

# **APPENDIX E**

## **Great River Energy Demand Side Management Programs**



## **GREAT RIVER ENERGY DEMAND SIDE MANAGEMENT PROGRAMS**

### **A. The name of the committee, department, or individual responsible for the applicants energy conservation and efficiency programs, including load management;**

Great River Energy's Member Services Division is responsible for energy conservation and load management programs.

### **B. A list of the applicant's energy conservation and efficiency goals and objectives;**

- Per Great River Energy's 2008 CIP filing MPUC Docket No. CIP-08-254, the goal is 111,700,000 kWhs for 2010-2011. These figures have been approved by the Department of Commerce.
- Per Great River Energy's load management programs, the goal is to maximize the value of current load management programs by identifying new revenue streams available in a FERC approved ISO market. Opportunities include load management as market energy, regulation and/or reserves.

### **A description of the specific energy conservation and efficiency programs that the applicant has considered, a list of those that have been implemented and the reasons why the other programs have not been implemented;**

Each year, Great River Energy conducts feasibility studies on potential programs. Programs with verifiable energy reductions and no market barriers that are found to be cost effective are implemented. Programs that are difficult to quantify with market barriers, or are not cost effective are not added to the program portfolio.

A brief description of each program, by program type, that allows Great River Energy to achieve its strategic conservation and load management goals is provided below.

## **INDIRECT CONSERVATION PROGRAMS**

### Energy Education

Member cooperatives assist residential and commercial/industrial customers to help make them aware of the available energy conservation and energy efficiency programs through brochures, bill inserts, radio advertisements, newsletters, workshops, fairs, trade shows, and one-on-one consultation.

### Residential Electrical Evaluation and Consultation

The residential electrical evaluation and consultation program is targeted at customers who contact their member cooperative and express concern over their electrical usage. When a customer contacts their cooperative representative, the representative reviews general appliance usage and costs with the customer. The review provides an overview of the customer's energy usage and provides suggestions on various means by which the customer can conserve energy.

## **DIRECT CONSERVATION PROGRAMS - RESIDENTIAL**

### Energy Assessments/Audits

Members offer free or reduced cost energy audits for residential and commercial customers. Cooperatives have staff specifically trained to conduct basic audits. In addition to the basic audits, participating members work with local Community Action Programs (CAP) agencies to target low-income households that could benefit from energy conservation education.

Commercial consumers are provided with either a walk-through energy audit performed by cooperative staff or a more comprehensive audit performed by a professional consultant. Costs for the comprehensive audit are typically shared 35 percent by Great River Energy, 35 percent by the distribution cooperative, and 30 percent by the customer.

### Residential Cooling

Residential air conditioning is a critical load to Great River Energy and its member distribution cooperatives. High-efficiency air conditioners improve system load factor, reduce peak capacity requirements, improve system efficiencies, and lower customer's cooling costs. Great River Energy, through its member cooperatives, provides a rebate for central air conditioners that have a Seasonal Energy Efficiency Ratio (SEER) of 13 or greater. This increased efficiency results in energy and demand savings during Great River Energy's critical summer period.

### Residential Air Source Heat Pump (ASHP)

ASHPs provide summer cooling and spring/fall heating in residential or commercial installations. ASHPs are sized for cooling. In the cooling mode, the ASHP functions as a central air conditioner and is load managed during the summer per Great River Energy's cycled air conditioning control strategy. In the heating mode, the ASHP provides very efficient space heating to a temperature of approximately 20 degrees F. At this temperature the ASHP automatically shuts off and the secondary heating system (typically a natural gas or liquid propane furnace) heats the home. If conditions should require load control, Great River Energy also has the ability to control ASHPs during the heating season. ASHPs help Great River Energy improve load factor, reduce peak capacity requirements, and improve system efficiencies.

### Residential HVAC Tune-Up

Rebates are available to members who hire a registered and/or professional Heating Ventilation and Air Conditioning (HVAC) contractor to perform a tune-up of an existing, working Cycled Air Conditioner (CAC) or ASHP. This program is designed to improve the efficiency and maintain the operation of CACs and ASHPs.

### Residential Cycled Air Conditioning and ASHP

The cycled air conditioning program provides customers with an incentive to allow Great River Energy to cycle (15 minutes on, 15 minutes off) their central air conditioner during periods of high peak demand. The cycling provides approximately one kilowatt (kW) of demand reduction per air conditioner. Air conditioning is a critical load to the member distribution cooperatives and to Great River Energy. The program helps improve system load factor, reduce peak capacity requirements, and improve system efficiencies.

### Residential Geothermal

Ground Source Heat Pumps (GSHPs) have proven to be one of the most efficient space conditioning options with the added potential of significant energy savings. Acceptance of this technology continues to grow nationwide. GSHPs use the latent heat in the earth as a heat sink and a heat source. By utilizing a series of buried heavy-duty plastic pipes filled with a food-grade antifreeze solution as the heat transfer medium, GSHPs are highly efficient in both heating and cooling modes. This high efficiency results in reduced kWh usage in the cooling season and can also significantly reduce the total energy used to heat a home when compared to alternative heating systems. Along with the kilowatt hour (kWh) savings, there is capacity savings when the GSHP is part of the load management program.

### Income Eligible: AC Tune-UP

Participating member distribution cooperatives offer air conditioning tune-ups to low-income customers in conjunction with local CAP agencies. The role of a CAP agency is to help identify customers that would benefit from this service and to provide instruction to local HVAC service vendors authorized under this program to provide tune-ups. The tune-up service includes:

- Cleaning condenser coil
- Checking Freon level and pressures
- Checking indoor filter
- Testing all controls
- Blowing out drain line
- Visually inspecting the entire system
- Educating homeowner on operation

The low-income air conditioner tune-up program improves air conditioner efficiency, which in turn lowers the customer's energy bill.

### Income Eligible

Participating member distribution cooperatives provide renters or rental property owners with help to improve the energy efficiency of the property. Programs include high efficiency space heating and cooling, lighting retrofit, appliance replacement, energy saving water kits, Habitat for Humanity, and air conditioner tune-ups.

### Residential Lighting

Lighting makes up ten percent of a typical home's electricity consumption. The home lighting program is an energy conservation program in the form of a rebate that encourages the conversion from incandescent lighting to more energy efficient lighting – particularly compact fluorescent lighting (CFLs). Promotions are also offered throughout the year at major retailers for instant in-store savings (Wal-Mart and Target).

### Bulb Recycling

This program is designed to support Minn. Stat. §115A.932 to encourage residential members to properly recycle CFLs. Great River Energy offers \$0.50 per lamp rebate through local retailers. Free recycling was available in 2008-2009 through participating Menards stores.

### High Efficiency Water Heat

Customers replacing old inefficient electric water heaters with new high efficiency electric water heaters receive a cash rebate from a participating distribution cooperative. The minimum acceptable water heater has insulation of R16 or greater, and an energy efficiency factor of 0.92. The average water heater replaced has an efficiency factor of 0.82 or less.

### Residential Dual Fuel and Pool Heat

Dual fuel space heating is a heating option for the conditioned living space in residential customers' homes that use only electric heat as the primary heat source. Cooperative members must have a backup heat source (propane or fuel oil) to provide heat to the entire living area or pool. Member incentives may include all or a portion of the costs to install load controls on equipment.

### Hot Water Savings

This program offers an opportunity for residential members to purchase and install a variety of energy saving water equipment at a significantly reduced price. The kit includes Hower head, kitchen aerator, bathroom aerators, hot water temperature card, and teflon tape to assist with the installation. Kits are provided at no cost to income-eligible members and CAP agencies for installation in income-eligible properties.

### Electric Vehicle and ChargeWise<sup>SM</sup>

Great River Energy provides a specific rate for charging on and off-road electric vehicles such as Plug-in Hybrid Electric Vehicles (PHEV), golf carts, forklifts, etc., which can operate “around-the-clock” from a nightly eight hour charge. Great River Energy will rebate up to \$500 of the installation cost for the ChargeWise<sup>SM</sup> kit. The ChargeWise<sup>SM</sup> program requires the program participant be a residential customer of an all requirements member.

## **DIRECT CONSERVATION PROGRAMS – COMMERCIAL, INDUSTRIAL, and AGRICULTURE (CI&A)**

### Agriculture

Agricultural prescriptive and custom rebates are available to members for the installation of various types of high efficiency agricultural equipment. Rebates are offered for the following applications:

- Ventilation
- Dairy-Free Heater
- Dairy Plate Cooler
- Hog Farrowing
- Compressor Heat Recovery Systems
- Scroll Compressors for Bulk Tank
- Low Pressure Irrigation Systems
- Livestock Water Heaters

### Compressed Air

This program rebates members for installing compressed air systems, equipment updates or system improvements that result in lower energy usage.

### Custom

The CI&A energy grant and rebate program provides cash incentives to qualified applicants for energy efficiency improvements to their business, industry, or farm. Interested customers must complete a grant application form, which describes the intended energy efficiency improvement measures and calculates the expected energy and demand savings. The individual member cooperative evaluates the proposal for viability and cost effectiveness, and those that rank the highest are awarded grants to help offset the cost of their project. Grant funds are typically used for the installation of high efficiency lighting, motors, adjustable speed drives, refrigeration compressors, high efficiency air conditioning, and other energy-conserving equipment. The program also includes a New Construction Rebate for Lighting and Motors. This rebate is on a per fixture basis or on the horsepower rating of the motor.

### Energy Assessments/Audits

Members offer free or reduced cost energy audits for residential and commercial customers. Cooperatives have staff specifically trained to conduct basic audits. In addition to the basic audits, participating members work with local CAP agencies to target low-income households that could benefit from energy conservation education.

Commercial consumers are provided with either a walk-through energy audit performed by cooperative staff or a more comprehensive audit performed by a professional consultant. Costs for the comprehensive audit are typically shared 35 percent by Great River Energy, 35 percent by the distribution cooperative, and 30 percent by the customer.

## **COMMERCIAL HEATING VENTILATION AND AIR CONDITIONING (HVAC)**

Program rebates are offered to members for qualifying commercial cooling equipment installation. Only new and complete central air conditioning units and remote condensing unit retrofits qualify.

### Commercial GSHPs

GSHPs have proven to be one of the most efficient space conditioning options with the added potential of significant energy savings. This high efficiency results in the reduction of kWh usage in the cooling season and can also significantly reduce the total energy used to heat a building when compared to alternative heating systems. Currently LCP, MLEC, and ECE serve schools, churches, and other commercial and industrial buildings heated and cooled with GSHPs.

### Commercial New Construction Lighting

Prescriptive and custom rebates are available for lighting projects in retrofit, new construction and LED traffic signal retrofit applications. Specific dollar amounts, per fixture, vary based on the type of luminaires installed, lamp wattage, length and number of lamps per fixture.

### Commercial Retrofit Lighting

Rebates are offered for retrofit lighting projects in existing structures. They are determined individually, based on equipment being removed and replaced with more efficient lighting or controls. For projects not covered by the prescriptive rebate application form, a custom rebate will calculate the energy savings and determine the rebate amount.

### Commercial Motors and Drives

This program offers rebates for new or existing retail businesses. Rebates are determined on an individual basis using the prescriptive rebate forms for the motors and drives being installed. Motors that meet the National Electrical Manufacturers Association (NEMA) Premium Efficiency Motor Standards are eligible.

### Commercial Whole Building Energy Efficiency

Member cooperatives provide energy efficient educational materials and speakers for little or no cost to members at community meetings, key account meetings and other public informational gatherings. Member cooperatives also offer design assistance, building commissioning, building recommissioning, and audits that are specific for the commercial, industrial, or agricultural members needs.

### Vending Controls

Rebates are available for control devices that are either occupancy or moisture sensor-based installed on beverage vending machines, glass-front beverage machine coolers or glass-front refrigerated display case doors.

## **DIRECT LOAD CONTROL PROGRAMS**

### Interruptible CI&A Loads

The Interruptible CI&A Loads Program provides a reduced electric rate to CI&A customers that can reduce their demand by a minimum of 25 kW during periods of high demand.

### Interruptible Irrigation

Interruptible commercial irrigation systems, generally agricultural, turf growers, or golf courses, can be interrupted once per day for up to four hours.

### Dual Fuel Space Heating

Dual fuel space heating systems are a combination of interruptible electric and non-electric space heating. Both the primary and secondary heating systems are sized for the entire heating load of the home. During periods of high electric demand, the interruptible electric heating system is shut off and the secondary (non-electric) heating system heats the home.

### Electric Thermal Storage (ETS) Space Heating

The ETS space heating program uses off-peak electric energy to provide 100% of a home's heating requirements. During the nightly eight-hour ETS charge time, heat is stored in a water or ceramic medium. There are three commonly available storage heating configurations: central furnaces, room or dispersed heaters, and slab. Customers receive a special off-peak rate in return for allowing Great River Energy to control their systems each day during the on-peak hours.

### Electric Thermal Storage (ETS) Water Heating

The ETS water heating program uses off-peak electric energy coupled with a high efficient water heater with sufficient storage capacity to supply the user's hot water needs. The water heaters are charged between 11:00 pm and 7:00 am each evening.

### Interruptible Water Heating

Interruptible water heaters can be interrupted during periods of high electric demand for up to eight hours per day. Customers receive a special interruptible rate in return for allowing Great River Energy to control their water heaters during peak periods.

### Electric Thermal Storage (ETS) Pool Heating

The ETS pool heating program uses off-peak electric energy to heat water for swimming pools. Swimming pools can be sufficiently heated during the nightly eight-hour off-peak charge time. Member distribution cooperatives provide participants a reduced electric rate for the ability to interrupt this load during the on-peak hours.

### Off Peak Electric Vehicles and "ChargeWise<sup>SM</sup>"

The Electric Vehicle and "ChargeWise<sup>SM</sup>" program charges electric vehicle batteries using only off-peak energy between 11:00 pm and 7:00 nightly. Examples of qualifying vehicles are electric forklifts, golf carts, and residential PHEVs and EVs.

## **RENEWABLE ENERGY PROGRAMS**

Minnesota's CIP rules allow for the inclusion of certain programs promoting the use of renewable resources.

### Wellspring

The Wellspring renewable wind energy program is a voluntary "green pricing" program that offers wind-generated electricity to cooperative members. Great River Energy was the first utility in the five-state region to offer such a program. Green pricing is a voluntary service that allows members the opportunity to purchase 100 kWh blocks of renewable energy and pay a premium on their electric bill to cover the incremental cost.

## **EVALUATED PROGRAMS**

### Pool Pump

The Pool Pump program is currently available on a pilot basis. The program is available to members that have an in-ground swimming pool. Members replacing an old inefficient pump with a new high efficiency pump can receive a rebate from their participating distribution cooperative.

### PC Power Management

Connexus Energy, Dakota Electric, and Minnesota Valley Electric Cooperative are currently evaluating PC Power Management based on the "Electricity Savings Opportunities for Home Electronics and Other Plug-In Devices in Minnesota Homes". The report was completed in 2010 by the Energy Center of Wisconsin. The program allows a member to download an internet

application that manages the energy used by a home PC based on an energy use profile that automatically switches the computer to a hibernate mode when it is not used for a predetermined length of time.

#### Data Centers

Data center rebates are not a specific program, rather they are covered under the custom grant program or by individual measures done at the site (HVAC, Lighting, Controls, etc.)

#### Battery Energy Storage

The intent of the program was to store off-peak energy in lead acid batteries to be discharged during the on-peak hours. Great River Energy's analysis showed that the cost of the units and the kWh capacity was not able to yield a positive return on investment, via energy arbitrage, over the life of the unit.

#### Ice Energy Storage

The potential to store off-peak energy in large insulated vessels to be discharged during on-peak hours was investigated. The units are deployed in conjunction with existing commercially packaged HVAC rooftop units. When the HVAC unit calls for cooling, a pump circulates coolant through coils in the ice and transfers the cold fluid to a separate condenser installed in the HVAC unit. The program was not found to be cost effective.

### **C. A description of the major accomplishments that have been made by the applicant with respect to energy conservation and efficiency;**

#### **Conservation and Efficiency**

Great River Energy has met the CIP goals outlined not only in 2010 when the legislation took effect, but also the goals established internally for 2008 and 2009. Additional information on the success of the conservation and load management programs is provided in the tables on the following page.

**2008:** 78,000,000 kWhs saved (0.7% of member sales)

**2009:** 94,000,000 kWhs saved (0.85% of member sales)

**2010 All Requirements Members (preliminary):** 105,076,792 kWh saved equaling 1.25%\* of member sales.

*\* Twenty (20) all-requirements members purchase all of the power and energy needed to satisfy their electricity sales from Great River Energy, with limited exceptions for amounts historically supplied by the Western Area Power Administration ("WAPA") or from renewable generation facilities directly interconnected at a distribution level. Great River Energy has the responsibility and obligation to plan for and supply all of the future power and energy needs of the all-requirements member rate class.*

*Eight (8) fixed members purchase a finite contractual amount of power and energy from Great River Energy that does not change based on their current actual use or need. As such, the energy conservation savings achieved by the fixed members does not reduce Great River Energy's power supply obligations or impact its need for future generation resources. Some fixed members purchase power and energy historically supplied by WAPA or from renewable generation facilities directly interconnected at the distribution level. The fixed members have made arrangements for other wholesale suppliers to assume responsibility and obligation to plan for and supply all of their future power and energy needs.*

<b>CIP Savings and Expenditures – All Requirements Members Only Great River Energy 2008-2010</b>						
<b>CIP Year</b>	<b>Annual kWh</b>	<b>Lifetime kWh (based on measure of lifetime)</b>	<b>Annual KW</b>	<b>Aggregate KW (based on measure of lifetime)</b>	<b>Annual CIP Spending</b>	<b>Aggregate CIP Spending</b>
<b>2008</b>	70,432,209	1,087,428,491	122,306	122,306	\$16,224,680	\$16,224,680
<b>2009</b>	79,448,775	1,161,090,979	73,972	196,278	\$18,760,708	\$34,985,388
<b>2010</b>	105,076,792	1,548,157,696	36,092	232,370	\$9,818,287	\$44,803,675
<b>Total</b>	<b>254,957,776</b>	<b>3,796,677,166</b>	<b>232,370</b>	<b>232,370</b>	<b>\$44,803,675</b>	<b>\$44,803,675</b>

### Demand Side Management

<b>Additional Controlled Load Great River Energy 2008-2010</b>			
<b>Additional Controlled Load Installed by Customer Class</b>			
	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Residential</b>	170	176	180
<b>Commercial</b>	178	183	190
<b>Total**</b>	<b>337</b>	<b>349</b>	<b>360</b>
<b>Total Controlled Load Installed by Load Type</b>			
	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Dual Fuel</b>	132	137	140
<b>Cycled Air Conditioning</b>	121	127	130
<b>Interruptible Water Heating</b>	38	39	40
<b>Irrigation</b>	37	39	40
<b>Interruptible C&amp;I</b>	141	144	150
<b>Total KW</b>	<b>469</b>	<b>486</b>	<b>500</b>

\*\* Total control does not equal the sum of commercial and residential due to the differences in residential and commercial capabilities across control seasons. Total control values are derived from historical summer control performance.

**D. A description of the applicants future plans through the forecast years with respect to energy conservation and efficiency.**

Great River Energy and its Members have developed a robust portfolio of energy efficiency programs that provide measureable value for member-consumers in Minnesota. These programs are a dynamic and active part of Great River Energy’s planning and daily operations and provide member-consumers with options for managing their energy use and associated costs.

The key to maintaining success hinges on the ability to promote current programs while developing new programs that find a sustainable balance between reducing energy and maintaining member-consumer satisfaction. Success can be seen not only in the achievement of conservation goals but also in the creation of new programs. An ongoing goal at Great River Energy is creating new programs that provide more opportunities for member-consumer participation. On average, Great River Energy creates two new energy efficiency programs each year. Recent goals have been achieved by reaching out and partnering with large retailers such as Wal-Mart, Best Buy, Sears, Target, and others. Continuing to reach out to local retailers and others across the industry will enable Great River Energy to identify new opportunities that will lead to successful achievement of its strategic conservation goals.

**E. A quantification of the manner by which these programs affect or help determine the forecast provided in response to part 7849.0270 subpart 2, a list of their total costs by programs, and a discussion of their expected effects in reducing the need for new generation and transmission facilities.**

<b>Energy Conservation and Demand Side Management Budgets 2010-2012</b>			
	<b>2010 Approved Budget</b>	<b>2011 Proposed</b>	<b>2012 Proposed</b>
<b>Energy Conservation</b>			
Residential	\$6,859,303	\$6,892,274	\$6,965,953
Commercial	\$4,737,962	\$4,038,030	\$3,984,437
Income Eligible	\$1,267,444	\$1,466,995	\$911,797
<b>Total</b>	<b>\$12,864,709</b>	<b>\$12,397,299</b>	<b>\$11,862,187</b>
<b>Demand Side Management</b>			
Residential	\$5,683,407	\$5,070,397	\$5,923,456
Commercial	\$357,664	\$396,067	\$403,057
<b>Total</b>	<b>\$6,041,071</b>	<b>\$5,466,464</b>	<b>\$6,326,513</b>
<b>Total Budget</b>	<b>\$18,905,780</b>	<b>\$17,863,763</b>	<b>\$18,188,700</b>

The effect of energy conservation and load management programs on load is implicit in Great River Energy's forecasts. The forecast is calculated using raw load data, and does not make any adjustments that attempt to measure the impact of energy efficiency or load management activities.

DSM and conservation programs do have a significant effect in reducing the need for new resource additions. In aggregate, Great River Energy's load management programs are capable of reducing summer and winter peak loads by 15%.



# **APPENDIX F**

## **List of Landowners**



AHO, GABRIEL  
AHO, SETH I  
ALBERG, BRIAN  
ALMQUIST, EARL A & MARLENE A  
ANDERSON, EUGENE L & JOANN H  
ANDERSON, VANCE A & SHARON K  
APOSTLE LUTHERAN CHURCH  
ARRO, DENNIS R  
ARRO, DONALD D  
ATKINSON, DARYL E  
AUTIO, STEVEN ARTHUR  
AUTIO, WESLEY D  
AUTIO, WESLEY D & C KELLY  
BADGER, CLARENCE D & PATRICIA M  
BALLWEBER JR, HOWARD  
BALSNESS, FLOYD E & JOYCE M  
BANDEL, JOY M  
BARTH, DAN  
BAUMANN, DENNIS D & JOANN L  
BAUMANN, MARK D & CATHERINE M  
BECKMAN, MARVIN & DONNA  
BENNETT JR, WARREN R  
BENNETT, ROBERT O  
BERG, JEFFREY M & VALERIE K  
BERTELSEN, JENS C & TYNE  
BLANDIN PAPER COMPANY  
BORGSTROM, KEITH  
BORGSTROM, KENT L  
BRAUN, KAREN & TERRANCE  
BRIEGEL, RANDY C & SHARON  
BYER, DEAN J & CARRIE  
CASEY, ROBERT J II & JANE A  
CHURCHILL, JAMES  
CITY OF CROMWELL  
CLARK, KEITH D  
COLLISON, DAVID L & SHARON E  
DAHL, ALLEN G & ELIZABETH D  
DAHL, ROBERT A & DARCI  
DAVIDSON, GERALDINE A  
DAWSON, WILLIAM & JOANNE  
DECKER, JEROME W & BERNEAL  
DOWNEY, KEVIN V  
DUNAWAY, SEAN W & AMY K  
ELIASON, GREGORY R & CHRISTINE A  
ELLIS, FOSTER O  
ELLIS, WILLIAM F  
ENTNER, KATHLEEN A

FAGRE, EARL D & JANICE  
FEWSON TRUSTEE, GEORGE C  
FINNISH CEMETERY ASSN  
FJELD, LARRY & BONNIE  
FOREST HILL CEMETERY  
FORSE, CAROL M & ROGER A  
FRENCH, KENNETH R & HELEN G TRUST  
FRIEL, LORI & DAVID M  
GARMS, DENNIS L & LINDA A  
GOEHRINGER, SEAN P & JOSETTE  
GOETZ, RICHARD C  
GOODELL, BARBARA  
GRANLUND, LARRY W  
GRAY, THOMAS G & PEGGY  
HAKALA, NANCY I  
HAKALA, TARA  
HALL, LEAH A  
HANSON, HANS E  
HARP, CRAIG A & MARGARET L  
HART, TIMOTHY L  
HARVEY, THOMAS W  
HEDIN, EBBA E  
HEINE, KERRY LEE  
HEMMILA, PAUL G  
HILL, WILLIAM J  
HOKALA, NANCY I  
HOLIEN, BRUCE & MARY  
HOMSTAD, DANIEL & CANDACE  
HOSKING, ROBERT A  
HOUCK, LESLIE A & SHARON  
HOUCK, RODNEY ETUX  
HOUCK, RODNEY J & DARLA J  
HOUCK, SELMA J  
HRUZA, STEVEN  
HUHTA, JEREMY G  
HUHTA, RICHARD T  
HUTCHINSON, MONTY JAY  
HUTCHINSON, ROBERT SCOTT  
HUTCHINSON, TODD J  
IND SCHOOL DIST 95  
JOBE, ROBERT A & LOIS J  
JOHNSON, ALLIE I TRUST  
JOHNSON, MARK A & DANETTE  
JOHNSON, RENA  
JOHNSON, TIM  
JOHNSTON SR, ROBERT D  
JOHNSTON, CAROL L

JOHNSTON, JOYCE M  
KAHARA, BRUCE J & JUDITH  
KAHARA, UNTO & DORIS  
KANNIAINEN, EDWIN  
KARI, DUANE A  
KELLEY, GLORIA M ETAL  
KIEFFER LIVING TRUST  
KIEFFER, PAUL C  
KOJO, KENNETH A  
KOPIC, JOHN  
KOSKINEN, PAUL N & BRENDA  
LAINE, ERIC JOHN  
LAKE COUNTRY POWER  
LARSON, E DALE & EARL D LARSON  
LARSON, GARY D  
LARSON, TODD E & DIANN E  
LINDHOLM, WILLARD  
LINDQUIST, DUSTIN J  
LINE, JEREMY R & ANGELA M  
LINE, JEREMY R & LYNN M  
LINE, ROGER R & LYNN M  
LOVE, JOHN  
LUND, ROBERT J  
MAKI, CHARLES A & PAMELA J  
MAKI, MYRTLE E  
MAKI, RICHARD D  
MANNINEN, ROBERT E & GLORIA M  
MANNINEN, ROGER W & TERESA  
MARLOW, ROY  
MATHEWS, DARWIN E II & NANCY M  
MCCUSKEY, GARY L & MARGUERITE C  
MERRILL, JOHN & CHERYL  
MILLER, LEE T  
MILLER, ROBERT  
MISIAK, HENRY S  
MOE, GAIL ALLEN & LUANNE G  
NAHKALA, KENNETH V  
NAHKALA, VIOLET  
NEBY, DAVID R & CYNTHIA F  
NEVER SKUNKED LODGE INC  
NEWTON, LAWRENCE H & MARIE R  
NISKANEN, LILA G  
NISKANEN, RODNEY  
NORLUND, RUSSELL S  
NORTH 400 CLUB  
NORTHWEST PAPER CO  
OF EAGLE LAKE

OLSON, JOHN JR  
OLSON, KEITH  
OLSON, MAE STREMEL  
PAAVOLA, ROBERT E & COLLEEN A  
PERSONS, SEAN C & LOIS  
PETERSON, JOHN A  
PETERSON, JOHN A & SANDREA L  
PETERSON, PATRICIA A  
PIIRAINEN, ELSA M ETMAR LE  
PIIRAINEN, RICHARD J  
PIONTEK, MARK  
PITKANEN, DENNIS E & FRANCINE A  
POCERNICH, WILLIAM D & MARCIA L  
POLO, JOHN & SUSAN  
POLO, LILLIAN A  
POLO, RICHARD G & MELISSA  
POTLATCH CORP  
RAHJA, DALE R  
RAHJA, ROBERT L  
RAHKOLA, BARBARA J  
RAIHALA, CARMEL JOY  
RAIHALA, MARC A  
RANDA, RICHARD S & SUSAN O  
REHOVSKY, SCOTT N  
REIFF, MARK D  
REISINGER, LARRY  
RENGO, EDWARD & LOIS  
RENTOLA, RODNEY R  
RICHARDS, WAYNE C & KAREN M  
RILEY, ROBERT L  
RILEY, THOMAS J & CAROYLN  
ROMANEK, CHRISTOPHER  
RONNING, RUTH H  
RUF, DONALD J  
RUNQUIST, FORREST RICHARD  
SANDERS, RONALD J & LIISA H  
SCHARNBERG, KEVIN & CAROL  
SCHMIDT, DUANE A & KATHLEEN M  
SCHULTZ, ROBERT W ETUX  
SEBOE, DAVID L & BONNIE R  
SEREDINSKI, JOHN M  
SHABIASH, DONALD L JR  
SMITH, DAVID W & JENNIFER L  
SMITH, JAMES T & GAIL M  
SOUKKALA, ALLAN W & BARBARA  
ST LOUIS CO PUBLIC WORKS  
ST LOUIS COUNTY

STATE OF MINNESOTA  
STATE OF MN C278 L35  
STATE TRUST  
STENSON, WARREN A  
STONE, GARY E  
STONE, HELEN  
STREMEL, JAMES L  
STRESE, LAWRENCE J & BARBARA J  
SWANSTROM, DEXTER J & DENISE J  
SWITZER, JOSEPH D  
SWITZER, KEITH & PATTI  
SWITZER, MICHAEL J  
SWITZER, WILLIAM R  
THORNBERG, WALTER  
TIMONEN, SEAN  
TOWN OF VAN BUREN  
UNITED POWER ASSOCIATION  
VANDERVEER, PETER  
VIGNESS, LEE C  
WAGNER, KEVIN & CAROL  
WALLI, RODNEY G  
WATERS, REX  
WATERS, REXFORD A & KERRY A  
WELINSKI, EUGENE J & LOLENE J  
WESTERLUND, GEORGE R  
WHITE, TERRY L  
WHITING, KENNETH  
WITTWER, RAYMOND  
WITTWER, TERRI LYNN  
WYMAN, GERARD F  
ZOFF-SEIVERT, KATHRYN



# **APPENDIX G**

## **Agency Correspondence**





October 12, 2010

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

RE: Proposed Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Mr. Ferry:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

- Rebuild approximately 16 miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 kV Breaker Station in Floodwood Township.
- Construct the new Minnesota Power Savanna 115 kV Substation in Section 32 of Van Buren Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 69/115 kV between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township.
- Modify the Cedar Valley and Cromwell substations to accommodate the 115 kV transmission line.

Mr. Michael Ferry  
October 12, 2010  
Page 2

Great River Energy and Minnesota Power considered various alternatives to rebuilding the existing 69 kV line, but are requesting approval of this project because building an entirely new transmission line along a different right of way did not seem reasonable when an existing line is available.

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

Great River Energy and Minnesota Power are requesting information on the possible effects of the proposed project on airports or airstrips in the project area.

We would appreciate a response to this request by Friday, November 12, 2010. Written or email responses may be directed to:

Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

MINNESOTA POWER



Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosure: Fact Sheet/Project Map

## Schmidt, Carole GRE-MG

---

**From:** Ferry, Michael (DOT) [Michael.Ferry@state.mn.us]  
**Sent:** Friday, December 10, 2010 8:01 AM  
**To:** Schmidt, Carole GRE-MG  
**Subject:** RE: Savanna rebuild project

Hi Carole:

Thank you for the opportunity to comment. No public airports exist near that corridor. These structures appear short enough that they would not impact navigable airspace, but this does not constitute a waiver of any state or federal airspace permitting, if applicable. Overall, it appears there are no airport impacts.

Thanks Carole -

Michael Ferry, P.E.  
Mn/DOT Regional Airport Engineer  
(651) 234-7243

---

**From:** Schmidt, Carole GRE-MG [<mailto:cschmidt@GREnergy.com>]  
**Sent:** Wednesday, December 01, 2010 3:47 PM  
**To:** Ferry, Michael (DOT)  
**Subject:** Savanna rebuild project

Hi Michael – just wondering if you have any comments on the Savanna Rebuild Project in the Floodwood-Cromwell area. Great River Energy and Minnesota Power sent a letter and fact sheet to you on October 12, 2010 and as we are in the process of putting the Route Permit Application together, we would like to include your input. If you could have something to me by next week, that would be great. Thanks - Carole

*Carole L. Schmidt*  
*Supervisor, Transmission Permitting and Compliance*  
*Great River Energy*  
*12300 Elm Creek Blvd.*  
*Maple Grove, MN 55369*  
*763-445-5214*  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

NOTICE TO RECIPIENT: The information contained in this message from Great River Energy and any attachments are confidential and intended only for the named recipient(s). If you have received this message in error, you are prohibited from copying, distributing or using the information. Please contact the sender immediately by return email and delete the original message.





October 12, 2010

Mr. Wayne Dupuis  
Environmental Program Manager  
Fond du Lac Band of Lake Superior Chippewa  
1720 Big Lake Road  
Cloquet, MN 55720

RE: Proposed Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Mr. Dupuis:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

- Rebuild approximately 16 miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 kV Breaker Station in Floodwood Township.
- Construct the new Minnesota Power Savanna 115 kV Substation in Section 32 of Van Buren Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 69/115 kV between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township.
- Modify the Cedar Valley and Cromwell substations to accommodate the 115 kV transmission line.

Mr. Wayne Dupuis  
October 12, 2010  
Page 2

Great River Energy and Minnesota Power considered various alternatives to rebuilding the existing 69 kV line, but are requesting approval of this project because building an entirely new transmission line along a different right of way did not seem reasonable when an existing line is available.

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

Great River Energy and Minnesota Power request your review of this rebuild project to identify potential impacts to cultural and archaeological resources from the project.

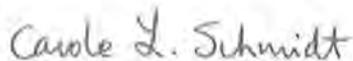
We would appreciate a response to this request by Friday, November 12, 2010. Written or email responses may be directed to:

Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

MINNESOTA POWER



Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosure: Fact Sheet/Project Map



October 12, 2010

Ms. Mary Ann Heidemann  
Minnesota State Historic Preservation Office  
345 Kellogg Boulevard West  
St. Paul, MN 55102-1906

RE: Proposed Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Ms. Heidemann:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of several regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

- Rebuild approximately 16 miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 kV Breaker Station in Floodwood Township.
- Construct the new Minnesota Power Savanna 115 kV Substation in Section 32 of Van Buren Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 69/115 kV between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township.
- Modify the Cedar Valley and Cromwell substations to accommodate the 115 kV transmission line.

Great River Energy and Minnesota Power considered various alternatives to rebuilding the existing 69 kV line, but are requesting approval of this project because building an entirely new transmission line along a different right of way did not seem reasonable when an existing line is available.

Ms. Mary Ann Heidemann  
October 12, 2010  
Page 2

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

Westwood Professional Services, Inc. (Westwood) conducted a Cultural Resource Literature Review of the project (see attached letter) and found one archaeological site that is listed on the National Register of Historic Places within the one-mile buffer (SE ¼ of Section 27, T51N, R20W). Some additional historic structures have been inventoried within the one-mile buffer; however, most of these structures have been determined as not eligible for listing on the National Register of Historic Places or have not been evaluated for listing. In light of these data and because the project is a rebuild of an existing line, Great River Energy and Minnesota Power do not intend to conduct further survey of the project unless construction involves disturbance of previously undisturbed areas.

A letter and fact sheet were sent to the Fond Du Lac Band of Lake Superior Chippewa. The project will require a Section 404 permit from the US Army Corps of Engineers.

Great River Energy and Minnesota Power are requesting information on the possible effects of the proposed project on cultural and archaeological resources in the project area. We would appreciate a response to this request by Friday, November 12, 2010. Written or email responses may be directed to:

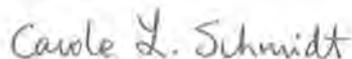
Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY

MINNESOTA POWER



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosures: Fact Sheet/Project Map, Westwood letter

RECEIVED NOV 15 2010



November 10, 2010

Ms. Carole L. Schmidt  
Supervisor  
Transmission, Permitting & Compliance  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369-4718

RE: Savanna 115kV Transmission Project  
St. Louis and Carlton Counties  
SHPO Number: 2011-0164

Dear Ms. Schmidt:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800), and to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

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

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

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

Sincerely,



Mary Ann Heidemann  
Manager, Government Programs and Compliance

Enclosure: List of Consultants



September 22, 2010

Westwood Professional Services  
7699 Anagram Drive  
Eden Prairie, MN 55344

MAIN 952-937-5150  
FAX 952-937-5822  
TOLL FREE 1-888-937-5150  
EMAIL [wps@westwoodps.com](mailto:wps@westwoodps.com)  
[www.westwoodps.com](http://www.westwoodps.com)



Carole Schmidt  
Great River Energy  
2300 Elm Creek Blvd.  
Maple Grove, MN 55369

**Re: Cultural Resource Literature Review for the Proposed Savanna 115 kV  
Transmission Project**  
file: 20101052.00

Dear Ms. Schmidt:

Westwood Professional Services, Inc. (Westwood) was contracted by Great River Energy to conduct an archaeological literature review of the location of a transmission line rebuild and new substation. The proposed transmission line rebuild route examined follows an existing transmission right of way and will be approximately 37 miles in length. The proposed line is located in Cedar Valley Township (T 53N, R 21W), Van Buren Township (T 52N, R 20W), Floodwood Township (T 51N, R 20W), and Fine Lakes Township (T 50N, R 20W) in St. Louis County, MN; and Red Clover Township (T 49N, R 20W), Eagle Township (T 48N, R 20W), and Kalevala Township (T 47N, R 20W) in Carlton County, MN. The review consisted of an examination of resources including historic mapping and archaeological site files.

On September 22, 2010, Westwood Cultural Resource Specialist Ryan Grohne conducted a background literature search of the proposed transmission line rebuild route and a one-mile buffer at the Office of the State Archaeologist (OSA) located at Fort Snelling in St. Paul, MN, and the Minnesota State Historic Preservation Office (SHPO) located at the Minnesota History Center in St. Paul, MN. Archaeological site files were examined to obtain a list of all previously recorded archaeological sites within the proposed project area. Other sources examined included the Andreas' Illustrated Atlas of Minnesota, 1874 and the historic Trygg maps.

One archaeological site has been previously identified immediately along the proposed route or within the one-mile buffer. Site 21SL0874 is located in the SE ¼ of Section 27, Township 51N, Range 20W (Floodwood Township) in St. Louis County. This site is from an historic Euro-American context and consists of an artifact scatter with associated structural ruins. The historic Trygg Maps identifies several historic trails and roads in the general project area. No potential cultural resources were identified in the examined Andreas' Illustrated Atlas.

Multiple historic structures have been inventoried within the one-mile buffer. Most of these structures have been determined as not eligible for listing on the National Register of Historic Places or have not been evaluated for listing. There are

Ms. Carole Schmidt  
September 22, 2010  
Page 2



few potentially eligible structures that have been inventoried and there remains the possibility of other significant structures in the area that have not yet been inventoried, but as the proposed project is a rebuild, no additional visual impact should affect any standing historic structures within the area.

Upon review of the archaeological sites and survey data compiled for the defined project area, Westwood concludes that the paucity of recorded archaeological sites along the proposed route are not necessarily indicative of a lack of cultural resources in the area, but instead may reflect the lack of survey. The route has a moderate to high potential for cultural resources. Should construction plans involve ground disturbance of previously undisturbed areas, a Phase I Archaeological Reconnaissance Survey is recommended.

Sincerely,

WESTWOOD PROFESSIONAL SERVICES

Ryan P. Grohnke  
Cultural Resource Specialist



October 12, 2010

Mr. Daryl Wierzbinski  
US Army Corps of Engineers  
1554 Highway 2, Suite 2  
Two Harbors, MN 55616

RE: Proposed Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Mr. Wierzbinski:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

- Rebuild approximately 16 miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 kV Breaker Station in Floodwood Township.
- Construct the new Minnesota Power Savanna 115 kV Substation in Section 32 of Van Buren Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 69/115 kV between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township.
- Modify the Cedar Valley and Cromwell substations to accommodate the 115 kV transmission line.

Great River Energy and Minnesota Power considered various alternatives to rebuilding the existing 69 kV line, but are requesting approval of this project because building an entirely new transmission line along a different right of way did not seem reasonable when an existing line is available.

Mr. Daryl Wierzbinski  
October 12, 2010  
Page 2

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

Great River Energy and Minnesota Power are 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 several DNR public waters. Great River Energy will apply to the DNR Division of Lands and Minerals for a license to cross those waters. The project will cross a number of NWI wetlands. Great River Energy and Minnesota Power will work with the Corps to address impacts once design details are available.

We would appreciate a response to this request by Friday, November 12, 2010. Written or email responses may be directed to:

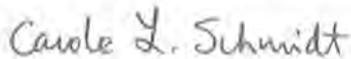
Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY

MINNESOTA POWER



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosure: Fact Sheet/Project Map

s:\legal\environmental\transmission\projects\75901 Savanna\Agency Correspondence\SAVCorpsltr

RECEIVED OCT. 18 2010



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

October 15, 2010

REPLY TO  
ATTENTION OF  
Operations  
Regulatory (2010-04449-DWW)

Ms. Carole L. Schmidt  
Great River Energy  
12300 Elm Creek Boulevard  
Maple Grove, Minnesota 55369

Dear Ms. Schmidt:

This letter is in response to your inquiry regarding an October 12, 2010, letter prepared by your office requesting information (environmental questionnaire) on the possible effect(s) the Great River Energy Savanna 115 (kV) Transmission Project would have on floodplains, wetlands, and other important natural resources that occur in the project area. The proposed project would traverse Carlton and St. Louis County, Minnesota.

According to your letter, the Savanna 115 (kV) Transmission Project would include the following:

- Proposed rebuilding of approximately 16 miles of existing Great River Energy 69 (kV) transmission line to a single circuit 115 (kV) between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 (kV) Breaker Station in Floodwood Township;
- Proposed constructing of a new Minnesota Power Savanna 115 (kV) Substation in Section 32 of Van Buren Township;
- Proposed rebuilding of approximately 21 miles of existing Great River Energy 69 (kV) transmission line to double circuit 69/115 (kV) between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township;
- Proposed modifying of the Cedar Valley and Cromwell Substations to accommodate the 115(kV) transmission line throughout Carlton and St. Louis Counties, Minnesota.

In accordance with the National Environmental Policy Act (NEPA), NEPA implementation procedures for the Corps Regulatory program (33CFR Part 325) and policy guidance under CEQ regulations 40 CFR 1500-1508, the Corps has reviewed the letter dated October 12, 2010. Information contained in this letter outlines our comments on the environmental questionnaire and identifies areas where additional information or analysis is necessary for a Corps permit evaluation process.

After a review of the project area map, it appears that Great River Energy's proposed project would likely involve activities in navigable waters of the United States, and would be subject to the Corps' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

In addition, any work within the Great River Energy project area which would involve the deposition of dredged or fill material into waters of the United States (including trenching, backfilling, and mechanical land clearing), may be subject to the Corps' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404.

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

If your project requires a Section 404 permit application, the Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (40 CFR § 230.10(a)). Time and money spent on a proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal. General information about the Corps permitting process can be obtained online at <http://www.mvp.usace.army.mil/regulatory>.

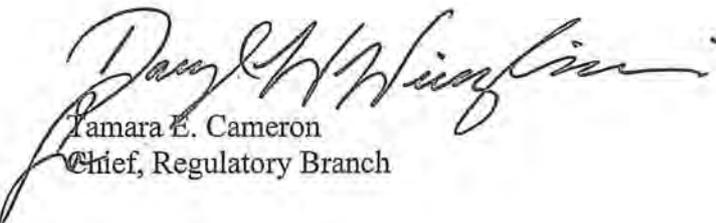
Without detailed construction plans that include the location of wetlands, we cannot provide specific comments regarding the effects or "possible effect(s)" to waters of the U.S. It will be important in future consultation to provide maps and corresponding tables clearly designating the transmission route across wetlands, streams, and rivers for the construction of the Savanna 115 kV Project. Please be aware that although the National Wetlands Inventory (NWI) can provide general insight into the locations of wetlands across a landscape, NWI maps are not intended to be used as a precise locator of wetland boundaries. The wetlands

mapped on the NWI were derived from aerial photo interpretation from 1970's black and white (1:80,000 scales) photography and did not accurately map forested and wet meadow wetlands with the same precision as other types of wetlands. As the proposed project area could have a high density of forested wetlands (compared to other wetland vegetation types) it would be important to consult other sources of information to correctly identify wetland areas and to not rely solely on the NWI for planning and regulatory purposes. These sources could include (but are not limited to): county soil survey data, interpreted infrared satellite images, aerial photography review, or state wetland maps.

The proposed project area covers a large geographic region and could cumulatively have a large impact to waters of the U.S., including wetlands. Therefore, we would strongly recommend that the project proposer provide the necessary detailed information in an application to expedite our review of the proposed project.

If you have any questions, contact Daryl W. Wierzbinski in our Two Harbors field office at (218) 834-6630. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

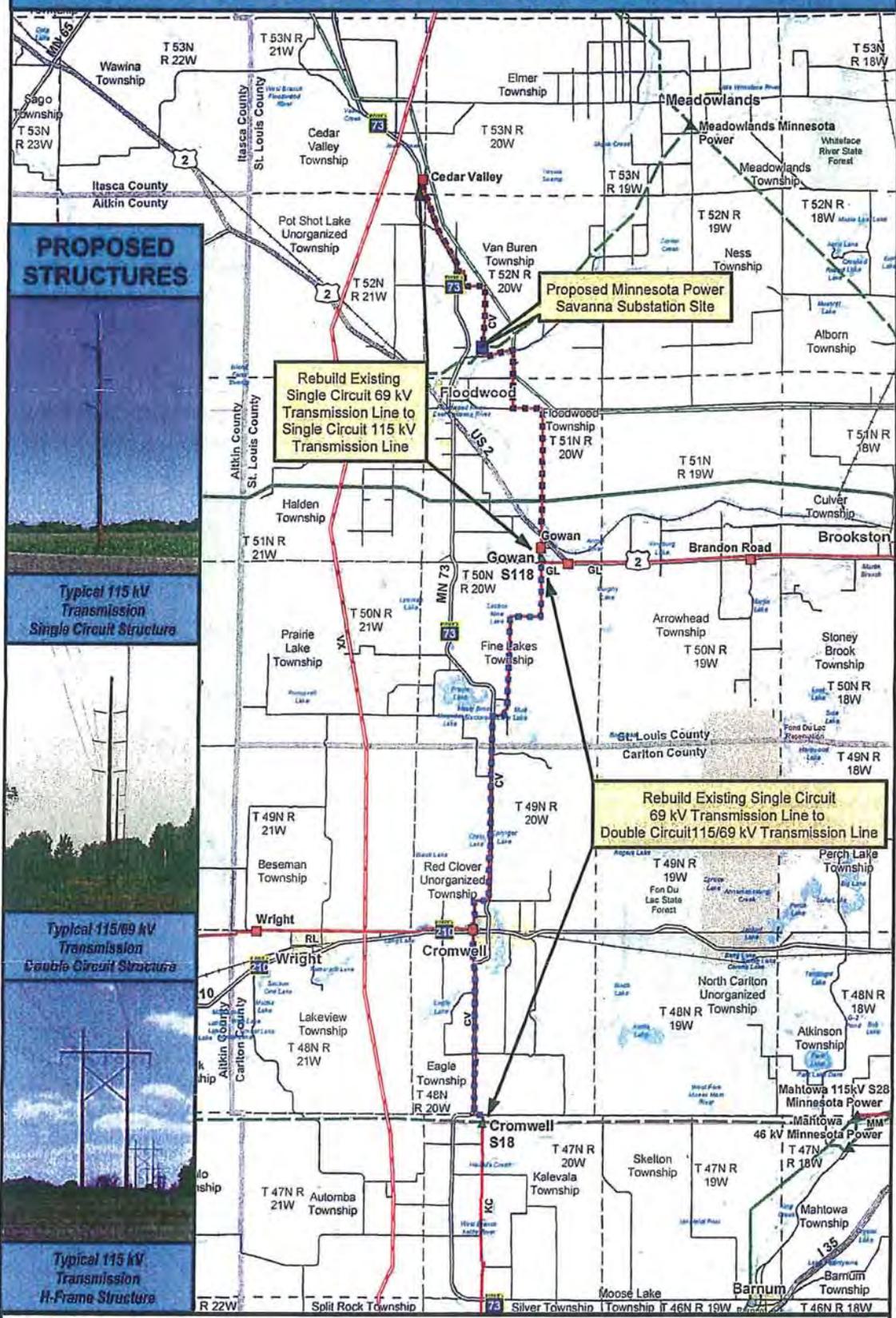


Tamara E. Cameron  
Chief, Regulatory Branch

Enclosure  
Proposed project corridor map

Copy Furnished:  
Daniel McCartney, Great River Energy  
Patricia Fowler, MNDNR

# PROPOSED PROJECT



- |  |  |  |  |
|--|--|--|--|
| <ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Proposed Minnesota Power Substation</li> <li><span style="color: red;">▲</span> Great River Energy Transmission Substation</li> <li><span style="color: red;">▲</span> Minnesota Power Transmission Substation</li> <li><span style="color: red;">▲</span> Lake County Power Distribution Substation</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Proposed Great River Energy Transmission Line</li> <li><span style="color: blue;">■</span> Rebuild Existing Single Circuit 69 kV to Single Circuit 115 kV Transmission Line</li> <li><span style="color: blue;">■</span> Rebuild Existing Single Circuit 69 kV to Double Circuit 115/69 kV Transmission Line</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: red;">—</span> Existing Great River Energy Transmission Line</li> <li><span style="color: red;">—</span> 23-69 kV AC Transmission Line</li> <li><span style="color: red;">—</span> 115-161 kV AC Transmission Line</li> <li><span style="color: red;">—</span> 230-500 kV AC Transmission Line</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—</span> Existing Minnesota Power Transmission Line</li> <li><span style="color: blue;">—</span> 115-161 kV AC Transmission Line</li> <li><span style="color: blue;">—</span> 23-69 kV AC Transmission Line</li> <li><span style="color: blue;">—</span> 230-345 kV AC Transmission Line</li> <li><span style="color: blue;">—</span> 250 kV DC Transmission Line</li> </ul> |
|--|--|--|--|

GIS Data Sources Vary Between:  
 MN Department of Transportation, MN Department  
 of Natural Resources, MNGEO, and Great River Energy





October 12, 2010

Mr. Nick Rowse, Habitat Conservation Biologist  
United States Department of the Interior  
Fish and Wildlife Service  
Twin Cities Field Office  
4101 American Blvd. East  
Bloomington, MN 55425-1665

RE: Proposed Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Mr. Rowse:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

- Rebuild approximately 16 miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and Great River Energy's existing Gowan 69 kV Breaker Station in Floodwood Township.
- Construct the new Minnesota Power Savanna 115 kV Substation in Section 32 of Van Buren Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 69/115 kV between the Gowan Breaker Station and Great River Energy's Cromwell Substation in Kalevala Township.
- Modify the Cedar Valley and Cromwell substations to accommodate the 115 kV transmission line.

Great River Energy and Minnesota Power considered various alternatives to rebuilding the existing 69 kV line, but are requesting approval of this project because building an entirely new transmission line along a different right of way did not seem reasonable when an existing line is available.

Mr. Nick Rowse  
October 12, 2010  
Page 2

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

The Fish and Wildlife Service website list for threatened and endangered species within St. Louis and Carlton counties includes the Canada lynx (threatened) and Gray wolf (threatened). The Piping Plover is also listed in St. Louis County, but it would be found on sandy beaches and islands that are not present in the project area. Great River Energy and Minnesota Power do not believe rebuilding the existing transmission line will affect any of these species.

The DNR Rare features database indicates the presence of the American Bittern near the project area north of Cromwell and Sandhill Cranes southwest of the southern project endpoint (see attached map), but again there should be no impacts to these species from construction of the project.

Great River Energy and Minnesota Power are 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.

We would appreciate a response to this request by Friday, November 12, 2010. Written or email responses may be directed to:

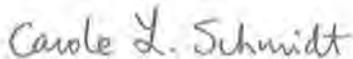
Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@reenergy.com](mailto:cschmidt@reenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this project.

Sincerely,

GREAT RIVER ENERGY

MINNESOTA POWER



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosures: Fact Sheet/Project Map, Rare Features Maps

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## Schmidt, Carole GRE-MG

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**From:** Nick\_Rowse@fws.gov  
**Sent:** Tuesday, January 11, 2011 3:07 PM  
**To:** Schmidt, Carole GRE-MG  
**Cc:** Margaret\_Rheude@fws.gov  
**Subject:** Re: Savanna

Carole L. Schmidt  
Supervisor, Transmission Permitting and Compliance  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369

Dear Carole,

No federally listed species or critical habitat are documented in the above project area sites. However, if project plans change, additional information on listed or proposed species becomes available, or new species are listed that may be affected by the project, consultation with this office should be reinitiated. This concludes section 7 consultation for proposed construction at the above location.

To address potential impacts to bald eagles, we recommend that Great River Energy (GRE) completes an eagle nest survey within half-mile of the line construction. Because data in the Minnesota Department of Natural Resources (MNDNR) database might not be current for this area of Minnesota, surveys should be done for any new nests. Nest surveys are most easily done when foliage is absent (fall, winter, or early spring). Nests of other migratory birds should also be noted, such as other raptors and colonial nesting birds (herons, egrets, cormorants, etc). However, eagle nests are only one component of Important Eagle Use Areas. Additionally, we also recommend surveys be completed for foraging, roosting, or wintering areas within a half mile of the line construction. Because use of these locations can change throughout the year, we recommend a fall (pre-water freeze) and a winter (post-freeze) survey to determine use and location. Activity of other migratory birds should also be noted at this time, including waterfowl and water bird concentration areas (especially during spring and fall migration). GRE can request the help of the Service, MNDNR, local birding groups, and private citizens to supply information on likely nests and other Important Eagle Use Areas. These can be compiled into likely locations to streamline surveys. If new eagle nests are found, contact Margaret Rheude of the Twin Cities Field Office for further assistance at (612) 725-3548 x2202. Please keep in mind that disturbance permits are available, but may take up to 60+ days to process.

Generally, the Service recommends constructing transmission lines at the same height as surrounding vegetation to reduce avian collisions and that transmission poles should be designed to discourage raptor nesting. In areas where eagles and migratory birds are present, line markers and diverters should be used. One sight that may need markers is Prairie Lake. We recommend GRE examine the type and efficacy of different markers and diverters, as well as documented responses of surveyed bird species to these markers.

Thank you for your cooperation in meeting our joint responsibilities under section 7 of the Endangered Species Act. If you have any further endangered species questions, please contact me at (612) 725-3548 x2210.

Sincerely,

Nick Rowse  
Fish and Wildlife Biologist  
Twin Cities ES Field Office  
U.S. Fish and Wildlife Service  
4101 American Blvd. E.  
Bloomington, MN 55425-1665  
612-725-3548 x 2210

"Schmidt, Carole GRE-MG" <[cschmidt@GREnergy.com](mailto:cschmidt@GREnergy.com)>

To "Nick Rowse@fws.gov" <[Nick.Rowse@fws.gov](mailto:Nick.Rowse@fws.gov)>

cc

Subject Savanna

12/27/2010 03:41 PM

Hi Nick – I am putting the final touches on the draft Route Permit Application for the Savanna project and I would really like to include comments from the USFWS. Otherwise, I will just assume there are no issues and indicate in the application that there was no response provided.

Hope you had a good holiday! Thanks – Carole

Carole L. Schmidt  
Supervisor, Transmission Permitting and Compliance  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
763-445-5214  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

NOTICE TO RECIPIENT: The information contained in this message from Great River Energy and any attachments are confidential and intended only for the named recipient(s). If you have received this message in error, you are prohibited from copying, distributing or using the information. Please contact the sender immediately by return email and delete the original message.



October 12, 2010

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 Savanna 115 kV Transmission Project  
St. Louis and Carlton Counties

Dear Ms. Joyal:

Great River Energy and Minnesota Power are currently gathering data to be used in preparation of regulatory applications necessary to obtain approvals and permits for the construction of the proposed Savanna 115 kilovolt (kV) Transmission Project in St. Louis and Carlton counties (see enclosed fact sheet and map). Great River Energy and Minnesota Power intend to seek a Certificate of Need and a Route Permit for the Project from the Minnesota Public Utilities Commission (Commission).

To meet the growing electrical needs of the area, Great River Energy and Minnesota Power propose to construct a new 115 kV substation and rebuild an existing 69 kV transmission line as follows:

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Ms. Lisa Joyal  
October 12, 2010  
Page 2

If you would like to learn more about the project, an open house public meeting for the project will be held on **Tuesday, October 26, 4-7 p.m** at:

Fine Lakes Township Hall  
3726 Prairie Lake Road  
Wright, MN 55798

The transmission line will span several DNR public waters (see attached maps). Great River Energy will apply to the DNR Division of Lands and Minerals for a license to cross those waters.

There are a few rare features in the project area (see attached maps); however, all but one of these is outside of the transmission line corridor.

Great River Energy and Minnesota Power are requesting information on the possible effects of the proposed project on these features and other important natural resources that occur in the project area. Please advise if there is specific guidance relative to the rare features in the area.

We would appreciate a response to this request by November 12, 2010. Written or email responses may be directed to:

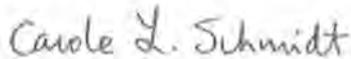
Carole Schmidt  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
[cschmidt@greenergy.com](mailto:cschmidt@greenergy.com)

If you require further information or have questions regarding this matter, please feel free to call us at the numbers provided below. Thank you for your attention to this important project.

Sincerely,

GREAT RIVER ENERGY

MINNESOTA POWER



Carole L. Schmidt  
Supervisor, Transmission Permitting  
and Compliance  
763-445-5214

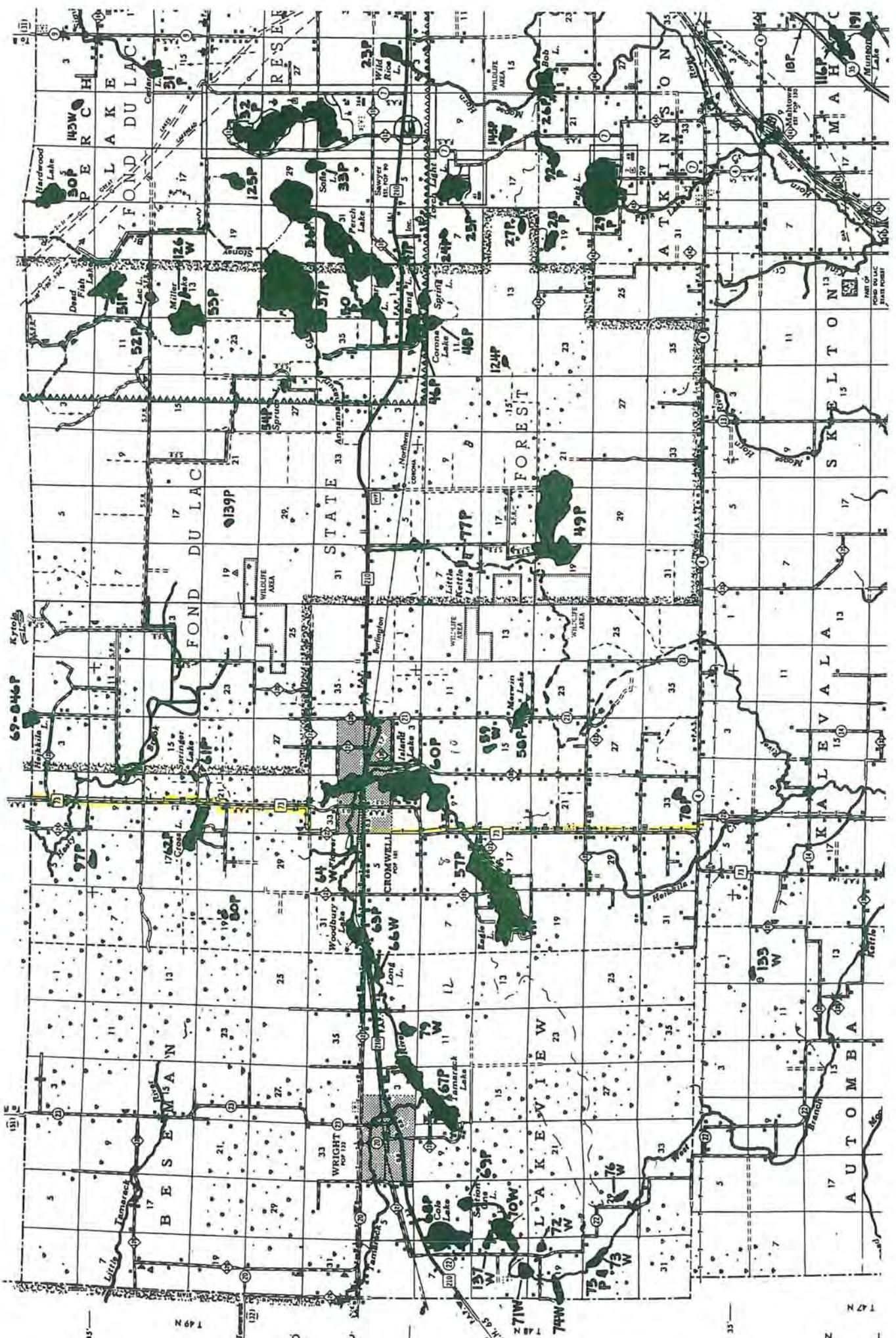
Daniel McCourtney  
Environmental Compliance Specialist II  
218-355-3515

Enclosures: Fact Sheet/Project Map, PWI Maps, Rare Features Map

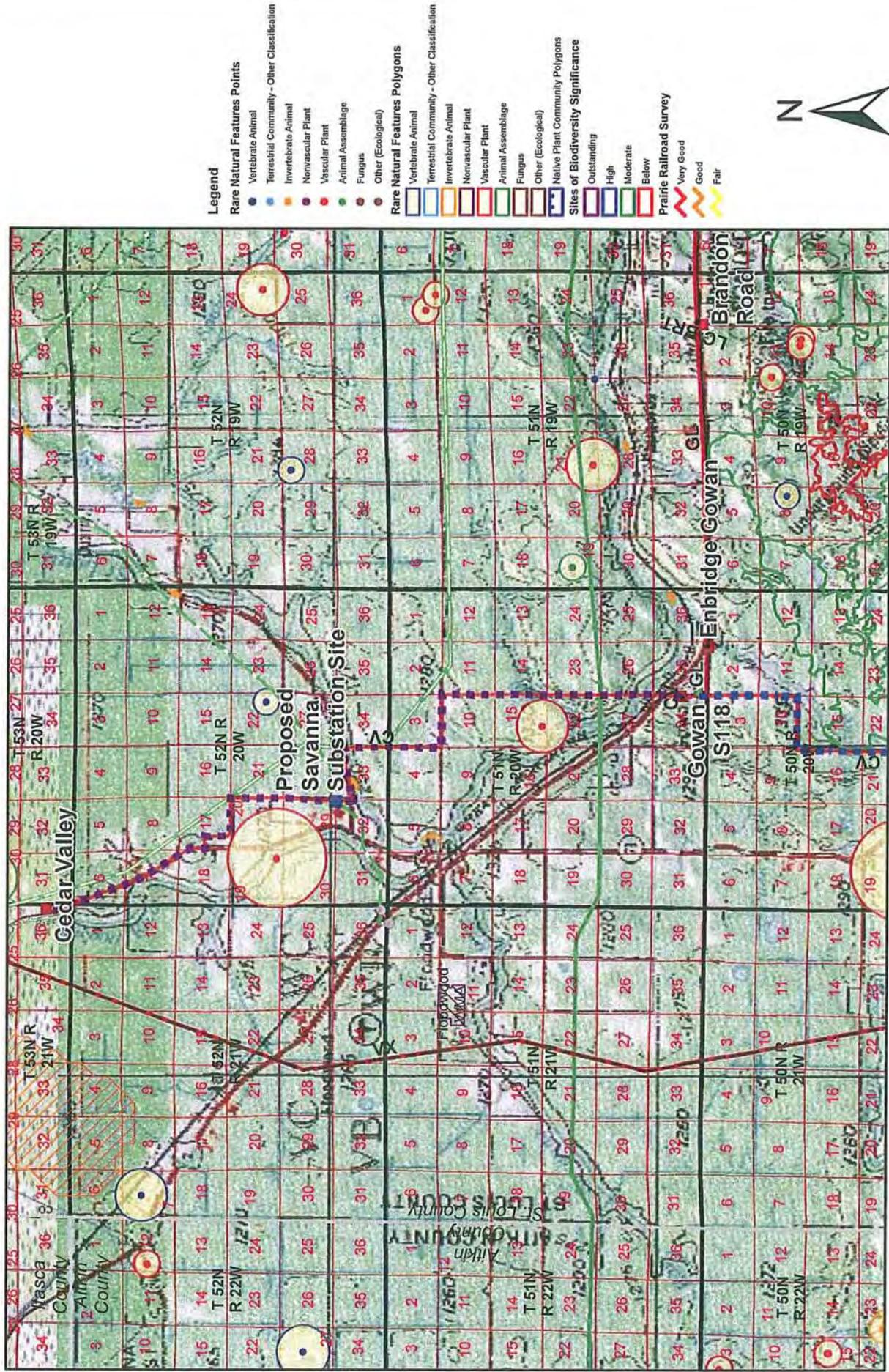
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Savanna Project - DNR PW1



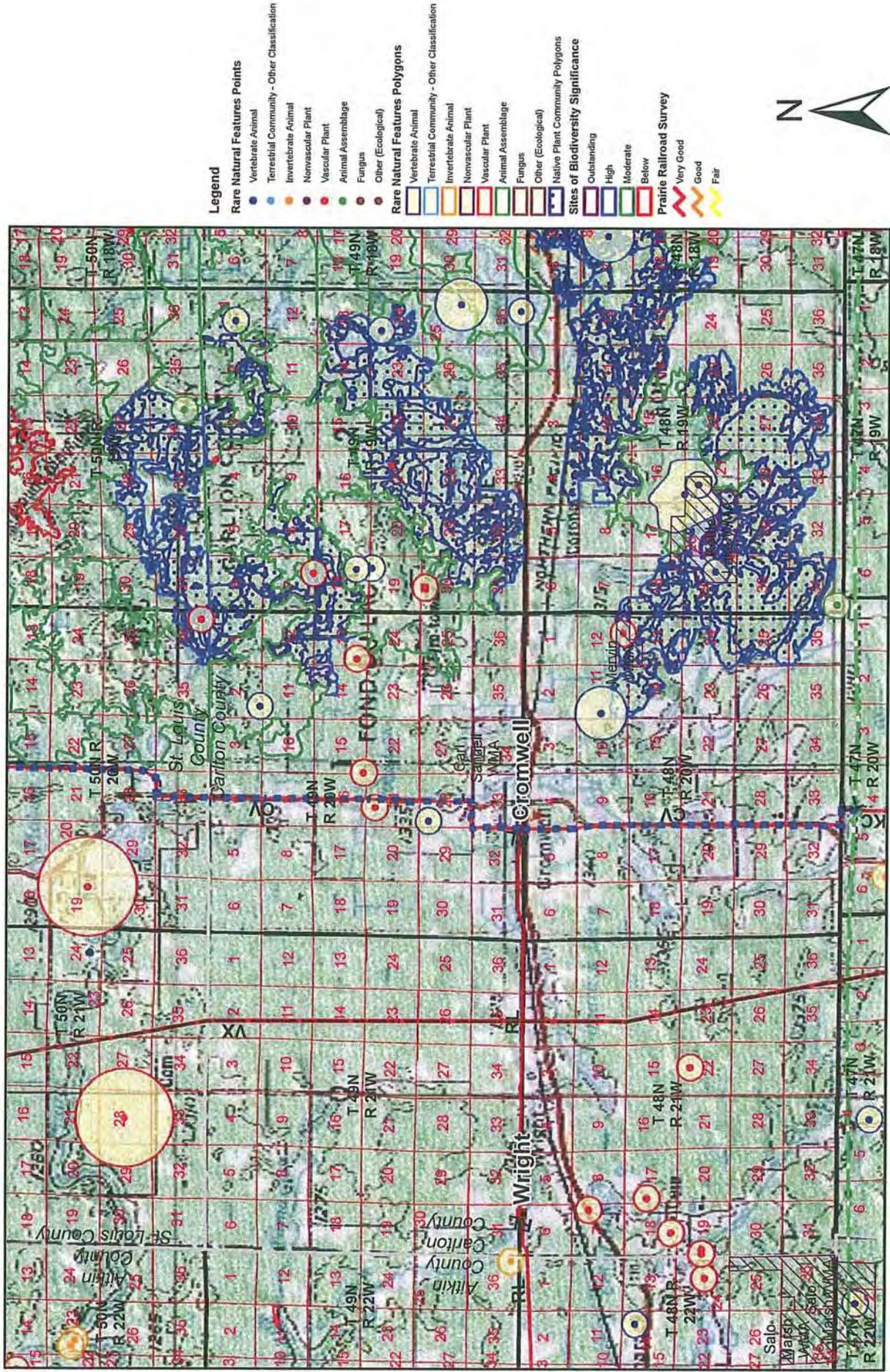
Rare Features in the Vicinity of the Proposed Savanna Substation and Transmission Line  
 Township T53N R21W, T52N R20W, T51N R20W, T50N R20W  
 Section 36 / 6-7, 16-21, 28-29, 32-34 / 2-4, 9-11, 14-15, 22-23, 26-27, 34-35 / 2-3, 9-11, 15-16, 21-22  
 County St. Louis



Savanna Substation and Transmission Line 1



Rare Features in the Vicinity of the Proposed Savanna Substation and Transmission Line  
 Township T50N R20W, T49N R20W, T48N R20W, T47N R20W  
 Section 21-22,27-28,30 / 4,9,16,21,28-29,32,33 / 4-5,8-9,16-17,20-21,28-29,32-33 / 4-5  
 County Carlton and St. Louis



Savanna Substation and Transmission Line 2

## Schmidt, Carole GRE-MG

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**From:** Joyal, Lisa (DNR) [Lisa.Joyal@state.mn.us]  
**Sent:** Wednesday, December 08, 2010 9:01 PM  
**To:** Schmidt, Carole GRE-MG  
**Subject:** Savanna 115 kV Transmission Project

I have reviewed the information dated October 12, 2010, regarding the above project. I do not have any concerns regarding rare features.

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

*Lisa Joyal*

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

phone: 651-259-5109  
[lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)  
[www.mndnr.gov/eco](http://www.mndnr.gov/eco)

