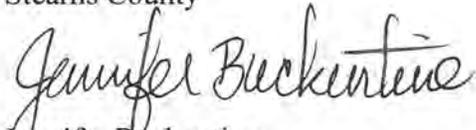
Minnesota Department of Natural Resources – reviewed the project and indicated that the black sandshell (*Ligumia recta*) has been documented in the Sauk River. Effective erosion prevention and sediment control practices need to be implemented and maintained throughout the duration of the project (e-mail of 1/22/15).

Minnesota Historical Society – recommends that a Phase 1 archaeological survey be completed within 500 feet of the Sauk River crossing (letter of 1/15/15).

Minnesota Department of Transportation (aviation issues) – no concerns related to the proposed project (email of 2/10/15).

Thank you for your input on this project. Please return your survey form in the self-addressed envelope provided by March 13, 2015. As an alternative, you may email the survey form to Jennifer.buckentine@co.stearns.mn.us.

Sincerely,
Stearns County



Jennifer Buckentine
Senior Environmental Specialist

Enclosures

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SURVEY:

Please respond by March 13, 2015 via the enclosed self-addressed envelope or email to Jennifer.buckentine@co.stearns.mn.us

I have the following comments on the Quarry 115 kV Transmission Project: (Please write your comments below. Use another sheet of paper if more space is needed.)

I have No comments on the Quarry 115 kV Transmission Project

Name: _____

Address: _____

Phone: _____

SURVEY:

Please respond by March 13, 2015 via the enclosed self-addressed envelope or email to Jennifer.buckentine@co.stearns.mn.us

I have the following comments on the Quarry 115 kV Transmission Project: (Please write your comments below. Use another sheet of paper if more space is needed.)

A+L Excavating Inc
One Land Runs behind this starting
point - How close do you intend on being to
one land.

Thank you

Beth Lake

320-363-1221

I have No comments on the Quarry 115 kV Transmission Project

Name: _____

Address: _____

Phone: _____

RECEIVED

FEB 27 2015

ENVIRONMENTAL SERVICES

Buckentine, Jennifer

From: Chris Sis <sis@charter.net>
Sent: Friday, March 13, 2015 8:36 AM
To: Buckentine, Jennifer
Subject: RE: Concerning the Quarry 115 KV Great River Energy Transmission line

Dear Ms.
Buckentine,
13/2015

3/

I, Robert J. Sis, am sending this email as a property owner along the Great River Energy (St Joseph MN) proposed transmission line project. I would like some issues to be addressed. The existing Xcel Energy 115kV transmission line, lies on the East side of my property. The proposed Great River Energy 115kV transmission line would be both close to the North side of my property and on the West side of my property. The proposed transmission line would box in my land with transmission lines on 3 out of 4 sides decreasing the value of the land. Therefore I would like Great River Energy to purchase my property if they would like the transmission line to flank my land. Also I would like to know if the option of burying the transmission line has been explored.

Name: Robert J. Sis
Property Parcel #'s: 31.20808.0000 & 31.20814.0000
Mailing Address: 1621 County Road 137 Waite Park, MN 56387
Phone: 320-252-3344

Buckentine, Jennifer

From: Minnesota Auctioneers <msaa@minnesotaauctioneers.org>
Sent: Saturday, March 14, 2015 10:22 AM
To: Buckentine, Jennifer
Subject: Quarry 115 kV Transmission Project

Committee members,

This project does make any sense to me. If the need is for an additional line north and south, run it parallel to the existing line rather than across the wooded area on the west boundary. It will be crossing the Sauk river another place and removing 150'+ or - of trees and vegetation in a low lying area instead of staying on high ground.

I did some checking and the reason stated is to avoid running parallel lines is for storm damage. I believe the real reason is that they do not want to pay what the land owner wants to run the line parallel to Co Rd 75.

Please consider all aspects of this run because it does not make sense.

Frank Imholte
(Affected land owner)
320-241-1200 cell

Exhibit C

Agency Correspondence



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

4 December 2014

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

RE: Proposed 115kV Quarry to West St. Cloud Transmission Line
Stearns County, Minnesota
T124N, R29W, Sections 12 and 13

WO# 202498

Dear Mr. Malterud:

Great River Energy is proposing a new 115 kilovolt (kV) transmission project near St. Cloud in Stearns County, Minnesota. The line is to strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse.

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 (Sauk River). There are also wetlands in the vicinity of the line (see enclosed map). A project description and NWI map have been included for your review. The proposed line is marked in blue.

Great River Energy is requesting concurrence of its interpretation of the possible effects of the new transmission line on wetlands that occur in the project area. We would appreciate receiving any written comments from your office by Friday, January 9, 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 cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow
Transmission Permitting Analyst

Enclosure

S:\Legal Services\Environmental\Transmission\Projects\202498 Quarry West St. Cloud\Agency Letters\Quarry-WSTC ACE.doc

Quarry 115 kV Transmission Line Project

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

GREAT RIVER ENERGY[®]
A Touchstone Energy Cooperative



Project Need

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

Transmission Line Route and Substation Modifications

The two mile route (see back for the proposed transmission line route) will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St Cloud Substation.

The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation's south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

Construction

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

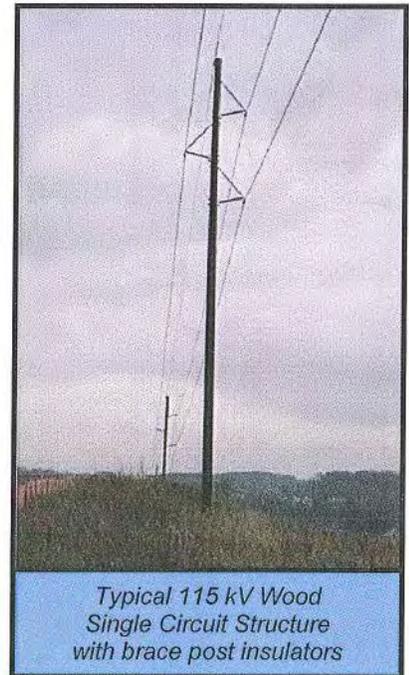
Permitting and Easements

Great River Energy will seek local approval for the project. An Environmental Assessment must be prepared and accepted as complete by the local permitting authority before final project approval. Landowners along the proposed transmission line route will be provided information on the project and approval process.

New easements will be required to construct this project. Landowners will be contacted to discuss the easement and review the necessary tree removal.

Project Schedule

Public notice and approval process -----	2014-15
Easement Acquisition/Environmental permits -----	2015
Survey/Design -----	2015-16
Construction Activities -----	2016-17

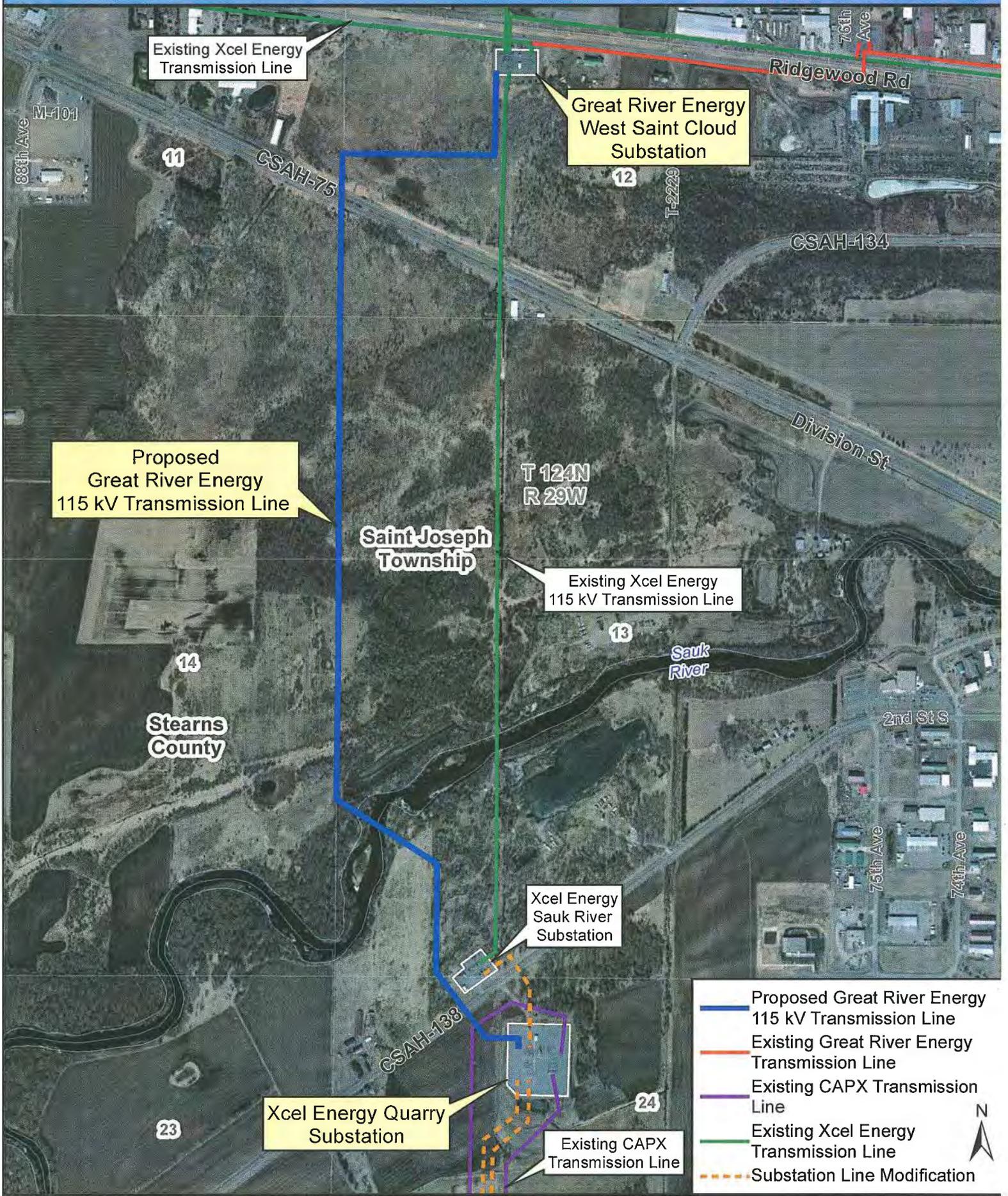


For project updates and information, visit greatriverenergy.com/Quarry or contact:

Dale Aukee
Senior Field Representative
Land Rights Department
(763) 445-5978
dauke@grenergy.com

Marsha Parlow
Transmission Permitting Analyst
Environmental Services Department
763-445-5215
mparlow@grenergy.com

Proposed Project





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

DEC 10 2014

REPLY TO
ATTENTION OF
Operations
Regulatory (2014-04227-RMM)

Ms. Marsha Parlow
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, Minnesota 55369

Dear Ms. Parlow:

This letter responds to your request for comments about a project of Great River Energy to construct a new 115 kilovolt (kV) transmission project near St. Cloud in Stearns County, Minnesota.

Based on the information submitted a Department of the Army (DA) permit will be required. Without more project specific information we can only comment on activities associated with utility projects that may trigger the need for a permit. Please consider the following information.

The placement of aerial lines that cross navigable waters of the U.S. requires authorization under Section 10 of the Rivers and Harbors Act.

Underground utility lines through waters of the U.S., including wetlands, as well as navigable waters of the U. S. are regulated under Section 404 of the Clean Water Act if there is a discharge of dredged or fill material. Any discharge would require authorization by a general permit or letter of permission.

Underground lines installed by vibratory plow and directional bore method through waters of the U.S., including wetlands, do not involve a discharge and a permit is not required. However, if installation of connecting points requires excavation and backfill in waters of the U.S., including wetlands, a permit would be required.

The placement of poles, overhead wiring, and/or buried wiring at upland locations is not within the jurisdiction of the Corps of Engineers, provided the work does not involve the placement of dredged or fill material into any waterbody or wetland.

Temporary placement of fill material into any waterbody or wetland for purposes such as bypass roads, temporary stream crossings, cofferdam construction, or storage sites may require a Department of the Army permit.

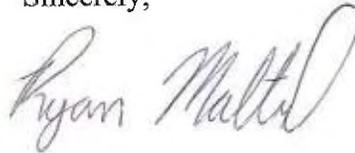
If any of the proposed projects would involve the placement of fill material, either permanent or temporary, please notify our office.

You may also need city, county, or State permits for the project. You should contact the appropriate agencies for their permit requirements. If the project includes the placement of dredged or fill material in a Federal regulated waterbody, we will notify the responsible State agency for water quality (401) certification.

Please note that if a DA permit is required from the Corps, we are obligated to ensure your project is in compliance with Section 7 of the Endangered Species Act. The Northern long-eared bat is proposed to be listed as endangered in April 2015. If your project will require tree clearing it is likely that coordination with the U.S. Fish and Wildlife Services will be required.

If you have any questions, please contact me in our St. Paul office at (651) 290-5286. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

A handwritten signature in cursive script that reads "Ryan Malterud". The signature is written in dark ink and is positioned above the printed name and title.

Ryan Malterud
Project Manager



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

RECEIVED DEC 12 2014

12/08/2014

REPLY TO
ATTENTION OF
Operations
Regulatory (MVP-2014-04227-RMM)

THIS IS NOT A PERMIT

Marsha Parlow
Great River Energy
12300 Elm Creek Blvd
Maple Grove, MN
55369

Dear Ms. Parlow:

We have received your submittal described below. You may contact the Project Manager with questions regarding the evaluation process. The Project Manager may request additional information necessary to evaluate your submittal.

File Number: MVP-2014-04227-RMM

Applicant: Great River Energy

Project Name: 115kV Quarry to West St. Cloud Transmission Line

Received Date: 12/08/2014

Project Manager: Ryan Malterud
U.S. Army Corps of Engineers
Regulatory Branch
180 Fifth Street East, Suite 700
St. Paul, Minnesota 55101-1678

651-290-5286

Additional information about the St. Paul District Regulatory Program can be found on our web site at <http://www.mvp.usace.army.mil/missions/regulatory>.

Please note that initiating work in waters of the United States prior to receiving Department of the Army authorization could constitute a violation of Federal law. If you have any questions, please contact the Project Manager.

Thank you.

U.S. Army Corps of Engineers
St. Paul District

Regulatory Branch



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17 December 2014

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 115kV Quarry to West St. Cloud Transmission Line
Stearns County, Minnesota
T124N, R29W, Sections 12 and 13

WO# 202498

Dear Ms. Joyal:

Great River Energy is proposing a new 115 kilovolt (kV) transmission project near St. Cloud in Stearns County, Minnesota. The line is to strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse.

The DNR Rare Features map indicates there are no features of interest in the vicinity of the project area. The DNR Public Waters Inventory (PWI) maps indicate that the new transmission line affects one public waterbody. However, Great River Energy believes that construction and timing of that construction can keep the impact on this feature to a minimum.

Great River Energy is requesting concurrence of its interpretation of the rare features in the vicinity and the possible effects of the new transmission line and substation on wetlands, threatened and endangered species, and other important state natural resources that occur in the project area. A project description, PWI map and rare features map are enclosed for your information. The proposed line is marked in blue.

We would appreciate receiving any written comments from your office by Friday, January 23, 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 cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow
Transmission Permitting Analyst

Enclosures

S:\Legal Services\Environmental\Transmission\202498 Quarry West St. Cloud\Agency Letters\Quarry-WSTC DNR.doc

Quarry 115 kV Transmission Line Project

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

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Project Need

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

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The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation's south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

Construction

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

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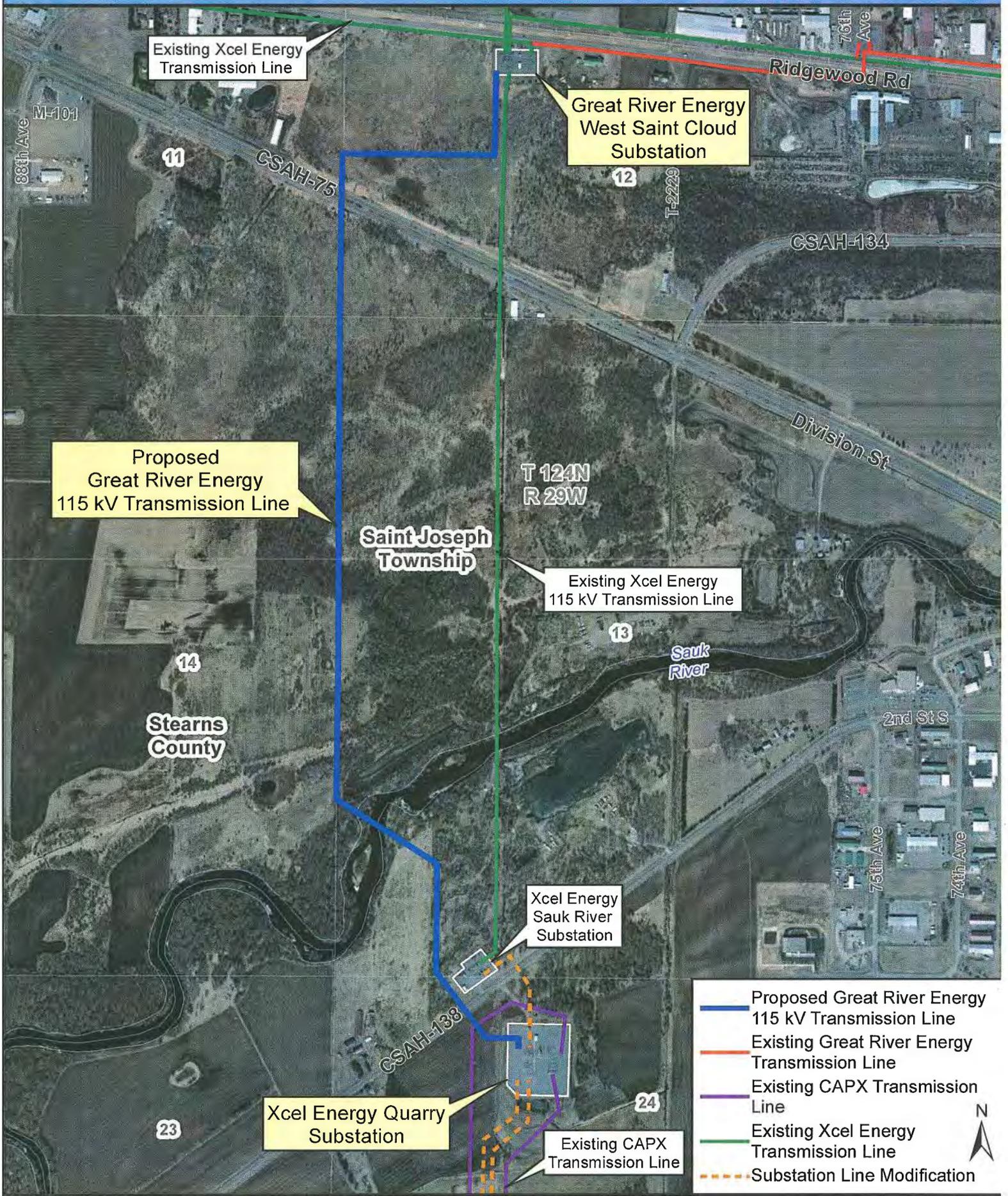
Typical 115 kV Wood
Single Circuit Structure
with brace post insulators

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

Dale Aukee
Senior Field Representative
Land Rights Department
(763) 445-5978
dauke@grenergy.com

Marsha Parlow
Transmission Permitting Analyst
Environmental Services Department
763-445-5215
mparlow@grenergy.com

Proposed Project





GREAT RIVER ENERGY

A Touchstone Energy Cooperative

Proposed Great River Energy

115 kV Transmission Line

Existing Great River Energy

69 kV Transmission Line

115 kV Transmission Line

Existing Cooperative

Distribution Substation

Rare Natural Feature (NHIS)

Protection Status

Special Concern

Not listed

Sites of Biodiversity Significance

Moderate

MN Native Plant Community

Updated: 12/16/2014

Data Sources vary between

MNDOT, MNDNR, MNGEO

and Great River Energy

Rare Features Heritage data

from MNDNR

Topo scanned image maps

from the United States

Geological Survey (USGS)

ESRI Basemap service

Map Projection:

UTM, NAD83, Zone15, Meters

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. The lack of data for any

geographic area shall not be construed to mean

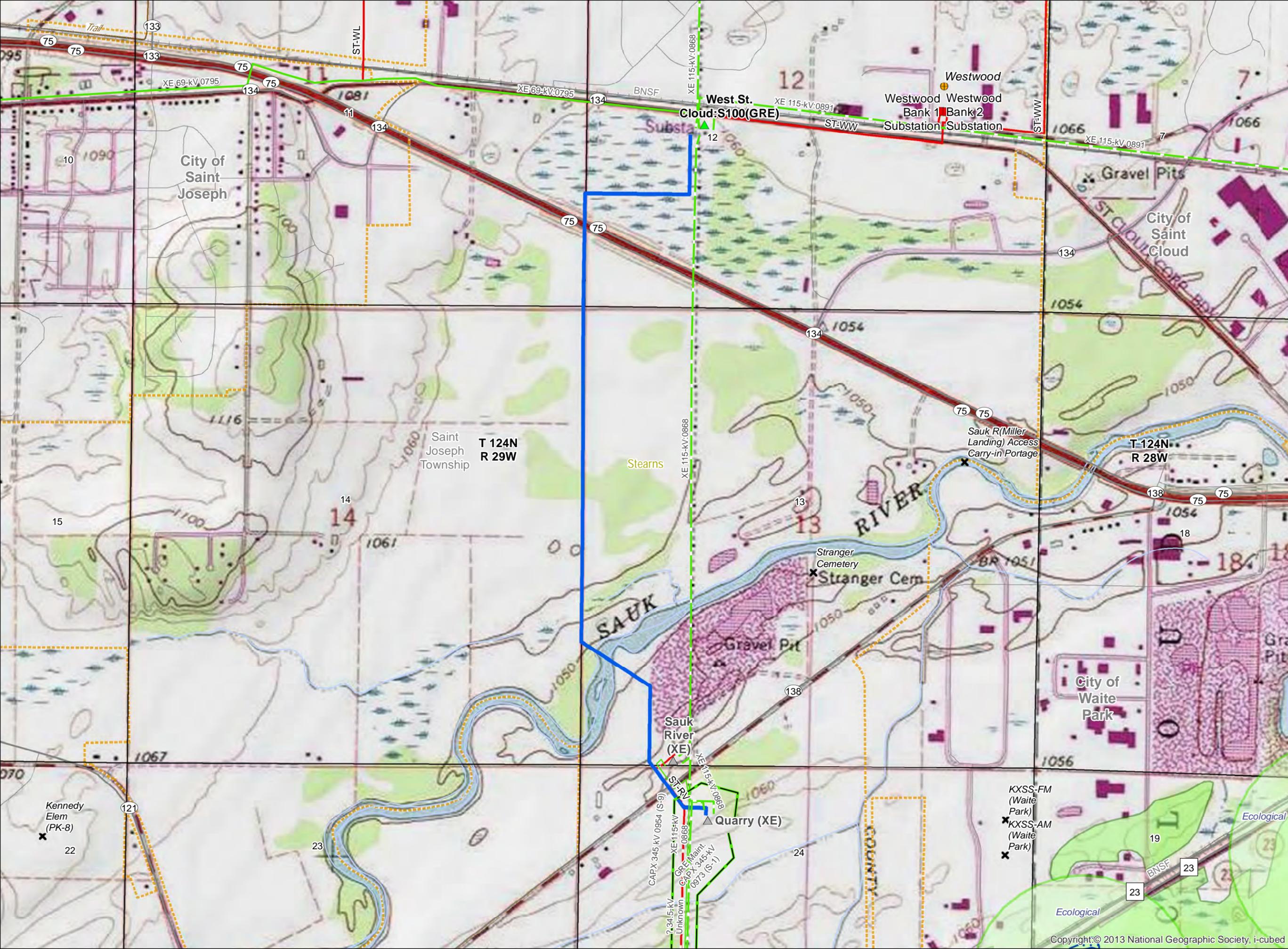
that no significant features are present."

0 250 500 750 1,000 Feet

N

West St Cloud to Quarry 115kV Transmission Line Project

Rare Features



Parlow, Marsha GRE-MG

From: Joyal, Lisa (DNR) [Lisa.Joyal@state.mn.us]
Sent: Thursday, January 22, 2015 1:25 PM
To: Parlow, Marsha GRE-MG
Cc: Haworth, Brooke (DNR); Zieman, Trina (DNR)
Subject: Quarry to West St. Cloud 115 kV Transmission Line
Attachments: 1264_001.pdf

I have reviewed your assessment of the potential for the above project to impact rare features, and believe that your assessment is incomplete. The proposed line crosses the Sauk River in T124N R29W Section 13. As such, it should be noted that the black sandshell (*Ligumia recta*), a state-listed mussel of special concern, has been documented in the Sauk River in the vicinity of the proposed project. As mussels are particularly vulnerable to deterioration in water quality, especially increased siltation, it is important that effective erosion prevention and sediment control practices be implemented and maintained throughout the duration of this project.

The reference number for this correspondence is ERDB #20150212.

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

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

Sincerely,

Lisa Joyal

~~~~~  
Lisa Joyal  
Endangered Species 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](mailto:lisa.joyal@state.mn.us)  
[www.mndnr.gov/eco](http://www.mndnr.gov/eco)





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17 December 2014

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 115kV Quarry to West St. Cloud Transmission Line  
Stearns County, Minnesota  
T124N, R29W, Sections 12 and 13

**WO# 202498**

Dear Ms. Joyal:

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The DNR Rare Features map indicates there are no features of interest in the vicinity of the project area. The DNR Public Waters Inventory (PWI) maps indicate that the new transmission line affects one public waterbody. However, Great River Energy believes that construction and timing of that construction can keep the impact on this feature to a minimum.

Great River Energy is requesting concurrence of its interpretation of the rare features in the vicinity and the possible effects of the new transmission line and substation on wetlands, threatened and endangered species, and other important state natural resources that occur in the project area. A project description, PWI map and rare features map are enclosed for your information. The proposed line is marked in blue.

We would appreciate receiving any written comments from your office by Friday, January 23, 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](mailto:mparlow@greenergy.com). Thank you for your cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow  
Transmission Permitting Analyst

Enclosures

S:\Legal Services\Environmental\Transmission\202498 Quarry West St. Cloud\Agency Letters\Quarry-WSTC DNR.doc



# Quarry 115 kV Transmission Project

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

**GREAT RIVER ENERGY**<sup>®</sup>

A Touchstone Energy Cooperative



## Project Need

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

## Transmission Line Route and Substation Modifications

The two mile route (see back for the proposed transmission line route) will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St Cloud Substation.

The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation's south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

## Construction

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

## Permitting and Easements

Great River Energy will seek local approval for the project. An Environmental Assessment must be prepared and accepted as complete by the local permitting authority before final project approval. Landowners along the proposed transmission line route will be provided information on the project and approval process.

New easements will be required to construct this project. Landowners will be contacted to discuss the easement and review the necessary tree removal.

## Project Schedule

|                                                  |          |
|--------------------------------------------------|----------|
| Public notice and approval process -----         | 2014-15. |
| Easement Acquisition/Environmental permits ----- | 2015     |
| Survey/Design -----                              | 2015-16  |
| Construction Activities -----                    | 2016-17  |



Typical 115 kV Wood  
Single Circuit Structure  
with brace post insulators

**For project updates and information, visit [greatriverenergy.com/Quarry](http://greatriverenergy.com/Quarry) or contact:**

Dale Aukee  
Senior Field Representative  
Land Rights Department  
(763) 445-5978  
daukee@grenergy.com

Marsha Parlow  
Transmission Permitting Analyst  
Environmental Services Department  
763-445-5215  
mparlow@grenergy.com

# Proposed Project





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4 December 2014

Mr. Andrew Horton, Fish and Wildlife Biologist  
U.S. Fish and Wildlife Service  
Twin Cities ES Field Office  
4101 American Boulevard East  
Bloomington, MN 55425-1665

RE: Proposed 115kV Quarry to West St. Cloud Transmission Line  
Stearns County, Minnesota  
T124N, R29W, Sections 12 and 13

**WO# 202498**

Dear Mr. Horton:

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The Fish and Wildlife Service website (<http://www.fws.gov/Midwest/Endangered/LISTS/minnesot-cty.html>) indicates that Northern Long Eared Bat (*Myotis septentrionalis*) is proposed for listing on the threatened and endangered list for Stearns County, Minnesota. 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. A project description has been included for your review. The proposed line is marked in blue.

We would appreciate receiving any written comments from your office by Friday, January 9, 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](mailto:mparlow@grenergy.com). Thank you for your cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow  
Transmission Permitting Analyst

Enclosure

S:\Legal Services\Environmental\Transmission\Projects\202498 Quarry West St. Cloud\Agency Letters\Quarry-WSTC FWS.doc



# Quarry 115 kV Transmission Line Project

Great River Energy  
12300 Elm Creek Blvd  
Maple Grove, MN 55369-4718  
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**GREAT RIVER ENERGY**<sup>®</sup>  
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## Project Need

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Typical 115 kV Wood  
Single Circuit Structure  
with brace post insulators

New easements will be required to construct this project. Landowners will be contacted to discuss the easement and review the necessary tree removal.

## Project Schedule

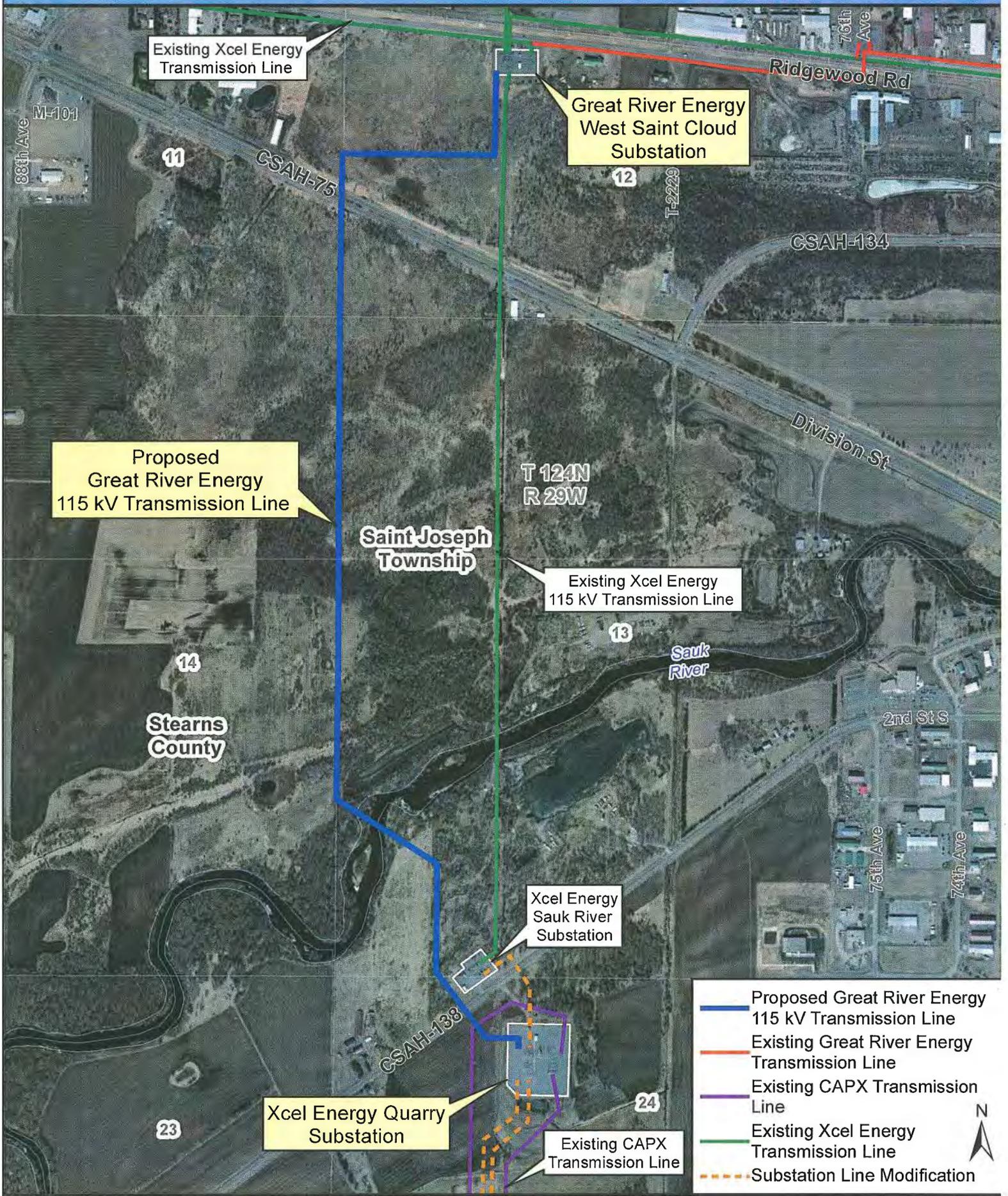
|                                                  |         |
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| Survey/Design -----                              | 2015-16 |
| Construction Activities -----                    | 2016-17 |

**For project updates and information, visit [greatriverenergy.com/Quarry](http://greatriverenergy.com/Quarry) or contact:**

Dale Aukee  
Senior Field Representative  
Land Rights Department  
(763) 445-5978  
dauke@grenergy.com

Marsha Parlow  
Transmission Permitting Analyst  
Environmental Services Department  
763-445-5215  
mparlow@grenergy.com

# Proposed Project



## Parlow, Marsha GRE-MG

---

**From:** Schmidt, Carole GRE-MG  
**Sent:** Friday, January 30, 2015 9:04 AM  
**To:** Parlow, Marsha GRE-MG  
**Subject:** FW: Proposed 115kV Quarry to West Cloud

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**From:** Horton, Andrew [mailto:andrew\_horton@fws.gov]  
**Sent:** Friday, January 30, 2015 8:59 AM  
**To:** Schmidt, Carole GRE-MG  
**Subject:** Proposed 115kV Quarry to West Cloud

I have reviewed the proposed transmission line upgrade project (03E19000-2015-TA-0060) located in Section 12 and 13, Township 124N, Range 29W, Stearns County, Minnesota. The northern long-eared bat (*Myotis septentrionalis*; NLEB) is located in Stearns County and is currently proposed as Endangered with a final listing decision date of April 2, 2015.

Our nearest NLEB record is approximately 6 miles from your project and potential NLEB summer roosting habitat may exist within the action area. If suitable NLEB summer roosting habitat will be removed AND will occur after the NLEB is listed, it is our recommendation that all tree clearing be conducted outside of the species' summer roost season. Between the dates of October 1st to March 30, we would anticipate the species to not be present in the proposed action area.

If this project is removing suitable NLEB maternity roost trees during the summer roost season and a federal action is required for the project, the possibility of take under section 7 exists. Additional consultation may be necessary to determine the likelihood or amount of those impacts.

This concludes our technical assistance review of the proposed construction at the above location. If you have any further endangered species questions, please contact me at (612) 725-3548 x2208.

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





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16 December 2014

Ms. Sarah Beimers  
Government Programs & Compliance  
Minnesota Historical Society  
345 Kellogg Blvd. West  
St. Paul, MN 55102-1906

RE: Proposed 115kV Quarry to West St. Cloud Transmission Line  
Stearns County, Minnesota  
T124N, R29W, Sections 12 and 13

**WO# 202498**

Dear Ms. Beimers:

Great River Energy is proposing a new 115 kilovolt (kV) transmission project near St. Cloud in Stearns County, Minnesota. The line is to strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse.

Merjent, Inc. conducted a background literature search (see attached) on December 11, 2014 and 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. A project description/map is included for your review. The proposed line is marked in blue.

We would appreciate receiving any written comments from your office by Wednesday, January 21, 2015. If you have any questions or concerns, please contact me at (763) 445-5215. If you wish to contact me by e-mail, my address is [mparlow@greenergy.com](mailto:mparlow@greenergy.com).

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow  
Transmission Permitting Analyst

Enclosure

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# Quarry 115 kV Transmission Project

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

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## Project Need

Great River Energy, wholesale power provider to Stearns Electric Association, is proposing to construct a new overhead 115 kilovolt (kV) transmission line in Stearns County. This project will strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

The area's existing transmission system is at risk during an unexpected outage or scheduled maintenance. If an additional outage occurs the area's electric demand cannot be sustained. This situation could potentially produce blackouts both locally and in a wider geographical area as far as Little Falls and Long Prairie. Completion of this project will minimize the operational concerns during an outage.

## Transmission Line Route and Substation Modifications

The two mile route (see back for the proposed transmission line route) will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St Cloud Substation.

The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation's south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

## Construction

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

## Permitting and Easements

Great River Energy will seek local approval for the project. An Environmental Assessment must be prepared and accepted as complete by the local permitting authority before final project approval. Landowners along the proposed transmission line route will be provided information on the project and approval process.

New easements will be required to construct this project. Landowners will be contacted to discuss the easement and review the necessary tree removal.

## Project Schedule

|                                                  |         |
|--------------------------------------------------|---------|
| Public notice and approval process -----         | 2014-15 |
| Easement Acquisition/Environmental permits ----- | 2015    |
| Survey/Design -----                              | 2015-16 |
| Construction Activities -----                    | 2016-17 |



*Typical 115 kV Wood  
Single Circuit Structure  
with brace post insulators*

**For project updates and information, visit [greatriverenergy.com/Quarry](http://greatriverenergy.com/Quarry) or contact:**

Dale Aukee  
Senior Field Representative  
Land Rights Department  
(763) 445-5978  
daukee@grenergy.com

Marsha Parlow  
Transmission Permitting Analyst  
Environmental Services Department  
763-445-5215  
mparlow@grenergy.com

# Proposed Project





800 Washington Avenue North ■ Suite 315 ■ Minneapolis, Minnesota ■ 55401

December 11, 2014

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

**Re: Phase IA Cultural Resources Assessment of the proposed Quarry 115 kilovolt (kV) Transmission Line Project, Stearns County, Minnesota.**

Dear Marsha:

Merjent was contacted in December 2014 by Great River Energy to conduct a Phase IA Cultural Resources Assessment in support of the proposed Quarry 115 kilovolt (kV) Transmission Line Project (Project) in Stearns County, Minnesota. Great River Energy proposes construction of the line to strengthen the existing electric transmission system in the area, improve reliability and guard against overloading and voltage collapse in the Greater St. Cloud area.

**Project Description**

Approximately two miles of single-circuit 115 kV line between the existing Great River Energy West St. Cloud Substation and the existing Xcel Energy Quarry Substation will be constructed. The proposed line will exit on the west side of the Quarry Substation replacing an existing 115 kV transmission line and turn north. It then bypasses the substation it currently serves, crossing the Sauk River and continues north along the section line to a point north of County Highway 75. The route then turns east for a short distance and finally north into the West St Cloud Substation.

The Quarry Substation will require additional infrastructure and rerouting of the existing 115 kV lines into the substation. The West St Cloud Substation’s south fence line will be expanded by 75 feet for additional infrastructure and the new transmission line.

Construction will consist of wood poles ranging in height from 80-95 feet above ground with a distance between poles of 400-500 feet. In wet areas, guy wires and anchors will be used to stabilize the poles. Some specialty poles may be required. The new transmission line will require a 120-foot-wide right of way, 60 feet on each side of the centerline. Trees and vegetation in the right of way will be removed to provide a safe operation area.

Proposed Project construction activities are anticipated to occur in the following areas and legal locations. The proposed route and a surrounding one-mile buffer served as the Phase IA study area:

| Township | Range | Sections           |
|----------|-------|--------------------|
| 124N     | 29W   | 1, 2, 11-14, 23-26 |
| 124N     | 28W   | 7, 18, 19          |

### **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. The Minnesota State Historic Preservation Office (SHPO), located in the Minnesota History Center in St. Paul, maintains the state's prehistoric and historic archaeological site files, historic standing structure inventory files, and field survey reports.

Merjent 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. Merjent also examined 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 did not identify any previously recorded archaeological sites in the study area.

### **Previously Recorded Standing Historic Structures**

Merjent did not identify any previously recorded standing historic structures in the study area.

### **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 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 if you have questions.

Sincerely,  
Merjent, Inc.



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



Using the Power of History to Transform Lives  
PRESERVING » SHARING » CONNECTING

January 15, 2015

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

RE: Proposed 115kV Quarry to West St. Cloud Transmission Line  
T124 R29 S12 & S13, Stearns County  
SHPO Number: 2015-0889

Dear Ms. Parlow:

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

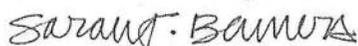
Due to the nature and location of the proposed project, we recommend that a Phase I archaeological survey be completed within 500 feet of the Sauk River crossing. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. For a list of consultants who have expressed an interest in undertaking such surveys, please visit the website [preservationdirectory.mnhs.org](http://preservationdirectory.mnhs.org), and select "Archaeologists" in the "Search by Specialties" box.

We will reconsider the need for survey if the project area can be documented as previously surveyed or disturbed. Any previous survey work must meet contemporary standards. **Note:** plowed areas and right-of-way are not automatically considered disturbed. Archaeological sites can remain intact beneath the plow zone and in undisturbed portions of the right-of-way.

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

If you have any questions regarding our review of this project, please contact David Mather, National Register Archaeologist, at (651) 259-3454.

Sincerely,



Sarah J. Beimers, Manager  
Government Programs and Compliance





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4 December 2014

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

RE: Proposed 115kV Quarry to West St. Cloud Transmission Line  
Stearns County, Minnesota  
T124N, R29W, Sections 12 and 13

**WO# 202498**

Dear Mr. Boerner:

Great River Energy is proposing a new 115 kilovolt (kV) transmission project near St. Cloud in Stearns County, Minnesota. The line is to strengthen the area's electric transmission system, improve reliability and guard against overloading and voltage collapse.

The transmission line will be constructed with single wood structures that will generally range between 80 to 95 feet in height. Elevations in the project area range from 1050 feet (Quarry substation in Section 13) to 1060 feet (West St. Cloud substation in Section 12). Great River Energy is requesting information on the possible effects of the proposed project on airports or airstrips in the project area.

From my research, I find that the closest airport to the project is the public airport, St. Cloud Regional Airport (9.1 nm E). A project description is enclosed for your information. The proposed line is marked in blue.

We would appreciate receiving any written comments from your office by Friday, January 9, 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](mailto:mparlow@GREnergy.com). Thank you for your cooperation and assistance.

Sincerely,

GREAT RIVER ENERGY

Marsha Parlow  
Transmission Permitting Analyst

Enclosure

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# Quarry 115 kV Transmission Line Project

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Typical 115 kV Wood  
Single Circuit Structure  
with brace post insulators

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## Project Schedule

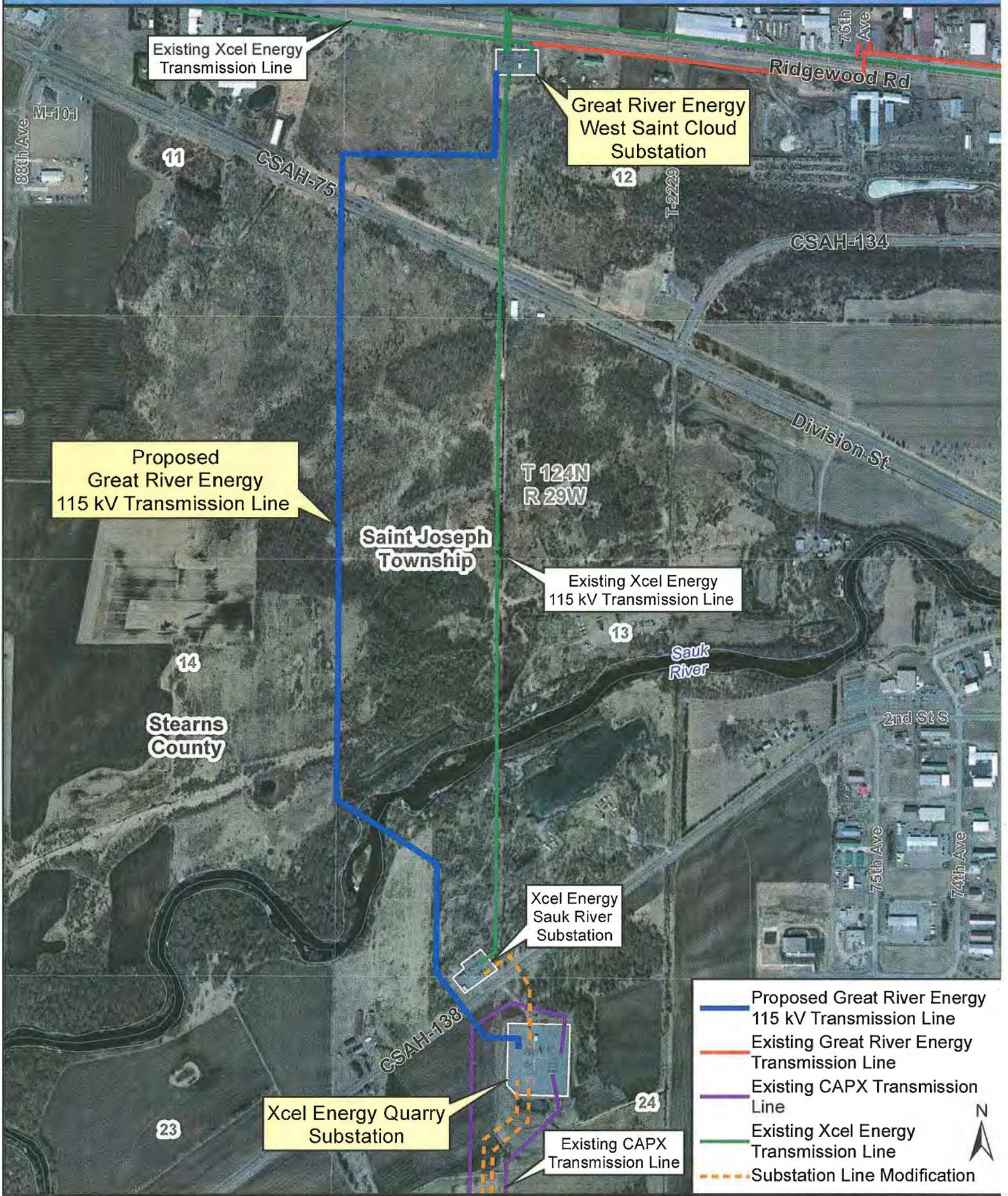
|                                                  |         |
|--------------------------------------------------|---------|
| Public notice and approval process -----         | 2014-15 |
| Easement Acquisition/Environmental permits ----- | 2015    |
| Survey/Design -----                              | 2015-16 |
| Construction Activities -----                    | 2016-17 |

**For project updates and information, visit [greatriverenergy.com/Quarry](http://greatriverenergy.com/Quarry) or contact:**

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Marsha Parlow  
Transmission Permitting Analyst  
Environmental Services Department  
763-445-5215  
mparlow@grenergy.com

# Proposed Project



## Parlow, Marsha GRE-MG

---

**From:** Boerner, Daniel (DOT) [dan.boerner@state.mn.us]  
**Sent:** Tuesday, February 10, 2015 9:04 AM  
**To:** Parlow, Marsha GRE-MG  
**Subject:** I have no issues with this project ... RE: Proposed Quarry to West St. Cloud 115 kV Transmisison Line

Hi Marsha,

I have no issues with this project.

Dan

---

**From:** Parlow, Marsha GRE-MG [mailto:mparlow@GREnergy.com]  
**Sent:** Friday, February 06, 2015 2:24 PM  
**To:** Boerner, Daniel (DOT)  
**Subject:** Proposed Quarry to West St. Cloud 115 kV Transmisison Line

Hi Dan,

Have you had a chance to review our Quarry project?

Please find attached our letter for your reference. Please contact me if you have questions.

**Marsha Parlow**  
Transmission Permitting Analyst  
Environmental Services  
Great River Energy  
12300 Elm Creek Boulevard  
Maple Grove, MN 55369  
Direct: 763-445-5215 | Fax: 763-445-5246 | Cell: 612-345-1212  
[WWW.GreatRiverEnergy.com](http://WWW.GreatRiverEnergy.com)

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