WINTHROP WEINSTINE

ATTORNEYS AND COUNSELORS AT LAW

October 18, 2016

Eric F. Swanson
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VIA EFILING

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

RE: In the Matter of the Request of Minnesota Power for a Route Permit for the Great Northern Transmission Line
MPUC Docket No. E-015/TL-14-21

Dear Mr. Wolf:

On behalf of Minnesota Power and the Great Northern Transmission Line, enclosed for filing in the above-referenced docket, please find the following:

1. A request for a minor alteration in the Route Permit, concerning a 6.5 mile segment of the route near the North Black River, at the request of the Minnesota Department of Natural Resources (Attachment A);

2. The Mineral Resource Plan (Attachment B);

3. The Agricultural Mitigation Plan (Attachment C);

4. The Draft Stormwater Pollution Prevention Plan (SWPPP) (Attachment D);

5. The Complaint Report form and Complaint (Attachment E);

6. The Draft Vegetation Management Plan (Attachment F);

7. The Draft Environmental Monitoring Plan (Attachment G) and

8. The Draft Avian Monitoring Plan (Attachment H).

If you have any questions regarding this filing, please feel free to contact me or David Moeller, of Minnesota Power.

The document has been filed with the eDocket system and served on the attached service list. Also attached is our Affidavit of Service.

Very truly yours,

WINTHROP & WEINSTINE, P.A.

/s/ Eric F. Swanson

Eric F. Swanson

12598038v1

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION
121 Seventh Place East, Suite 350
St. Paul, Minnesota 55101-2147

In the Matter of the Request by Minnesota Power for a Route Permit for the Great Northern Transmission Line	MPUC Docket No. E-015/TL-14-21 **AFFIDAVIT OF SERVICE**

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

Mary G. Holly, of the City of Lake Elmo, County of Washington, the State of Minnesota, being first duly sworn, deposes and says that on the 18th day of October, 2016, she served the attached **Compliance Filing** to all said persons on the attached Service List, true and correct copies thereof, by eFiling.

/s/ Mary G. Holly
MARY G. HOLLY

Subscribed and sworn to before me this
18th day of October, 2016.

/s/ Jane E. Justice
Notary Public

My Commission Expires: January 31, 2020

12600219v1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-21_Official
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Ann	O'Reilly	ann.oreilly@state.mn.us	Office of Administrative Hearings	PO Box 64620 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_14-21_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_14-21_Official
Kenneth	Westlake	N/A	US Environmental Protection Agency	Environmental Planning & Evaluation Unit 77 W Jackson Blvd. Mailstop B-19J Chicago, IL 60604-3590	Paper Service	No	OFF_SL_14-21_Official
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_14-21_Official

ATTACHMENT A

David R. Moeller
Senior Attorney
218-723-3963
dmoeller@allete.com

October 17, 2016

VIA ELECTRONIC FILING
Daniel Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Re: **Request for Minor Alteration in Route Permit**
In the Matter of the Request by Minnesota Power for a Route Permit for the Great Northern Transmission Line
MPUC Docket No. E015/TL-14-21

Dear Mr. Wolf:

Minnesota Power respectfully requests that the Commission approve a minor alteration in the Route Permit for the Great Northern Transmission Line. On April 11, 2016, the Minnesota Public Utilities Commission ("Commission") issued Minnesota Power a Route Permit for the Great Northern Transmission Line, a 500 kV transmission line in Roseau, Lake of the Woods, Koochiching and Itasca Counties ("Project"). On June 17, 2016, the Commission issued an Order Denying Reconsideration and Modifying April 11, 2016 Order. Minnesota Power is still in the process of obtaining additional permits and licenses for the Project necessary to begin construction around December 1, 2016.

Minnesota Power respectfully requests the Commission approve a minor alteration for an approximately 6.5 mile segment near North Black River at the request of the Minnesota Department of Natural Resources ("DNR"). Minnesota Power seeks approval of this minor alteration to mitigate concerns the DNR has regarding forest and wetlands impacts as detailed in Attachment 1 - the September 28, 2016 letter from the DNR.

No new landowners are being affected and the Company is coordinating with all landowners from whom an easement would be necessary to accommodate this new alignment. A copy of this filing has been provided to these landowners. Attachment 2 includes additional information on the requested minor alteration. Attachment 3 illustrates the requested minor alteration and the route and alignment as identified in the Route Permit issued by the Commission. As required by Attachment C

to the Route Permit for the Project, in addition to this letter and enclosures being eFiled, Minnesota Power has mailed a paper copy and CD of this filing to the Executive Secretary of the Commission.

Please contact me at the number above should you have any questions related to this filing.

Yours truly,

David R. Moeller

DPM:sr
Attach.

12599867v1

ATTACHMENT 1

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
NORTHWEST REGION

ECOLOGICAL & WATER RESOURCES
2115 BIRCHMONT BEACH RD NE
BEMIDJI, MN 56601

MNDNR

September 28, 2016

Jim Atkinson
Minnesota Power
30 W Superior Street
Duluth, MN 55802-2093

Dear Mr. Atkinson:

The Minnesota Department of Natural Resources (DNR) appreciated the opportunity to meet you on September 7, 2016 along the Great Northern Transmission Line (GNTL) Route near Township 158, Range 27, Section 3. This approximately 3 ½ mile section of the proposed transmission route runs through an area of candidate Lowland Conifer Old Growth forest (LCOG) and a wetland protection area for the North Black River Peatland Scientific and Natural Area. DNR appreciates the consideration of asking the Public Utilities Commission for a minor alteration to move the transmission line east next to an existing logging road (Forest Road CR 86) and transmission line that runs north and south as indicated in the map you provided.

This minor alteration would address DNR concerns for further fragmentation of the Agassiz candidate lowland conifer old growth matrix. While lowland conifer forests are common in northern Minnesota, they are very rare in other parts of the state and on a global scale, and old growth stands are becoming rare even in northern Minnesota. DNR is in the process of identifying a target pool of stands from the state forest inventory that will be evaluated for potential designation as LCOG Forest. This Agassiz LCOG matrix encompasses over 16,000 acres and provides ecological benefits such as:

- hydrologic and watershed protection
- complex interior forest habitats for plants and animals
- genetic reservoir and rare species refugia
- above and below-ground carbon storage
- separation from invasive species

The Agassiz candidate LCOG area is already bisected by Forest Road CR 86 and a transmission and distribution line corridor (roughly 200' wide) on the east side of the road. The GNTL line as proposed would create a second parallel dissection within roughly ½ mile, with all of the associated losses of forest removal. In addition, this would create a narrow strip of forest between the two corridors that is unmanageable for forest inventory, is vulnerable to wind throw and invasive species, and retains none of the desired old growth characteristics. This in effect enlarges the area of impact significantly.

This suggested minor alteration to the proposed route would place the GNTL line adjacent to CR 86 on the west side, expanding the existing ROW corridor but avoiding duplication of these adverse impacts through a new greenfields crossing. Use of this road also provides construction and operation benefits such as easier access for equipment, safe areas for vehicle re-fueling, and better control of the spread of invasive species.

In accordance with Minnesota Rule 7850.4100, routing for high voltage transmission lines shall consider effects on the natural environment, effects on rare and unique natural resources, use of paralleling

existing rights-of way, use of existing transportation and transmission routes, and minimizing adverse human and natural environmental effects which cannot be avoided. This suggested minor alteration benefits the environment by utilizing current transportation and transmission rights-of-way by adjusting the location to existing forest road and adjacent to existing transmission and distribution lines. It also reduces hydrology and vegetation impacts to both the Candidate LCOG area and Scientific and Natural Area watershed protection area, and allows for access during construction, maintenance, and operation for the proposed transmission line along existing road right-of-way.

Surveys conducted by Minnesota Power's contractor suggests there are *Cardamin pratensis* (cuckoo flower) in the proposed corridor and associated habitat that may cross the new suggested reroute. DNR suggests a habitat suitability assessment for cuckoo flower be conducted along the new proposed minor alteration because surveys for the actual species would not be possible before construction this winter. If there is suitable habitat indicated, DNR recommends spanning as practicable that habitat as to minimize disturbance.

Again, DNR appreciates the cooperation and time to coordinate this minor alteration to the Great Northern Transmission Line that will benefit both the natural environment, and the project. If you have any additional questions, please contact Theresa Olson at Theresa.olson@state.mn.us or (218) 308-2672.

Sincerely,

Theresa Olson
Regional Environmental Assessment Ecologist

CC: Joe Rokala, Pam Arndt, Brooke Haworth, Kate Fairman

ATTACHMENT 2

Minor Alteration Request for Great Northern Transmission Line

On April 11, 2016, the Minnesota Public Utilities Commission ("Commission") issued Minnesota Power a Route Permit for the Great Northern Transmission Line, a 500 kV transmission line in Roseau, Lake of the Woods, Koochiching and Itasca Counties ("Project"). On June 17, 2016, the Commission issued an Order Denying Reconsideration and Modifying April 11, 2016 Order. Minnesota Power is still in the process of obtaining additional permits and licenses for the Project necessary to begin construction around December 1, 2016.

Minnesota Power respectfully requests the Commission approve a minor alteration for an approximately 6.5 mile segment near North Black River at the request of the Minnesota Department of Natural Resources ("DNR") pursuant to Minnesota Rule 7850.4800. Minnesota Power seeks approval of this minor alteration to mitigate concerns the DNR has regarding forest and wetlands impacts as detailed in the attached September 28, 2016 letter from the DNR. By granting the minor alteration, the DNR's concerns would be addressed without any additional impacts to landowners or the environment. In addition, Minnesota Power's proposed Plan & Profile submissions are consistent with this minor alteration, if it is approved by the Commission.

A minor alteration is a change in a high voltage transmission line that does not result in significant changes in the human or environmental impact of the facility subject to the Power Plant Siting Act, Minnesota Statutes Chapter 216E. Permittees requesting a minor alteration must submit the application to the Commission. Minn. R. 7850.4800. The Commission is authorized to approve a minor alteration after providing "at least a ten day period for interested persons to submit comments on the application or to request that the matter be brought to the [C]ommission for consideration." Minn. R. 7850.4800, subp. 2. As demonstrated below, the proposed minor alteration does not result in significant changes in the human or environmental impact of the Project.

Table 1 below shows the impacts of the Project if constructed along approved alignment compared to the proposed alignment.

Table 1. Environmental Impact Comparison for PUC Approved Route vs North Black River Reroute

Criteria	Units	PUC Approved Route (April 2016)	North Black River Reroute (September 2016)
Length of Transmittion Line	Miles	6.35	6.87
Length that is in or Parallel to Existing Right-of-Way	Miles	0.05	4.63
Number of Roads Crossed	Number	1	1
Number of Parcels Crossed	Number	34	31
Number of Residences Within Right-of-Way	Number	0	0
Number of Non-Residential Buildings Within the Right-of-Way	Number	0	0
Area of Agricultural Land Within the Right-of-Way	Acres	0	0
Area of Forested Land Within the Right-of-Way	Acres	1.06	1.13
Area of Mineral or Metal Mining Resources within Right-of-Way	Acres	0	1
Area of Wetlands Within the Right-of-Way	Acres	153.33	165.39
Freshwater Emergent Wetland	Acres	1.21	2.4
Freshwater Forested/Shrub Wetland	Acres	151.34	162.34
Freshwater Pond	Acres	0.59	0.52
Riverine	Acres	0.19	0.13
Area of Grassland Within the Right-of-Way	Acres	0	0
Area of Developed Land Crossed	Acres	0.23	0.19
Transmission Line Distance Across a Lake, Stream, Drainage, or other Waterway	Feet	194.25	150.23
Area of DNR-owned Land	Acres	135.34	148.25
Area of Private Land	Acres	18.09	17.97
Area of Parks, Waterfoul Production Areas, and Wildlife Management Areas within the Right-of-Way	Acres	0	0
Number and Count of Known Protected or Endangered Species Within the Right-of-Way*	Number of Species, Count	1 species, 2 plants found	Unknown
Number of Archaeological Resources Within the Right-of-Way	Number	-	-
Peatland Watershed Protection Area	Miles	3.55	3.75

*Biological surveys were completed on the PUC Approved Route in summer 2016; Surveys have not completed on the Black River Reroute.

Landowner Notice and Comment Requirements

This minor alteration does not impact new landowners and the Company is coordinating with the landowners from whom it requires easements. Minnesota Rule 7850.4800, subpart 2, states that the Commission shall mail notice of receipt of this minor alteration request to those persons on the general list and to those persons on the project contact list. The Commission shall provide at least a 10-day period for interested persons to submit comments on the minor alteration request or to request the matter be brought to the Commission for consideration.

Conclusion

Minnesota Power respectfully requests that the Commission approve this proposed minor alteration.

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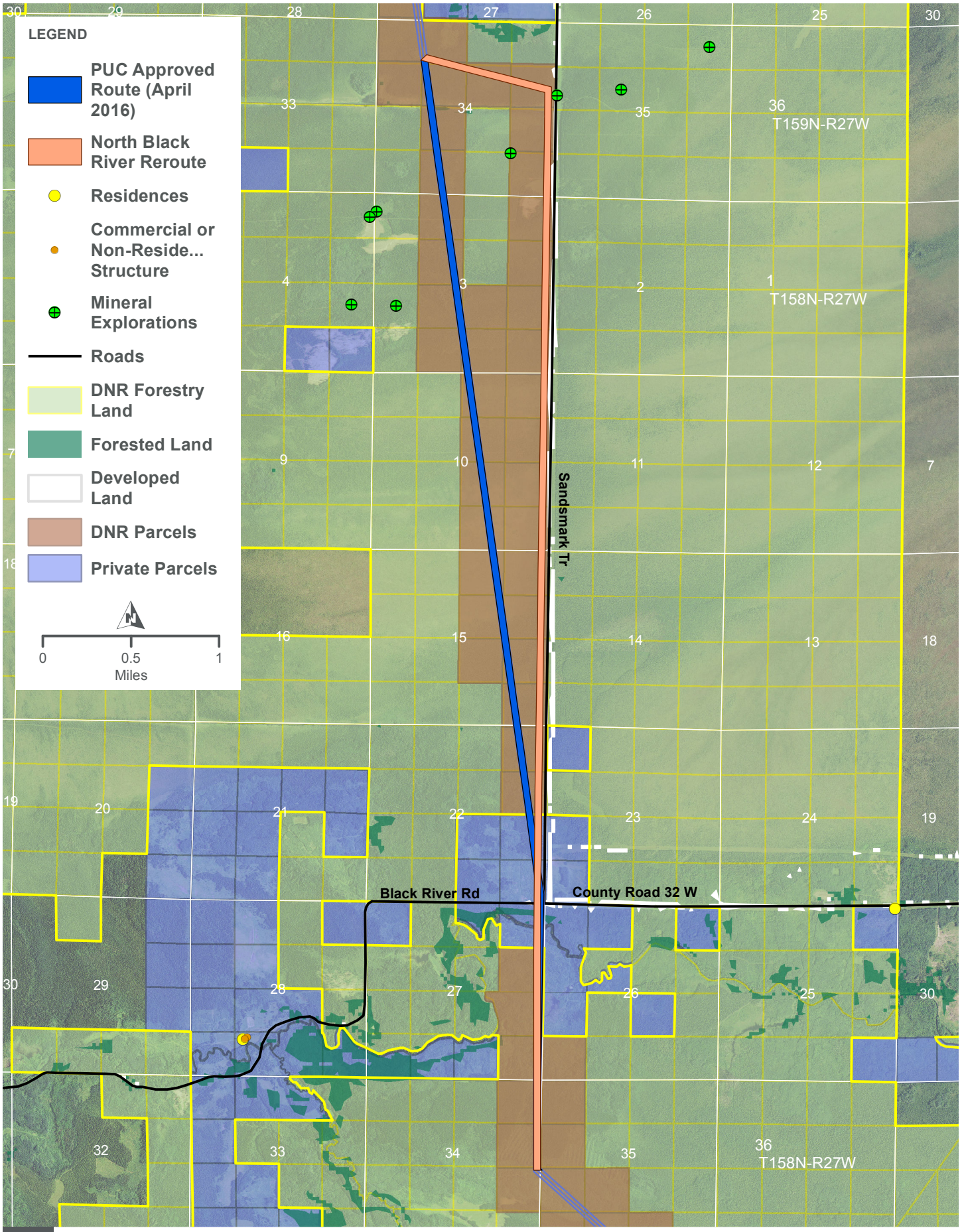
ATTACHMENT 3



BLACK RIVER

DNR LAND, MINING, AND RESIDENCES

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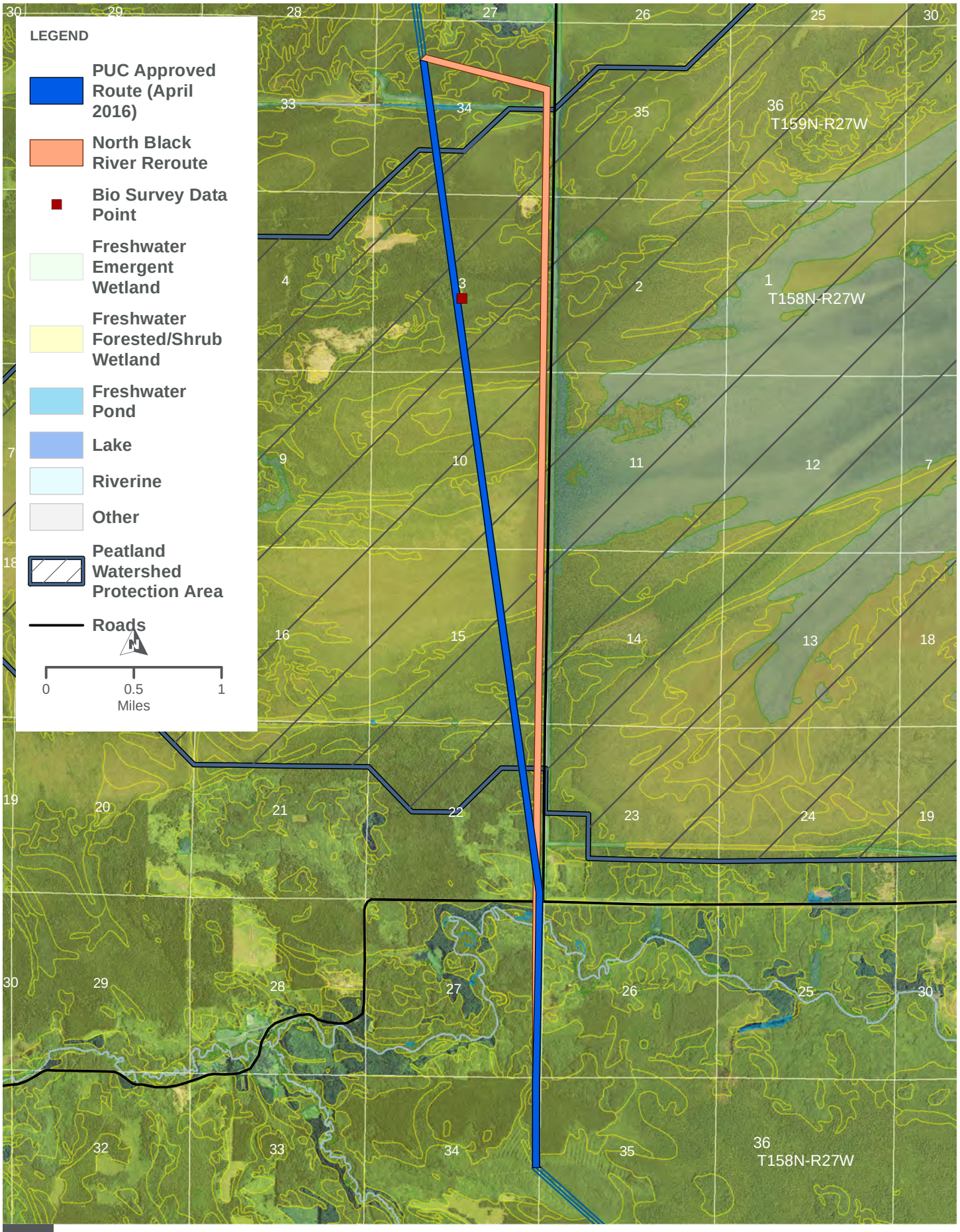


BLACK RIVER

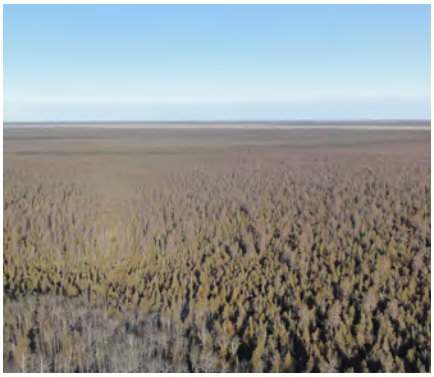
WETLANDS AND BIO SURVEY DATA

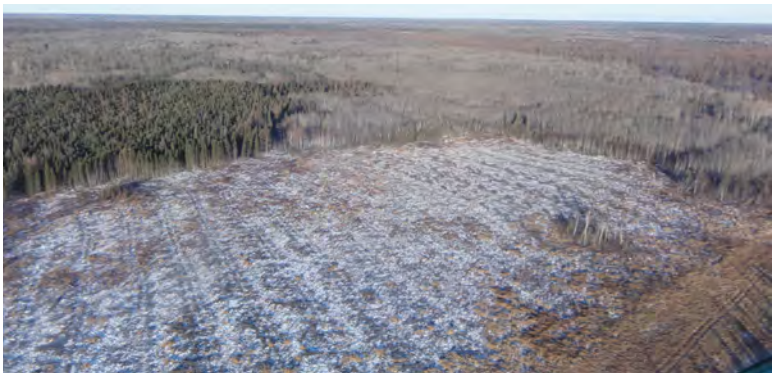
ATTACHMENT B

minnesota power

AN ALLETE COMPANY

GREAT NORTHERN TRANSMISSION LINE





MINERAL RESOURCE PLAN

OCTOBER 14, 2016

Minnesota Power | 30 West Superior Street | Duluth, MN 55802

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1.0 Introduction

Minnesota Power, a regulated utility division of ALLETE, Inc. proposes to develop the Great Northern Transmission Line Project (proposed Project or Project) to connect renewable sources of power generation (hydroelectric) in Manitoba, Canada to northern Minnesota. The proposed Project is shown in Figure 1. This hydroelectric power would be used to off-set projected energy shortages across the region in northern Minnesota by 2020 and to complement Minnesota Power's wind energy investments in North Dakota. Minnesota Power estimates the total capital cost for the proposed Project would be between $558 million and $710 million (2013 dollars) and is projected to be in service by 2020. Minnesota Power estimates that the proposed Project would create 120 direct construction jobs during the approximate 4-year construction period.

The proposed Project would run from Minnesota Power's proposed international border crossing in Roseau County, Minnesota to the proposed Iron Range 500 kV Substation located just east of the existing Blackberry Substation near Grand Rapids, Minnesota. It would be located on all new 200-foot wide right of way (ROW) with a wider area required for certain spans at angle and corner structures, for guyed structures, or where special design requirements are dictated by topography. The proposed Iron Range 500 kV Substation would accommodate the required 500 kV interconnection. Minnesota Power is also proposing to construct a new 500 kV series compensation station, regeneration stations, permanent access roads, temporary access roads, laydown areas, and fly-in sites. The proposed Project would be owned and operated in the United States by Minnesota Power.

This Mineral Resource Plan (MRP) has been prepared in accordance with the requirements set forth under the Minnesota Public Utilities Commission (Commission or PUC) on April 11, 2016 (Docket No. E015/TL-14-21). The purpose of this MRP is to review the proposed Project in sufficient detail with the Minnesota Department of Natural Resources (MnDNR) Land of Minerals Division (LAM) to determine potential effects to mineral resources from the Project.

1.1 Mineral Resource Plan Requirements

As required by the commission the applicant must submit a MRP. In this plan the commission explained it must include the following:

1. General description of State-owned mineral resources in the project area, and
2. Documentation of consultation with the MnDNR regarding measures to avoid interference with exploration and encumbrance of State-owned minerals.

The below report covers both requirements from the commission.

1.2 Consultation

Since the PUC requirement to complete a MRP with assistance from the MnDNR, Minnesota Power and the MnDNR have worked closely and have shared information to complete the analysis. Table 1 provides a summary of each meeting between MnDNR and Minnesota Power regarding the Mineral Resources.

Table 1 Consultation Meetings

Meeting Date	Topic of Meeting	Attendees
May 6, 2016	GNHVTL Mineral Resource Plan	Minnesota Power, MnDNR-LAM
May 6, 2016	GNHVTL Geophysical Mitigation	Minnesota Power, MnDNR-LAM, Private Consultant, Minnesota Geological Survey
July 26, 2016	Mineral Review Project Update with the MnDNR-LAM. What has been accomplished and what are the next steps to fulfill the Commissions required MRP compliance filing	Minnesota Power and MnDNR-LAM
August 17, 2016	Vermillion Gold and Minnesota Power Mineral/Transmission Coordination	Minnesota Power, MnDNR-LAM, Itasca County, and Vermillion Gold

1.3 State-Owned Minerals Crossed

Minnesota Power has consulted with the MnDNR-LAM to develop common information that will assist Minnesota Power fulfill the commissions MRP compliance filing, and assist MnDNR review the potential for mineral resource impact where the proposed Project crosses state School Trust, Consolidated Conservation, Acquired, Volstead, Land Utilization Project Leases, and Tax Forfeit lands. These lands are all State-owned lands. The mineral resources covered in this plan include:

- State metallic mineral leases;
- Sand and Gravel Aggregate;
- Peat resources; and
- Geophysical noise mitigation.

Minnesota Power met with MnDNR-LAM as early as February of 2013 to gain insights on route alternatives in the vicinity of the Mesabi Iron Range. Minnesota Power's preferred, and now approved, route chose to avoid crossings substantial State-owned School Trust iron resources. Figure 2 represents an example of several alternative routes in the Mesabi Iron Range.

1.3.1.1 State Metallic Mineral Leases

The two Effie alignment centerlines cross an active State metallic mineral lease (MM-10450), located in Section 1, Township 60 North, Range 23 West, in northwestern Itasca County (Figure 3). The lease crossed (MM-10450) is currently crossed by two existing high voltage lines. The Project would run parallel to the existing high voltage transmission lines. The existing transmission lines cause geophysical exploration interference. The proposed Project would

likely add 4 tower structures onto the lease property. The State-owned interest in the lease (MM-10450) is Tax Forfeit Surface and Mineral interest. Minnesota Power, MnDNR, and Vermillion Gold consulted on the lease agreement for MM-10450 on August 17, 2016 and have come to an agreement.

Lease MM-10451 (Figure 4) is located near the Project. However, since the lease is not directly crossed by the Project centerline no consultation is required.

Another nearby lease (MM-10448) was also crossed by the two Effie alignments, but that lease has recently terminated, eliminating the need for lease consultation.

1.3.1.2 Sand and Gravel Aggregate

The MnDNR-LAM conducted a desktop analysis of the proposed Project and a MnDNR-LAM aggregate geologist conducted site visits to a dozen selected sites. The sites visited in the Counties of Itasca, Koochiching, Lake of the Woods, and Roseau. In total 894 State-owned (or leased) were analyzed. The results of the analysis are shown in Table 2.

Seventy-one parcels are identified as Possible to contain sand or gravel resources. Available information is insufficient to move any of these parcels to Likely or Unlikely classification. Of the 71 parcels identified as Possible to hold aggregate material, 11 are School Trust (5 Itasca and 6 Koochiching); 15 are Consolidated Conservation (4 Roseau, 9 Lake of the Woods, 2 Koochiching); and the other 45 are Tax Forfeit (36 Itasca and 9 Koochiching).

Table 2 Parcels with Potential to Hold Aggregate Materials

Number of Parcels	Classification
819	Unlikely
71	Possible
4	Likely

Source: MnDNR

Of the 4 parcels identified as Likely to hold aggregate material, one is School Trust, two are Consolidated Conservation, and one is Tax Forfeit (Itasca County). To date the parcels have been classed on potential presence of aggregate material. Filters for Access, Quantity, and Quality have not been applied to the Likely or Possible parcels. Figures 5, 6, and 10 show the parcels crossed that Likely hold aggregate material.

1.3.1.3 Peat Resources

The MnDNR-LAM conducted a desktop analysis of the proposed Project. The desktop analysis made use of the State's peat inventory maps, the State's database of peat inventory sites, aerial photography, GAP vegetation classifications, Lidar imagery, and other Geographical Information System (GIS) layers covering scientific and natural area's (SNA) peatland SNA watershed protection areas, wildlife management areas, wetland banking locations, and streams and rivers coverages.

During the planning of the proposed Project, Minnesota Power incorporated the State's peat inventory maps as an aid in assessing whether deep organic deposits would be encountered along route alternatives. As a result of using this information during early route planning, potential for encumbrance of high value fibric/sphagnum peat resources along the proposed Project has been significantly reduced. In total 894 State-owned (or leased) parcels were analyzed. The results of the analysis are shown in Table 3.

Table 3 Parcels with Potential to Hold Peat Resources

Number of Parcels	Classification
752	Unlikely
119	Likely (low quality peat)
23	Likely or Known (high quality peat)

Source: MnDNR, 2016b

The 752 parcels that were classified Unlikely to contain peat resources was due to peat thickness less than 5 feet or occurring within a peat mining avoidance area (peatland SNA watershed protection areas and State wildlife management areas).

There are 119 parcels, all within or proximal to the Lake Agassiz Lowlands, interpreted as containing lower quality hemic peat in their entirety (81 School Trust, 1 Volstead, 1 Tas Forfeit) located in Itasca County, and 53 Consolidated Conservation parcels located in Roseau(13), Lake of the Woods (13), and Koochiching (27) counties.

Of the 23 parcels that may contain Likely or Known high quality peat resources, six parcels (Tax Forfeit), located just north of the Blackberry substation in Itasca County, are interpreted as containing a cap of fibric peat in excess of 1-foot. In addition, three parcels in northern Koochiching County are interpreted as Likely having a cap of fibric peat and are interspersed among 14 additional parcels that may have interpreted hemic peat (17 adjoining parcels in total). Refer to Figures 7 and 8 for a detailed depiction of the 23 parcels.

1.3.1.4 Geophysical Noise Mitigation

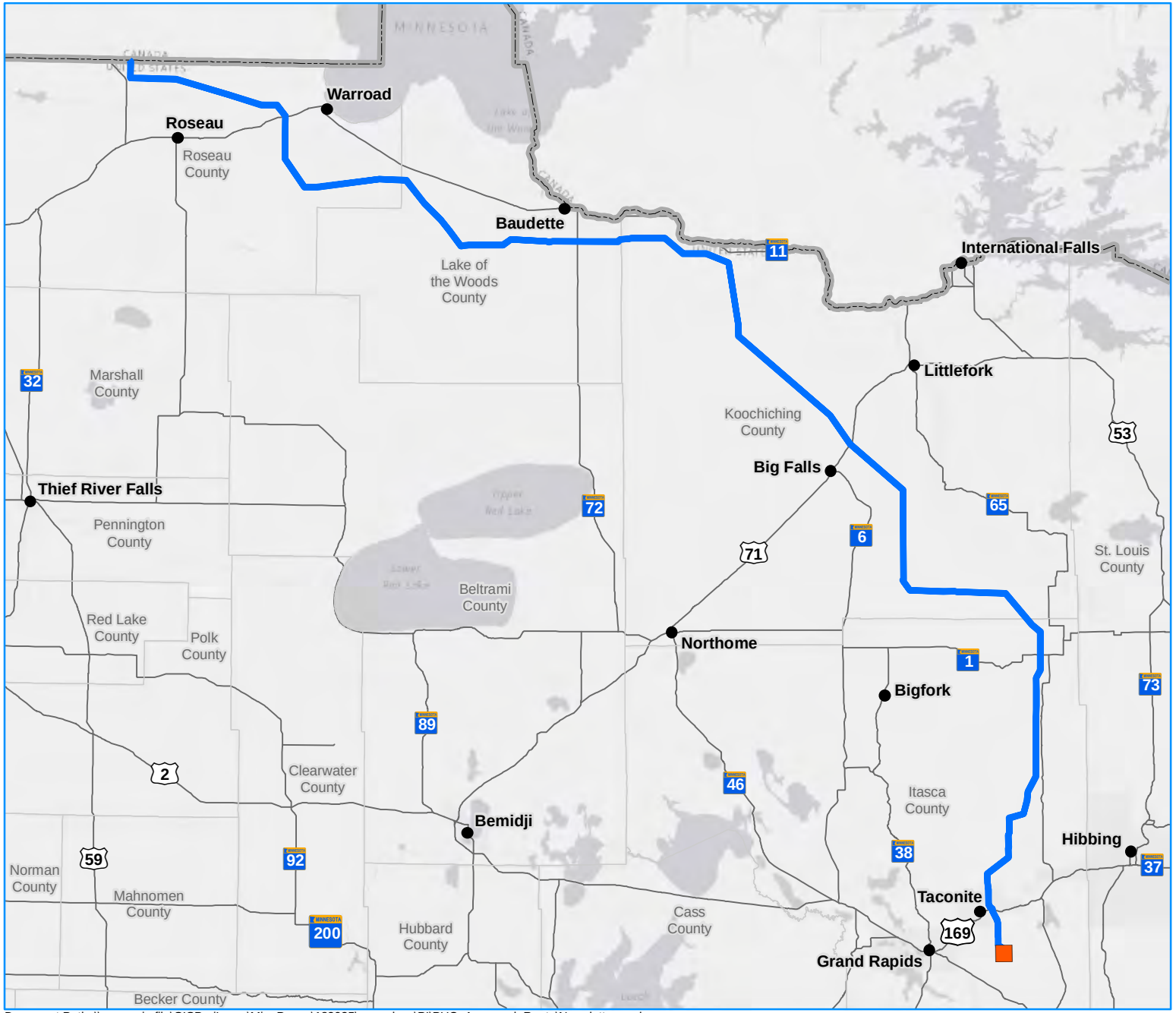
Minnesota Power staff identified all existing high voltage transmission lines that parallel the proposed GNTL centerline and generated a 1-mile buffer around those transmission lines. These areas represent areas of existing geophysical noise. Staff then generated a 1-mile buffer around the proposed GNTL centerline. New areas of geophysical noise that would be created by the Great Northern Transmission Line were identified as the difference between the existing HVTL buffer and the GNTL buffer.. As a result of this process, a number of sliver areas were identified. These small areas were eliminated due to their relative size. The result is five areas where the introduction of the GNTL may create new geophysical noise for future exploration. Figure 9 represents the analysis completed for the Geophysical Noise Mitigation.

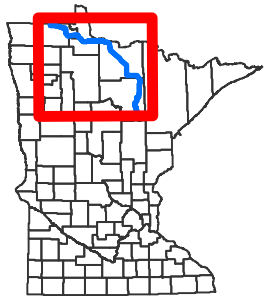
Figures

minnesota power
AN ALLETE COMPANY

GREAT NORTHERN TRANSMISSION LINE

MPUC Approved Route





Legend

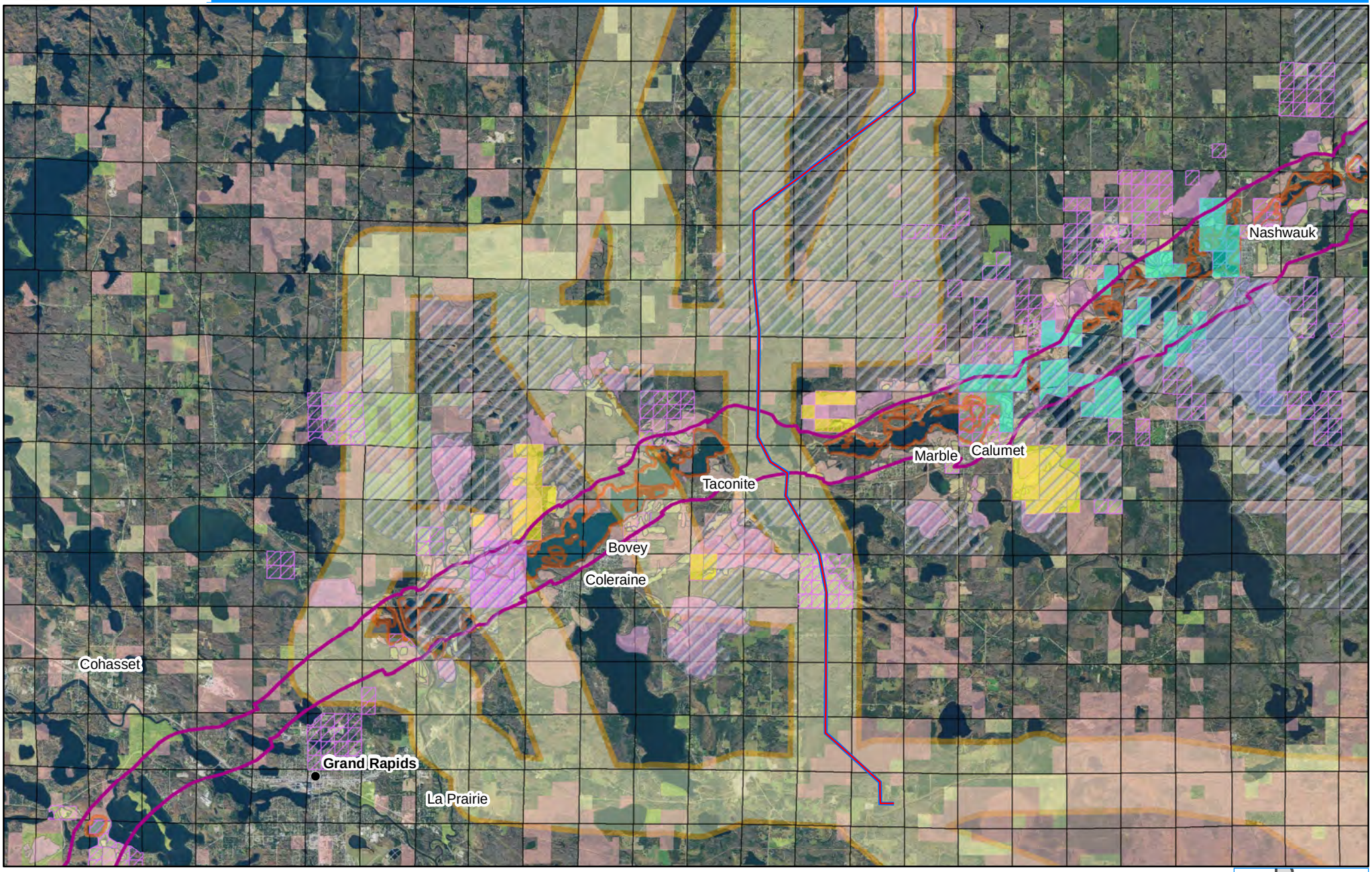
- MPUC Approved Route
- Blackberry Substation
- State Boundary
- County Boundary
- City

0 10 Miles

N

Document Path: \\mspe-gis-file\GISProjLarge\MinnPower\182035\map_docs\PI\PUC_Approved_Route\Newsletter.mxd

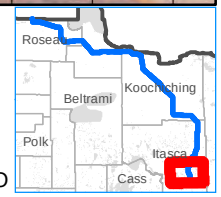
Early Mesabi Range Crossing Alternatives - Figure 2



- Mineral Leases
- Current Tailings Lease to Magnetation
- Current Taconite Lease to Magnetatio
- Current Taconite Lease to Essar
- Biwabik Iron formation
- Itasca Co. Mine Overaly Zone
- Natural Ore Pit
- Natural Ore Tailings Basin
- Rock Stockpile
- Stockpile
- Taconite Tailings Basin
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands
- GNTL centerline
- GNTL right of way
- Route Options (2013)
- Public Land Survey

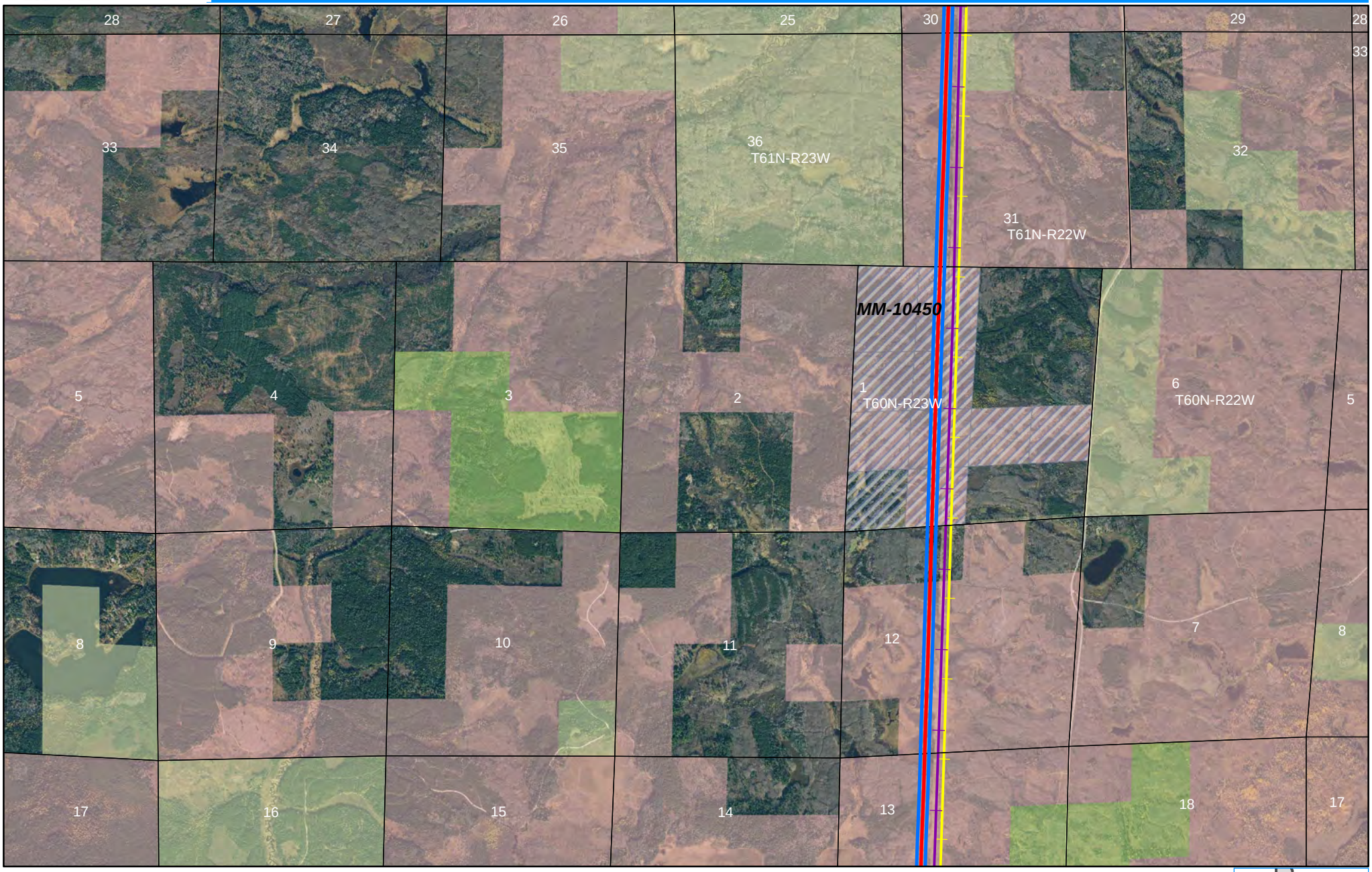
4 2 0 4
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Active Mineral Lease MM-10450 along the Great Northern Transmission Line - Figure 3



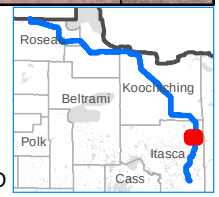
Existing Transmission VOLTAGE

- 115
- 230
- 500

- Active Metallic Mineral Leases
- Wildlife Management Area
- Public Land Survey
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands
- GNTL centerline
- GNTL right of way

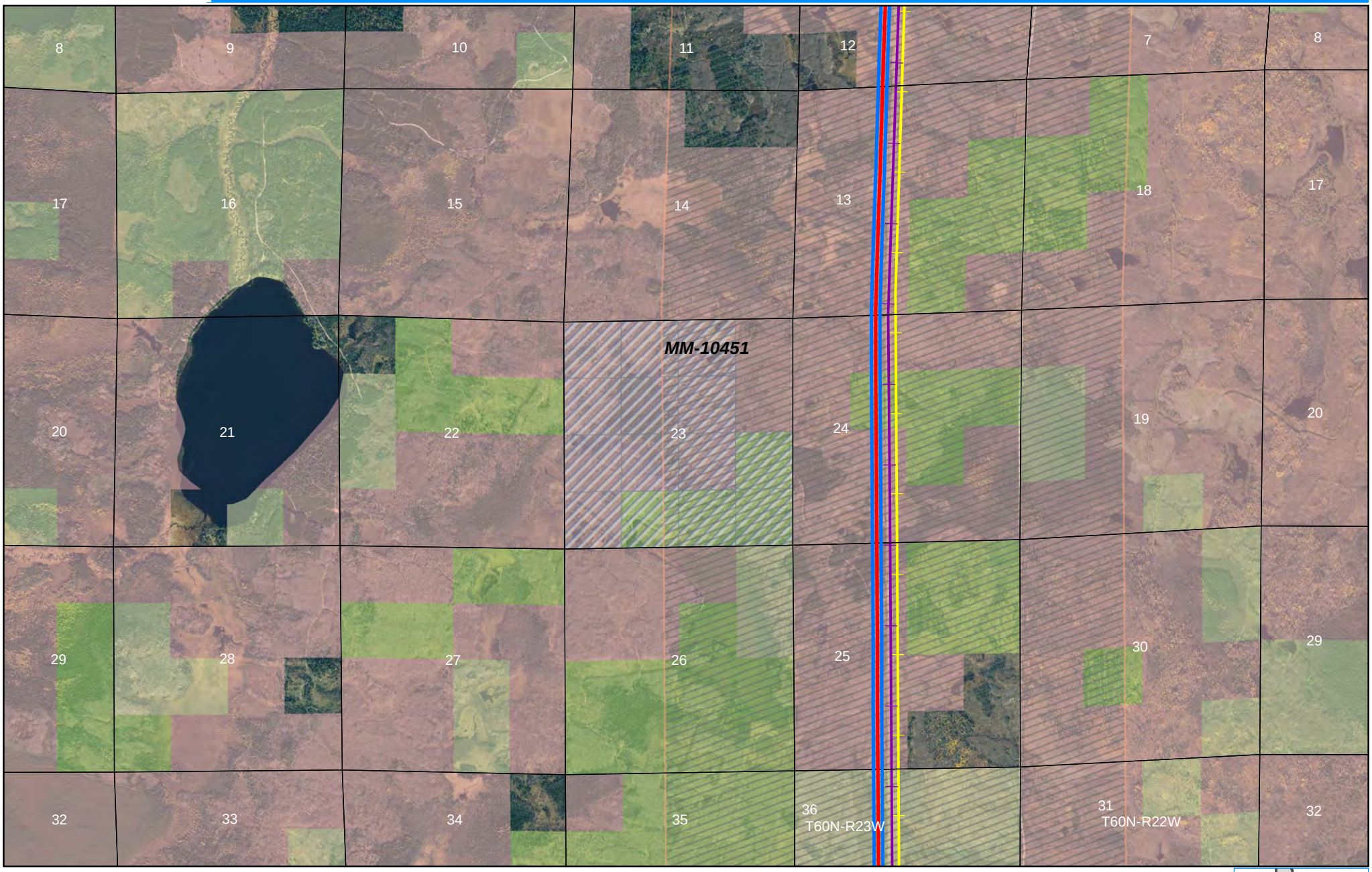
1 0.5 0 1
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Active Mineral Lease MM-10451 along the Great Northern Transmission Line - Figure 4



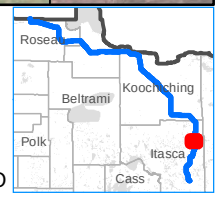
Existing Transmission VOLTAGE

- 115
- 230
- 500

- Active Metallic Mineral Leases
- Wildlife Management Area
- Interference Path
- Public Land Survey
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands
- GNTL centerline
- GNTL right of way

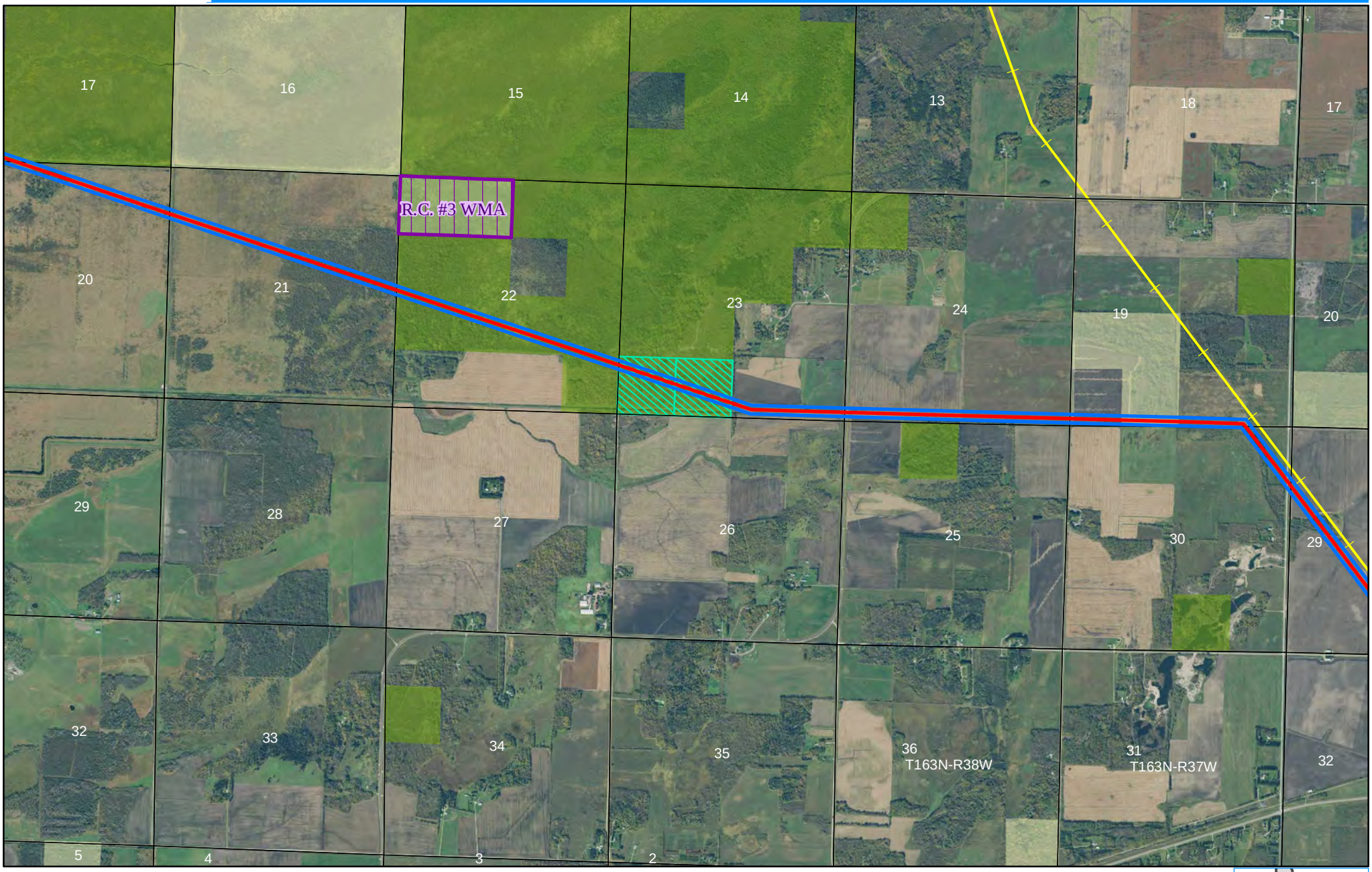
1 0.5 0 1
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Potential Aggregate material in Northern Roseau County - Figure 5



Existing Transmission

VOLTAGE

- 115
- 230
- Public Land Survey
- Wildlife Management Area

Aggregate materials

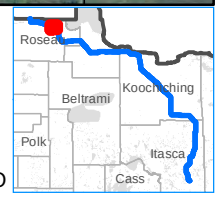
- Likely-Grvl
- Likely-Sand
- Possible
- PossibleGrvl
- Unlikely

- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands

- GNTL centerline
- GNTL right of way

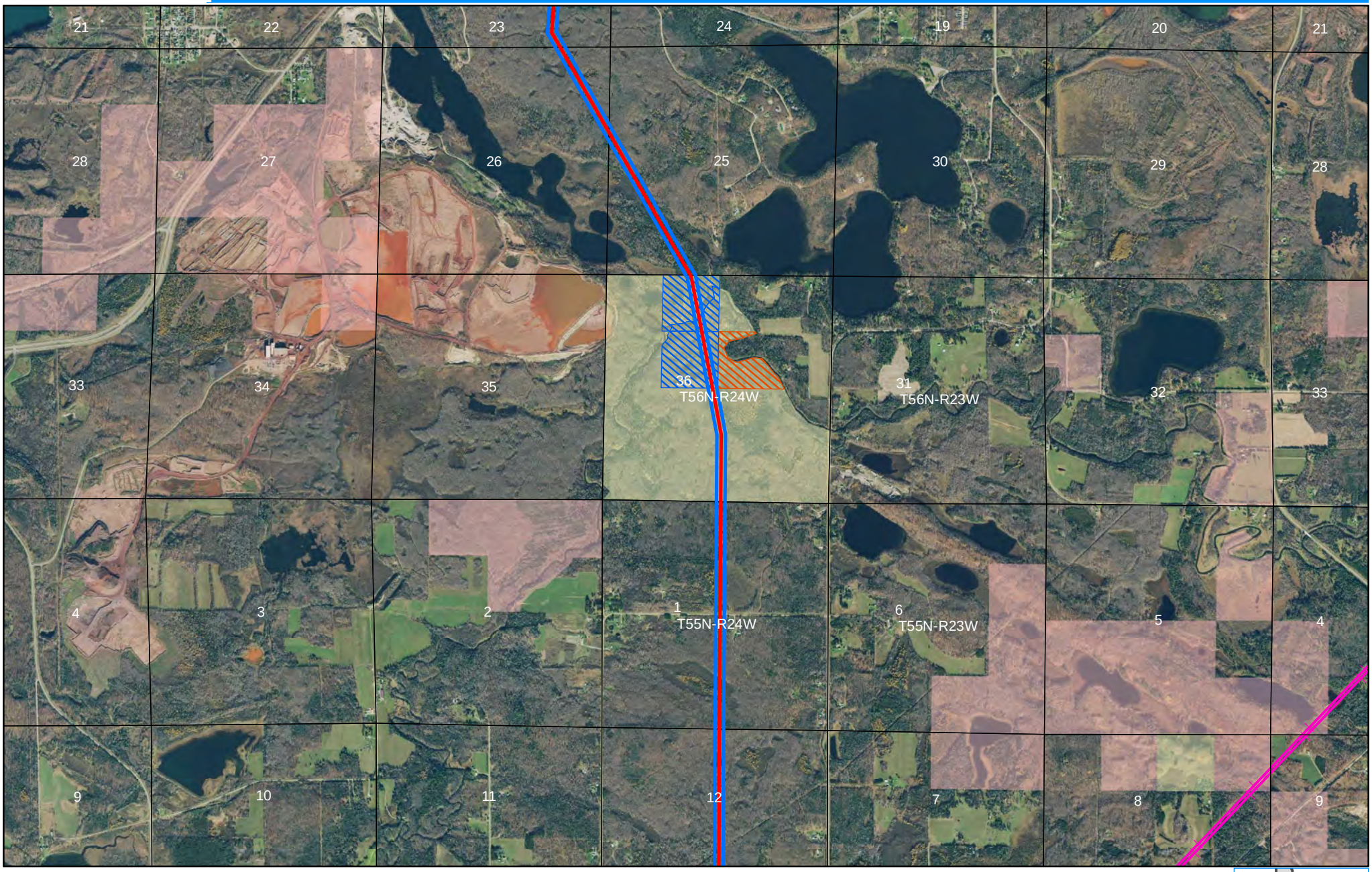
1 0.5 0 1
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Potential Aggregate material in Southern Itasca County - Figure 6



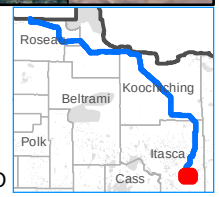
Existing Transmission VOLTAGE
- 115
- 230
- Public Land Survey
- Wildlife Management Area

Aggregate materials
- Likely-Grvl
- Likely-Sand
- Possible
- PossibleGrvl
- Unlikely

- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands

- GNTL centerline
- GNTL right of way

1 0.5 0 1
Miles



Sources: MnDNR, Minnesota Power, MnGEO

Potential Peat materials in Northern Koochiching County - Figure 7

Existing Transmission

VOLTAGE

- 69
- 115
- 230

Peat Occurence >5 feet thick

- Fibric
- Hemic
- Wildlife Management Area
- Public Land Survey

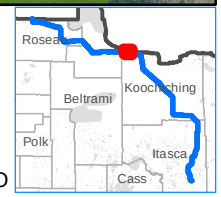
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands

- GNTL centerline
- GNTL right of way

1 0.5 0 1

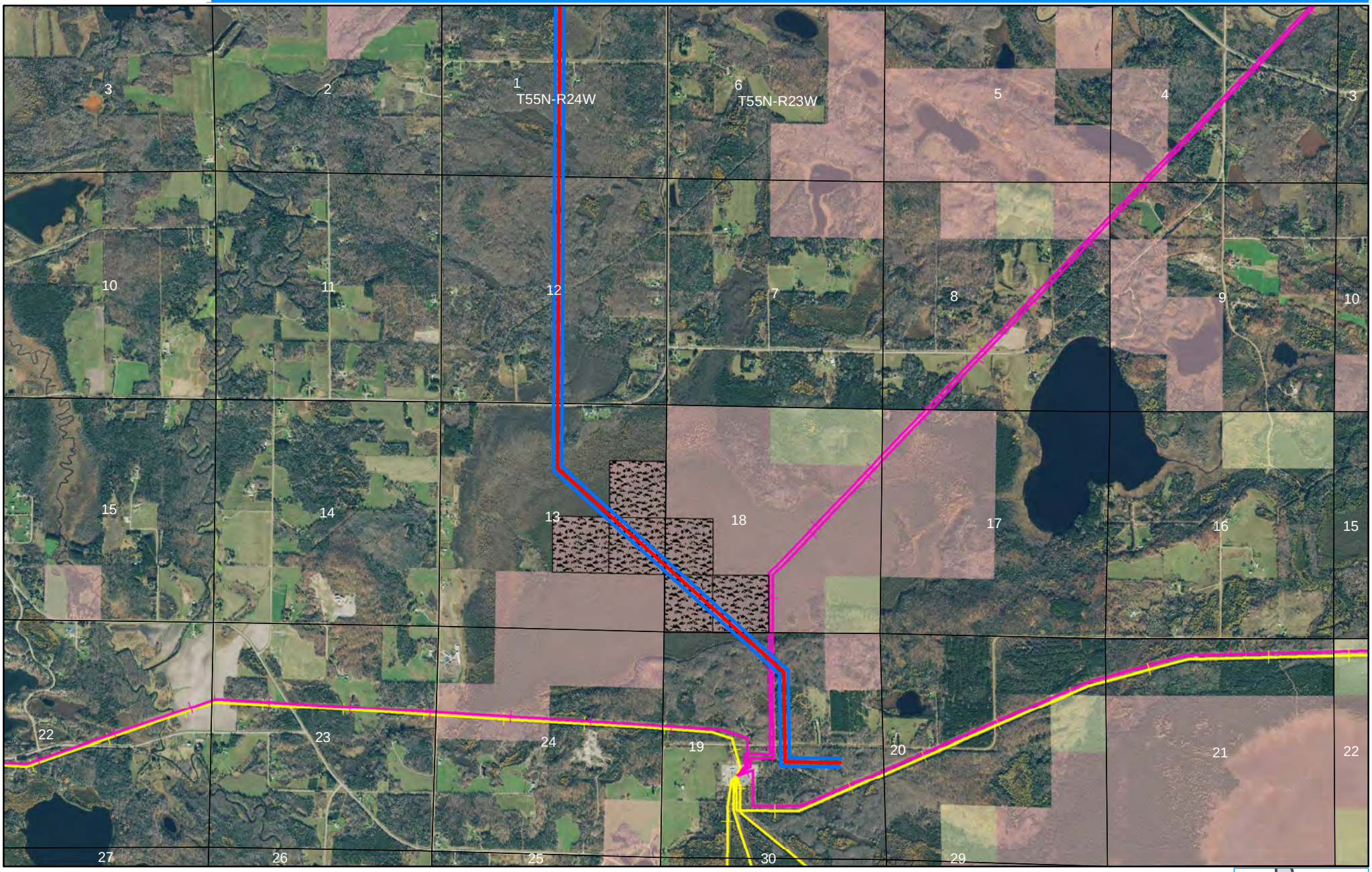
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Potential Peat materials in Itasca County, near Blackberry - Figure 8



Existing Transmission

VOLTAGE

- 115
- 230

Peat Occurence >5 feet thick

- Fibric
- Wildlife Management Area
- Public Land Survey

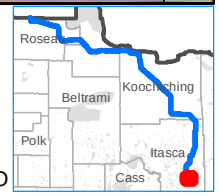
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands

- GNTL centerline
- GNTL right of way

1 0.5 0 1

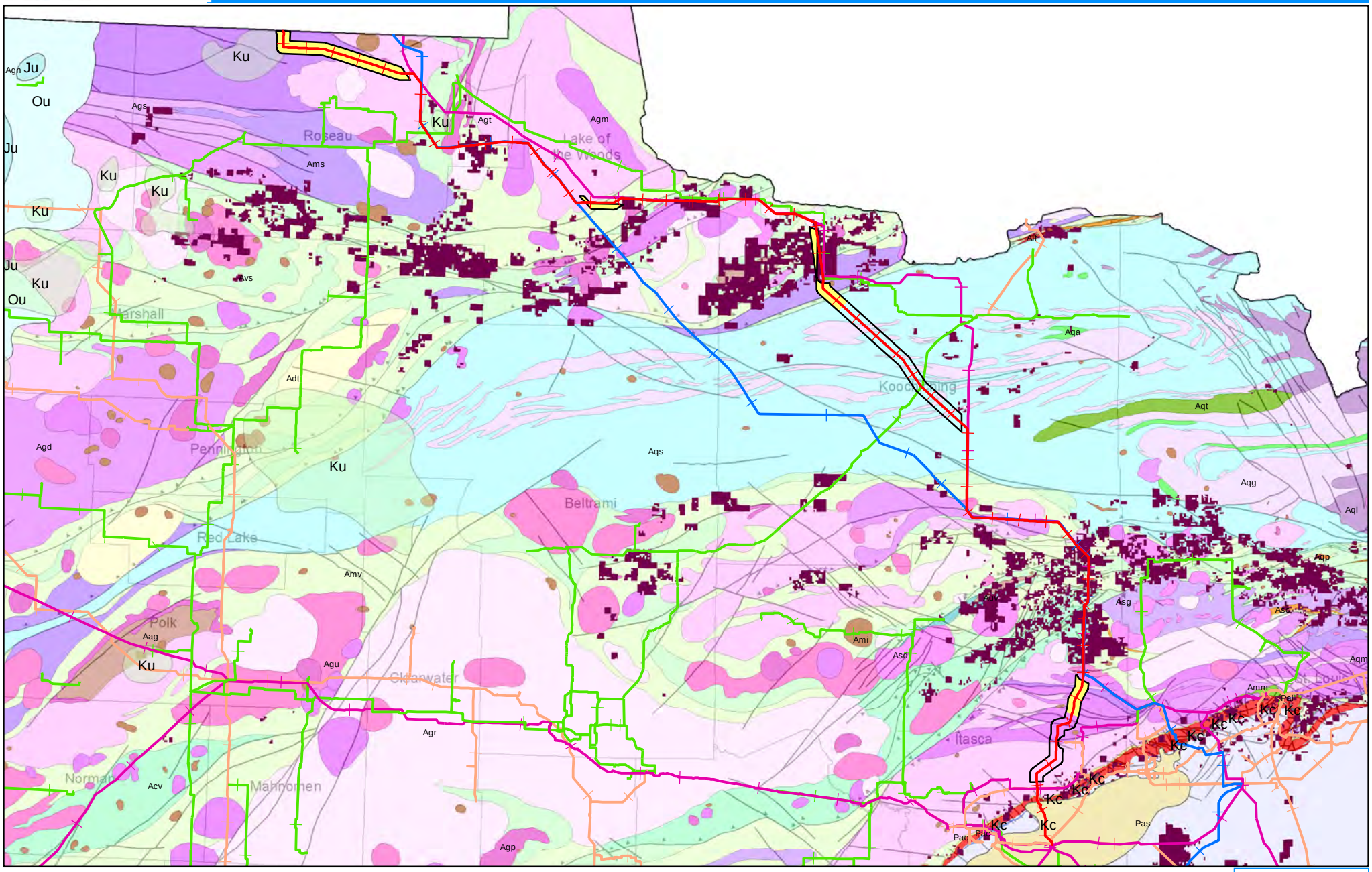
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Overview of Geophysical Noise Mitigation - Figure 9



Existing Transmission

VOLTAGE

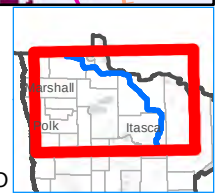
- 69
- 115
- 230
- 500

- GNTL centerline
- Moderate or Higher metallic mineral resource potential
- GNTL new footprint: >1mi from existing transmission lines and <1mi from GNTL
- State metallic mineral leases
- County Boundaries

30 15 0 30

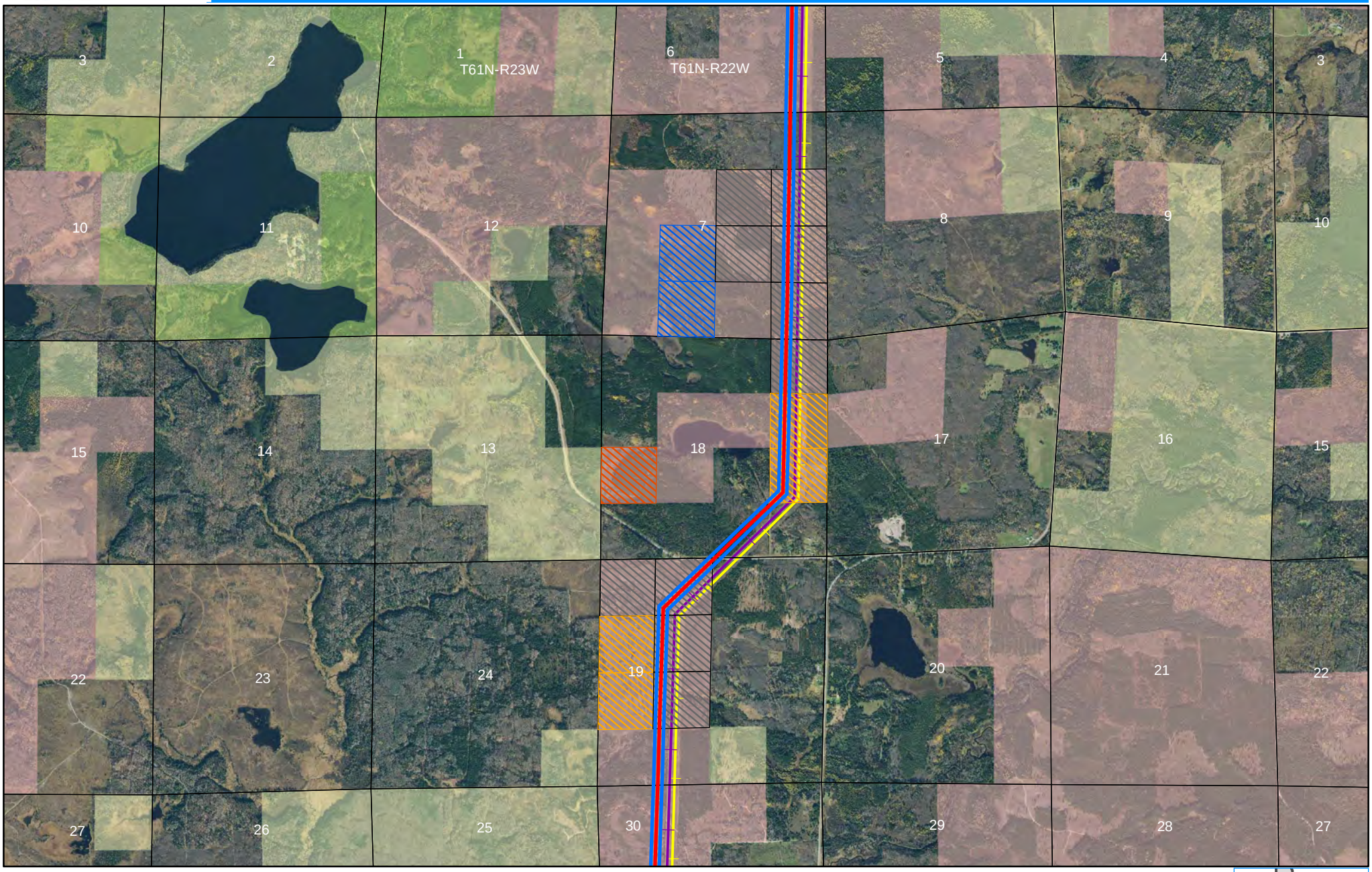
Miles

N



Sources: MnDNR, Minnesota Power, MnGEO

Potential Aggregate material in Nothern Itasca County - Figure 10



Existing Transmission

VOLTAGE

- 115
- 230
- 500
- Public Land Survey

Aggregate materials

- Likely-Grvl
- Likely-Sand
- Possible
- PossibleGrvl
- Unlikely

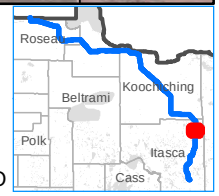
- Existing State-owned lands in Fee
- Existing State-owned Consolidated Conservation lands
- Existing State-owned Tax Forfeit lands
- Existing State-owned School Trust lands

- GNTL centerline
- GNTL right of way
- Wildlife Management Area

1 0.5 0 1

Miles

N



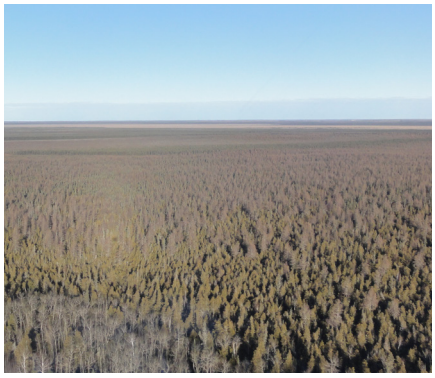
Sources: MnDNR, Minnesota Power, MnGEO

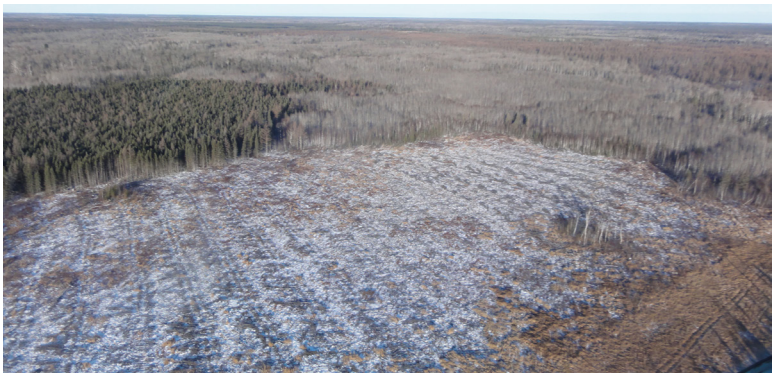
ATTACHMENT C

minnesota power

AN ALLETE COMPANY

GREAT NORTHERN TRANSMISSION LINE





AGRICULTURAL IMPACT MITIGATION PLAN

OCTOBER 14, 2016

Minnesota Power | 30 West Superior Street | Duluth, MN 55802

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1.0 Purpose

This Agricultural Impact Mitigation Plan ("AIMP" or "the Plan") contains measures intended to avoid, mitigate, or compensate for negative agricultural impacts that may result from transmission line construction.

1.1 Background

Minnesota Power, an operating division of ALLETE, Inc., (Utility) proposes to construct and operate a 500 kilovolt (kV) alternating current (AC) transmission line between the Minnesota-Manitoba (border crossing) and the existing Blackberry Substation near Grand Rapids, Minnesota, known as the Great Northern Transmission Line Project (Project). The Project will be approximately 224 miles in length and includes new substation facilities and transmission system modifications at the Blackberry Substation site.

1.2 Plan

The objective of the Plan is to identify measures the Utility will take to avoid, mitigate, repair and/or compensate for impacts that may result from construction of the Project on Agricultural Land. Agricultural production is generally limited to hayland or pasture grazing, row crops and small grains in the Project area. Construction and operation of the Project could result in direct impacts on agriculture.

This AIMP addresses access issues, identifies potential mitigative actions in response to impacts on agriculture, and clarifies the process of compensation for such impacts. The AIMP also identifies that an on-site, third-party Agency Inspector, who will be used to monitor compliance with the Plan. The AIMP is intended to be periodically updated as new information becomes available.

The construction standards and policies in this Plan apply only to construction activities occurring partially or wholly on privately owned agricultural land. The measures do not apply to construction activities occurring entirely on public rights-of-way, railroad rights-of-way, publicly owned land, or private land that is not agricultural land. The Utility will, however, adhere to the same construction standards relating to the repair of agricultural tile (Section 3.3 below) when tiles are encountered on public highway rights-of-way, railroad rights-of-way, and publicly or privately owned land.

The definitions of terms used in the AIMP are provided in Appendix A.

Appendix B of this AIMP applies only to organic agricultural land as described in the National Organic Program Rules, 7 CFR §§ 205.100, 205.101 and 205.202.

2.0 General Provisions

Mitigative actions are subject to change by landowners, landowner's designees, and/or tenants, provided such changes are negotiated in advance of construction and acceptable to the Utility.

Certain provisions of this AIMP require the Utility to consult with the landowner and/or tenant of a property. The Utility will engage in a good faith effort to secure the agreement of both landowner and/or tenant in such cases.

Mitigative actions employed by the Utility pursuant to this AIMP, unless otherwise specified in this AIMP or in an easement or other agreement negotiated with an individual landowner and/or tenant, will be implemented within 90 days following completion of final clean-up on an affected property, weather permitting, or unless otherwise delayed by mutual agreement between the landowner and/or tenant and Utility. The Utility has the option of implementing the mitigative actions with their own crews and/or negotiating with the landowner to compensate for damages. Temporary repairs will be made by the Utility during construction as needed to minimize the risk of additional property damage or interference with the landowner's and/or tenant's access to or use of the property resulting from delayed implementation of mitigative actions.

The Utility will implement the mitigative actions contained in this AIMP to the extent that they (i) do not conflict with the requirements of any applicable federal, state, or local rules and regulations, or other permits or approvals pertaining to the Project, and (ii) they are not determined to be unenforceable by reason of other requirements of federal, state, and local permits or approvals issued for the Project. To the extent a mitigative action required by this Plan is determined to be unenforceable, the Utility will so inform the affected landowners and/or tenants and work with them to develop a reasonable alternative mitigative action.

Prior to the construction of the transmission line, the Utility will provide each landowner and/or tenant with a telephone number and address which can be used to contact the Utility, both during and following the completion of construction, regarding the agricultural impact mitigation work which is performed on their property or other construction-related matters. If the contact information changes at any time before completion of final clean-up and/or after the completion of construction, the Utility will provide the landowner and/or tenant with updated contact information. The Utility will respond to landowner and/or tenant telephone calls and correspondence within a reasonable time.

The Utility will use good faith efforts to obtain a written acknowledgement of completion from each landowner and/or tenant upon the completion of final clean-up on their respective property.

If any provision of this AIMP is held to be unenforceable, no other provision will be affected by that holding, and the remainder of the AIMP will be interpreted as if it did not contain the unenforceable provision.

2.1 Roles

Unless otherwise specified, the Utility will retain qualified contractors to execute mitigative actions. However, the Utility may negotiate with landowners and/or tenants to carry out the mitigative actions they wish to perform themselves.

As outlined in the Project's Environmental Monitoring Plan, the Utility will employ a third-party Agency Inspector to be on-site. The Agency Inspector's role will be to monitor compliance with the requirements of environmental permits and plans, including this AIMP, during construction of the transmission line and associate facilities. The Agency Inspector will be employed by the Utility, but will report to the Minnesota Department of Agriculture and other state agencies, as well as coordinate compliance concerns with the state agencies, Utility, and the Utilities' environmental inspection team. The Agency Inspector will also provide training and guidance on the provisions of this AIMP before construction of the Project and on specific topics as needed.

3.0 Mitigative Actions

The Utility will reasonably restore or compensate landowners and/or tenants, as appropriate, for damages caused by the Utility as a result of transmission line construction, and as outlined in this plan. The decision to restore land or compensate landowners and/or tenants will be made by the Utility after discussion with the landowner and/or tenant. Unless the easement or other agreement between the Utility and the landowner and/or tenant specifically provides to the contrary, the mitigative actions specified in the construction standards and policies set forth in the AIMP will be implemented in accordance with the general provisions in Section 2.0 of the Plan.

3.1 Structure Placement

During the design of the Project, the Utility's engineering, land rights, and permitting staff will work together to address structure placement issues (if any). When the preliminary design is complete, the land rights agent will review the staked structure locations with the landowner and/or tenant.

3.2 Soil and Rock Removal for Bored Holes

Any excess soil and rock will be removed to the extent practical from the boring location and transported to a suitable upland unless otherwise requested by the landowner and/or tenant.

3.3 Damaged and Adversely Affected Tile

The Utility will contact affected landowners and/or tenants to identify tile locations prior to the transmission line's installation. The Utility will make every attempt to probe for tile if the landowner does not know if tile is located in the proposed structure location. Tile that is damaged, cut, or removed as a result of this probe will be immediately repaired. The repair will be reported to the Agency Inspector.

If tile is damaged by the installation of the transmission line, the tile will be repaired in a manner that restores the tile's operating condition at the point of repair. If tiles on or adjacent to the transmission line's construction area are adversely affected by the construction of the transmission line, the Utility will take such actions as are necessary to restore the functioning of the tile, including the relocation, reconfiguration, and replacement of the existing tile. The affected landowner and/or tenant may elect to negotiate a fair settlement with the Utility for the

landowner and/or tenant to undertake the responsibility for repair, relocation, reconfiguration, or replacement of the damaged tile.

Where the damaged tile is repaired by the Utility, the following standards and policies will apply to the tile repair:

A. Tiles will be repaired with materials of the same or better quality as that which was damaged.

B. If water is flowing through a damaged tile, temporary repairs will be promptly installed and maintained until such time that permanent repairs can be made.

C. Before completing permanent tile repairs, tiles will be examined within the work area to check for tile that might have been damaged by construction equipment. If tiles are found to be damaged, they will be repaired so they operate as well after construction as before construction began.

D. The Utility will make efforts to complete permanent tile repairs within a reasonable timeframe after final clean-up, taking into account weather and soil conditions.

E. Following completion of the final clean-up and damage settlement, the Utility will be responsible for correcting and repairing tile breaks, or other damages to tile systems that are discovered on the right-of-way to the extent that such breaks are the result of transmission line construction. These damages are usually discovered after the first significant rain event.

F. In the event the landowner and/or tenant chooses to undertake the responsibility for repair, relocation, reconfiguration, or replacement of the damaged tile, the Utility will not be responsible for correcting tile repairs after completion of the transmission line.

3.4 Construction Debris

Construction-related debris, including temporary structures and staging areas, and unused material will be removed from the landowner's property at the Utility's cost.

3.5 Compaction, Rutting, Fertilization, Liming, and Soil Restoration

A. Compaction will be alleviated as needed on cropland traversed by construction equipment. Private landowners will be given the option of completing the restoration themselves with monetary compensation from the Utility or have the Utility complete the restoration. Best management practices (BMP) will be used by the Utility to help protect wet soils where encountered by construction. Soil disturbance and excavation on steep slope areas will be avoided to the extent practical. The Utility would treat and restore compacted topsoil through tillage operations using appropriate equipment and during suitable weather conditions. The Utility would not conduct restoration activities when weather conditions have caused the soil to become so wet that alleviating the compaction would cause further damage or erosion, as determined by the Agency Inspector.

B. Where rutting occurs, the Utility will repair the ground surface and restore ground vegetation upon completion of work in the given area.

C. If there is a dispute between the landowner and/or tenant and the Utility as to what areas need to be ripped or chiseled, the depth at which compacted areas should be ripped or chiseled, or the necessity for or the rates of lime, fertilizer, and organic material application, the Agency Inspector's opinion will be considered by the Utility.

3.6 Prevention of Soil Erosion

The Utility will work with the landowner and/or tenant to prevent excessive soil erosion on lands disturbed by construction. Reasonable methods will be implemented to control erosion by the Utility to the extent feasible. Depending on the site, the Utility will minimize soil erosion using BMPs following the Stormwater Pollution Prevention Plan including the use of matting, ice roads, low ground pressure equipment; the installation of silt fences, straw bales, ditch blocks; seeding of exposed areas; and the use of mulch, plastic sheeting, and fiber rolls to prevent excessive sediment runoff.

3.7 Damaged Soil Conservation Practices

Soil conservation practices such as terraces and grassed waterways that are damaged by the transmission line's construction will be restored to their pre-construction condition at the Utility's cost.

3.8 Clearing of Trees and Brush from the Easement

The Vegetation Management Plan provides more detailed information about tree and brush removal. The following is a summary of activities appropriate to agricultural lands.

A. If trees are to be removed from the right-of-way, the Utility will consult with the landowner and/or tenant on timber removal and disposal as stated in the easement.

B. Unless otherwise restricted by federal, state, or local regulations, the Utility will follow the landowner's and/or tenant's desires as stated in the easement regarding the removal of tree stumps that the Utility might otherwise leave in the ground. Stump removal will not be allowed in wetland areas except by stump grinding. Vegetation will be cut at or slightly above ground surface and rootstock left in place to stabilize existing soils and regenerate vegetation after construction. With the approval of the landowner and/or tenant, stumps of tall-growing species may be treated with an approved herbicide to discourage regrowth. To allow for the placement of mats and movement of construction equipment, stumps may be removed or ground down by the Utility.

C. Unless otherwise restricted by federal, state, or local regulations, the Utility will follow the landowner's, and/or tenant's desires as stated in the easement regarding the disposal of trees, brush, and stumps by burning, burial, or complete removal from the affected property. Where stump grinding is conducted by the Utility, the Utility will use equipment that mixes woody material with soils. The Utility will spread mixtures from stump grinding evenly in the vicinity of the stump.

3.9 Weed Control and Herbicide Application

The Vegetation Management Plan provides more detailed information about weed control and herbicide application. The following is a summary of activities appropriate to agricultural lands.

A. A field survey of the right-of-way will be conducted prior to construction to identify areas containing noxious weeds.

B. Construction vehicles, including vehicle under carriages, will be inspected for weed seed and dirt prior to construction start and during construction when traveling from an area identified as contaminated by noxious weeds to an uncontaminated area.

C. In agricultural lands, the Utility will minimize the introduction or establishment of noxious weeds by prompt revegetation of disturbed areas using regional genotype native species, or appropriate non-native species, or using seed based on easement or landowner agreement. The Utility will use only weed-free certified seed mix, and no Minnesota Department of Agriculture (MDA) or Minnesota Department of Natural Resources prohibited noxious weed seeds will be allowed in any revegetation seed mix. Where possible, the Utility will utilize practices to encourage natural revegetation.

D. Any weed control spraying within the Project right-of-way will be in accordance with state regulations. Selective foliage or basal application will be used when practicable. The Utility will contact the landowner and/or tenant to obtain approval for the use of herbicide prior to any application on their property. The landowner and/or tenant may request that there be no application of herbicides on any part of the right-of-way within the landowner's property. All herbicides shall be applied in a safe and cautious manner so as not to damage crops, orchards, tree farms, or gardens.

E. The Utility will provide notice of herbicide application to known beekeepers operating apiaries within one mile of the project site at least 14 days prior to such application.

F. Agency specific requirements will be followed for public lands owned by the US Fish and Wildlife Service (USFWS) or Minnesota Department of Natural Resources.

G. The Utility will follow their standard BMPs to control weeds on Utility-owned properties.

3.10 Irrigation Systems

A. If the transmission line and/or temporary work areas intersect with an operational spray irrigation system, the Utility will establish with the landowner and/or tenant an acceptable amount of time the irrigation system may be out of service for construction activities.

B. If there is an irrigation system interruption as a result of transmission line construction activities that results in crop damages either on or off the right-of-way, compensation to the landowner and/or tenant, as appropriate, will be determined as described in Section 3.13 of this AIMP.

C. If it is feasible and mutually acceptable to the Utility and the landowner and/or tenant, temporary measures will be implemented to allow an irrigation system to continue to operate across land on which the transmission line is also being constructed. The Utility will work with the landowner and/or tenant to identify a preferable construction time.

3.11 Temporary Roads and Temporary Work Areas

A. The location of temporary roads and temporary work areas to be used for construction purposes will be discussed with the landowner and/or tenant. The minimum area necessary will be used for access roads.

B. The temporary roads and temporary work areas will be designed so as to not impede proper drainage or cause excessive soil erosion.

C. Upon abandonment, temporary roads and temporary work areas may be left intact through mutual agreement of the landowner and/or tenant and the Utility, unless otherwise restricted by federal, state, or local regulations.

D. If a temporary road or temporary work area is to be removed, the agricultural land upon which it is constructed will be returned to its previous use and restored to a condition equivalent to that which existed prior to construction.

3.12 Construction in Wet Conditions

BMPs will be used by the Utility to help protect wet soils on agricultural lands where encountered by construction. Inadvertent damages resulting from construction during wet conditions will be paid for by the Utility and/or appropriate restoration will be conducted. Section 3.13 of this AIMP describes compensation for landowners and/or tenants. If wet conditions could result in damage to soil structure and compromise future cropland productivity, construction may be halted at the discretion and collaboration of the Agency Inspector, Project Environmental Monitor, and Construction Manager. If needed, an appropriately qualified professional engineer, soil scientist, or similar may need to be consulted.

3.13 Procedures for Determining Construction-Related Damages and Providing Compensation

A. The Utility will develop and implement a procedure for the processing of landowner and/or tenant claims for construction-related damages. The procedure will be intended to minimize landowner and/or tenant concerns by standardizing the recovery of damages so there is a degree of certainty and predictability.

B. Negotiations between the Utility and any affected landowner and/or tenant will be voluntary in nature, and no party is obligated to follow any particular method for computing the amount of loss for which compensation is sought or paid. The compensation offered is only an offer to settle, and the offer shall not be introduced in any proceeding brought by the landowner and/or tenant to establish the amount of damages the Utility must pay. In the event the Utility and landowner and/or tenant are

unable to reach an agreement on the amount of damages, the landowner and/or tenant may seek recourse through mediation.

3.14 Advance Notice of Access to Private Property

The Utility will endeavor to provide the landowner and/or tenant advance notice before beginning construction on the property. Prior notice will consist of a personal contact, email, letter, or a telephone contact alerting the landowner and/or tenant of the Utility's intent to access the land.

3.15 Role and Responsibilities of Agency Inspector

The on-site, third-party Agency Inspector will be retained and funded by the Utility. The Agency Inspector will assist the Utility with compliance to this AIMP. The Agency Inspector will draft daily reports for agency review, can provide reports directly to the MDA, upon request, and can assist with agency field reviews (upon request). The Agency Inspector will notify the Utility if he/she believes a compliance issue has been identified. The Agency Inspector will have full access to agricultural land crossed by the Project, and will have the option of attending meetings where construction on agricultural land is discussed. Specific duties of the Agency Inspector include, but are not limited to the following:

- → Participate in pre-construction training activities sponsored by the Utility.
- → Monitor construction and restoration activities on agricultural land for compliance with the provisions of this AIMP.
- → Report instances of noncompliance to the Utility and MDA (and other agencies, as necessary).
- → Prepare regular compliance reports, and submit to MDA, as requested.
- → Act as a liaison between landowners and/or tenants and MDA, if necessary.
- → Maintain a written log of communications from landowners and/or tenants regarding compliance with this AIMP. Report landowner and/or tenant complaints to the Utility right-of-way representative.
- → In restoration disputes between the Utility and a landowner and/or tenant, determine through consultation with the Utility and MDA whether agricultural restoration is reasonably adequate.

3.16 Qualifications and Selection of Agency Inspector

The Agricultural Monitor will have a bachelor's degree in environmental science, agronomy, soil science, engineering, social sciences, or equivalent work experience. The Agricultural Monitor will have demonstrated practical experience with pipeline or electric transmission line construction and restoration on agricultural land.

3.17 Complaint Procedures

The Utility will develop and submit to the Public Utilities Commission a process for receiving and responding to complaints. This process will be used for all landowners, including agricultural landowners.

Appendix A - Definitions

APPENDIX A – DEFINITIONS

Agricultural Land	Land that is actively managed for cropland, hayland, or pasture, and land in government set-aside programs.
Cropland	Land actively managed for growing row crops, small grains, or hay.
Easement	The agreement(s) and/or interest in privately owned agricultural land held by the Utility by virtue of which it has the right to construct, operate and maintain the transmission line together with such other rights and obligations as may be set forth in such agreement.
Agency Inspector	Entity or person retained and funded by the Utility and responsible for auditing the Utility's compliance with provisions of this AIMP. The Agency Inspector, who will also be the agricultural monitor.
Final Clean-up	Restoration and clean-up activities that occur after the Project has been constructed. Final clean-up activities include but are not limited to: removal of construction debris, de-compaction of soil as required, installation of permanent erosion control structures, final grading, restoration of fences, and required reseeding. Once final clean-up is finished, landowners will be contacted to settle all damage issues and will be provided a form to sign confirming final settlement.
Landowner	Person(s) holding legal title to agricultural land on the transmission line route, or their representative, from whom the Utility are seeking, or have obtained, a temporary or permanent easement.
Organic Agricultural Land	Please refer to Appendix B
Right-of-Way	The land included in permanent and temporary easements, which the Utility acquires for the purpose of constructing, operating, and maintaining the transmission line.
Tenant	Any person lawfully renting or sharing land for agricultural production, which makes up the right-of-way as defined in this AIMP.
Tile	Artificial subsurface drainage system.
Topsoil	The uppermost horizon (layer) of the soil, typically with the darkest color and highest content of organic matter.

Appendix B - Mitigative Actions for Organic Agricultural Land

APPENDIX B – MITIGATIVE ACTIONS FOR ORGANIC AGRICULTURAL LAND

Organic farms have not been identified in the proposed Project Area. If, during construction, a landowner indicates that they are attempting to convert to organic farming, the Project will utilize the measures outlined in this appendix to appropriately address and potentially impacts to organic farming.

Introduction

The Utility recognizes that organic agricultural land is a unique feature of the landscape and will treat this land with the same level of care as other sensitive environmental features. Appendix B identifies mitigation measures that apply specifically to farms that are organic certified or farms that are in active transition to become organic certified, and is intended to address the unique management and certification requirements of these operations. All protections provided in this AIMP will also be provided to organic agricultural land, in addition to the provisions of this Appendix.

The provisions of Appendix B will apply to organic agricultural land for which the landowner and/or tenant has provided to the Utility a true, correct and current version of the Organic System Plan within 30 days after the signing of the easement for such land.

Organic System Plan

The Utility recognize the importance of the individualized Organic System Plan (OSP) to the organic certification process. The Utility will work with the landowner and/or tenant, the landowner and/or tenant's certifying agent, and/or a mutually acceptable third-party organic consultant to identify site-specific construction practices that will minimize the potential for organic decertification as a result of construction activities. Possible construction practices may include, but are not limited to:

- → equipment cleaning,
- → planting a deep-rooted cover crop in lieu of mechanical decompaction,
- → applications of composted manure or rock phosphate,
- → preventing the introduction of disease vectors from tobacco use,
- → restoration and replacement of beneficial bird and insect habitat,
- → maintenance of organic buffer zones, and
- → use of organic seeds for any cover crop, or similar measures.

The Utility recognizes that OSPs are proprietary in nature and will respect the need for confidentiality.

Prohibited Substances

The Utility will avoid the application of prohibited substances onto organic agricultural land. No herbicides, pesticides, fertilizers or seed will be applied unless requested and approved by the landowner and/or tenant. Likewise, no refueling, fuel or lubricant storage, or routine

equipment maintenance will be allowed on organic agricultural land. Equipment will be checked prior to entry on organic agricultural land to make sure that fuel, hydraulic, and lubrication systems are in good working order. If prohibited substances are used on land adjacent to organic agricultural land, these substances will be used in such a way as to prevent them from entering organic agricultural land.

Temporary Road Impacts

Topsoil and subsoil layers that are removed during construction on organic agricultural land for temporary road or temporary work areas will be stored separately and replaced in the proper sequence after the transmission line is installed. Unless otherwise specified in a site-specific plan, the Utility will not use this soil for other purposes, including creating access ramps at road crossings. No topsoil or subsoil (other than incidental amounts) may be removed from organic agricultural land. Likewise, organic agricultural land will not be used for storage of soil from non-organic agricultural land.

Erosion Control

The Utility will, to the extent feasible, implement erosion control methods on organic agricultural land that are consistent with the landowner and/or tenant's OSP. On land adjacent to organic agricultural land, the Utility's erosion control procedures will be designed so that sediment from adjacent non-organic agricultural land will not flow along the right-of-way and be deposited on organic agricultural land. Treated lumber, non-organic hay bales, non-approved metal fence posts, etc., will not be used in erosion control on organic agricultural land.

Weed Control

The Utility will, to the extent feasible, implement weed control methods on organic agricultural land that are consistent with the landowner's and/or tenant's OSP. Prohibited substances will not be used in weed control on organic agricultural land. In addition, the Utility will not use prohibited substances in weed control on land adjacent to organic agricultural land in such a way as to allow these materials to drift onto organic agricultural land.

Monitoring

In addition to the responsibilities of the Agency Inspector described in the AIMP, the following will apply:

A. The Agency Inspector will monitor construction and restoration activities on organic agricultural land for compliance with the provisions of Appendix B, and will document any activities that may result in organic decertification.

B. Instances of non-compliance will be documented according to Independent Organic Inspectors Association protocol, consistent with the landowner's OSP, and will be made available to the MDA, the landowner, the tenant, the landowner's and/or tenant's Certifying Agent and to the Utility.

Compensation for Construction Damages

The settlement of damages will be based on crop yield and/or crop quality determination, and the need for additional restoration measures. Unless the landowner and/or tenant of organic agricultural land and the Utility agree otherwise, a mutually agreed upon professional agronomist will make crop yield determinations and the MDA Fruit and Vegetable Inspection Unit will make crop quality determinations, at the expense of the Utility. If the crop yield and/or crop quality determinations indicate the need for soil testing, the testing will be conducted by a commercial laboratory that is properly certified to conduct the necessary tests and is mutually agreeable to the Utility and the landowner and/or tenant. Field work for soil testing will be conducted by a Professional Soil Scientist or Professional Engineer licensed by the State of Minnesota. The Utility will be responsible for the cost of sampling, testing, and additional restoration activities, if needed. Landowners and/or tenants may elect to settle damages with the Utility in advance of construction on a mutually acceptable basis or to settle after construction based on a mutually agreeable determination of actual damages.

Compensation for Damages Due to Decertification

Should any portion of organic agricultural land be decertified as a result of construction activities, the settlement of damages will be based on the difference between revenue generated from the land affected before decertification and after decertification, so long as a good faith effort is made by the landowner and/or tenant to regain certification.

Definitions

In the event of a conflict between the meanings of terms provided in Appendix B and in the AIMP, the meaning provided in this Appendix will prevail for the those terms used in this Appendix. The meanings provided for the terms shall apply to all forms of the terms.

Apply	To intentionally or inadvertently spread or distribute any substance onto the exposed surface of the soil.
Certifying Agent	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.2.
Decertified or Decertification	Loss of organic certification.
Organic Agricultural Land	Farms or portions thereof described in 7 CFR Parts 205.100, 205.202, and 205.101.
Organic Buffer Zone	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.2.
Organic Certification or Organic Certified	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.100 and 7 CFR Part 205.101.
Organic System Plan	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.2.

Prohibited Substance	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.600 through 7 CFR 205.605 using the criteria provided in 7 USC 6517 and 7 USC 6518.

ATTACHMENT D

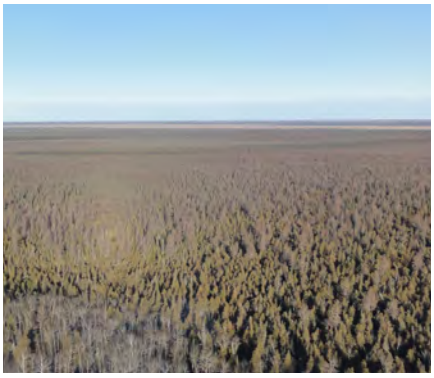
SWPPP MUST BE KEPT ON SITE

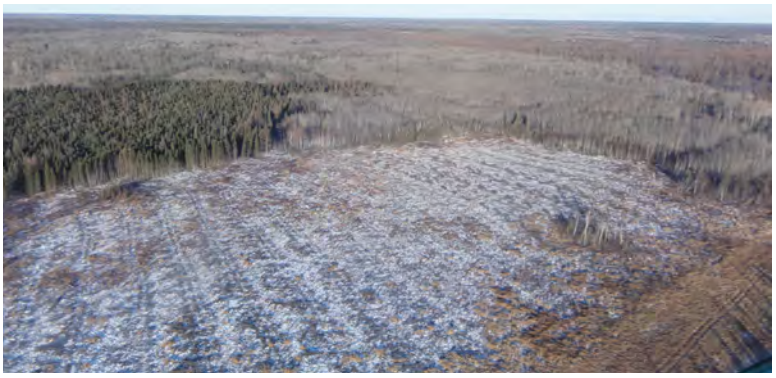
DRAFT

minnesota power

AN ALLETE COMPANY

GREAT NORTHERN TRANSMISSION LINE





CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

OCTOBER 14, 2016

Prepared By:
HDR
701 Xenia Avenue South, Suite 600
Minneapolis, MN 55416
763-591-5400

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1. Certification

"I certify under penalty of law that this SWPPP Document was prepared under my direction or supervision in accordance with a system designed to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Name	Mike Ryan
Signature	
Firm	HDR Engineering, Inc.
Phone	763.591.5440
Address	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416
Training	University of Minnesota Erosion and Stormwater Management Certification

2. Regulatory Requirements

Permits

State

Construction activities resulting in disturbance of one (1) acre or more of land must be in compliance with the provisions on the Clean Water Act (CWA), Section 402. Section 402 established the National Pollutant Discharge Elimination System (NPDES) permit program under the Environmental Protection Agency to regulate point and non-point source discharges into waters of the United States. In Minnesota, the NPDES permit authorizing stormwater discharge associated with construction activities is General Permit No. MN R100001, administered by the Minnesota Pollution Control Agency (MPCA) for all land, except native land. As a requirement of the NPDES permit, a Stormwater Pollution Prevention Plan (SWPPP) must be crafted to meet the site-specific requirements of each project, to outline procedures to minimize erosion and to mitigate sediment transport during and after construction activities. After a SWPPP is developed, an online stormwater permit application must be submitted as part of authorization for land-disturbing activities.

Minnesota Power's Great Northern Transmission Line Project (herein referred to as "Project") is anticipated to disturb greater than one (1) acre of land. Additionally, since the project is anticipated to disturb greater 50 acres of land, the application for permit coverage must be submitted at least 30 days prior to the start of construction activity. A complete and accurate SWPPP must be developed prior to submitting the online application. A copy of General Permit No. MN R100001 is in Appendix A; a printout of the online stormwater permit application and other regulatory permit coverage documentation will be kept with Appendix B.

Local

Proposed construction corridor is located in the jurisdiction of Roseau, Lake of the Woods, Koochiching, and Itasca counties, as well as several cities and townships. Lake of the Woods County and Koochiching County have County Wetland Ordinances and Local Water Management Plans, but these plans and ordinances do not include SWPPP provisions for construction projects. There are no additional ordinances or construction related stormwater requirements set forth by the local counties, cities or townships.

The project corridor is located in the Roseau River Watershed District and the Warroad Watershed District. These Watershed Districts will require additional permits for construction work.

The Roseau River Watershed District requires a permit for any work that requires a MPCA permit related to water resources (e.g. general permit for stormwater associated with construction activity). The Watershed District has erosion and sedimentation and spill reporting requirements that must be incorporated into the SWPPP, in accordance with the Roseau River Watershed District Amended Rules 2014. The SWPPP will be made available to the District upon request and may be subject to review and input from the Watershed District.

The Warroad Watershed District requires a permit for any construction project that may affect runoff quantity or quality. The Watershed District has erosion and sedimentation requirements that must be incorporated into the SWPPP, in accordance with the Rules of the Warroad Watershed District, adopted in 2008. The SWPPP will be made available to the District upon request and may be subject to review and input from the Watershed District.

It is anticipated that compliance with General Permit No. MN R100001 will achieve compliance with the Roseau River and Warroad Watershed Districts' rules and regulations.

Design of stormwater controls

The stormwater controls are expected to withstand and function properly during precipitation events of up to the 2-year (approximately a 2.22- to 2.61-inch rainfall[1]), 24-hour storm event. Visible erosion and off-site sediment deposition from such storm events should be minimal.

Water Resources Rules and Regulations

Impaired Waters

The Project is located within one (1) mile of, and flows to several impaired waters. The table below summarizes impaired waters within one mile of the centerline of the Project[2].

Water Name	Distance from Center Line (ft)	Impairment	TMDL (Y/N)
Sprague Creek	0 (crossing)	Turbidity	No
Willow Creek	4,000	Dissolved Oxygen	No
Big Fork River	0 (crossing)	Mercury in Fish Tissue*	Yes
Crooked Lake	3,550	Mercury in Fish Tissue*	No
Swan River (near structure D-780)	0 (crossing)	Mercury in Fish Tissue*	Yes
Swan River (near structure D-798)	5,000	Mercury in Fish Tissue*	Yes

*Impairments for mercury in fish tissue are not relevant to construction related parameters outlined in the NPDES permit.

Trout Streams

The Project is located within one (1) mile of, and flows to several trout streams, including Pitt Creek, Valley River, Venning Creek, and associated tributaries.

Water Name	Distance from Center Line (ft)	Special Water
Pitt Creek	0 (crossing)	Trout Stream
Valley River	0 (crossing)	Trout Stream
Venning Creek	0 (crossing)	Trout Stream

[1] NOAA Atlas 14. Available Online: <http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn>. Accessed July 20, 2016.
[2] MPCA Impaired Waters Viewer. Available Online: < https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav>. Accessed July 20, 2016.

Project construction within one (1) mile of Sprague Creek and Willow Creek is subject to the best management practices (BMPs) described in General Permit No. MN R100001:

- Stabilization of all exposed soil areas must be initiated immediately to limit soil erosion but in no case completed later than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Temporary sediment basin requirements must be used for common drainage locations that serve an area with five (5) or more acres disturbed at one time. Such locations are not anticipated, however temporary sediment basins must be incorporated into project designs if these conditions are encountered during construction.
- The water quality volume that must be retained on site by the Project's permanent stormwater management system shall be one (1) inch of runoff from the new impervious surfaces created by the Project.

Project construction within one (1) mile of Pitt Creek, Valley River, and Venning Creek must adhere to the BMPs outlined above, and:

- An undisturbed buffer zone of at least 100 feet must be maintained at all times between construction activity and trout streams, except where a water crossing or other encroachment is necessary for Project construction. Where buffer encroachments occur, the circumstance and reasons for encroachment must be documented in this SWPPP. Site stabilization must be completed as soon as practicable following such activities, and the restoration activities must be detailed in this SWPPP. All potential water quality, scenic, and other environmental impacts must be minimized by the use of additional or redundant BMPs to compensate for the reduced buffer zone, and those BMPs must be explicitly documented in the SWPPP.

A Total Maximum Daily Load (TMDL) Implementation Plan has been completed to address mercury impairments in Minnesota[3]. There is no Waste Load Allocation (WLA) established for pollutants related to construction activities.

[3] MN Statewide Mercury TMDL. Available Online: <https://www.pca.state.mn.us/sites/default/files/wq-iw4-01b.pdf>. Accessed July 20, 2016.

Department of Natural Resources Public Waters

The Minnesota Department of Natural Resources (DNR) identifies a "work in water restriction" to allow for fish migration and spawning. The restriction dates vary by location and public water feature, and are summarized in the table below. All exposed areas that are within 200 feet of such waters must complete stabilization activities within 24 hours during the restriction period.

Counties	Public Water Classification	Restriction Dates
Roseau, Lake of the Woods	Trout Streams	9/1 to 4/15
	Non-Trout Streams	3/15 to 6/15
	Lakes	4/1 to 6/30
Koochiching, Itasca	Trout Streams	9/15 to 5/15
	Non-Trout Streams	4/1 to 6/30
	Lakes	4/1 to 6/30

Wetland Impacts

Work is anticipated to occur in and near wetlands or open bodies of water. Work in wetland areas will be scheduled to occur during frozen ground conditions when possible, using appropriate BMPs (ice roads, low ground-pressure equipment, and utilizing matting such as wood mats) will be used to minimize impacts to wetlands during Project construction. Wetland delineations are in progress. Further information regarding wetland impacts and mitigation is pending at this time.

3. Chain of Responsibility

(MN R100001, §III.A.2)

The following chain of responsibility will oversee the implementation of the SWPPP, the installation, maintenance, and inspection of erosion prevention and sediment control BMPs.

Minnesota Power's Project Manager	
Name	Matthew Freudenrich
Company	Minnesota Power
Address	30 West Superior Street Duluth, MN 55802-2093
Phone	320.635.5033
E-mail	mfreudenrich@mnpower.com
Construction Supervisor	
Name	*Pending*
Company	*Pending*
Address	*Pending*
Phone	*Pending*
E-mail	*Pending*
Primary Inspector	
Name	*Pending*
Company	*Pending*
Address	*Pending*
Phone	*Pending*
E-mail	*Pending*
SWPPP Contact	
Name	Michael Ryan
Company	HDR Engineering, Inc.
Address	701 Xenia Avenue South, Suite 600 Minneapolis, MN 55416
Phone	763.591.5440
E-mail	Mike.Ryan@hdrinc.com

4. Training Documentation

(MN R100001, §III.A.3, §III.F)

Personnel responsible for preparing, overseeing implementation of, revising, and amending the SWPPP, as well as performing inspections or supervising the installation, maintenance, and repair of BMPs must be trained in accordance with the requirements set forth in General Permit MN R100001. At least one individual on site must be trained in these job duties. Inspectors must be available to preform an inspection within 72 hours upon request by the MPCA.

The content and extent of the training must be at the level appropriate to the person's job duties and responsibilities. Training must include all activities covered under this permit for the Project. The training must be done by local, state, or federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater management, and the Minnesota NPDES/SDS Construction Stormwater Permit. This includes, but is not limited to the University of Minnesota, Minnesota Erosion Control Association, Soil and Water Conservation Districts, and the MPCA. A refresher-training course must be attended by personnel every three (3) years.

Personnel requiring training will be identified in or attached to the SWPPP before the start of construction, or as soon as the personnel for the Project have been determined. The following information will be included:

- Names of the people associated with the Project who are required to be trained.
- Dates of training and the name of the instructor(s) and entity providing the training.
- The content of the training course or workshop, including number of hours of training.

A Training Log is provided in Appendix D.

5. Project Overview

Great Northern Transmission Line Project		
Description	Minnesota Power, a regulated utility division of ALLETE, Inc. is constructing the Great Northern Transmission Line, which will be an approximately 220-mile long, 500-kilovolt (kV) overhead, single-circuit, alternating current (AC) transmission line. The Great Northern Transmission Line will cross the international boarder from Canada into the United States from Roseau County, Minnesota and connect with the existing Blackberry Substation near Grand Rapids, Minnesota. The project will consist of multiple transmission line towers that are placed via helicopter and installed using helical piers. The project also includes tie-ins to electrical substations, regeneration sites, and the construction of access roads, and multi-purpose yards. Stormwater runoff will be managed by a series of BMPs outlined in this SWPPP.	
Construction Location	The proposed project is approximately 220 miles long, and extends between the United States-Canada Boarder in Roseau County to the Blackberry Substation near Grand Rapids, MN. The project corridor passes through four (4) counties, one (1) city, and several incorporated and unincorporated townships in northern Minnesota. A Project location map is included with Appendix E.	
State	Minnesota	
All counties where construction will occur	Roseau County Lake of the Woods County Koochiching County Itasca County	
All cities where construction will occur	Taconite City	
All townships where construction will occur	Roseau County	Dieter Township
		North Roseau Unorganized Township
		Lake Township
		Cedarbend Township
		Southeast Roseau Unorganized Township
	Lake of the Woods County	Myhre Unorganized Township
		Eugene Unorganized Township
		Potamo Unorganized Township

		Walhalla Unorganized Township
		Spooner Unorganized Township
		Gudrid Unorganized Township
	Koochiching County	Northwest Koochiching Unorganized Township
		East Koochiching Unorganized Township
		South Koochiching Unorganized Township
	Itasca County	Carpenter Township
		Bearville Township
		Northeast Itasca Unorganized Township
		Balsam Township
		Nashwauk Township
		Lawrence Township
		Iron Range Township
		Trout Lake Township
		Little Sand Lake Unorganized Township

Project Type		
☐ Residential	☐ Commercial/Industrial	☐ Road Construction
☐ Residential and Road Construction	☒ Other: Transmission Line	

Project Size (acres)	
Total area in Right-of-Way: *Pending* Number of acres to be disturbed: *Pending*	Existing impervious surface: *Pending* Post-construction impervious surface: *Pending*

Receiving Waters		
Name	Type (ditch, pond, wetland, lake, stream, river)	Special or Impaired Water?*
Sprague Creek	stream	☒ Yes ☐ No (T)*
Lost River	river	☐ Yes ☒ No
Warroad River West Branch	river	☐ Yes ☒ No
Warroad River	river	☐ Yes ☒ No
Willow Creek	creek	☒ Yes ☐ No (DO)*
Winter Road River	river	☐ Yes ☒ No
Peppermint Creek	stream	☐ Yes ☒ No
Pitt Creek	creek	☒ Yes ☐ No (Trout)*
Baudette River West Fork	river	☐ Yes ☒ No
Baudette River	river	☐ Yes ☒ No
Rapid River	river	☐ Yes ☒ No

Rapid River East Branch	river	☐ Yes ☒ No
McCloud Creek	creek	☐ Yes ☒ No
Black River	river	☐ Yes ☒ No
Big Fork River	river	☐ Yes ☒ No
Reilly Creek	creek	☐ Yes ☒ No
Reilly Brook	creek	☐ Yes ☒ No
Valley River	river	☒ Yes ☐ No (Trout)*
Bear River	river	☐ Yes ☒ No
Venning Creek	creek	☐ Yes ☒ No (Trout)*
Little Moose Lake	lake	☐ Yes ☒ No
Prairie River	river	☐ Yes ☒ No
Day Brook	creek	☐ Yes ☒ No
East River	river	☐ Yes ☒ No
Grass Lake	lake	☐ Yes ☒ No
Sucker Brook	creek	☐ Yes ☒ No
Swan River	river	☒ Yes ☐ No
Multiple unnamed roadside ditches	ditch	☐ Yes ☒ No
Multiple unnamed lakes and ponds	lakes and ponds	☐ Yes ☒ No
Multiple unnamed wetlands	wetland	☐ Yes ☒ No
Multiple unnamed streams and creeks	stream	☐ Yes ☒ No
*Impaired for turbidity (T) or dissolved oxygen (DO), or is a designated trout stream (Trout).		
Construction Schedule and Sequence		
Construction Start Date	October 2016	
Estimated Construction and Restoration Completion Date	May 2020	

6. General Site Information

Land Use

The majority of the Project is located on DNR forest land in Roseau, Lake of the Woods, Koochiching, and Itasca Counties, Minnesota. The majority of the proposed transmission line corridor is unincorporated land. There will be additional easements on privately owned land. The Project is being constructed adjacent to existing utility corridors. Surrounding land use is agricultural, including abundant row crops and rural farmsteads.

Precipitation and Climate

Construction activities are anticipated to take place year round from October 2016 through winter of 2020. The National Oceanic and Atmospheric Administration (National Centers for Environmental Information) maintains a database of average monthly precipitation and temperatures based on 1981-2010 normal[4]. Average temperatures across the construction corridor range from a low of 4.4 ˚F in January to a high of 67.1 ˚F in July on the northern terminus of the Project corridor near Warroad, MN to a low of 8.4 ˚F in January and a high of 68.1 ˚F in July on the southern terminus of the Project corridor near Grand Rapids, MN. Annual average precipitation ranges from 24.5 inches per year in Warroad to 28.9 inches of rain per year in Grand Rapids, with some variance along the route. Roughly 80% of the precipitation occurs as rainfall between the months of April and October. The average annual snowfall across the project corridor in 2010 ranges from 30.8 to 57.2 inches. Work in wetland areas will be prioritized during times of frozen ground conditions to minimize impacts to construction. The onset of winter may inhibit final stabilization over disturbed areas until spring. During spring, snowmelt and individual storms can produce significant quantities of runoff. Appropriate BMPs must be prepared for such occurrences.

Nature of Stormwater Runoff and Run-on

Stormwater runoff from the site will primarily occur from access roads, regeneration stations, transmission line tower foundations, and multi-purpose yards for construction support activities. Improved permanent access roads will be designed and constructed to minimize sedimentation and erosion caused by runoff. The transmission line towers with helical pier style foundations that are installed via helicopter are designed to have a minimal impact to runoff, and will not create any new impervious surfaces at the structure foundations. Locations where towers with traditional foundations are necessary will create a small amount of disconnected impervious surfaces, anticipated to be less than 0.1 acres in total. Minimal grading is anticipated as part of the project. No significant changes to stormwater runoff are anticipated, as drainage patterns and land cover will not significantly change as a result of construction. Slopes in the Project area typically range from 0 to 10%, with the majority of construction occurring in extremely flat areas with minimal runoff potential.

[4] NOAA National Centers for Environmental Information. Available Online: <http://www.ncdc.noaa.gov/cdo-web/datatools/normals>. Accessed July 20, 2016.

Because tower construction will take place primarily via helicopter, with support from construction vehicles and personnel using stabilized surfaces on the ground, soil compaction will be minimized. Additional runoff may occur in the spring due to snowmelt on ice roads that are constructed in wetland areas during the winter months. There is also a potential for runoff from low ground-pressure mats that are used in wetlands and temporary stream crossings during non-frozen conditions.

The project is located in the Rainy River and Upper Mississippi River Basins and in several major watersheds contributing run-on to areas on site. Major watersheds contributing to run-on include the Mississippi River – Grand Rapids, Little Fork River, Big Fork River, Roseau River, Rainy River – Black River, Rapid River, Rainy River – Baudette, and Lake of the Woods Watersheds. The watersheds originate primarily from agricultural and forest land. See the Water Resources Map in Appendix F for a figure illustrating surface water resources surrounding Project.

Soils

Specific soils in the Project area can be seen in the Soil Map in Appendix G based in information obtained from the National Resources Conservation Service (NRCS) Web Soil Survey. All four hydrologic soil groups (A, B, C, and D) are present at various locations in the Project area. Soils in the Project area range from sandy and loamy to mucky in texture. A summary of hydrologic soil groups in the Project area is listed in the table below.

Hydrologic Soil Group	Percentage of Area in the ROW
A	2.2%
A/D	41.1%
B	3.0%
B/D	25.3%
C	12.8%
C/D	9.4%
D	6.1%

Soils in Roseau County formed on glacial lake plain that slopes gently northwest. Soils are derived from loamy glacial deposited during the last glaciation in the Pleistocene Epoch. Peatland occurs throughout Roseau County[5]. Soils in Lake of the Woods County also formed on a glacial lake plain and are composed of mineral and organic materials[6]. Koochiching County

[5] NRCS Web Soil Survey for Roseau County. Available Online: < http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN135/0/roseau.pdf>. Accessed July 20, 2016.
[6] NRCS Web Soil Survey for Lake of the Woods County. Available Online: < http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN077/0/LakeOfTheWoods_MN.pdf >. Accessed July 20, 2016.

soils are similar to those in the surrounding counties[7]. Itasca County soils consist of organic soils formed in glacial material under forest and plant vegetation in bogs and swamps[8].

Minor soil compaction is anticipated during construction as vehicles access the site. Construction methods, such as wood mats and ice roads, will be utilized in wetlands and areas with increased compaction potential in order to minimize rutting and other soil disturbances caused by construction vehicles.

Threatened/Endangered Species

Threatened and endangered species of sensitive habitats have been identified near the Project area. Further information on species and habitat is pending from MnDNR, USFWS, and surveys currently in progress.

Wildlife friendly BMPs will be used in areas with sensitive species and habitat in accordance with the MnDNR's Wildlife Friendly Erosion Control specifications in Appendix J. Birds, mammals, and reptiles can all experience entanglement and death from plastic netting. Instead, biodegradable netting should be used, such as natural fibers and biodegradable polyesters with non-welded, rectangular shaped mesh. Photodegradable materials should not be used as they do not biodegrade properly in shaded areas. These wildlife friendly BMPs will be used in areas near wetlands; rivers; lakes; other watercourses; habitat transition zones, such as prairie-woodland edges, rocky outcrop-woodland edges, and steep rocky slopes; and areas with threatened or endangered species. Use of plastic mesh in all other disturbed Project areas should be kept to a minimum.

Cultural Resources

Information regarding cultural resources is pending. Field surveys and State Historic Preservation Office (SHPO) consultation are in progress.

[7] NRCS Web Soil Survey. Available Online: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed July 20, 2016.
[8] NRCS Web Soil Survey for Itasca County. Available Online: <http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/minnesota/MN061/0/Itasca_MN.pdf>. Accessed July 20, 2016.

7. Description of Construction Activity

(MN R100001, §III.A.1)

Minnesota Power is constructing the Great Northern Transmission Line, a 500-kV transmission line from the border crossing between Manitoba and Minnesota that has been jointly determined by Minnesota Power and Manitoba Hydro, to the Iron Range 500-kV Substation (formerly known as the Blackberry Substation) near Grand Rapids, MN.

Construction access will be obtained via new, improved, or existing access roads, or overland travel. Where soft ground conditions exist, wood timber or composite matting will be used to create a stable access way. During frozen ground conditions, ice roads may be constructed in peatlands, wetlands, and other areas to create smooth, stabilized access paths.

Improved access road, regeneration sites, and foundations are the only anticipated new impervious surfaces that will be created by the Project.

Site grading is expected to be minimal for the Project. Transmission line structures are generally designed for installation at existing grades. Minor grading may be performed to provide a safe and reasonable level working surface for construction, wire stringing, and routine maintenance at certain locations along the Project corridor. Multi-purpose yards will be located along the Project corridor on previously disturbed areas or in areas of minimal vegetative cover where possible. These areas will be used for staging, storage, and other construction support activities.

The transmission line structures will consist of guyed steel lattice structures with helical pier type foundations for the majority of the route to accommodate terrain and land use in the Project corridor. The Right of Way (ROW) for the project is generally 200 feet wide and is based on the recommended clearances between the conductor and other facilities along the route, larger spans, angled corners, and special topography conditions. Generally, the transmission structures will be spaced 1,200 to 1,700 feet apart. The minimum ground clearance for the conductors is estimated to be 40 feet based on preliminary design criteria.

The transmission structures will support two overhead static ground wires to protect from lightning, with one of the ground wires containing a fiber optic core to enable communication between the two endpoints.

There will be two primary tower types used for the transmission structures: self-supporting un-guyed towers and guyed towers. Erection of the transmission structures and stringing of the transmission lines will be conducted using helicopters in areas where conventional land-based assembly is not feasible due to unstable ground conditions. Installation methods will be determined by terrain conditions on site, however each structure will be designed for aerial installation. Helical foundation piles will be installed with a drill that is mounted to a carrier vehicle. Drilled piers, vibratory caissons, and pre-case pedestal type foundations will be used

where soil conditions prevent the effective use of helical piers. Transmission structures will be anchored with helical or drilled anchor piles.

The Project will include four permanent facilities used to optimize the fiber communications included on the transmission line. These Regeneration Stations will each include driveway access, a fenced pad, small building, emergency generator, fuel source, and connection to a power source. In addition, the Project ties into two Substation Facilities: the Iron Range 500kV-substation and the 500-kV Series Compensation Station. Substation work will be completed under separate design and permit efforts.

Environmental inspection, construction monitoring, and reporting will be performed according to procedures throughout the duration of construction. Vegetation along the corridor will be managed according to the Vegetation Management Plan in Appendix K once the transmission line is in operation.

Construction support activities include installation of erosion and sediment control BMPs, site grading of multi-purpose yards and access roads, tree clearing, transmission line tower installation and wire stringing, final stabilization, and removal of temporary BMPs. The Project will generally adhere to the following sequence for major activities:

- Installation of erosion and sediment control BMPs
- Site grading of multi-purpose yards and access roads
- Tree clearing
- Transmission line tower installation and wire stringing
- Final Stabilization
- Removal of temporary BMPs

As construction progresses through different stages and in different areas, site stabilization practices must be employed in areas where construction has temporarily or permanently ceased. Down-gradient perimeter erosion and sediment control BMPs must be incorporated for each activity prior to the start of land disturbance. Erosion and sediment control BMPs must be maintained through final stabilization in accordance with General Permit No. MN R100001. A preliminary construction schedule is located in Appendix C. The construction schedule is subject to change, and will be updated with subsequent SWPPP modifications.

Installation of erosion and sediment control BMPs: Temporary and permanent stormwater control measures, such as vehicle tracking controls and sediment control logs, will be installed prior to land-disturbing activity or phased with construction as appropriate.

- Preliminary schedule: Winter 2016, phased with construction as appropriate

Tree and Vegetation Clearing: The Vegetation Management Plan contains detailed clearing practices for the Project. This includes general clearing practices, and more detailed clearing methods at construction or access locations, including outside the ROW. Refer to the Vegetation Management Plan in Appendix K for tree and vegetation clearing methods.

- Preliminary schedule: Winter 2016 through winter 2019/2020

Site grading of multi-purpose yards and access roads: After preliminary clearing is performed, areas along the ROW will be graded to be used as material storage yards, structure work sites, concrete batch plant locations, show up yards, staging areas, fly yards, pulling and tensioning sites, and temporary work or use areas during Project construction. Ice roads and matting will be installed over access routes where necessary.

Multi-purpose yards and access paths are generally expected to be temporary and subject to site restoration requirements following construction. Further information on grading of multi-purpose yards is pending along with construction details.

- Schedule: Varies, following tree and vegetation clearing across the site

Transmission line tower installation and wire stringing: After site access is established, localized clearing and minor grading may be performed to accommodate work at transmission line tower locations. After tower installation, wire stringing will occur across the Project corridor.

- Schedule: Winter 2016 through spring 2019

Final Stabilization: Site restoration and vegetated areas will be maintained until the site has achieved final stabilization. This process may include watering, reseeding, and re-applying stabilization measures as needed. A full growing season may be required to achieve final stabilization for all portions of the site.

- Schedule: Phased with construction. Project-wide completion anticipated in spring 2020

Removal of temporary BMPs: All temporary BMPs must be removed from the site. BMPs designed to decompose on site may be left in place.

- Schedule: Following construction, anticipated in spring 2020

8. Preconstruction Practices

(MN R100001, §IV.A)

Prior to construction of the transmission line, tree clearing activities will take place in order to clear the ROW. General clearing best management practices that should be followed during tree clearing to help control erosion and reduce sediment runoff are outlined in the Vegetation Management Plan (Appendix K).

Clearing activities that take place for off-ROW work areas, including but not limited to; multi-purpose yards, landings, staging areas, laydown yards, and off-ROW access. Additional BMPs for off-ROW areas include:

- Off-ROW areas will be designed to the minimum size needed for practical use.
- Off-ROW facilities will be located on upland areas whenever practical.
- Off-ROW areas will be located on previously disturbed areas whenever practical.
- Off-ROW areas will not be located on frozen or open water wetlands, ponds, or lakes.
- Skid trails will be located, designed, and constructed to minimize damage to the residual vegetation, minimize rutting, maintain surface and subsurface water flows in wetlands, and reduce erosion and sedimentation.
- Use controlled staging areas for refueling and hazardous material loading/unloading when possible.

Before land-disturbing activities occur, there are several other general principles that can be followed to help control erosion and reduce sediment runoff. They include:

- Take preconstruction photos to document existing conditions. This documentation can be used to ensure appropriate site restoration.
- Install upslope perimeter or access controls where appropriate (e.g., construction fence or construction markers). Areas not to be disturbed must be delineated prior to construction.
- Install downslope and sideslope perimeter controls where appropriate (e.g., sediment control log, inlet protection, silt fence). These should not be removed until all upstream disturbed areas reach final stabilization.
- Do not disturb an area until it is necessary for construction to proceed.
- Schedule construction activities to limit impact from seasonal climate changes or weather events.
- Minimize the disturbance of steep slopes of 1:3 (H:V) or greater. In any locations where this is unavoidable, employ steep slope stabilization BMPs.
- Plan to minimize compaction and preserve topsoil to the extent practicable by using BMPs (e.g., wood mats, ice roads), outside of areas where compaction is a necessary function of Project construction.
- Plan to cover or stabilize disturbed areas as soon as possible.

9. Site Specific Best Management Practices

This section provides structural and non-structural, activity-specific sediment and erosion control BMPs for the Project. The BMPs described are based on expected construction conditions and methods. The BMPs may be modified in accordance with actual conditions encountered in the field, as determined by the Construction Supervisor. Modifications must be documented as amendments to the SWPPP.

Erosion Prevention BMPs

(MN R100001, §IV.B)

Erosion control measures must be provided and maintained in a timely manner. Preventing erosion from occurring by maintaining vegetated areas and stabilizing disturbed areas is typically the most effective method to mitigate sediment runoff.

Soil Stabilization

All exposed soil areas, including stockpiles, must be stabilized. Stabilization must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after construction activity in that portion of the site has temporarily or permanently ceased.

Stabilization in areas that are within one (1) mile of, and drain to special or impaired waters, must be initiated immediately and be completed within 7 days after construction activities have permanently or temporarily ceased in those areas. Stabilization in areas within 200 feet of, and drain to areas with DNR "work in water restrictions" must be completed within 24 hours during restricted fish spawning times.

Steep Slope Stabilization

Steep slopes are defined as 1:3 (V:H) or steeper in grade. Disturbance of steep slopes must be minimized by restricting heavy equipment use in these areas. When it is necessary to disturb steep slopes, erosion mitigation techniques must be employed, such as installing slope breaks or employing rapid stabilization. Stabilization measures may include surface roughening, slope draining, terracing, or the use of erosion control blankets. Although steep slope disturbance is not anticipated, the BMPs must be incorporated if a change in construction plans or methods results in disturbance on a slope 1:3 (V:H) or steeper in grade.

Erosion Control Blanket (ECB)

ECBs are sheets of straw, excelsior, coconut, manmade fiber, or combination thereof, usually contained between layers of netting to provide structural integrity. In compliance with the MnDNR's wildlife friendly erosion control measures, ECBs should use biodegradable netting, such as natural fiber and biodegradable polyesters, with non welded, rectangular mesh. However, photodegradable materials should not be used. ECBs function by providing ground cover that reduces erosive action. ECBs may be used in conjunction with other velocity reducing BMPs. ECB applications include, but are not limited to, slope and swale protection. It is

especially important to use wildlife friendly erosion control near wetlands; rivers; lakes; other watercourses; habitat transition zones, such as prairie-woodland edges, rocky outcrop-woodland edges, and steep rocky slopes; and areas with threatened or endangered species. Use of plastic mesh in all other disturbed Project areas should be kept to a minimum.

Seeding

Temporary stabilization may be provided by seeding disturbed areas. Seeding involves the mechanical or hand application of specific seed mixes appropriate for the site location and soil type. Seeding provides plant growth to stabilize the soil reducing the likelihood of erosion or sediment transport. Guidance on seed sourcing, selection, application, establishment, and maintenance is located in the Vegetation Management Plan in Appendix K.

Seeding of exposed soil areas and must be initiated immediately to limit soil erosion wherever construction activity has permanently or temporarily ceased and will not resume for more than 14 days. Stabilization must be completed within 14 calendar days. Seeding in areas that are within one (1) mile of, and drain to special or impaired waters must be initiated immediately and be completed within 7 days after construction activities have permanently or temporarily ceased in those areas. Seeding in areas within 200 feet of and draining to areas with DNR “work in water restrictions” must be completed within 24 hours during restricted fish spawning times.

Seeding of upland areas should always be accompanied by an additional BMP, such as mulching, applying erosion control blanket, or tackifying, to protect the seed and soil from erosion during the germination and growth process. Specifications and performance standards for mulch application are included in the Vegetation Management Plan.

Hydroseed

Hydroseed absorbs the impact of raindrops, minimizing erosion, while increasing infiltration. It is typically suitable for relatively flat areas with slopes flatter than 1:3 (V:H). Hydroseed may be used for temporary stabilization of disturbed soil, or in conjunction with temporary or permanent seed and fertilizer. It may be particularly helpful in areas where seeding establishment is difficult in dry conditions. Hydroseeding methods are detailed in the Vegetation Management Plan.

Pipe Outlet Protection

Pipe outlet protection typically consists of riprap or erosion control blanket and must be used at each culvert or stormwater conveyance channel outlet at the Project. If culverts are installed, temporary or permanent energy dissipation must be provided at the outlet within 24 hours of connecting to a surface water. Culvert protection BMPs should surround the culvert exit completely. If equalizer culverts are installed where water accumulates at both ends of the pipe without a single direction of flow, then outlet protection is not required.

Surface Roughening

Surface roughening consists of grooves or tracks installed in the soil surface, parallel to the topographic contours. This technique works well in areas that will remain inactive for a short time. Surface roughening works by reducing water velocity and promoting infiltration, thus decreasing the potential for erosion to occur. Surface roughening may be applied by creating a furrow with the teeth on a loader bucket, ripping, disking or plowing equipment. Surface roughening can also be created by running tracked equipment up and down the slope.

Low Ground-Pressure Equipment

When wetlands or areas with soft soils are present in the Project area, appropriate measures should be taken to minimize construction impacts and to maintain the hydraulic and hydrologic features these areas. Low ground-pressure equipment will be used to reduce soil compaction and minimize rutting during construction. Low ground pressure equipment options include ice roads, wood mats, composite mats and the use of low-ground pressure vehicles.

Whenever possible, construction work in wetlands should be scheduled and conducted in times of frozen ground conditions. When this is not feasible, wetland impacts and ground disturbance must be minimized to the extent practicable. Construction equipment should only use temporary crossings of wetland areas to access the site. These crossings should be removed when not in use. Fill must not be placed in wetlands.

- **Wood Mats** – Wood mats are individual cants (logs with one squared side), sawn dense hardwood, or round logs cabled together to make a single-layer crossing. Wood mats provide a surface that protects wetlands during hauling or equipment-moving operations by distributing weight of vehicles across the entire mat. A 10-foot long, 4x4 inch center log is the recommended minimum size. If the surface of the crossing becomes slippery, expanded metal grating may be added to provide traction.
- **Ice Roads** – Ice Roads will be constructed through peatlands, wetlands, and other wet areas of the project corridor when conditions allow. To construct ice roads, a path will be cleared of brush and debris manually or with light tracked vehicles. After the upper crust is sufficiently frozen, equipment may remove snow from the road surface, enhancing frost penetration and ground stabilization. Care must be taken to not pile snow in areas where construction will take place, as snow accumulations may insulate the ground and prevent frost stabilization from occurring in these areas. Additional ice road surfaces capable of supporting larger loads may be constructed by pumping up water from nearby open wet areas into water trucks, and letting it disperse over the road terrain and freeze. In some areas, it may be necessary to make several vehicle trips over ice roads to break up the upper crust and allow water to seep back in to the ground and freeze, creating a thicker road bed.
- **Composite mats** – Composite mats are made out of high density polyethylene (HDPE) that can be used year-round during all weather conditions. They are usually 8 by 14 feet, designed with an overlapping lip, and are secured with a drop-in locking pin feature. The mat acts as one continuous part in the field and distributes weight of load-bearing vehicles and heavy equipment. The mat tread pattern improves traction for vehicles.

- **Low ground-pressure vehicles** – Low ground-pressure vehicles typically exert ground pressure of less than 5 or 6 psi. Low ground-pressure vehicles reduce pressure on the ground by reducing overall machine weight, or by increasing the contact area between the machine and the soil, thus spreading the weight over a larger surface area. By reducing ground pressure at each contact point, flotation is enhanced, traction is usually improved, and road maintenance requirements such as grading can be reduced. Low ground-pressure vehicles can also reduce rut depth and soil compaction, and can reduce fuel consumption.

Sediment Control BMPs

(MN R100001, §IV.C)

Sediment control practices must be established on all down-gradient perimeters and be located up-gradient of any buffer zones, inlet, and outlet structures in order to minimize sediment from entering surface waters. Perimeter sediment control practices must be in place before any up-gradient land-disturbing activities begin, and remain in place until final stabilization has been established. Timing the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed.

Stockpile Protection

Temporary soil stockpiles must be surrounded by silt fence or other effective sediment controls. Geotextile fabric can be used underneath the material or to cover the stockpile, if necessary. Stockpiles cannot be placed in any natural buffers or surface waters or stormwater conveyances. Stabilization at all exposed soil stockpiles must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days. Stabilization must be completed no later than fourteen (14) calendar days after construction activity in that portion of the site has temporarily or permanently ceased. Stabilization in areas that are within one (1) mile of, and drain to special or impaired waters must be initiated immediately and be completed within 7 days after construction activities have permanently or temporarily ceased in those areas. Stabilization in areas within 200 feet of, and drain to areas with DNR “work in water restrictions” must be completed within 24 hours during restricted fish spawning times.

Temporary stockpiles without significant silt, clay, or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement, but must have effective downslope sediment controls. Some excavated materials may be suitable for backfill and site restoration. Unsuitable material shall be removed from the site or stockpiled until removal is possible.

Perimeter Control

Perimeter control serves as access control and, when appropriate, erosion and sediment control. Areas not to be disturbed must be delineated prior to construction. In up-gradient areas, perimeter control may be added to define such boundaries, and to promote public safety, limit

flows, or protect off-site features. Up-gradient perimeter access controls consist of construction fencing, chain-link fence, etc. Perimeter controls must be installed along at all locations down-gradient of Project construction limits. Down-gradient perimeter control may consist of any number of BMPs, including, but not limited to, vegetation and topography, sediment control logs, earthen berms, inlet protection, silt fence, etc. Downslope perimeter controls must remain in place until all upstream areas have reached final stabilization.

Perimeter controls will not be used in all areas of the Project corridor. Due to the length of the corridor and the surrounding rural land cover, perimeter controls surrounding the entire project corridor are infeasible. Localized areas in the project corridor that would benefit from perimeter controls will have controls installed, such as silt fence, sediment control logs, and vegetation and topography.

Sediment Control Log (SCL)

A sediment control log consists of a net or geotextile fabric filled with straw, excelsior, wood mulch or other fillers. Sediment control logs should be made of natural fiber or biodegradable polyesters (excluding photodegradable materials) with flexible (non-welded), rectangular shaped mesh. Sediment control log applications include but are not limited to, slope stabilization, perimeter control, check dams in swales, back of curb protection, culvert inlet protection, and temporary secondary containment for stockpiles, materials storage, or masonry. Sediment control logs reduce water velocity allowing sediment to accumulate on the up-gradient side of the log. The basic installation for a net wrapped sediment control log is to prepare a shallow trench, and secure the log in the trench using stakes or landscape pins. Alternatively, the sediment control log can be installed on soil surfaces and keyed in with two (2) inches of soil placed on the upstream side to provide an adequate seal. Sediment control logs should be installed based on manufacturer's directions and/or approved details.

Silt Fence

Silt fence consists of geotextile fabric, typically installed with at least six inches of the fabric trenched into the soil; wooden stakes are attached on the down-gradient side. Wire-backed fence may be used. Additional stakes or lathe may be added on the up-gradient side for strengthening the fence around corners or in high wind conditions. Silt fence provides sediment control by reducing water velocity and ponding water to facilitate the deposition of sediment on the up-gradient side of the fence. Because silt fence has potential to dam water, it should not be used in channels or as culvert inlet or outlet protection. Silt fence may be standard machine sliced, heavy duty, super duty, or preassembled.

Inlet Protection

Inlet protection consists of a filtering measure placed around an inlet or drain to trap sediment, or around an upstream impounding area to prevent sediment from entering a storm drain system. Perimeter controls such as sediment control logs, silt fencing, sand bags, or gravel can function as effective inlet protection devices. Manufactured products are also available that are designed to trap sediment at the point of entry into a storm drain or catch basin. Such products are usually composed of filter fabric, wire, metal, plastic bags, or racks that hang down into a catch basin or inlet. Inserts should be cleaned regularly to maintain full protection capacity.

Inlet protection devices are typically a last line of control structure. In general, inlet protection devices need to allow for adequate discharge to prevent excessive flooding. Inlet protection may be removed at a particular inlet if a specific concern (e.g., flooding) has been identified and documented in the SWPPP. In this situation, additional erosion and sediment control practices must be used to compensate for the loss of the inlet protection device. If storm drains become clogged, storm drain system cleaning may be necessary.

Storm drain systems are not present in the Project area, so inlet protection is not anticipated for the Project. If inlet protection does become necessary, appropriate BMPs must be incorporated on site and documented in the SWPPP plans.

Vehicle Tracking Control (VTC)
Vehicle tracking controls typically consist of hard, dense, durable rock that is angular in shape and resistant to weathering. Tracking controls are designed to cause soil to dislodge off equipment and vehicles and minimize track out of sediment as vehicles and equipment transition from disturbed soils to off-site areas. Vehicle tracking control is to be installed at points of ingress and egress, where traffic transitions from paved roads to disturbed areas on site. The vehicle tracking control must remain in place until accesses to the areas are no longer needed and may be moved or eliminated as on-site conditions and activities change.

If VTC does not provide adequate minimization of sediment track out onto paved roads off site, street sweeping must occur once every 24 hours to clean up any sediment that has escaped off site.

Culvert Inlet Protection
Culvert inlet protection should be installed on the upstream end of a culvert to prevent sediment from traveling through the system. This typically consists of traditional perimeter control BMPs such as a sediment control log. Culvert inlet protection BMPs should surround the culvert entrance completely for full protection. Culverts may be encountered in areas of the Project during construction at access road stream crossings or where low ground pressure mats do not provide an adequate temporary stream crossing.

Dust Control
Measures must be taken to prevent fugitive dust during construction activities. Dust control measures depend on the site's topography, land cover, soil characteristics, and expected precipitation. Construction sequencing and minimizing disturbance can reduce the amount of fugitive dust. The following are some of the control measures that can be used as appropriate:

- **Sprinkling/irrigation**: Wetting exposed soils is an effective dust control method, especially for unpaved access roads. Sprinkling should be done carefully to avoid excess runoff from the site and to prevent vehicles tracking mud onto public paved roads.
- **Vegetative cover**: Where possible, vegetative stabilization should be used for disturbed soil.

- **Rolled-on or hydro mulch**: Mulch application is a quick and effective dust control measure for a recently disturbed area. Hydro mulch can not be used near wetlands or surface waters.
- **Wind breaks**: Trees and shrubs left in place during site clearing work well to reduce wind velocity through a site. Constructed wind breaks include snow fencing, tarp curtains, hay bales, and sediment walls.
- **Gravel**: Gravel cover provides effective dust control for construction entrances and access roads.
- **Spray-on chemical soil treatments (palliatives):** These can be used only on mineral soils not associated with organic agriculture sites. Palliatives include anionic asphalt emulsion, latex emulsion, resin-water emulsions, and calcium chloride. The potential effects of a palliative treatment's chemical biodegradability and water-solubility on the surrounding environment must be determined before its use.

10. Other Best Management Practices

This section provides other BMPs that may be used on site, should alternative control measures be required. On-site BMPs may be modified in accordance with actual conditions encountered in the field, as determined by the Construction Supervisor. Modifications must be documented as amendments to the SWPPP.

Vegetation & Topography (V&T), Vegetative Buffers

Preserving existing vegetation of substantial plant density provides a natural buffer and stabilizes areas down-gradient of disturbance. These Vegetated buffer zones act as sediment traps to capture and detain stormwater runoff and increase stormwater infiltration. Vegetation helps to control erosion, protect water quality, and reduce the amount of exposed soil susceptible to sediment runoff.

Topography refers to areas of disturbance that are near flat lying to gently sloping, where runoff from the disturbance will exhibit sheet flow with no evidence of down-gradient concentrated flow or channelization in the vicinity of the disturbance. In general, areas at or immediately down-gradient from a disturbance should slope at no more than approximately 10%, depending on other factors.

Used together, the V&T BMP may be the sole BMP where the combination of conditions will minimize soil erosion and allow the down-gradient vegetation to substantially minimize sediment transport. V&T can be an effective sole BMP and minimize the amount of disturbance for certain construction processes. In some cases, structural BMPs have the potential to create more land disturbance when installed and removed than the construction activity itself.

A 50-foot natural buffer must be preserved between areas of earth disturbances and stormwater flows to surface waters. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. Where a 50-foot natural buffer is not feasible on site, redundant BMPs (e.g., erosion control blanket and sediment control log) must be incorporated to provide equivalent treatment.

Special and impaired waters should have an undisturbed buffer zone of not less than 100 linear feet from the special water (not including tributaries) that is maintained both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the project. Any areas of buffer encroachment must be documented and the circumstance and reasons for the encroachment must be identified in the SWPPP along with restoration activities. Redundant BMPs are required in areas of buffer encroachment.

Earthen Berm

Earthen berms can be used as a dam to temporarily hold back water, or to divert water to a vegetated area or to a more rigorous stormwater BMP. Temporary seed and mulch should be applied to an earthen berm for stabilization and to deter soil from eroding off the berm structure. Earthen berms are a structural BMP that can withstand a high rate and volume of runoff, if

constructed correctly. As such, outfall locations of earthen berms often require energy dissipation BMPs to reduce downstream scour. Some water quality filtration is achieved by routing runoff to a berm.

Ditch Check

A ditch check is used to trap sediment and/or reduce runoff velocities in ditches and drainageways. Ditch checks are commonly composed of sediment control logs, rock logs, riprap, or small earthen berm structures spanning across a ditch or drainageway. If rock ditch checks are used, an erosion control blanket or geotextile product should be inserted underneath the ditch check to prevent erosion of the ditch bottom when installing and removing the structure. Ditch check spacing should follow MnDOT specifications. Grass lined channels may also be used as runoff control in drainage ditches.

Rock Log

Rock logs are wire or geotextile tubes filled with rock or gravel material. Rock logs may be used as inlet protection, outlet protection, swale protection or in any area where concentrated flows need to be spread out and velocity reduced to prevent erosion. Rock logs serve to reduce water velocity and allow time for sediment to settle, thus decreasing erosion potential and sediment transport. When used for swale protection, rock logs should extend the entire width of the expected flow path with the center lower than the sides. Rock logs have high functionality as a winter BMP during snowmelt. The weight of the rock log presses toward the ground where it the log eventually settles on the ground, providing effective means of deterring sediment in stormwater runoff.

Hay Bales

Hay bales consist of straw or hay bound together in a rectangular bale. Hay bales may be used as a velocity dissipation device surrounding pipe outlets. Water will accumulate on the up-gradient side of the hay bale, reducing sediment runoff.

Floating Silt Curtain

Floating silt curtain is a geotextile fabric with flotation on the top edge so that it can be installed in water. Edges of floating silt curtain should be anchored to the shoreline. Floating silt curtain may be used as a perimeter control in wetlands or open water areas. Floating silt curtain provides sediment control by catching sediment as water flows through it, and keeping sediment from being transported into other areas of the waterbody.

Chemical Treatment

Polymers and flocculents may be used to control suspended solids and other sediments in stormwater only after conventional erosion and sediment controls have been used to ensure effective treatment. Chemicals may only be applied to stormwater that is directed to a treatment area which allows for filtration or settlement of the floc prior to discharge. Appropriate chemicals and must be selected according to the soil type, turbidity, pH, and the flow rate of stormwater being treated. Manufacturer or supplier specified dosing specifications must be followed.

11. Dewatering and Basin Draining

(MN R100001, §IV.D)

Where dewatering or basin draining is necessary to accommodate construction activities, the effluent must discharge to a temporary or permanent sediment basin unless infeasible. The sediment basin may discharge to surface waters if the basin water has been visually checked to ensure adequate treatment has been obtained and nuisance conditions will not result. If the water cannot be discharged to a sediment basin prior to entering a surface water, it must be treated with appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream properties. Discharge points must be adequately protected from erosion and scour with energy dissipation devices such as riprap or sediment control logs. Discharge water containing oil and grease must be discharged through an oil water separator or appropriate filtration device prior to discharge. Dewatering and basin draining activities must comply with applicable federal, state, and local requirements.

Dewatering activities are anticipated as part of the Project during cold weather seasons and will be used to construct ice roads through peatlands, wetlands, and other wet areas of the project corridor. Ice road surface capable of supporting larger loads will be constructed by pumping up water from nearby open wet areas into water trucks, and letting it disperse over the road terrain and freeze. In areas it may be necessary to make several trips over ice roads with vehicles in order to break up the upper crust and allow water to seep back in to the ground and freeze creating a thicker road bed.

Because dewatering will occur during winter conditions, discharge of dewatering effluent will not occur at the time of pumping. Dewatered water will freeze and discharge when the ice melts in the spring. The majority of the ice roads will be expected to melt and disperse sediment through surrounding vegetation. Sediment basins with outlet protection will be constructed in areas that require additional filtration for melt water containing sediments with the potential to cause scour at discharge points or inundation of wetlands. Dewatering activities may require a DNR water appropriations permit.

12. Temporary Sediment Basins

(MN R100001, §III.C)

Where 10 or more acres of disturbed soil drain to a common location, a temporary sediment basin must be installed to provide treatment of stormwater runoff before it leaves the construction site or enters surface waters. Where five (5) or more acres of disturbed soil drain to a common location that is classified as a special or impaired water, a temporary sediment basin must be installed to provide treatment of stormwater runoff before it leaves the construction site or enters the impaired water.

Temporary sediment basins must be designed to provide for a calculated volume of runoff from a 2-year, 24-hour storm from each acre drained to the basin, except that in no case shall the basin provide less than 1,800 cubic feet of live storage from each acre drained to the basin. Alternatively, if no calculations are performed, the basin must be designed to accommodate 3,600 cubic feet of live storage per acre drained to the basin. Basins must be designed to avoid impacts to wetlands and allow for complete basin drawdown and pond integrity. Energy dissipation must be provided for the basin outlet. When it is infeasible to meet temporary basin size requirements, smaller sediment basins/traps may be used in accordance with the General Permit No. MN R100001 requirements.

There are 25 fly yards and material yards on site that are greater than 10 acres in size, however significant land disturbance is not anticipated at these locations. If ground disturbance greater than 10 acres occurs and drains to a common location, then temporary sediment basins must be constructed to capture sediment runoff. When disturbed areas are stabilized to less than 10 acres in size, the temporary sediment basins are no longer necessary. This requirement applies to five (5) acres of disturbance if the area is located within one (1) mile and drains to an impaired water.

Land disturbance of five (5) acres or greater that drains to a common location is not anticipated. As such, the use of temporary sediment basins is not anticipated for the Project.

13. Permanent Stormwater Management

(MN R100001, §III.D)

Where a project's ultimate development replaces vegetation and/or other pervious surfaces with one (1) or more acres of cumulative impervious surface, permanent stormwater management systems must be implemented such that the water quality volume of one (1) inch of runoff from the new impervious surfaces is retained on site through infiltration or other volume reduction practices.

Permanent stormwater management systems shall be designed in accordance with state water quality and volume standards, including nuisance conditions, erosion in receiving channels or on downslope properties, or significant adverse impact to wetlands caused by inundation or decreased flow. Permanent stormwater management systems must also be designed to meet requirements of any NPDES/SDS Municipal Separate Storm Sewer Systems (MS4) with jurisdiction over the project area. Examples of permanent stormwater treatment can include infiltration basins, grassed swales, or wet sedimentation basins.

Permanent stormwater management systems will not be necessary for the Project; the total new impervious area created by the transmission line portion of the project is estimated to be less than one (1) acre that is discontinuous in nature. New impervious surfaces created by the project will include new permanent access roads, regeneration sites, and foundations. No significant changes to stormwater runoff will occur because drainage patterns and land cover will not significantly change as a result of construction.

If permanent land cover changes result in greater than one (1) acre of new impervious area, this section of the SWPPP must be updated and permanent stormwater management facilities must be designed, installed, and maintained. This requirement is subject to the cumulative impacts of permanent gravel access roads, concrete tower foundation, and permanent gravel placement at multi-purpose yards, if applicable.

14. Pollution Prevention Management Measures

(MN R100001, §IV.F)

Control measures as described in this section will be installed, implemented, and maintained during construction to minimize pollutants in discharges as necessary to meet applicable water quality standards.

Storage, Handling, and Disposal

(MN R100001, §IV.F.1)

The following practices will be performed to minimize the exposure to stormwater of any construction products, materials, and wastes. If such products, materials, and wastes are not a source of stormwater contamination or are designed for stormwater exposure, they are not subject to the provisions of this section.

- Building products that have the potential to leach pollutants must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by a similarly effective means designed to minimize contact with stormwater.
- Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by a similarly effective means designed to minimize contact with stormwater.
- Hazardous materials, toxic waste (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) must be properly stored in sealed containers to prevent spills, leaks, or other discharge. Restricted access storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with applicable federal, state, and local requirements, including secondary containment as appropriate.
- Solid waste must be stored, collected, and disposed of properly in compliance with applicable federal, state, and local requirements.
- Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in compliance with applicable federal, state, and local requirements.

Trash may not be buried within fill or backfill, and measures will be implemented to minimize its exposure to stormwater. At least weekly, clearing and grubbing debris, construction debris, plastic, paper, fabric, and other waste should be collected for disposal off-site. No burning of trash is allowed, however burning of clearing slash may be performed in accordance with the receipt and conditions of burning permit(s).

Fueling, Maintenance, Spill Prevention and Response

(MN R100001, §IV.F.2)

Reasonable steps must be taken to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded. This includes the use of drip pans or absorbents. Any fueling operations must be conducted in a contained area. Adequate supplies must be available at all times to clean up discharged materials, and an appropriate disposal method must be employed for recovered spilled materials. Spills must be reported and cleaned up in compliance with applicable federal, state, and local requirements. Dry clean up measures will be used where possible.

Control measures must be employed to prevent any spills and leaks during construction. Construction equipment should be inspected daily to ensure that hydraulic systems and oil pans are in good condition and free of significant leaks. Operators must be present at the nozzle at all times when refueling is in progress. Portable spill containment kits must be provided for equipment with the potential to discharge a significant amount of oil to the environment. Additional absorbent pads and booms should be kept in onsite offices.

If a spill of petroleum or other liquid chemical occurs, the individual discovering the spill shall notify the Construction Supervisor, who will determine reporting requirements and proper handling, storage, and disposal requirements. In general, the following procedures will be followed:

- Once a spill has been identified, the source of the spill will be immediately identified and contained.
- Absorbent materials will be used to contain and/or isolate the spilled material. An effort will be made to stop the spilled material from reaching any body of water or storm drain.
- The spill and contaminated soils will be collected, treated, and disposed of in accordance with all applicable federal, state, and local requirements.
- All spills and corrective actions will be recorded as required.

If a significant spill occurs, the appropriate agencies must be notified and an emergency response contractor will be employed, if necessary, to further contain and clean up a spill.

- Minnesota Duty Officer 800-422-0798 or 651-649-5451 (24 hours)
- National Response Center 800-424-8802 (24 hours)

Within seven (7) calendar days following a spill, a description of the release, the circumstances leading to the release and the date of the release will be provided to the appropriate agencies. In addition, the measures implemented to prevent the reoccurrence of such spill and to effectively respond if there is a reoccurrence will also be provided to the appropriate agencies.

Vehicle and Equipment Washing

(MN R100001, §IV.F.3)

Exterior vehicle and equipment washing must be limited to a defined area of the site. Runoff from the washing area must be contained in a sediment basin or other similarly effective controls, and the waste from the vehicle and equipment washing must be properly disposed of in compliance with applicable federal, state, and local requirements. Soaps, detergents, or solvents used for vehicle and equipment washing must be properly used and stored. No engine degreasing is allowed on site.

The Project is being constructed adjacent to existing utility corridors with established populations of invasive species of concern. Project activities including clearing, construction, operation, and maintenance will be conducted with BMPs such that the introduction and spread of noxious weeds and invasive species (NWIS) along the ROW are minimized. Early growing season surveys will be conducted along the project corridor prior to clearing and construction to assess NWIS infestations in the Project area. These surveys will determine which areas along the Project corridor will be responsible for NWIS control by implementation of equipment cleaning. Minnesota Power will work with the MnDNR to identify other species that may be of concern and control methods for those species.

To prevent the spread of NWIS into the Project area from off-site, equipment will be cleaned prior to arrival at the Project with high pressure compressed air blowers, rushing, or pressure washing. Contractors must keep a log documenting washing of each piece of equipment on site. Additionally, the Environmental Inspector (EI) may identify additional areas along the ROW where additional vehicle cleaning may be required in order to protect sensitive species.

Concrete and Other Washout Waste

(MN R100001, §IV.F.4)

Some transmission structures have the potential to be constructed using traditional concrete foundations instead of helical pier foundations. Concrete truck wash water may only be discharged in specially designated disposal areas within the ROW, located greater than 100 feet from streams and wetlands. The hardened concrete waste will be removed from the site and properly recycled or disposed of. Concrete washout may not occur on MnDNR lands, in accordance with the MnDNR Land Crossing License. Concrete wash water may not be discharged to any water of the state, any storm sewer system, or allowed to drain onto adjacent properties. Effective containment must be provided for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds, and other construction materials). Liquid and solid washout wastes must not contact the ground, and the containment must be designed so that it does not result in runoff from the washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with applicable federal, state, and local requirements. A sign must be installed adjacent to each washout facility that requires site personnel to use the proper facilities for disposal of concrete and other washout wastes.

15. Inspections and Maintenance

(MN R100001, §IV.E)

Periodic inspections of temporary erosion and sediment controls will be conducted by a trained person at least once every seven (7) days, and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of the Project location, or a weather reporting system that provides site-specific rainfall data from radar summaries. If a rain gauge is used, it may be located at the Construction Supervisor's discretion at a representative area on site. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within seven (7) days after the rainfall event.

All inspections and maintenance conducted during construction must be recorded within 24 hours, and the records must be retained with the SWPPP. Records of each inspection and maintenance activity must include:

- Date and time of inspection;
- Name, title, and qualifications of person(s) conducting inspection;
- Findings of the inspections, including the specific location where corrective actions are needed;
- Corrective actions taken, including dates, times, and name of the party completing maintenance activities;
- Date, duration, and amount of all rainfall events that produce more than 0.5 inches in 24 hours;
- Source of rainfall information;
- Locations of the following:
    - Discharges of sediment or other pollutant from the site, including a description of the discharge and photographs.
    - BMPs that need to be maintained.
    - BMPs that have failed to operate as designed or proved inadequate for a particular location.
    - BMPs that are needed and did not exist at the time of inspection.
- Amendments to the SWPPP; and
- Inspector's signature.

Proposed amendments as a result of the inspection must be documented and addressed as required within seven (7) days. Scenarios where inspection frequency may be adjusted include:

- Where parts of the Project site have permanent cover, but work remains on other parts of the site, inspections of areas with permanent cover may be performed monthly.
- Where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, the site must be inspected during non-frozen ground conditions at least once per month for a period of 12 months. After the 12th month of permanent cover and no construction activity, inspections may halt

until construction activity is once again initiated unless notified in writing by the MPCA that erosion issues have been detected at the site and inspections need to resume.

- Where work has been suspended due to frozen ground conditions, the inspections may be suspended. The required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever comes first.
    - When construction is active during frozen ground conditions, active construction areas and disturbed areas must be inspected every seven (7) days and within 24 hours after runoff occurs.

All temporary and permanent erosion prevention and sediment control BMPs, and all pollution prevention management measures, must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow access. Inspection and maintenance must continue until the site has undergone final stabilization, and an NOT has been submitted to the MPCA, or coverage has been transferred to another permittee. Inspection and maintenance practices must include the following:

- All perimeter control devices must be repaired, replaced, or supplemented when they become nonfunctional or accumulated sediment reaches 1/2 the height of the device. These repairs must be made by the end of the next business day after discovery, or as soon as field conditions allow access.
- Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 of the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access.
- Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition during each inspection. All deltas and sediment deposited in surface waters and drainage systems must be removed, and areas where sediment removal results in exposed soil must be restabilized. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints.
- Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking. Tracked sediment must be removed from off-site roads within 24 hours of discovery.
- Streets and other areas adjacent to the Project must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a frequency sufficient to minimize off-site impact.

All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area. All infiltration areas must be inspected to ensure that equipment is not being driven across the infiltration area causing compaction and rutting. Site inspection logs and reports will be maintained in Appendix L.

16. Final Stabilization

(MN R100001, §IV.G)

Turf areas must be maintained until the site has undergone final stabilization, which may include watering, reseeding, and re-applying stabilization measures, as needed. Final stabilization means that:

- All soil disturbing activities at the site have been completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.
- Permanent stormwater management systems have been constructed as required, and operating as designed. Sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems, and ditches and drainageways are stabilized with permanent cover.
- All temporary synthetic and structural erosion prevention and sediment control BMPs, such as silt fence, have been removed from the site. BMPs designed to decompose on site may be left in place.
- Disturbance on agricultural land has been returned to its preconstruction agricultural use.

Since the Project does not require major grading activities, in most cases natural revegetation is expected to occur, and revegetation activities may not be required. Seeded areas must be inspected monthly during the first growing season after completion of construction to ensure that NWIS are controlled, desirable native plant species have become the dominant vegetation communities, and that soil stabilization was applied correctly and has not been compromised.

17. SWPPP Amendments

(MN R100001, §III.B)

The SWPPP must be amended as necessary to include additional requirements, such as additional or modified BMPs that are designed to correct problems identified or address situations whenever:

- There is a change in design, construction, operation, maintenance, weather, or seasonal conditions that has a significant effect on the discharge of pollutants to surface waters or groundwater.
- Inspections or investigations by site owners, operators, inspectors, or other regulatory USEPA or MPCA officials indicate that the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or groundwater, or if discharges are causing water quality exceedances.
- The SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with all applicable regulatory requirements of General Permit No. MN R100001 or all other applicable regulations.
- Changes in water quality standards during the term of this permit will require the MPCA to make a determination as to whether the Project's stormwater discharges have reasonable potential to cause or contribute to non-attainment of any applicable water quality standards, the SWPPP does not incorporate applicable requirements, or if a modification of the SWPPP is necessary to address the new standard.

If such a determination is made, the SWPPP must be amended to comply with the individual items noted by the determination. Modifications to the SWPPP must be completed and the MPCA notified, if necessary, within the specified timeframe to avoid a permit violation. Revision documentation is summarized in Appendix M.

18. Notice of Termination

(MN R100001, §II.C)

A Notice of Termination (NOT) must be submitted by Minnesota Power to the MPCA within 30 days after final stabilization has been achieved on all portions of the site. Coverage under the MN R100001 Permit terminates at midnight on the submission date of the NOT.

When transfer of ownership occurs, a NOT must be submitted to the MPCA within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads and the stormwater infrastructure final cleanout, or transferring portions of a site to another party. Coverage under the MN R100001 Permit terminates at midnight on the submission date of the NOT.

Permit coverage may be terminated prior to completion of all construction activity if all of the following conditions are met. Permit coverage must be obtained for subsequent development on remaining portions of the site where construction activity was not complete.

- Construction activity has ceased for at leased 90 days.
- At least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover established on those areas.
- On areas where construction activity is not complete, permanent cover has been established.
- The site is in compliance with final stabilization requirements.

A blank copy of the NOT can be found in Appendix N.

19. Record Retention

(MN R100001, §III.E)

The SWPPP and Erosion Control Plan, including all amendments and the inspection and maintenance records, must be retained at the site during construction in a field office or in an on-site vehicle. Minnesota Power must keep the following records on file for three (3) years after submittal of the Notice of Termination (NOT):

- Final SWPPP and applicable attachments;
- All stormwater related permits for the Project;
- Records of all inspection and maintenance conducted during construction;
- All permanent operations and maintenance agreements, including all right-of-way, contracts, covenants, and other building requirements regarding perpetual maintenance; and
- All required calculations for design of temporary and permanent stormwater management systems.

Appendix A: MPCA General Construction Permit No. MN R100001

GENERAL PERMIT
AUTHORIZATION TO DISCHARGE
STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/
STATE DISPOSAL SYSTEM PROGRAM

ISSUANCE DATE: August 1, 2013 **EXPIRATION DATE: August 1, 2018**

This permit is issued in compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.), 40 Code of Federal Regulations (CFR) 122, 123, 124,and 450 as amended; Minnesota Statute chapters 115 and 116, as amended, and Minn. R. chs. 7001, 7050, 7060 and 7090.

This permit regulates discharges associated with **stormwater** affected by **construction activity** to **waters of the state** of Minnesota. This permit covers the **stormwater** discharges identified in Part I.A. of this permit. The limitations on permit coverage are identified in Part I.B. of this permit.

Minn. R. 7090.2040 requires **owner(s)** of a **construction activity** to complete a **Stormwater Pollution Prevention Plan (SWPPP)** prior to submitting an application for this permit and prior to conducting any **construction activity**. No person shall commence **construction activity** covered by Part I.A. until permit coverage under this permit is effective or, if applicable, until the Minnesota Pollution Control Agency (MPCA) has issued an individual **National Pollutant Discharge Elimination System (NPDES)**/State Disposal System (SDS) Construction **Stormwater** (CSW) Permit for the **project**.

Unless notified by the MPCA to the contrary, applicants who submit a complete and accurate application (including permit fee) in accordance with the requirements of this permit are authorized to discharge **stormwater** associated with construction activity under the terms and conditions of this permit as described in Part II.B.

Signature: _____

John Linc Stine
Commissioner

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact the appropriate MPCA offices. Note that **bolded** words throughout the permit are defined in Appendix B.

Minnesota Pollution Control Agency
Municipal Division
Construction Stormwater Program
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: 651-296-6300
Toll free in MN: 800-657-3864

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PART I. PERMIT COVERAGE AND LIMITATIONS

I.A. PERMIT COVERAGE

1. This permit is required for **construction activity** that results in land disturbance of equal to or greater than one acre or a **common plan of development or sale** that disturbs greater than one acre, and authorizes, subject to the terms and conditions of this permit, the discharge of **stormwater** associated with **construction activity.**

   Construction activity does not include a disturbance to the land of less than five (5) acres for the purpose of routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Pavement rehabilitation that does not disturb the underlying soils (e.g., mill and overlay **projects**) is not considered construction activity.

2. This permit covers all areas of the State of Minnesota.

3. Coverage under this permit is not required when all stormwater from **construction activity** is routed directly to and treated by a "treatment works", as defined in Minn. Stat. § 115.01, subd. 21, that is operated under an individual **NPDES**/SDS permit with a Total Suspended Solids effluent limit for all treated runoff.

4. Previously Permitted Ongoing **Projects: Permittee(s)** of ongoing **projects** covered initially under the previous MPCA-issued **NPDES**/SDS Construction Stormwater General Permit (issuance date August 1, 2008) are granted coverage under this reissued permit.

   a. The **Permittee(s)** of those ongoing **projects** shall amend the **SWPPP** for the **project** to meet the requirements of this reissued permit no later than 18 months after the issuance date of this reissued permit if the termination-of-coverage requirements in Part II.C. will not be met within 18 months of the issuance date of this reissued permit and shall thereafter comply with this permit. However, additional permanent treatment required in this reissued permit is not required for previously permitted **projects**.

   b. If the previously permitted ongoing **project** will meet the termination-of-coverage requirements in Part II.C. within 18 months of the issuance date of this reissued permit, the **Permittee(s)** shall comply with the 2008 construction general permit until the **project** is complete and a **Notice of Termination (NOT)** consistent with Part II.C. of this reissued permit is submitted.

   c. If a previously permitted ongoing **project** will not be able to meet the terms and conditions of this reissued permit (other than the additional permanent treatment requirement) and will continue longer than 18 months after the issuance date of this permit, the **Permittee(s)** shall apply for an individual permit in accordance with Minn. R. ch. 7001.

I.B. LIMITATIONS OF COVERAGE

This permit does not authorize discharges related to the following activities:

1. Discharges or releases that are not **stormwater** (except those non-**stormwater** discharges

authorized under Part IV.D.).

2. The placement of fill into **waters of the state** requiring local, state or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits, Minnesota Department of Natural Resources Public Waters Work Permits or Local Governmental Unit Wetland Conservation Act replacement plans or determinations).

3. Discharges associated with industrial activity except for **construction activity**. Discharges associated with industrial activity may need to obtain coverage under a separate NPDES/SDS permit once day-to-day operational activities commence even if construction is ongoing.

4. Discharges from non-point source agricultural and silvicultural activities excluded from **NPDES** permit requirements under 40 CFR pt. 122.3(e).

5. Discharges to the waters identified below unless the requirements of Appendix A are complied with:

   a. Discharges into outstanding resource value waters as listed in Minn. R. 7050.0180, subp. 3, 4, 5, 6, 6a and 6b.

   b. Discharges into trout waters as listed in Minn. R. 6264.0050, subp. 2 and 4.

   c. Discharges into **wetlands** as defined in Minn. R. 7050.0186 subd.1a.B.

   d. Discharges from **projects** that have not completed applicable Environmental Review requirements under state or federal laws.

   e. Discharges that adversely impact or contribute to adverse impacts on a state or federally listed endangered or threatened species or adversely modify a designated critical habitat.

   f. Discharges that adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites.

6. Discharges to waters identified as impaired pursuant to section 303(d) of the federal Clean Water Act (33 U.S.C. § 303(d)) where the identified pollutant(s) or stressor(s) are phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen, or biotic impairment (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment), and with or without a U.S. Environmental Protection Agency (USEPA) approved Total Maximum Daily Load (TMDL) for any of these identified pollutant(s) or stressor(s), unless the applicable requirements of Part III.A.8. are met.

PART II. SUBMITTING THE APPLICATION

II.A. PREREQUISITE FOR SUBMITTING A PERMIT APPLICATION

The **owner** must develop an accurate and complete **SWPPP** in accordance with Part III. (Stormwater Discharge Design Requirements) of this permit prior to submitting the application for coverage. The **SWPPP** is not required to be submitted to the MPCA (unless the **project** size is 50 acres or more and will discharge to certain waters as described in Part II.B.1.b.) but is to be retained by the **owner** in

accordance with Part III.E. (Record Retention). The **owner's** failure to prepare an accurate and complete **SWPPP** prior to submitting the application is grounds for MPCA to revoke the permit.

II.B. APPLICATION AND DURATION OF COVERAGE

1. Application Required.

   a. The **owner** and **operator** shall submit a complete and accurate on-line application form with the appropriate fee to the MPCA for each **project** that disturbs one (1) or more acres of land or for a **common plan of development or sale** that will ultimately disturb one (1) or more acres. If the applicant is not able to apply on-line, contact the MPCA for technical assistance or a waiver.

   b. For certain **projects** or **common plans of development or sale** disturbing 50 acres or more, the application must be submitted at least 30 days before the start of **construction activity**. This requirement pertains to **projects** that have a discharge point on the **project** that is within one mile (**aerial radius measurement**) of, and flows to, a special water listed in Appendix A, Part B. or waters listed as impaired under section 303(d) of the federal Clean Water Act (see the MPCA's website) where the identified pollutant(s) or stressor(s) are phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen, or biotic impairment (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment). Applicants of **projects** listed in this part must submit a complete and accurate application form and **SWPPP** including all calculations for the Permanent **Stormwater** Management System (see Parts III.A.-D.).

2. All persons meeting the definition of **owner** and **operator** are **Permittees** and must be listed on the application. The **owner** is responsible for compliance with all terms and conditions of this permit. The **operator** is responsible for compliance with Parts II.B, II.C, III.B-F, IV, V, and applicable **construction activity** requirements found in Appendix A, Part C. of this permit and is jointly responsible with the **owner** for compliance with those portions of the permit.

3. Permit Coverage Effective Date: The commencement of any **construction activity** (e.g., land disturbing activities) covered under Part I.A. of this permit is prohibited until permit coverage under this permit is effective.

   a. For **projects** listed in Part II.B.1.a. permit coverage will become effective seven (7) calendar days after the electronic submittal date or the postmarked date of a complete application form.

   b. For **projects** listed in Part II.B.1.b. permit coverage will become effective 30 calendar days after the electronic submittal date, the postmarked date or MPCA date stamp (whichever is first) of the complete application. For incomplete applications (e.g., lack of fees or signature) or incomplete **SWPPPs** (e.g., missing calculations, **Best Management Practice (BMP)** specifications, estimated quantities of the **BMPs,** or timing of **BMP** installation narrative), the permit becomes effective 30 calendar days after all required information is submitted.

4. Coverage Notification: **Permittee(s)** will be notified of coverage in a manner as determined by the **Commissioner** (e.g., e-mail, online notification or letter).

5. Change of Coverage: For construction **projects** where the **owner** or **operator** changes, (e.g., an original developer sells portions of the property to various homebuilders or sells the entire site to a new **owner**) the current **owner** and the new **owner** or **operato**r shall submit a complete permit modification on a form provided by the **Commissioner**. The form must be submitted prior to the new **owne**r or **operator** commencing **construction activity** on site or in no case later than 30 days after taking ownership of the property. The **owner** shall provide a **SWPPP** to the new **owner** and **operator** that specifically addresses the remaining **construction activity**.

II.C. TERMINATION OF COVERAGE

1. Termination of coverage when construction is complete: All **Permittee(s)** must submit a **Notice of Termination (NOT)** to the MPCA on a form provided by the **Commissioner** within 30 days after all activities required for **Final Stabilization** (see Part IV.G.) are complete. The **Permittee(s)'** coverage under this permit terminates at midnight on the submission date of the **NOT**.

2. Termination of coverage when transfer of ownership occurs: All **Permittee(s)** must submit a **NOT** on a form provided by the **Commissioner** within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads (e.g., street sweeping) and **stormwater** infrastructure final clean out, or transferring portions of a site to another party. The **Permittee(s)'** coverage under this permit terminates at midnight on the submission date of the **NOT**.

3. **Permittee(s)** may terminate permit coverage prior to completion of all **construction activity** if all of the following conditions are met. After the permit is terminated under this Part, if there is any subsequent development on the remaining portions of the site where **construction activity** was not complete, new permit coverage must be obtained if the subsequent development itself or as part of the remaining **common plan of development or sale** will result in land disturbing activities of one (1) or more acres in size.

   a. **Construction activity** has ceased for at least 90 days.

   b. At least 90 percent (by area) of all originally proposed **construction activity** has been completed and **permanent cover** established on those areas.

   c. On areas where **construction activity** is not complete, **permanent cover** has been established.

   d. The site is in compliance with Part IV.G.2. and Part IV.G.3. and where applicable, Part IV.G.4. or Part IV.G.5.

4. **Permittee(s)** may terminate coverage upon approval by the MPCA if information is submitted to the MPCA documenting that termination is appropriate because the project is cancelled.

PART III. STORMWATER DISCHARGE DESIGN REQUIREMENTS

III.A. STORMWATER POLLUTION PREVENTION PLAN CONTENT

The **owner** must develop a **Stormwater Pollution Prevention Plan** (**SWPPP).** The **SWPPP** shall be

completed prior to submitting any permit application and prior to conducting any **construction activity** by any required **Permittee(s)**. For **stormwater** discharges from **construction activity** where the **owner** or **operator** changes, the new **owner** or **operator** can implement the original **SWPPP** created for the **project**, modify the original **SWPPP**, or develop and implement their own **SWPPP**. **Permittee(s)** shall ensure either directly or through coordination with other **Permittee(s)** that their **SWPPP** meets all terms and conditions of this permit and that their activities do not render another party's **erosion prevention** and **sediment control BMPs** ineffective. The **SWPPP** must include the following:

1. A description of the **construction activity:** The description must be a combination of narrative, plan sheets, and (if appropriate) standard detail sheets that address the foreseeable conditions, at any stage in the construction or post construction activities. The **SWPPP** must identify the potential for discharge of sediment and/or other potential pollutants from the site. The **SWPPP** must propose **erosion prevention and sediment control BMPs** to control the discharge of sediment and/or other potential pollutants from the site.

2. Knowledgeable person/chain of responsibility: As part of the **SWPPP,** the **owner** must identify a person knowledgeable and experienced in the application of **erosion prevention** and **sediment control BMPs** who will oversee the implementation of the **SWPPP**, and the installation, inspection and maintenance of the **erosion prevention** and **sediment control BMPs** (see Part III.F.1.) before and during construction. The **owner** must identify in the **SWPPP** who will have the responsibility for long-term operation and maintenance of the Permanent **Stormwater** Management System (see Part III.D.). The **owner** shall include in the **SWPPP** a chain of responsibility with all **operators** on the site, or if not known, the title or position of the responsible party, to ensure that the **SWPPP** will be implemented and stay in effect until the construction **project** is complete, the entire site has undergone **Final Stabilization**, and an **NOT** has been submitted to the MPCA. Once the identity of the responsible party is known, the SWPPP must be amended to include this information.

3. Training documentation: The **Permittee(s)** shall ensure the individuals identified in Part III.F. have been trained in accordance with this Permit's training requirements. The **Permittee(s)** shall ensure the training is recorded in or with the **SWPPP** before the start of construction or as soon as the personnel for the **project** have been determined. Documentation shall include:

    a. Names of the personnel associated with this **project** that are required to be trained per Part III.F.1. of this permit.

    b. Dates of training and name of instructor(s) and entity providing training.

    c. Content of training course or workshop including the number of hours of training.

4. Designs, calculations, and narrative: The **SWPPP** must incorporate the requirements of Part III (**Stormwater** Discharge Design Requirements) including calculations, Part IV (**Construction Activity** Requirements) and Appendix A for the **project**. A narrative describing the timing for installation of all **erosion prevention** and **sediment control BMPs** and permanent **stormwater** management systems required in Part III, Part IV and Appendix A must also be included in the **SWPPP**.

5. **SWPPP** components: The **SWPPP** requirements must be incorporated into the **project's** final

plans and specifications and/or **project** documentation, as appropriate, and must include:

a. Location and type of all temporary and permanent **erosion prevention** and **sediment control BMPs** along with procedures to be used to establish additional temporary **BMPs** as necessary for the site conditions during construction. **Standard details** and/or specifications for the **BMPs** used on the **project** must be included in the final plans and specifications for the **project**.

b. Quantities: Estimated preliminary quantities tabulation anticipated at the start of the **project** for the life of the **project** must be included for all **erosion prevention** and **sediment control BMPs** in the **SWPPP** (e.g., linear feet of silt fence or ft^2 of erosion control blanket).

c. Impervious surface: The number of acres of **impervious surface** for both pre- and post-construction must be specified.

d. Site map: A site map with existing and final grades, including dividing lines and direction of flow for all pre-and post-construction **stormwater** runoff drainage areas located within the **project** limits must be included. The site map must indicate the areas of **steep slopes**. The site map must also include **impervious surfaces,** soil types and locations of potential pollutant-generating activities as identified in Part IV.F.

e. Locations of areas not to be disturbed: Buffer zones, as required for temporary **BMPs** during construction in Part IV.C.9., or if required as permanent **BMPs** in Appendix A, Part C.3., must be described and identified on plan sheets or **project** maps in the **SWPPP**.

f. Construction phasing: Location of areas where construction will be phased to minimize duration of exposed soil areas must be described.

g. Maps of surface waters and wetlands: The **SWPPP** must include a map of all **surface waters,** existing **wetlands**, and **stormwater** ponds or basins which can be identified on maps such as United States Geological Survey 7.5 minute quadrangle maps, the National Wetland Inventory map or equivalent maps within one mile (**aerial radius measurement**) from the **project** boundaries that will receive **stormwater** from the construction site, during or after construction. Where **surface waters** receiving **stormwater** associated with **construction activity** will not fit on the plan sheet, they must be identified with an arrow, indicating both direction and distance to the **surface water**. The **SWPPP** must identify if the **surface water** is a special or impaired water. The site map must also show **construction activity** areas that are adjacent to and drain to **Public Waters** for which the Department of Natural Resources has promulgated “work in water restrictions” during specified fish spawning time frames.

h. **Final stabilization:** Methods to be used for **Final Stabilization** of all exposed soil areas must be described.

i. **BMP** design factors: The **SWPPP** must account for the following factors in designing the temporary **erosion prevention** and **sediment control BMPs**:

    i. The expected amount, frequency, intensity, and duration of precipitation.

    ii. The nature of **stormwater** runoff and run-on at the site, including factors such as

expected flow from **impervious surface**s, slopes, and site drainage features.

iii. If any **stormwater** flow will be channelized at the site, the **Permitte(s)** must design **BMPs** to control both peak flowrates and total **stormwater** volume to minimize erosion at outlets and to minimize downstream channel and streambank erosion.

iv. The range of soil particle sizes expected to be present on the site.

j. Soil Management: Methods used to minimize soil compaction and preserve topsoil must be described. Minimizing soil compaction is not required where the function of a specific area of the site dictates that it be compacted.

k. Maintenance plan: For **projects** that include permanent **stormwater** treatment systems, the **SWPPP** must include a maintenance plan identifying who will be performing future maintenance of the system.

l. Chemical treatments: Any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the requirements in Part IV.C.10., must be described.

m. Documentation of **infeasibility**: If the **Permittee(s)** determine(s) that compliance with the requirement for temporary sediment basins (Part III.C.) is **infeasible** on the **project** site; the **Permittee(s)** must document that determination and the substitute **BMPs** in the **SWPPP**. If **Permittee(s)** cannot obtain right-of-way for the permanent stormwater management system; the **Permittee(s)** must document the infeasibility of obtaining right-of-way (Part III.D.)

6. Stormwater pollution mitigation measures identified in environmental review or other required review: The **SWPPP** must include any **stormwater** mitigation measures approved as part of a final environmental review document, endangered species review, archeological or other required local, state or federal review conducted for the **project**. For the purposes of this permit provision, mitigation measures means actions necessary to avoid, minimize, or rectify (e.g., repairing, rehabilitating, restoring), reducing, eliminating or compensating for impacts related to: (1) **stormwater** discharges associated with the **project's construction activity**; and (2) **erosion prevention**, **sediment control** and the Permanent **Stormwater** Management System for the **project**.

7. Karst areas: The **SWPPP** must identify additional or different measures necessary (e.g. impervious liner in pond bottom) to assure compliance with **surface and groundwater** standards in Minn. R. chs. 7050 and 7060 in karst areas and to ensure protection of drinking water supply management areas (see Minn. R. 4720.5100, subp. 13).

8. Impaired Waters and Total Maximum Daily Loads (TMDLs): The **SWPPP** must address the following:

a. For **projects** that have a discharge point on the **project** that is within one mile (**aerial radius measurement**) of and which flows to an impaired water, the **Permittee(s)** must identify the impaired water(s) in the **SWPPP**, and whether or not there is a USEPA-approved TMDL for the pollutant(s) or stressor(s) identified in Appendix A, Part B.10. Unless otherwise notified by the MPCA in writing, the **Permittee(s)'** identification of impaired waters must be based

on the most recent USEPA approved section 303(d) Clean Water Act list of impaired waters and USEPA approved TMDLs at the time a complete permit application is submitted. The **Permittee(s)'** identification must include those TMDLs, applicable to the **project's stormwater** discharge, that were approved at any time prior to permit application submittal and are still in effect.

b. If the TMDL identifies specific implementation activities regarding construction **stormwater** that would apply to the site discharges, the **Permittee(s)** must include the **BMPs** identified in the TMDL and any other specific construction **stormwater** related implementation activities identified in the TMDL.

III.B. SWPPP AMENDMENTS

The **Permittee(s)** must amend the **SWPPP** as necessary to include additional requirements, such as additional or modified **BMPs** that are designed to correct problems identified or address situations whenever:

1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to **surface waters** or **underground waters**.

2. Inspections or investigations by site **owner** or **operators**, USEPA or MPCA officials indicate the **SWPPP** is not effective in eliminating or significantly minimizing the discharge of pollutants to **surface waters** or **underground waters** or that the discharges are causing water quality standard exceedances (e.g., nuisance conditions as defined in Minn. R. 7050.0210, subp. 2).

3. The **SWPPP** is not achieving the general objectives of minimizing pollutants in **stormwater** discharges associated with **construction activity**, or the **SWPPP** is not consistent with the terms and conditions of this permit.

4. At any time after permit coverage is effective, the MPCA may determine that the **project's stormwater** discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or that the **SWPPP** does not incorporate the applicable requirements in Part III.A.8., (Impaired Waters and TMDLs). If a water quality standard changes during the term of this permit, the MPCA will make a determination as to whether a modification of the SWPPP is necessary to address the new standard. If the MPCA makes such determination(s) or any of the determinations in Parts III.B.1.-3., the MPCA will notify the **Permittee(s)** in writing. In response, the **Permittee(s)** must amend the **SWPPP** to address the identified concerns and submit information requested by the MPCA, which may include an individual permit application. If the MPCA's written notification requires a response, failure to respond within the specified timeframe constitutes a permit violation.

III.C. TEMPORARY SEDIMENT BASINS

Where ten (10) or more acres of disturbed soil drain to a common location, the **Permittee(s)** must provide a temporary sediment basin to provide treatment to the runoff before it leaves the construction site or enters **surface waters**. A temporary sediment basin may be converted to a permanent basin after construction is complete. The temporary basin is no longer required when

permanent cover has reduced the acreage of disturbed soil to less than ten (10) acres draining to a common location. The **Permittee(s)** is/are encouraged, but not required, to install temporary sediment basins where appropriate in areas with **steep slopes** or highly erodible soils even if less than ten (10) acres drains to one area. The basins must be designed and constructed according to the following requirements:

1. The basins must provide live storage for a calculated volume of runoff from a two (2)-year, 24-hour storm from each acre drained to the basin, except that in no case shall the basin provide less than 1,800 cubic feet of live storage from each acre drained to the basin.

2. Where the calculation in Part III.C.1. has not been performed, a temporary sediment basin providing 3,600 cubic feet of live storage per acre drained to the basin shall be provided for the entire drainage area of the temporary basin.

3. Temporary basin outlets must be designed to prevent short-circuiting and the discharge of floating debris. The basin must be designed with the ability to allow complete basin drawdown for maintenance activities, and must include a **stabilized** emergency overflow to prevent failure of pond integrity. The outlet structure must be designed to withdraw water from the surface in order to minimize the discharge of pollutants, except that the use of a surface withdrawal mechanism for discharge of the basin may be temporarily suspended during frozen conditions. **Energy dissipation** must be provided for the basin outlet (see Part IV.B.5.).

4. Sediment Basins must be situated outside of surface waters and any buffer zone required under Appendix A.C.3, and must be designed to avoid draining water from **wetlands** unless the impact to the **wetland** is in compliance with the requirements of Appendix A, Part D.

5. The temporary basins must be constructed and made operational prior to 10 or more acres of disturbed soil draining to a common location.

6. Where a temporary sediment basin meeting the requirements of this part is **infeasible**, equivalent **sediment controls** such as smaller sediment basins, and/or sediment traps, silt fences, vegetative buffer strips, or any appropriate combination of measures are required for all down-slope boundaries of the construction area and for side-slope boundaries as dictated by individual site conditions. In determining whether installing a sediment basin is **infeasible**, the **Permittee(s)** must consider public safety and may consider factors such as site soils, slope, and available area on site. This determination of **infeasibility** must be documented in the **SWPPP** per Part III.A.5.m.

III.D. PERMANENT STORMWATER MANAGEMENT SYSTEM

The **Permittee(s)** shall design the **project** so that all **stormwater** discharged from the **project** during and after **construction activities** does not cause a violation of state water quality standards, including nuisance conditions, erosion in receiving channels or on downslope properties, or a significant adverse impact to **wetlands** caused by inundation or decrease of flow.

The **Permittee(s)** shall construct a permanent stormwater management system meeting the requirements of this Part, or if the **project** is located in a jurisdiction subject to a **NPDES/**SDS Municipal Separate Storm Sewer System (MS4) permit and that permit has established permanent treatment requirements that include volume reduction, the **Permittee(s)** can comply with the

permanent treatment requirements established under the MS4 permit in lieu of the permanent treatment requirements of this permit.

Where a **project's** ultimate development replaces vegetation and/or other pervious surfaces with one (1) or more acres of cumulative **impervious surface**, the **Permittee(s)** must design the **project** so that the **water quality volume** of one (1) inch of runoff from the new **impervious surfaces** created by the **project** is retained on site (i.e. infiltration or other volume reduction practices) and not discharged to a **surface water**. For purposes of this part, **surface waters** does not include man-made drainage systems that convey **stormwater** to a compliant permanent **stormwater** management system.

For those **projects** where infiltration is prohibited (see Part III.D.1.j.), the **Permittee(s)** shall consider other methods of volume reduction and the **water quality volume** (or remainder of the **water quality volume** if some volume reduction is achieved) must be treated by a wet sedimentation basin, filtration system, regional ponding or equivalent methods prior to the discharge of **stormwater** to **surface waters**.

Where the proximity to bedrock precludes the installation of any of the permanent **stormwater** management practices outlined in Part III.D., other treatment, such as grassed swales, filtration systems, smaller ponds, or grit chambers, is required prior to the discharge of **stormwater** to **surface waters**.

For work on linear **projects** with lack of right-of-way where the **Permittee(s)** cannot obtain an easement or other permission for property needed to install treatment systems capable of treating the entire **water quality volume** on site, the **Permittee(s)** must maximize the **water quality volume** that can be treated prior to discharge to **surface waters**. Treatment can be provided through other methods or combination of methods such as grassed swales, filtration systems, smaller ponds, or grit chambers, prior to discharge to **surface waters**. A reasonable attempt must be made to obtain right-of-way during the **project** planning process. Documentation of these attempts must be in the **SWPPP** per Part III.A.5.m. in the section addressing **infeasibility**.

When constructing any of the permanent **stormwater** management systems in this part, the **Permittee(s)** must incorporate the following design parameters:

1. Infiltration/Filtration

    a. Infiltration/Filtration options include but are not limited to: infiltration basins, infiltration trenches, rainwater gardens, sand filters, organic filters, bioretention areas, natural or enhanced swales, dry storage ponds with underdrain discharge, off-line retention areas, and natural depressions. Infiltration must be used only as appropriate to the site and land uses. The method selected by the **Permittee(s)** must remove settleable solids, floating materials, and oils and grease from the runoff to the maximum extent practicable before runoff enters the infiltration/filtration system. Filtration systems must be designed to remove at least 80 percent of total suspended solids. When designing the system the **Permittee(s)** must evaluate the impact of constructing an infiltration practice on existing hydrologic features (e.g., existing **wetlands**) and the system must be designed to maintain pre-existing conditions (e.g., do not breach a perched water table that is supporting a **wetland**). For a discussion of potential **stormwater** hotspots, groundwater warnings, design measures, maintenance considerations or other retention, detention, and treatment devices, see the

Minnesota Stormwater Manual found on the MPCA's website.

b. Infiltration systems must not be excavated to final grade until the contributing drainage area has been constructed and fully **stabilized** unless rigorous erosion prevention and sediment controls are provided (Part III.D.1.c.).

c. When an infiltration system is excavated to final grade (or within three (3) feet of final grade), the **Permittee(s)** must employ rigorous **erosion prevention** and **sediment controls** (e.g., diversion berms) to keep sediment and runoff completely away from the infiltration area. The area must be staked off and marked so that heavy construction vehicles or equipment will not compact the soil in the proposed infiltration area.

d. To prevent clogging of the infiltration or filtration system, the **Permittee(s)** must use a pretreatment device such as a vegetated filter strip, small sedimentation basin, or water quality inlet (e.g., grit chamber) to settle particulates before the **stormwater** discharges into the infiltration or filtration system.

e. The **Permittee(s)** must design infiltration or filtration systems that provide a **water quality volume** (calculated as an instantaneous volume) of one (1) inch of runoff (or one (1) inch minus the volume of **stormwater** treated by another system on the site) from the new impervious surfaces created by the **project**.

f. The **Permittee(s)** must design the infiltration/filtration system to discharge the **water quality volume** routed to the system through the soil surface or filter media within 48 hours or less. Additional flows that cannot be infiltrated or filtered within 48 hours must be routed to bypass the system through a **stabilized** discharge point. The **Permittee(s)** must design the infiltration system to provide a means to visually verify that the system is discharging through the soil surface or filter media within 48 hours or less.

g. The **Permittee(s)** shall employ appropriate on-site testing consistent with the recommendations found in the **Minnesota Stormwater Manual** to verify soil type and to ensure a minimum of three (3) feet of separation from the seasonally **saturated soils** (or from bedrock) and the bottom of the proposed infiltration/filtration system.

h. The **Permittee(s)** must ensure filtration systems with less than three (3) feet of separation from seasonally **saturated soils** or from bedrock are constructed with an impermeable liner.

i. The **Permittee(s)** must design adequate maintenance access (typically eight (8) feet wide).

j. Infiltration is prohibited when the infiltration system will be constructed in:

   i. Areas that receive discharges from vehicle fueling and maintenance.

   ii. Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally **saturated soils** or the top of bedrock.

iii. Areas that receive discharges from industrial facilities which are not authorized to infiltrate industrial **stormwater** under an **NPDES/**SDS Industrial Stormwater Permit issued by the MPCA.

iv. Areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating **stormwater.**

v. Areas of predominately Hydrologic Soil Group D (clay) soils unless allowed by a local unit of government with a current MS4 permit.

vi. Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.

vii. Areas within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13., unless allowed by a local unit of government with a current MS4 permit.

viii. Areas where soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour or as allowed by a local unit of government with a current MS4 permit.

2. Wet Sedimentation Basin

a. The **Permitte(s)** must design the basin to have a permanent volume of 1,800 cubic feet of storage below the outlet pipe for each acre that drains to the basin. The basin's permanent volume must reach a minimum depth of at least three (3) feet and must have no depth greater than 10 feet. The basin must be configured such that scour or resuspension of solids is minimized.

b. The **Permittee(s)** must design basins to provide live storage for a **water quality volume** (calculated as an instantaneous volume) of one (1) inch of runoff (or one (1) inch minus the volume of **stormwater** treated by another system on the site) from the new impervious surfaces created by the **project**.

c. The **Permittee(s)** must design basin outlets such that the **water quality volume** is discharged at no more than 5.66 cubic feet per second (cfs) per acre of surface area of the pond.

d. The **Permittee(s)** must design basin outlets to prevent short-circuiting and the discharge of floating debris. Basin outlets must have **energy dissipation**.

e. The **Permittee(s)** must design the basin to include a **stabilized** emergency overflow to accommodate storm events in excess of the basin's hydraulic design.

f. The **Permittee(s)** must design adequate maintenance access (typically eight (8) feet wide).

g. The **Permittee(s)** must design sediment Basins to be situated outside of **surface waters** and any buffer zone required under Appendix A, Part C.3. and they must be designed to avoid draining water from **wetlands** unless the impact to the **wetland** is in compliance with the requirements of Appendix A, Part D.

3. Regional Ponds

   When the entire **water quality volume** cannot be retained onsite, the **Permittee(s)** can use or create regional ponds provided that they are constructed ponds, not a natural **wetland** or water body, (**wetlands** used as regional ponds must be mitigated for, see Appendix A, Part D) and designed in accordance with this permit's design requirements (Part III.D.2.) for all water from **impervious surfaces** that reach the pond. **Permittee(s)** shall not construct regional ponds in **wetlands**, regardless of their condition, quality or designation by local plans, unless the mitigative sequence in Appendix A, Part D. of this permit has been completed. There must be no significant degradation of the waterways between the **project** and the regional pond. The **owner** must obtain written authorization from the applicable local governmental unit (LGU) or private entity that owns and maintains the regional pond. The LGU's or private entity's written authorization must identify that the regional pond will discharge the **water quality volume** (one (1) inch of runoff from the impervious watershed area) at no more than 5.66 cfs per acre of surface area of the pond. The **owner** must include the LGU's or private entities' written authorization in the **SWPPP**. The LGU's or private entity's written authorization must be obtained before the **owner** finalizes the **SWPPP** and before any application for this permit is made to the MPCA.

III.E RECORD RETENTION

The **SWPPP** (original or copies) including, all changes to it, and inspections and maintenance records must be kept at the site during construction by the **Permittee(s)** who has/have operational control of that portion of the site. The **SWPPP** can be kept in either the field office or in an on-site vehicle during normal working hours.

All **owner(s)** must keep the following records on file for three (3) years after submittal of the **NOT** as outlined in Part II.C. This does not include any records after submittal of the **NOT**.

1. The final SWPPP

2. Any other **stormwater** related permits required for the **project**

3. Records of all inspection and maintenance conducted during construction (Part IV.E. Inspections and Maintenance)

4. All permanent operation and maintenance agreements that have been implemented, including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance and

5. All required calculations for design of the temporary and permanent **Stormwater** Management Systems.

III.F. TRAINING REQUIREMENTS

The **Permittee(s)** shall ensure the following individuals identified in this part have been trained in accordance with this Permit's training requirements.

1. Who must be trained:

   a. Individual(s) preparing the **SWPPP** for the **project**

   b. Individual(s) overseeing implementation of, revising, and amending the **SWPPP** and individual(s) performing inspections as required in Part IV.E. One of these individual(s) must be available for an onsite inspection within 72 hours upon request by the MPCA.

   c. Individual(s) performing or supervising the installation, maintenance and repair of **BMPs**. At least one individual on a **project** must be trained in these job duties.

2. Training content: The content and extent of training must be commensurate with the individual's job duties and responsibilities with regard to activities covered under this permit for the **project**. At least one individual present on the permitted **project** site (or available to the **project** site in 72 hours) must be trained in the job duties described in Part III.F.1.b. and Part III.F.1.c.

3. The **Permittee(s)** shall ensure that the individuals are trained by local, state, federal agencies, professional organizations, or other entities with expertise in **erosion prevention**, **sediment control,** permanent **stormwater** management and the Minnesota **NPDES**/SDS Construction Stormwater Permit. An update refresher-training must be attended every three (3) years starting three (3) years from the issuance date of this permit.

PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

IV.A. STORMWATER POLLUTION PREVENTION PLAN

The **Permittee(s)** must implement the **SWPPP** and the requirements of this part. The **BMPs** identified in the **SWPPP** and in this permit must be selected, installed, and maintained in an appropriate and functional manner that is in accordance with relevant manufacturer specifications and accepted engineering practices.

IV.B. EROSION PREVENTION PRACTICES

1. The **Permittee(s)** must plan for and implement appropriate **BMPs** such as construction phasing, vegetative buffer strips, horizontal slope grading, inspection and maintenance of Part IV.E. and other construction practices that minimize erosion as necessary to comply with this permit and protect **waters of the state**. The location of areas not to be disturbed must be delineated (e.g., with flags, stakes, signs, silt fence etc.) on the **project** site before work begins. The **Permittee(s)** must minimize the need for disturbance of portions of the **project** that have **steep slopes**. For those sloped areas which must be disturbed, the **Permittee(s)** must use techniques such as phasing and **stabilization** practices designed for **steep slopes** (e.g., slope draining and terracing).

2. The **Permittee(s)** must **stabilize** all exposed soil areas (including stockpiles). **Stabilization** must be **initiated immediately** to limit soil erosion whenever any **construction activity** has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. **Stabilization** must be completed no later than 14 calendar days after the **construction activity** in that portion of the site has temporarily or permanently ceased. For **Public Waters** that the Minnesota Department of Natural Resources has promulgated "work

in water restrictions" during specified fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete the **stabilization** activities within 24 hours during the restriction period. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement but must be in compliance with Part IV.C.5.

3. If using **stormwater** conveyance channels ,the **Permittee(s)** must design the channels to route water around unstabilized areas on the site and to reduce erosion, unless **infeasible**. The **Permittee(s)** must use erosion controls and velocity dissipation devices such as check dams, sediment traps, riprap, or grouted riprap at outlets within and along the length of any constructed **stormwater** conveyance channel, and at any outlet, to provide a non-erosive flow velocity, to minimize erosion of channels and their embankments, outlets, adjacent stream banks, slopes, and downstream waters during discharge conditions.

4. The **Permittee(s)** must **stabilize** the **normal wetted perimeter** of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, within 200 lineal feet from the property edge, or from the point of discharge into any **surface water**. **Stabilization** of the last 200 lineal feet must be completed within 24 hours after connecting to a **surface water** or property edge.

   The **Permittee(s)** shall complete **stabilization** of the remaining portions of any temporary or permanent ditches or swales within 14 calendar days after connecting to a **surface water** or property edge and construction in that portion of the ditch has temporarily or permanently ceased.

   Temporary or permanent ditches or swales that are being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be **stabilized** during the temporary period of its use as a sediment containment system. These areas must be **stabilized** within 24 hours after no longer being used as a sediment containment system.

   Applying mulch, hydromulch, tackifier, polyacrylamide or similar **erosion prevention** practices is not acceptable **stabilization** in any part of a temporary or permanent drainage ditch or swale.

5. Pipe outlets must be provided with temporary or permanent **energy dissipation** within 24 hours after connection to a **surface water**.

6. Unless **infeasible** due to lack of pervious or vegetated areas, the **Permittee(s)** must direct discharges from **BMPs** to vegetated areas of the site (including any **natural buffers)** in order to increase sediment removal and maximize **stormwater** infiltration. The **Permittee(s)** must use velocity dissipation devices if necessary to prevent erosion when directing **stormwater** to vegetated areas.

IV.C. SEDIMENT CONTROL PRACTICES

1. The **Permittee(s)** must employ **Sediment control** practices as necessary to minimize sediment from entering **surface waters**, including curb and gutter systems and storm sewer inlets.

a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a sediment containment system (e.g., ditches with rock-check dams) require **sediment control** practices only as appropriate for site conditions.

b. If the down gradient **sediment controls** are overloaded (based on frequent failure or excessive maintenance requirement), the **Permittee(s)** must install additional upgradient **sediment control** practices or redundant **BMPs** to eliminate the overloading, and the **SWPPP** must be amended to identify these additional practices as required in Part III.B 1.-3.

2. **Sediment control** practices must be established on all down gradient perimeters and be located upgradient of any buffer zones. The perimeter **sediment control** practice must be in place before any upgradient land-disturbing activities begin. These practices shall remain in place until **Final Stabilization** has been established in accordance with Part IV.G. A floating silt curtain placed in the water is not a **sediment control BMP** to satisfy perimeter control requirements in this part except when working on a shoreline and below the waterline. In those cases, a floating silt curtain can be used as a perimeter control practice if the floating silt curtain is installed as close to shore as possible. Immediately after the short term construction activity (e.g. installation of rip rap along the shoreline) in that area is complete, an upland perimeter control practice must be installed if exposed soils still drain to the surface water..

3. The **Permittee(s)** shall re-install all **sediment control** practices that have been adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity has been completed. The **Permittee(s)** shall complete any short-term activity that requires removal of **sediment control** practices as quickly as possible. The **Permittee(s)** must re-install **sediment control** practices before the next precipitation event even if the short-term activity is not complete.

4. All storm drain inlets must be protected by appropriate **BMPs** during construction until all sources with potential for discharging to the inlet have been **stabilized**. Inlet protection may be removed for a particular inlet if a specific safety concern (street flooding/freezing) has been identified by the **Permittee(s)** or the jurisdictional authority (e.g., city/county/township/MnDOT engineer).The **Permittee(s)** must document the need for removal in the **SWPPP.**

5. Temporary soil stockpiles must have silt fence or other effective **sediment controls**, and cannot be placed in any **natural buffers** or **surface waters**, including **stormwater** conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the **stormwater.**

6. Where vehicle traffic leaves any part of the site (or onto paved roads within the site):

   a. The **Permittee(s)** must install a vehicle tracking **BMP** to minimize the track out of sediment from the construction site. Examples of vehicle tracking **BMPs** include (but are not limited to) rock pads, mud mats, slash mulch, concrete or steel wash racks, or equivalent systems.

   b. The **Permittee(s)** must use street sweeping if such vehicle tracking **BMPs** are not adequate to prevent sediment from being tracked onto the street (see Part IV.E.5.d.).

7. The **Permittee(s)** must install temporary sedimentation basins as required in Part III.C. of this permit.

8. The **Permittee(s)** must minimize soil compaction and, unless **infeasible**, preserve topsoil. Minimizing soil compaction is not required where the function of a specific area of the site dictates that it be compacted.

9. The **Permittee(s)** must preserve a 50 foot **natural buffer** or (if a buffer is **infeasible** on the site) provide redundant **sediment controls** when a **surface water** is located within 50 feet of the **project's** earth disturbances and stormwater flows to the **surface water**. **Natural buffers** are not required adjacent to road ditches, judicial ditches, county ditches, **stormwater** conveyance channels, storm drain inlets, and sediment basins. The **Permittee(s)** is/are not required to enhance the quality of the vegetation that already exists in the buffer or provide vegetation if none exist. However, **Permittee(s)** can improve the natural buffer with vegetation.

10. If the **Permittee(s)** intend to use polymers, flocculants, or other sedimentation treatment chemicals on the **project** site, the **Permittee(s)** must comply with the following minimum requirements:

    a. The **Permittee(s)** must use conventional erosion and **sediment controls** prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated **stormwater** is directed to a **sediment control** system which allows for filtration or settlement of the floc prior to discharge.

    b. Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction, and to the expected turbidity, pH, and flow rate of **stormwater** flowing into the chemical treatment system or area.

    c. Chemicals must be used in accordance with accepted engineering practices, and with dosing specifications and sediment removal design specifications provided by the manufacturer or provider/supplier of the applicable chemicals.

IV.D. DEWATERING AND BASIN DRAINING

1. The **Permittee(s)** must discharge turbid or sediment-laden waters related to **dewatering** or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sedimentation basin on the **project** site unless **infeasible**. The **Permittee(s)** may discharge from the temporary or permanent sedimentation basins to **surface waters** if the basin water has been visually checked to ensure adequate treatment has been obtained in the basin and that nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If the water cannot be discharged to a sedimentation basin prior to entering the **surface water**, it must be treated with the appropriate **BMPs**, such that the discharge does not adversely affect the receiving water or downstream properties. If the **Permittee(s)** must discharge water that contains oil or grease, the **Permittee(s)** must use an oil-water separator or suitable filtration device (e.g. cartridge filters, absorbents pads) prior to discharging the water. The **Permittee(s)** must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock riprap, sand bags, plastic sheeting, or other accepted **energy dissipation** measures.

2. All water from **dewatering** or basin-draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in **wetlands** causing significant adverse impact to the **wetland.**

3. If the **Permittee(s)** is/are using filters with backwash water, the **Permittee(s)** must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion. The Permittee(s) may discharge backwash water to the sanitary sewer if permission is granted by the sanitary sewer authority. The **Permittee(s)** must replace and clean the filter media used in **dewatering** devices when required to retain adequate function.

IV.E. INSPECTIONS AND MAINTENANCE

1. The **Permittee(s)** must ensure that a trained person (as identified in Part III.A.3.a.) will routinely inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within seven (7) days after the rainfall event.

2. All inspections and maintenance conducted during construction must be recorded within 24 hours in writing and these records must be retained with the **SWPPP** in accordance with Part III.E. Records of each inspection and maintenance activity shall include:

   a. Date and time of inspections

   b. Name of person(s) conducting inspections

   c. Findings of inspections, including the specific location where corrective actions are needed

   d. Corrective actions taken (including dates, times, and party completing maintenance activities)

   e. Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, a weather station that is within 1 mile of your location or a weather reporting system that provides site specific rainfall data from radar summaries.

   f. If any discharge is observed to be occurring during the inspection, a record of all points of the property from which there is a discharge must be made, and the discharge should be described (i.e., color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of pollutants) and photographed.

   g. Any amendments to the **SWPPP** proposed as a result of the inspection must be documented as required in Part III.B. within seven (7) calendar days.

3. Inspection frequency adjustment

   a. Where parts of the **project** site have **permanent cover**, but work remains on other parts of the site, the **Permittee(s)** may reduce inspections of the areas with **permanent cover** to

once per month.

b. Where construction sites have **permanent cover** on all exposed soil areas and no **construction activity** is occurring anywhere on the site, the site must be inspected during non-frozen ground conditions at least once per month for a period of twelve (12) months. Following the twelfth month of **permanent cover** and no **construction activity**, inspections may be terminated until **construction activity** is once again initiated unless the **Permittee(s)** is/are notified in writing by the MPCA that erosion issues have been detected at the site and inspections need to resume.

c. Where work has been suspended due to frozen ground conditions, the inspections may be suspended. The required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever comes first.

4. The **Permittee(s)** is/are responsible for the inspection and maintenance of temporary and permanent water quality management **BMPs**, as well as all **erosion prevention** and **sediment control BMPs**, until another **Permittee** has obtained coverage under this Permit according to Part II.B.5. or the **project** has undergone **Final Stabilization**, and an **NOT** has been submitted to the MPCA.

5. The **Permittee(s)** must inspect all **erosion prevention** and **sediment control BMPs** and Pollution Prevention Management Measures to ensure integrity and effectiveness during all routine and post-rainfall event inspections. All nonfunctional **BMPs** must be repaired, replaced, or supplemented with functional **BMPs** by the end of the next business day after discovery, or as soon as field conditions allow access unless another time frame is specified below. The **Permittee(s)** must investigate and comply with the following inspection and maintenance requirements:

   a. All perimeter control devices must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches one-half (1/2) of the height of the device. These repairs must be made by the end of the next business day after discovery, or thereafter as soon as field conditions allow access.

   b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches one-half (1/2) the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access (see Part IV.D.).

   c. **Surface waters**, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition during each inspection. The **Permittee(s)** must remove all deltas and sediment deposited in **surface waters**, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and **stabilization** must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The **Permittee(s)** shall use all reasonable efforts to obtain access. If precluded, removal and **stabilization** must take place within seven (7) calendar days of obtaining access. The **Permittee(s)** is/are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters.

d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces both on and off site within 24 hours of discovery, or if applicable, within a shorter time to comply with Part IV.C.6.

e. Streets and other areas adjacent to the **project** must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).

6. All infiltration areas must be inspected to ensure that no sediment from ongoing **construction activity** is reaching the infiltration area. All infiltration areas must be inspected to ensure that equipment is not being driven across the infiltration area.

IV.F. POLLUTION PREVENTION MANAGEMENT MEASURES

The **Permittee(s)** shall implement the following pollution prevention management measures on the site:

1. Storage, Handling, and Disposal of Construction Products, Materials, and Wastes: The **Permittee(s)** shall comply with the following to minimize the exposure to **stormwater** of any of the products, materials, or wastes. Products or wastes which are either not a source of contamination to stormwater or are designed to be exposed to stormwater are not held to this requirement:

   a. Building products that have the potential to leach pollutants must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by a similarly effective means designed to minimize contact with **stormwater**.

   b. Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by similarly effective means designed to minimize contact with **stormwater**.

   c. Hazardous materials, toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or hazardous materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.

   d. Solid waste must be stored, collected and disposed of properly in compliance with Minn. R. ch. 7035.

   e. Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. ch. 7041.

2. Fueling and Maintenance of Equipment or Vehicles; Spill Prevention and Response: The **Permittee(s)** shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible. The **Permittee(s)** must conduct fueling in a contained area unless infeasible. The **Permittee(s)** must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. The **Permittee(s)** must report and clean up spills immediately as required by Minn. Stat. § 115.061, using dry clean up measures where possible.

3. Vehicle and equipment washing: If the **Permittee(s)** wash the exterior of vehicles or equipment on the **project** site, washing must be limited to a defined area of the site. Runoff from the washing area must be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. The **Permittee(s)** must properly use and store soaps, detergents, or solvents. No engine degreasing is allowed on site.

4. Concrete and other washouts waste: The **Permittee(s)** must provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the **construction activity**. The liquid and solid washout wastes must not contact the ground, and the containment must be designed so that it does not result in runoff from the washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

IV.G. FINAL STABILIZATION

The **Permittee(s)** must ensure **Final Stabilization** of the site. **Final Stabilization** is not complete until all requirements of Parts IV.G.1-5. are complete:

1. All soil disturbing activities at the site have been completed and all soils are **stabilized** by a uniform perennial vegetative cover with a density of 70 percent of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

2. The permanent **stormwater** management system is constructed, meets all requirements in Part III.D. and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems and ditches are **stabilized** with **permanent cover**.

3. All temporary synthetic and structural **erosion prevention** and **sediment control BMPs** (such as silt fence) have been removed on the portions of the site for which the **Permittee(s)** is/are responsible. **BMPs** designed to decompose on site (such as some compost logs) may be left in place.

4. For residential construction only, individual lots are considered finally **stabilized** if the structure(s) are finished and **temporary erosion protection** and downgradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the **Permittee** has distributed the MPCA's "**Homeowner Fact Sheet"** to the homeowner to inform

the homeowner of the need for, and benefits of, **permanent cover**.

5. For construction **projects** on agricultural land (e.g., pipelines across crop, field pasture or range land) the disturbed land has been returned to its preconstruction agricultural use.

PART V. GENERAL PROVISIONS

V.A. APPLICABILITY CRITERIA

1. If the **Commissioner** determines that pollution in **stormwater** discharges associated with a **construction activity** are contributing to a violation of a water quality standard or due to specific site considerations rendering a substantial portion of the requirements of this permit impossible to comply with, and the **Commissioner** determines that the **construction activity** would be more appropriately regulated by an individual permit, the **Commissioner** may terminate coverage under this general permit and require the **owner and operator** to continue the **construction activity** subject to an individual **stormwater** discharge permit. Upon issuance of an individual permit, this general permit would no longer apply. Prior to termination of coverage under this general permit, the **Commissioner** will provide notice and an opportunity to request a contested case hearing.

2. If the terms and conditions of this general permit cannot be met, an **owner** may request an individual permit, in accordance with Minn. R. 7001.0210 subp. 6.

3. Any interested person may petition the MPCA to require an individual **NPDES**/SDS permit in accordance with 40 CFR 122.28(b)(3).

V.B. RECORD AVAILABILITY

1. The **Permittee(s)** must make the **SWPPP**, including all certificates, reports, records, or other information required by this permit, available to federal, state, and local officials within 72 hours upon request for the duration of the permit and for three (3) years following the **NOT**. This does not include any records after submittal of the **NOT**.

2. When requested by the MPCA, the **Permittee(s)** must make the responsible person trained as required in Part III.F.1.b. or Part III.F.1.c. available to be onsite during an MPCA inspection within 72 hours of a request.

V.C. PROHIBITIONS

This permit prohibits discharges of any material other than **stormwater** treated in compliance with this permit and discharges from **dewatering** or basin draining activities in accordance with Part IV.D.1.-2. Prohibited discharges include (but are not limited to) wastewater from washout of concrete, stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps or solvents used in vehicle and equipment washing and maintenance, and other hazardous substances or wastes.

V.D. TRANSFER OF OWNERSHIP OR CONTROL

This permit may not be assigned or transferred by the **Permittee(s)** except when transfer occurs in accordance with the applicable requirements of Part II.B.5.

V.E. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit must be construed to relieve the **Permittee(s)** from civil or criminal penalties for noncompliance with the terms and conditions provided herein. Nothing in this permit must be construed to preclude the initiation of any legal action or relieve the **Permittee(s)** from any responsibilities, liabilities, or penalties to which the **Permittee(s)** is/are or may be subject to under Section 311 of the Clean Water Act and Minn. Stat. § 115 and 116, as amended. The **Permittee(s)** is/are not liable for permit requirements for activities occurring on those portions of a site where the permit has been transferred to another party as required in Part II.B.5. or the **Permittee(s) has/**have submitted the **NOT** as required in Part II.C.

V.F. SEVERABILITY

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit must not be affected thereby.

V.G. NPDES/SDS RULE STANDARD GENERAL CONDITIONS

The **Permittee(s)** must comply with the provisions of Minn. R. 7001.0150, subp. 3 and Minn. R. 7001.1090, subp. 1(A), 1(B), 1(C), 1(H), 1(I), 1(J), 1(K), and 1(L).

V.H. INSPECTION AND ENTRY

The **Permittee(s)** must allow access as provided in 40 CFR 122.41(i) and Minn. Stat. § 115.04. The **Permittee(s)** shall allow representatives of the MPCA or any member, employee or agent thereof, when authorized by it, upon presentation of credentials, to enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations.

APPENDIX A

A. GENERAL REQUIREMENTS

All requirements in this Appendix are in addition to **BMPs** already specified in the permit. Where provisions of Appendix A, conflict with requirements elsewhere in the permit, the provisions in Appendix A take precedence. All **BMPs** used to comply with this Appendix must be documented in the **SWPPP** for the **project**. If the terms and conditions of this Appendix cannot be met, an individual permit will be required in accordance with Minn. R. ch. 7001.

B. REQUIREMENTS FOR DISCHARGES TO SPECIAL WATERS AND IMPAIRED WATERS

Additional **BMPs** and enhanced runoff controls identified in this Part are required for discharges to the following special waters (Part B.1 through B.9 of Appendix A) and impaired waters (Part B.10 of Appendix A). The **BMPs** identified for each special or impaired water are required for those areas of

the **project** draining to a discharge point on the **project** that is within one mile (**aerial radius measurement**) of special or impaired water and flows to that special or impaired water.

1. Wilderness areas: Boundary Waters Canoe Area Wilderness; Voyageurs National Park; Kettle River from the site of the former dam at Sandstone to its confluence with the Saint Croix River; Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2., and C.3. of this Appendix.

2. Mississippi River: Those portions from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2. and C.3. of this Appendix.

3. Scenic or recreational river segments: Saint Croix River, entire length; Cannon River from northern city limits of Faribault to its confluence with the Mississippi River; North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright county line; Kettle River from north Pine County line to the site of the former dam at Sandstone; Minnesota River from Lac qui Parle dam to Redwood County State Aid Highway 11; Mississippi River from County State Aid Highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and Rum River from State Highway 27 bridge in Onamia to Madison and Rice streets in Anoka. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2. and C.3. of this Appendix.

4. Lake Superior: (Prohibited and restricted) Discharges to Lake Superior must incorporate the **BMPs** outlined in C.1., C.2. and C.3. of this Appendix.

5. Lake Trout Lakes: Identified in Minn. R. 7050.0470, including those inside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2., and C.3. of this Appendix.

6. Trout Lakes: Identified in Minn. R. 6264.0050, subp. 2. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2., and C.3., of this Appendix.

7. Scientific and natural areas: Boot Lake, Anoka County; Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County; Pennington Bog, Beltrami County; Purvis Lake-Ober Foundation, Saint Louis County; waters within the borders of Itasca Wilderness Sanctuary, Clearwater County; Iron Springs Bog, Clearwater County; Wolsfeld Woods, Hennepin County; Green Water Lake, Becker County; Blackdog Preserve, Dakota County; Prairie Bush Clover, Jackson County; Black Lake Bog, Pine County; Pembina Trail Preserve, Polk County; and Falls Creek, Washington County. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2., and C.3. of this Appendix.

8. Trout Streams: Listed in Minn. R. 6264.0050, subp. 4. Discharges to these waters must incorporate the **BMPs** outlined in C.1., C.2., C.3., and C.4. of this Appendix.

9. Calcareous Fens: Listed in Minn. R 7050.0180 subp.6b. Discharges to these Calcareous Fens must incorporate the **BMPs** outlined in C.1. and C.2. of this Appendix.

10. Impaired Waters: Waters identified as impaired under section 303 (d) of the federal Clean Water

Act for phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen or aquatic biota (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment).

a. Impaired Water Without an Approved TMDL or With an Approved TMDL and No Waste Load Allocation:

   If runoff from the site discharges to an impaired water, and a TMDL has not been approved by USEPA or there is a USEPA approved TMDL that does not establish a Waste Load Allocation (WLA) for construction **stormwater**, discharges to these waters must incorporate the **BMPs** outlined in C.1. and C.2. of this Appendix.

b. Impaired Water With an Approved TMDL and WLA:

   If runoff from the site discharges to an impaired water for which there is a USEPA approved TMDL that establishes a WLA for construction **stormwater**, and the TMDL does not identify any specific implementation activities that would apply to the site discharges, discharges to these waters must incorporate the **BMPs** outlined in C.1. and C.2. of this Appendix.

   If the TMDL identifies specific implementation activities regarding construction **stormwater** that would apply to the site discharges, the **Permittee(s)** must include the following in the **SWPPP**:

   i. Identify the receiving water, the areas of the site discharging to it, and the pollutant(s) identified in the TMDL and

   ii. **BMPs** identified in the TMDL and any other specific construction **stormwater** related implementation activities identified in the TMDL.

Note on impaired waters listing terminology: The terms in parenthesis in Appendix A, Part B.10. above are the most current terminology used to list waters as impaired at the time of permit issuance. These terms are subject to change. For example, at one time waters were listed as impaired for phosphorus and now those same waters are listed as impaired for nutrient eutrophication biological indicators. If the terminology changes for one of the pollutant(s) or stressor(s) identified in the permit, the MPCA will keep a list of the new terms on its construction **stormwater** website.

C. ADDITIONAL **BMPS** FOR SPECIAL WATERS AND IMPAIRED WATERS

For the **BMPs** described in C.2., and C.4. of this Appendix:

Where the proximity to bedrock precludes the installation of any of the permanent **stormwater** management practices outlined in Appendix A, other treatment (such as grassed swales, smaller ponds, or grit chambers) is required prior to discharge to **surface waters**.

For work on linear **projects** with lack of right-of-way where the **Permittee(s)** cannot obtain an easement or other permission for property needed to install treatment systems capable of treating the entire **water quality volume** on site, the **Permittee(s)** must maximize the **water quality volume** that can be treated prior to discharge to **surface waters**. Treatment can be provided through other

methods or combination of methods such as grassed swales, filtration systems, smaller ponds or grit chambers prior to discharge to **surface waters**. A reasonable attempt must be made to obtain right-of-way during the **project** planning process. Documentation of these attempts must be in the **SWPPP** per Part III.A.5.m. in the section addressing **infeasibility**.

1. During construction:

    a. **Stabilization** of all exposed soil areas must be **initiated immediately** to limit soil erosion but in no case completed later than seven (7) days after the **construction activity** in that portion of the site has temporarily or permanently ceased.

    b. Temporary sediment basin requirements described in Part III.C. must be used for common drainage locations that serve an area with five (5) or more acres disturbed at one time.

2. Post construction: The **water quality volume** that must be retained on site by the **project's** permanent **stormwater** management system described in Part III.D. shall be one (1) inch of runoff from the new **impervious surfaces** created by the **project**. See Part III.D.1. for more information on infiltration design, prohibitions and appropriate site conditions.

3. Buffer zone: The **Permittee(s)** shall include an undisturbed buffer zone of not less than 100 linear feet from the special water (not including tributaries) and this buffer zone shall be maintained at all times, both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the **project**. The **Permittee(s)** must fully document the circumstance and reasons that the buffer encroachment is necessary in the **SWPPP** and include restoration activities. Replacement of existing **impervious surface** within the buffer is allowed under this permit. All potential water quality, scenic and other environmental impacts of these exceptions must be minimized by the use of additional or redundant **BMPs** and documented in the **SWPPP** for the **project**.

4. Temperature Controls: The **Permittee(s)** must design the Permanent **Stormwater** Management System such that the discharge from the **project** will minimize any increase in the temperature of trout stream receiving waters resulting from the one (1)-and two (2)-year 24-hour precipitation events. This includes all tributaries of designated trout streams within the Public Land Survey System (PLSS) Section that the trout stream is located. **Projects** that discharge to trout streams must minimize the impact using one or more of the following measures, in order of preference:

    a. Minimize new **impervious surfaces**.

    b. Minimize the discharge from connected **impervious surfaces** by discharging to vegetated areas, or grass swales, and through the use of other non-structural controls.

    c. Infiltration or other volume reduction practices to reduce runoff in excess of pre-**project** conditions (up to the two (2)-year 24-hour precipitation event).

    d. If ponding is used, the design must include an appropriate combination of measures such as shading, filtered bottom withdrawal, vegetated swale discharges or constructed wetland treatment cells that will limit temperature increases. The pond should be designed to draw down in 24 hours or less.

e. Other methods that will minimize any increase in the temperature of the trout stream.

D. REQUIREMENTS FOR DISCHARGING TO WETLANDS

If the **project** has any discharges with the potential for significant adverse impacts to a **wetland,** (e.g., conversion of a natural **wetland** to a **stormwater** pond) the **Permittee(s)** must demonstrate that the **wetland** mitigative sequence has been followed in accordance with D.1 or D.2 of this Appendix.

1. If the potential adverse impacts to a **wetland** on a specific **project** site have been addressed by permits or other approvals from an official statewide program (U.S. Army Corps of Engineers 404 program, Minnesota DNR, or the State of Minnesota Wetland Conservation Act) that are issued specifically for the **project** and **project** site, the **Permittee(s)** may use the permit or other determination issued by these agencies to show that the potential adverse impacts have been addressed. For the purposes of this permit, deminimus actions are determinations by the permitting agency that address the **project** impacts, whereas a non-jurisdictional determination does not address **project** impacts.

2. If there are impacts from the **project** that are not addressed in one of the permits or other determinations discussed in Appendix A, Part D.1. (e.g., permanent inundation or flooding of the **wetland**, significant degradation of water quality, excavation, filling, draining), the **Permittee(s)** must minimize all adverse impacts to **wetlands** by utilizing appropriate measures. Measures used must be based on the nature of the **wetland**, its vegetative community types and the established hydrology. These measures include in order of preference:

   a. Avoid all significant adverse impacts to **wetlands** from the **project** and post-**project** discharge.

   b. Minimize any unavoidable impacts from the **project** and post-**project** discharge.

   c. Provide compensatory mitigation when the **Permittee(s)** determine(s) that there is no reasonable and practicable alternative to having a significant adverse impact on a **wetland**. For compensatory mitigation, **wetland** restoration or creation shall be of the same type, size and whenever reasonable and practicable in the same watershed as the impacted **wetland**.

E. DISCHARGES REQUIRING ENVIRONMENTAL REVIEW

This permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act or the National Environmental Policy Act. The **owner** must verify that any environmental review required by law, including any required Environmental Assessment Work sheets or Environmental Impact Statements, Federal environmental review, or other required review is complete before making application for coverage under this permit, and the **owner** must incorporate any **stormwater** mitigation measures required as the result of any environmental review into the **SWPPP** for the **project**. If any part of your **common plan of development or sale** requires environmental review, coverage under this permit cannot be obtained until such environmental review is complete.

F. DISCHARGES AFFECTING ENDANGERED OR THREATENED SPECIES

This permit does not replace or satisfy any review requirements for endangered or threatened species, from new or expanded discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species, or adversely modify a designated critical habitat. The **owner** must conduct any required review and coordinate with appropriate agencies for any **project** with the potential of affecting threatened or endangered species, or their critical habitat.

G. DISCHARGES AFFECTING HISTORIC PLACES OR ARCHEOLOGICAL SITES

This permit does not replace or satisfy any review requirements for historic places or archeological sites, from new or expanded discharges that adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites. The **owner** must be in compliance with National Historic Preservation Act and conduct all required review and coordination related to historic preservation, including significant anthropological sites and any burial sites, with the Minnesota Historic Preservation Officer.

APPENDIX B. – DEFINITIONS

1. **"Aerial radius measurement"** means the shortest straight line distance measurement between the point of **stormwater** discharge from a **project** construction site to the nearest edge of the water body the **stormwater** will flow to. This measurement does not follow the meander flow path.

2. **"Best Management Practices (BMPs)"** means the most effective and practicable means of **erosion prevention** and **sediment control**, and water quality management practices that are the most effective and practicable means of to control, prevent, and minimize degradation of **surface water**, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, pollution prevention through good housekeeping, and other management practices published by state or designated area-wide planning agencies.

   Individual **BMPs** found in this permit are described in the current versions of Protecting Water Quality in Urban Areas, MPCA and The Minnesota Stormwater Manual, MPCA. **BMPs** must be adapted to the site and can be adopted from other sources. However, they must be similar in purpose and at least as effective and stringent as MPCA's **BMPs**. (Other sources include manufacturers specifications, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, U.S. Environmental Protection Agency 1992, and Erosion Control Design Manual, Minnesota Department of Transportation, et al, 1993).

3. **"Commissioner"** means the **Commissioner** of the MPCA or the **Commissioner's** designee.

4. **"Common Plan of Development or Sale"** means a contiguous area where multiple separate and distinct land-disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

5. **"Construction Activity"** includes **construction activity** as defined in 40 C.F.R. pt. 122.26(b)(14)(x) and small construction activity as defined in 40 C.F.R. pt. 122.26(b)(15) and **construction activity** as defined by Minn. R. 7090.0080, subp. 4. This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated **stormwater** runoff, leading to soil erosion and

movement of sediment into **surface waters** or drainage systems. Examples of **construction activity** may include clearing, grading, filling, and excavating. **Construction activity** includes the disturbance of less than one acre of total land area that is a part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb one (1) acre or more. **Construction activity** does not include a disturbance to the land of less than five (5) acres for the purpose of routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

6. **"Dewatering"** means the removal of surface or ground water to dry and/or solidify a construction site to enable **construction activity**. Dewatering may require a Minnesota Department of Natural Recourses water appropriation permit and, if dewatering water is contaminated, discharge of such water may require an individual MPCA **NPDES**/SDS permit.

7. **"Energy Dissipation"** means methods employed at pipe outlets to prevent erosion caused by the rapid discharge of water scouring soils. Examples include, but are not limited to: concrete aprons, riprap, splash pads, and gabions that are designed to prevent erosion.

8. **"Erosion Prevention"** means measures employed to prevent erosion. Examples include but not limited to: soil **stabilization** practices, limited grading, mulch, **temporary erosion protection** or **permanent cover**, and construction phasing.

9. **"Final Stabilization"** means required actions in Part IV.G. taken after the completion of **construction activities** and prior to submitting the **NOT** that are intended to prevent discharge of pollutants associated with stormwater discharges from the **project**.

10. **"Homeowner Fact Sheet"** means a fact sheet developed by the MPCA and available on the MPCA Construction **Stormwater** website to be given to homeowners at the time of sale by a builder to inform the homeowner of the need for, and benefits of, **Final Stabilization**.

11. **"Infeasible"** means not technologically possible or not economically practicable and achievable in light of the best industry practices.

12. **"Initiated immediately"** means taking an action to commence **stabilization** as soon as practicable, but no later than the end of the work day, following the day when the earth-disturbing activities have temporarily or permanently ceased, if the **Permittee(s)** know that construction work on that portion of the site will be temporarily ceased for 14 or more additional calendar days or 7 calendar days where Appendix A.C.1.a applies. The following activities can be taken to initiate **stabilization**:

    1. prepping the soil for vegetative or non-vegetative **stabilization**

    2. applying mulch or other non-vegetative product to the exposed soil area

    3. seeding or planting the exposed area

    4. starting any of the activities in # 1 – 3 on a portion of the area to be **stabilized**, but not on the entire area and

    5. finalizing arrangements to have **stabilization** product fully installed in compliance with the applicable deadline for completing **stabilization**

13. **"Impervious Surface"** means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.

14. **"National Pollutant Discharge Elimination System (NPDES)"** means the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act (Sections 301, 318, 402, and 405) and United States Code of Federal Regulations Title 33, Sections 1317, 1328, 1342, and 1345.

15. **"Natural Buffer"** means an area of undisturbed cover surrounding surface waters within which construction activities are restricted. **Natural buffer** includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities.

16. **"Normal Wetted Perimeter"** means the area of a conveyance, such as a ditch, channel, or pipe that is in contact with water during flow events that are expected to occur from a two-year 24-hour storm event.

17. **"Notice of Termination (NOT)"** means notice to terminate coverage under this permit after construction is complete, the site has undergone **Final Stabilization**, and maintenance agreements for all permanent facilities have been established, in accordance with all applicable conditions of this permit.

18. **"Operator"** means the person designated by the **owner**, who has day to day operational control and/or the ability to modify **project** plans and specifications related to the **SWPPP**. The operator must be named on the permit as a **Permittee**.

19. **"Owner"** means the person or party possessing the title of the land on which the construction activities will occur; or if the **construction activity** is for a lease, easement, or mineral rights license holder, the party or individual identified as the lease, easement or mineral rights license holder; or the contracting government agency responsible for the **construction activity**.

20. **"Permanent Cover"** means surface types that will prevent soil failure under erosive conditions. Examples include: gravel, asphalt, concrete, rip rap, roof tops, perennial cover, or other landscaped material that will permanently arrest soil erosion. A uniform perennial vegetative cover (i.e. evenly distributed, without large bare areas) with a density of 70 percent of the native background vegetative cover for the area must be established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures. **Permanent cover** does not include the practices listed under **temporary erosion protection**.

21. **"Permittee(s)"** means the person or persons, firm, or governmental agency or other entity that signs the application submitted to the MPCA and is responsible for compliance with the terms and conditions of this permit.

22. **"Project(s)"** means all **construction activity** that is planned and/or conducted under a particular permit. The **project** will occur on the site or sites described in the permit application, the **SWPPP** and in the associated plans, specifications and contract documents.

23. "**Public Waters**" means all water basins and watercourses that are described in Minn. Stat. § 103G.005 subd. 15.

24. **"Saturated Soil"** means the highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water **Saturated soil** is evidenced by the presence of redoximorphic features or other information.

25. **"Sediment Control"** means methods employed to prevent sediment from leaving the site. **Sediment control** practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, bio rolls, rock logs, compost logs, storm drain inlet protection, and temporary or permanent sedimentation basins. A floating silt curtain placed in the water is not a **sediment control BMP** to satisfy perimeter control requirements, except as provided for in Part IV.C.2.

26. **"Stabilize, Stabilized, Stabilization"** means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, erosion control blanket, mats or other material that prevents erosion from occurring. Grass, agricultural crop or other seeding alone is not **stabilization**. Mulch materials must achieve approximately 90 percent ground coverage (typically 2 ton/acre).

27. **"Standard details"** means generic drawings showing a common or repeated **construction activity** or practice.

28. **"Stormwater"** is defined under Minn. R. 7077.0105, subp. 41(b), and includes precipitation runoff, **stormwater** runoff, snowmelt runoff, and any other surface runoff and drainage.

29. **"Steep Slopes"** means slopes that are 1:3 (V:H) (33.3 percent) or steeper in grade.

30. **"Storm Water Pollution Prevention Plan (SWPPP)"** means a plan for **stormwater** discharge that includes all required content under Part III of this Permit and which describes the **erosion prevention BMPs**, **sediment control BMPs** and Permanent **Stormwater** Management Systems that, when implemented, will decrease soil erosion on a parcel of land and decrease off-site nonpoint pollution.

31. **"Surface Water or Waters"** means all streams, lakes, ponds, marshes, **wetlands**, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private, except that **surface waters** do not include treatment basins or ponds that were constructed from upland. Treatment basins or ponds that were constructed in **wetlands** and mitigated in accordance with Appendix A.D are also not considered surface waters for purposes of this permit.

32. **"Temporary Erosion Protection"** means methods employed to prevent erosion during construction activities. Examples of **temporary erosion protection** include, but are not limited to: straw, wood fiber blanket, wood chips, vegetation, mulch, and rolled erosion control products.

33. **"Underground Waters"** means water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. The term ground water shall be synonymous with underground water.

34. **"Waters of the State"** (as defined in Minn. Stat. § 115.01, subd. 22) means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

35. **"Water Quality Volume"** means one (1) inch of runoff from the new **impervious surfaces** created by this **project** (calculated as an instantaneous volume) and is the volume of water to be treated in the Permanent **Stormwater** Management System, as required by this permit.

36. **"Wetland" or "Wetlands"** is defined in Minn. R. 7050.0186, subp. 1a.B. and includes those areas that are inundated or saturated by **surface water** or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in **saturated soil** conditions. **Wetlands** generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not **waters of the state**. **Wetlands** must have the following attributes:

    a. A predominance of hydric soils

    b. Inundated or saturated by **surface water** or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a **saturated soil** condition and

    c. Under normal circumstances support a prevalence of such vegetation.

Appendix B: Stormwater Permit Application and Regulatory Coverage Documentation

To be attached as permit coverage is obtained.

Appendix C: Construction Schedule

To be attached separately.

Appendix D: Training Log

Stormwater Pollution Prevention Training Log

Project: Great Northern Transmission Line

Instructor Name(s):

Instructor Title(s):

Course Location:

Course Date:

Course Length (hours):

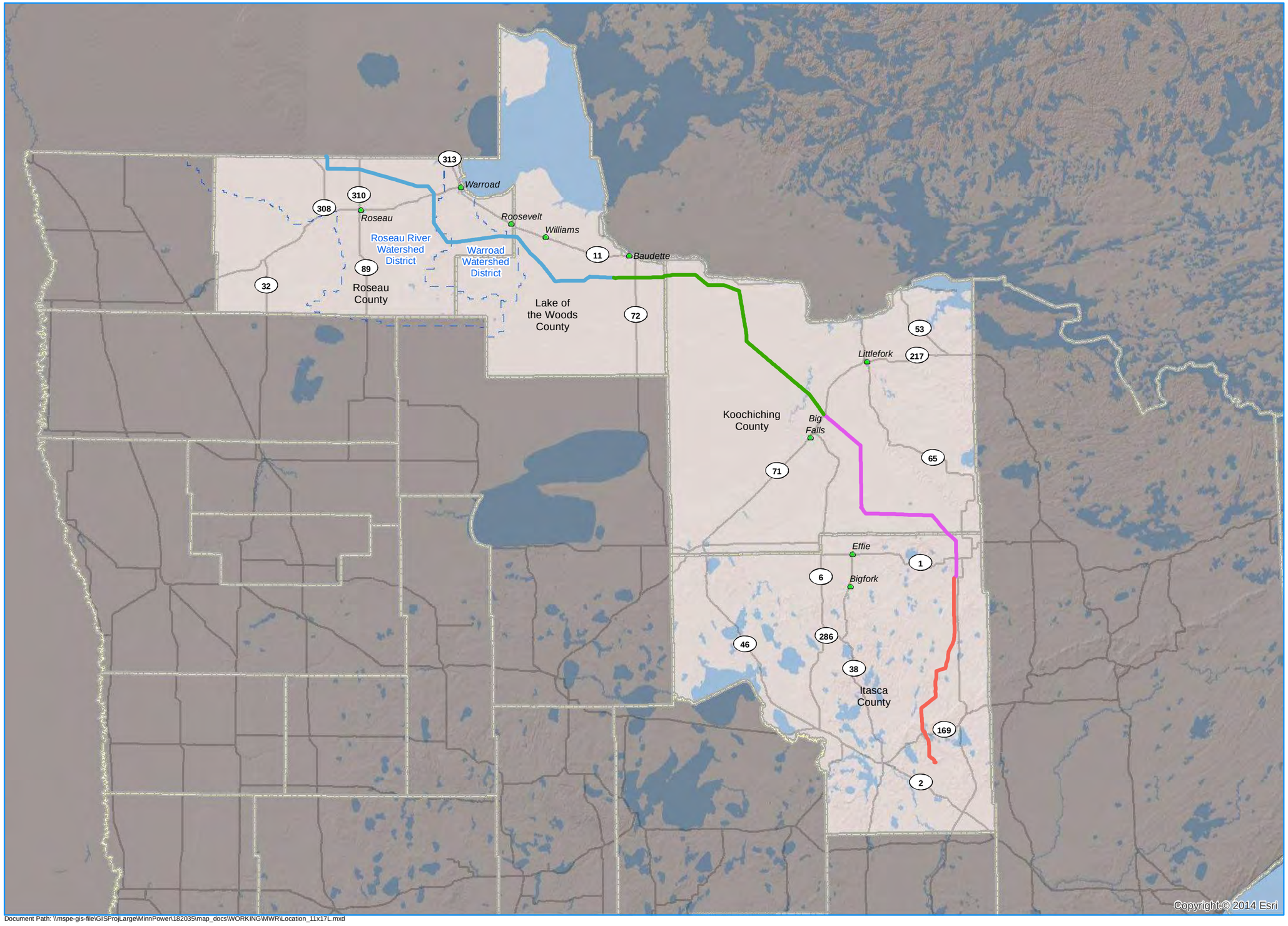
Stormwater Training Topic (check as appropriate)

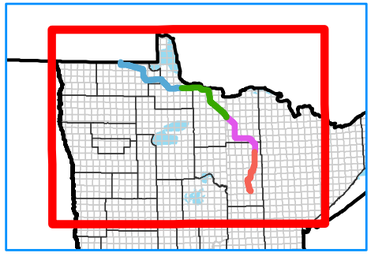
- ☐ Stormwater Regulations
- ☐ Erosion Prevention BMPs
- ☐ Sediment Control BMPs
- ☐ Good Housekeeping BMPs
- ☐ Other BMPs
- ☐ Site Restoration / Permanent Stormwater Management
- ☐ Site Inspection & Maintenance
- ☐ Spill Prevention and Response
- ☐ Emergency Procedures

Name of Attendee	**Signature**

Appendix E: Project Location Map

Location





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Centerline Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- County
- City
- Watershed District
- Highway

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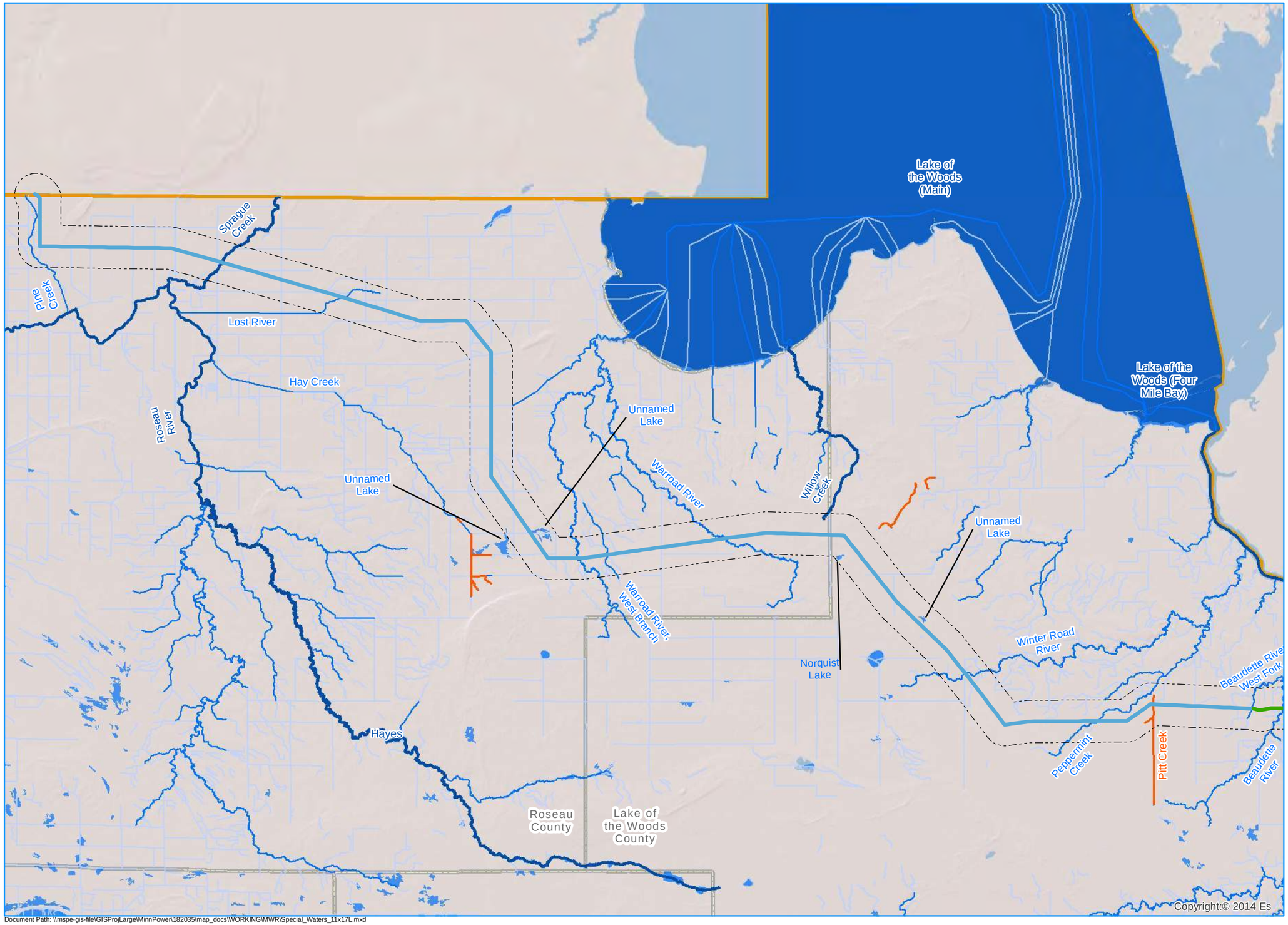
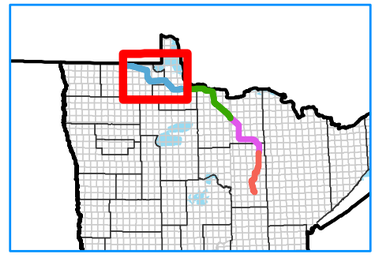
Appendix F: Water Resources Map

Special and Impaired Waters





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Centerline Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- 1-Mile Radius
- Trout / PWI Stream
- Impaired / PWI Stream
- PWI Stream
- NHD Flowline
- Impaired / PWI Lake
- PWI Lake
- NHD Waterbody
- State Border
- County

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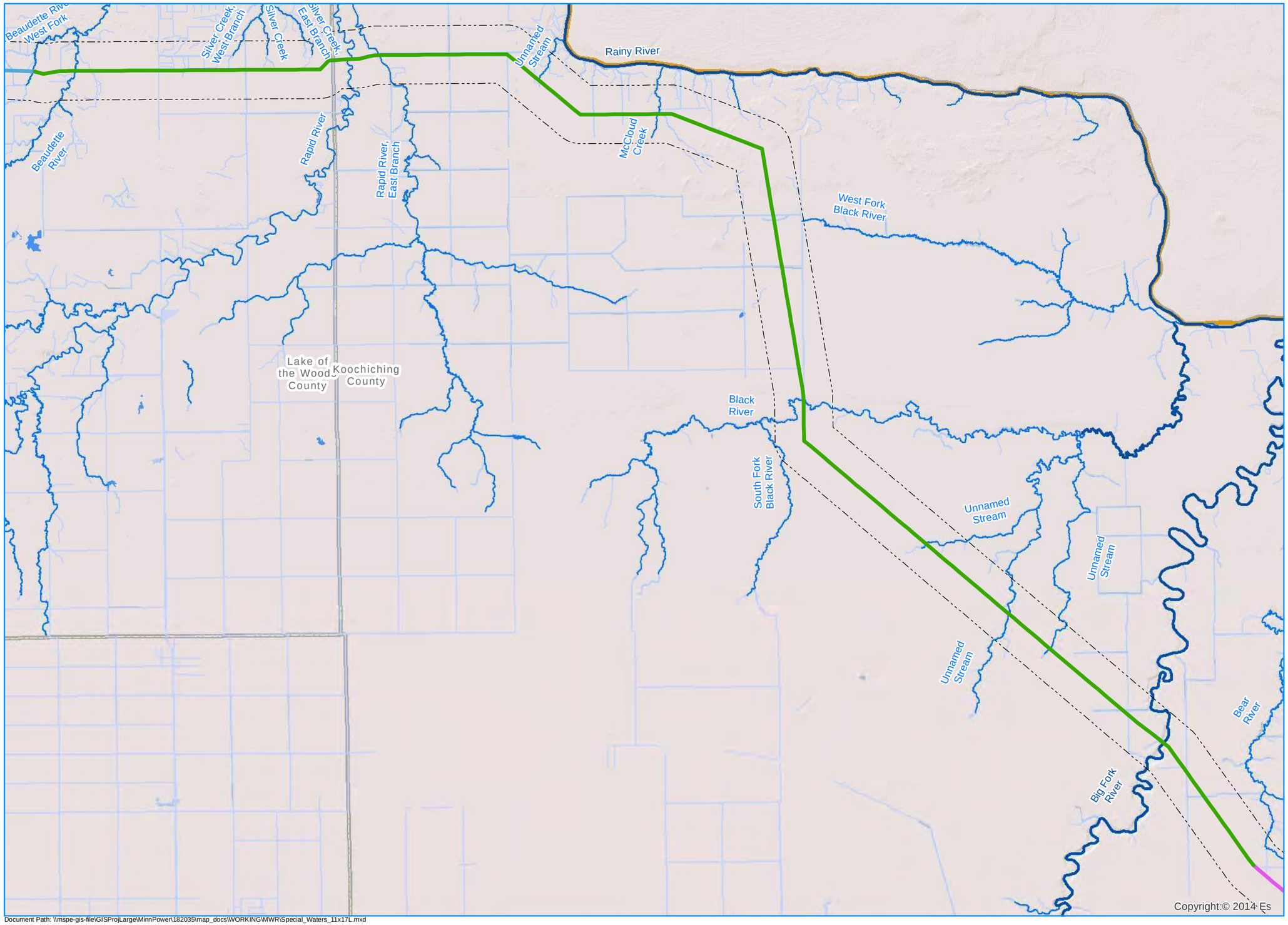
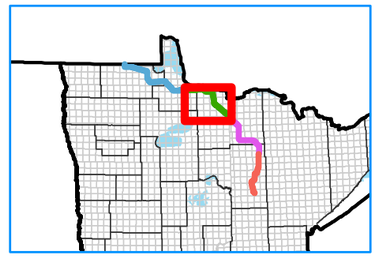
Special and Impaired Waters





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Centerline Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- 1-Mile Radius
- Trout / PWI Stream
- Impaired / PWI Stream
- PWI Stream
- NHD Flowline
- Impaired / PWI Lake
- PWI Lake
- NHD Waterbody
- State Border
- County

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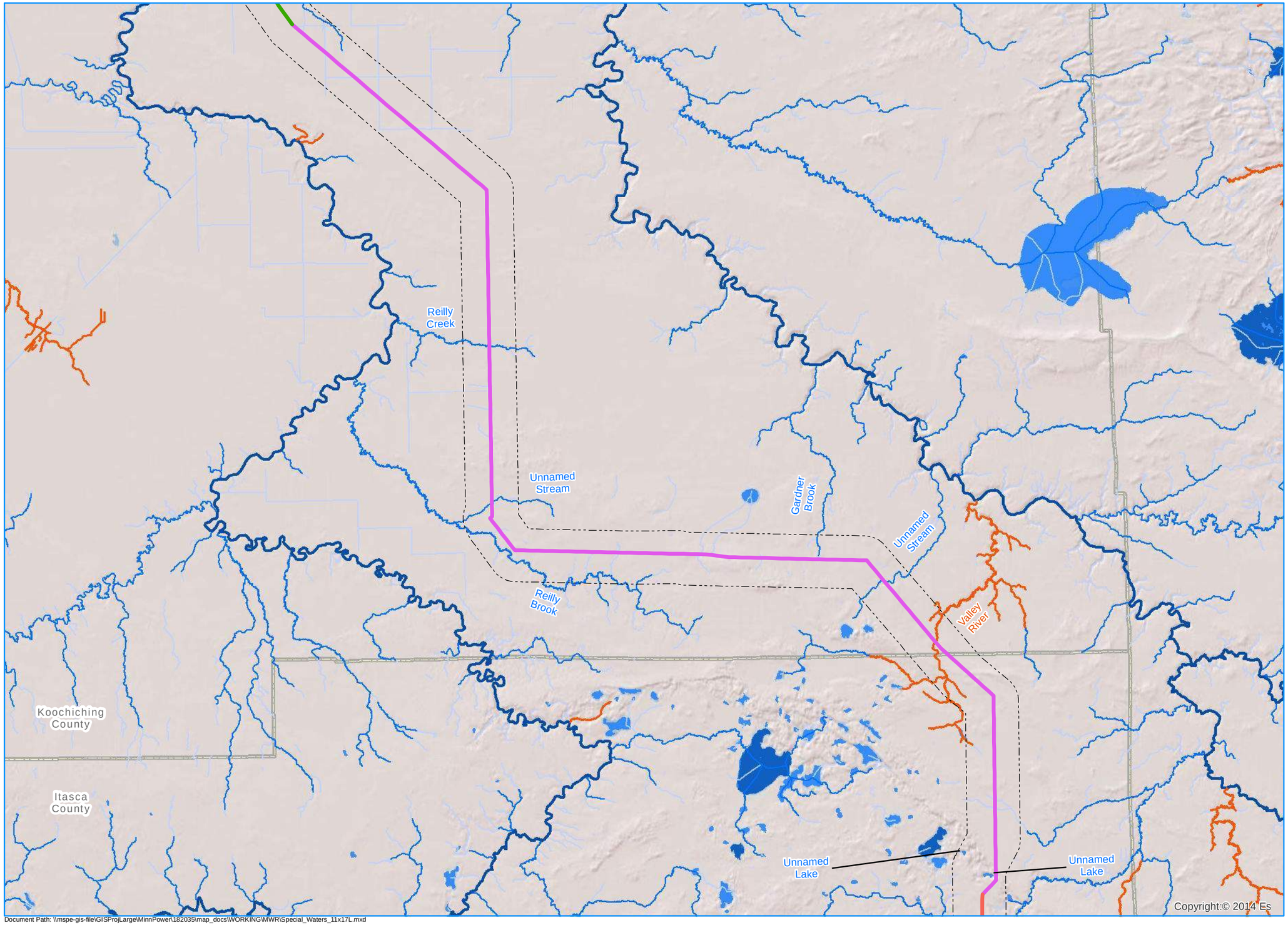
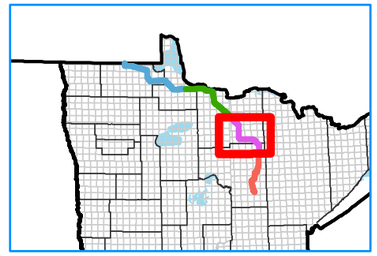
Special and Impaired Waters





Legend

Centerline Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- 1-Mile Radius
- Trout / PWI Stream
- Impaired / PWI Stream
- PWI Stream
- NHD Flowline
- Impaired / PWI Lake
- PWI Lake
- NHD Waterbody
- State Border
- County

N

0 3.5 Miles

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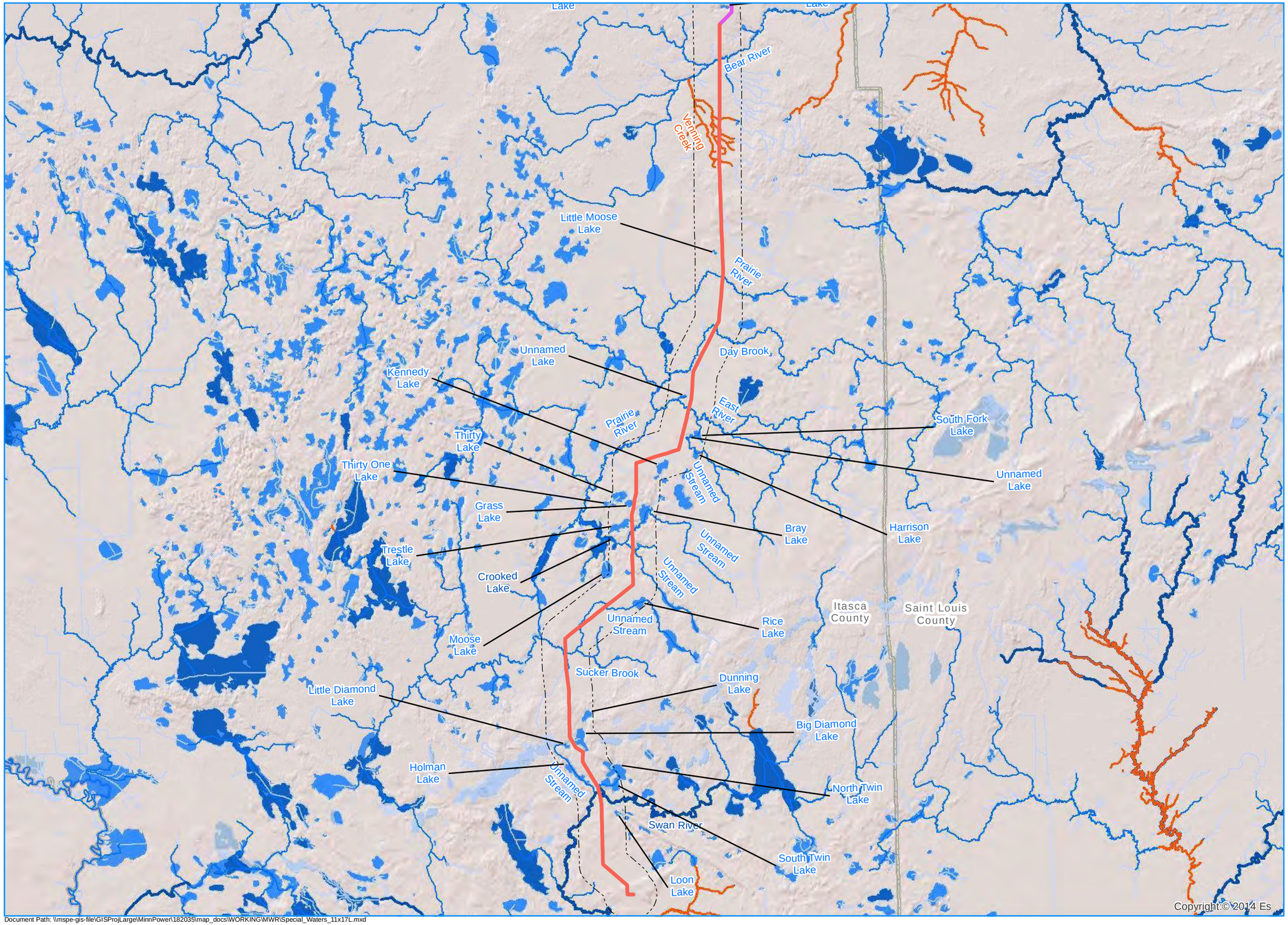

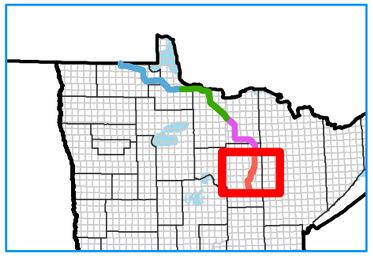

Legend

Centerline Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- 1-Mile Radius
- Trout / PWI Stream
- Impaired / PWI Stream
- PWI Stream
- NHD Flowline
- Impaired / PWI Lake
- PWI Lake
- NHD Waterbody
- State Border
- County

N

0 4 Miles

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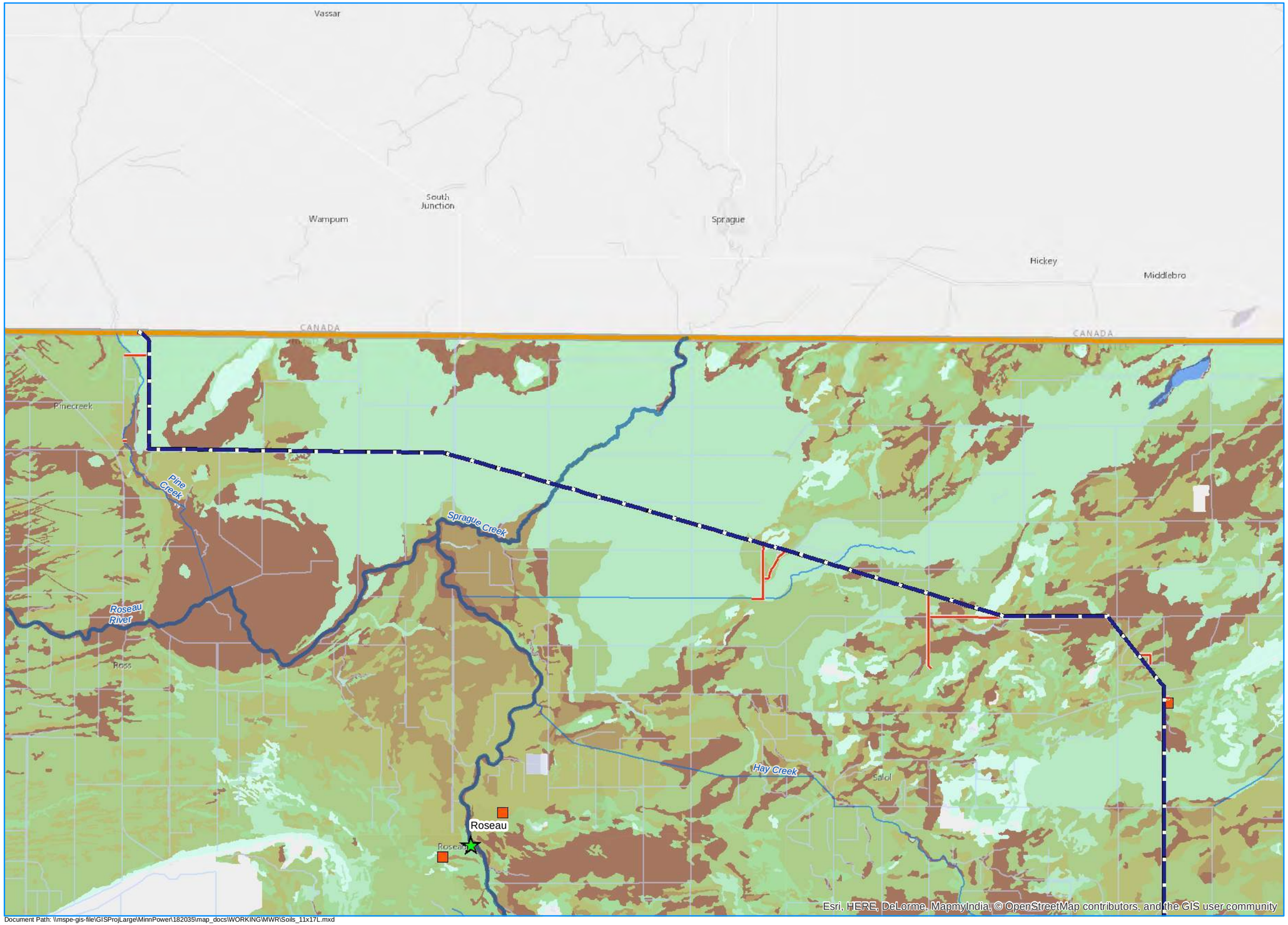
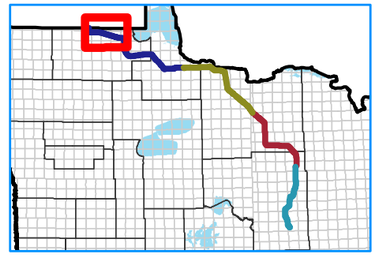
Appendix G: Soil Map

Hydrologic Soil Groups





Legend

Name

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- New/Improved Access Path
- Existing Substation
- Impaired Stream
- Impaired Lake
- PWI Stream
- PWI Lake
- NHD Stream
- NHD Water Body
- City
- County
- State Border

Hydrologic Soil Group*

- A
- A/D*
- B
- B/D*
- C
- C/D*
- D

* It is assumed that soils with a dual hydrologic soil group are undrained and classified by the second designation (HSG D).

N

0 2 Miles

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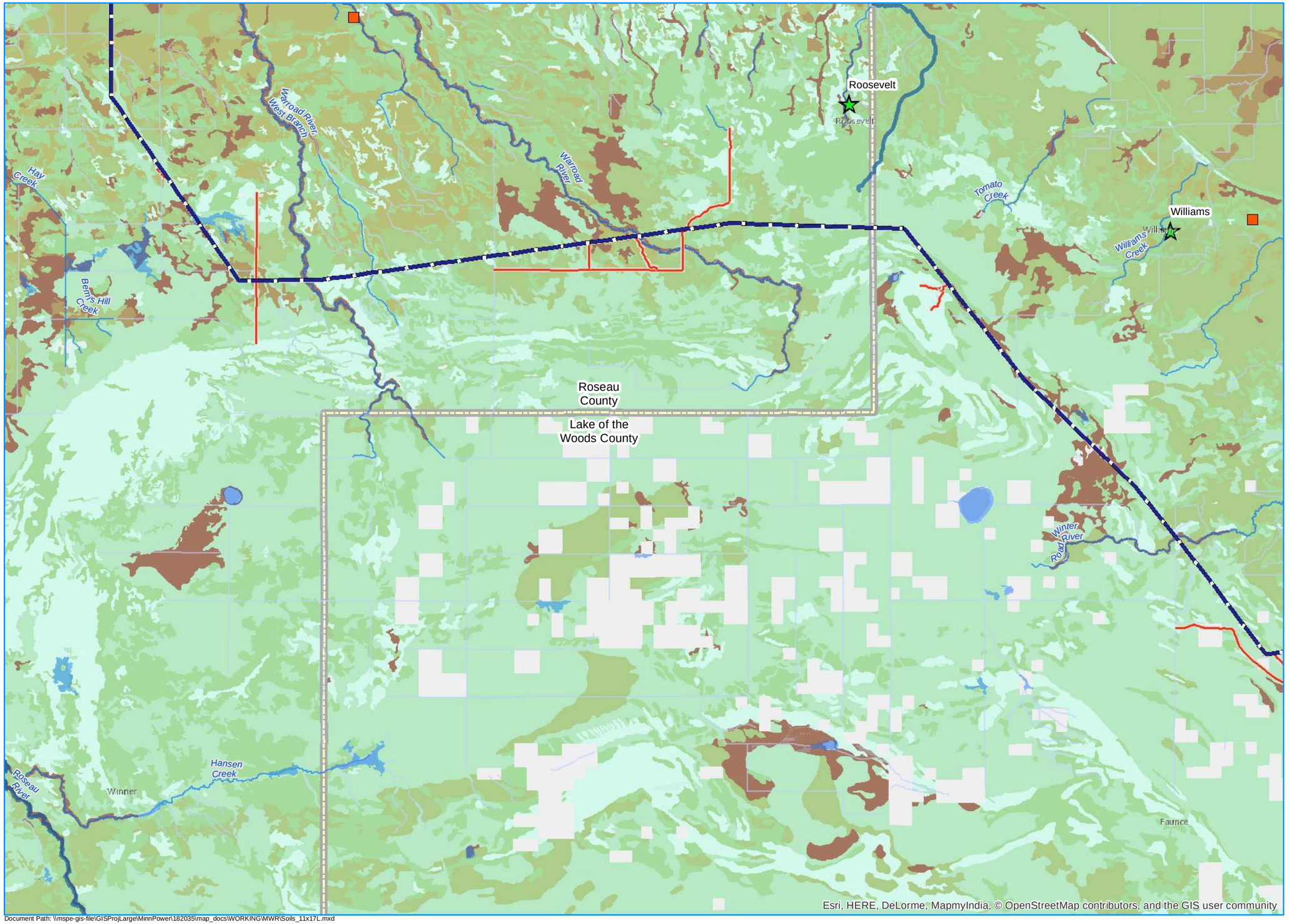

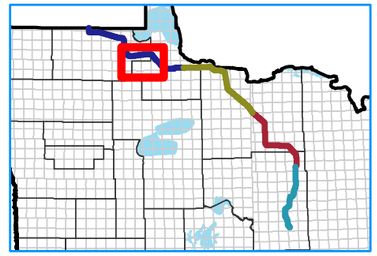

Legend

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- Segment 4
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0 2 Miles

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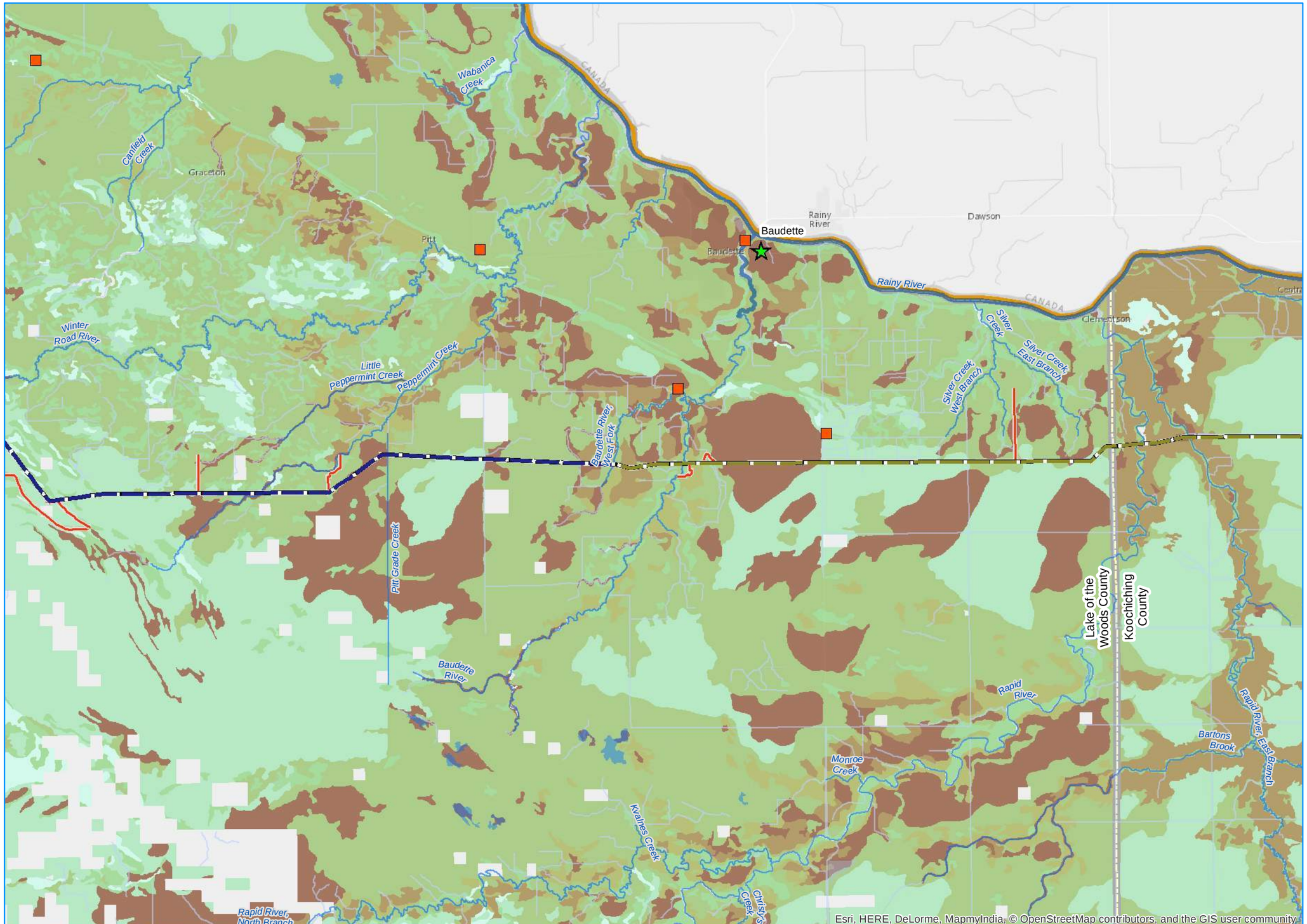
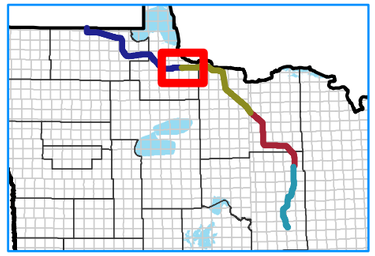
Hydrologic Soil Groups





Legend

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0 2 Miles

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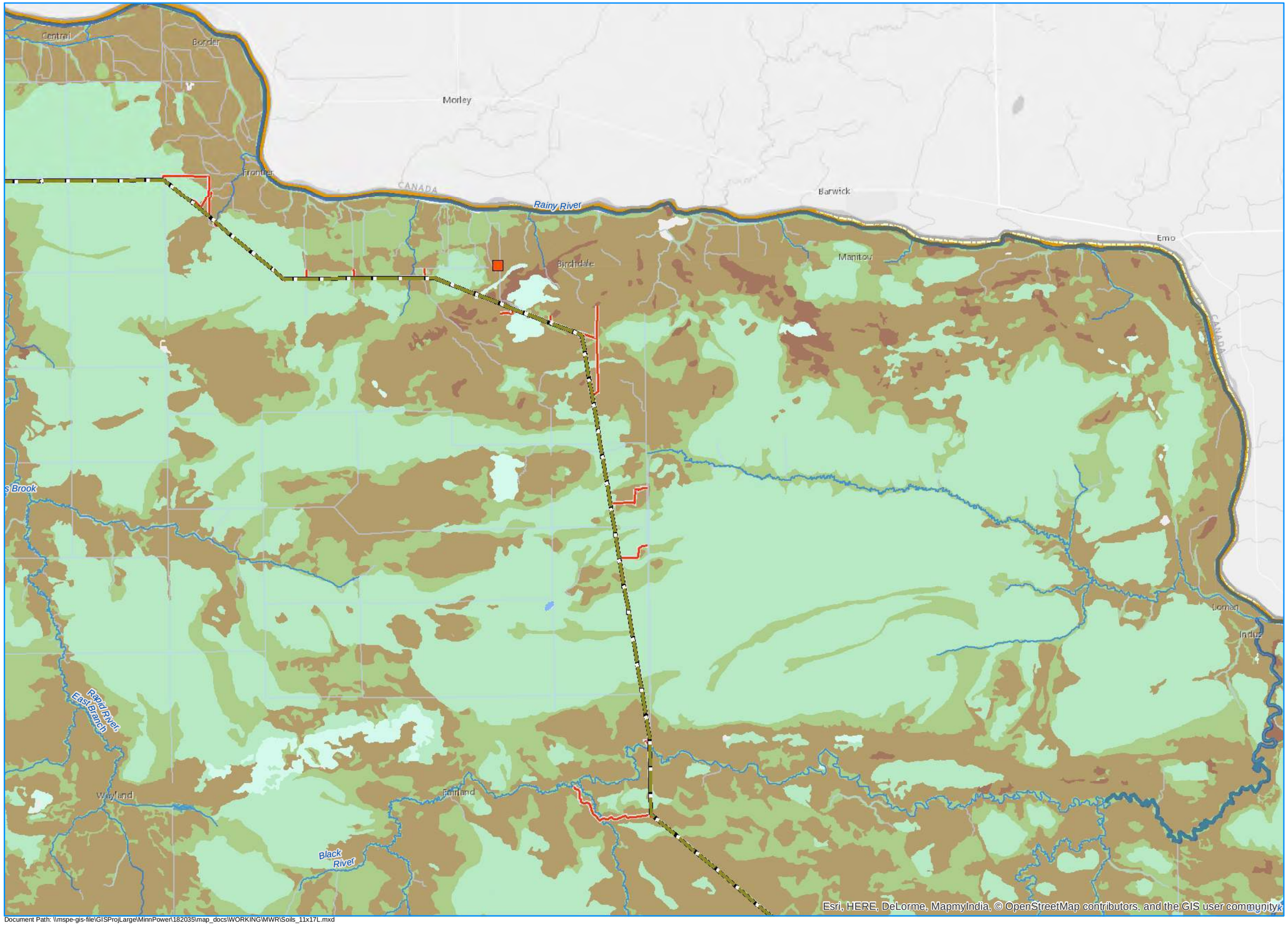
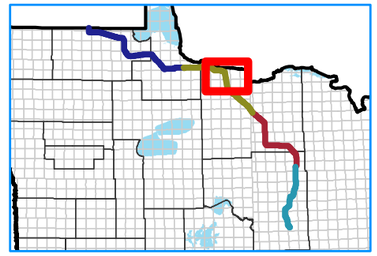
Hydrologic Soil Groups





Legend

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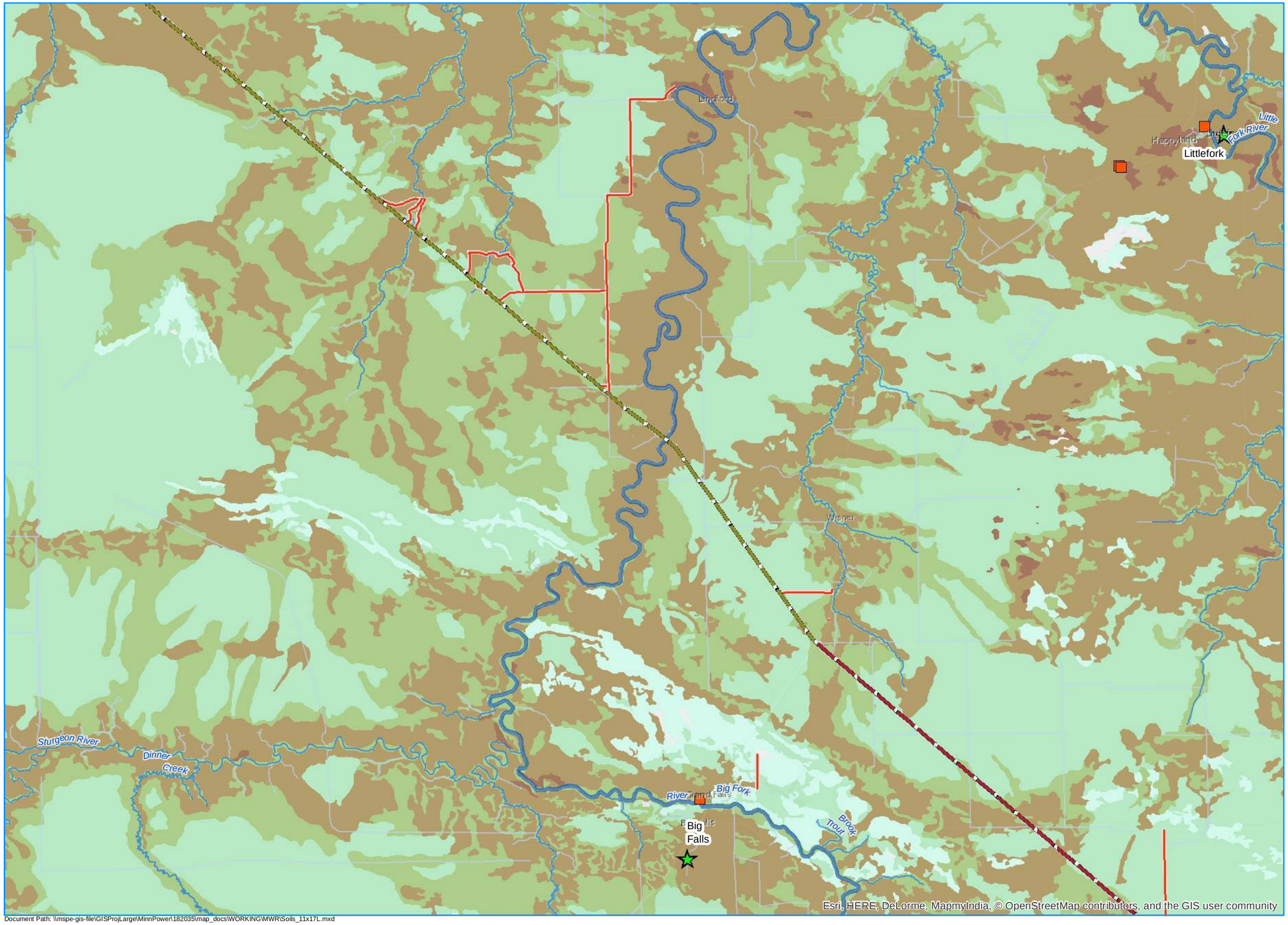
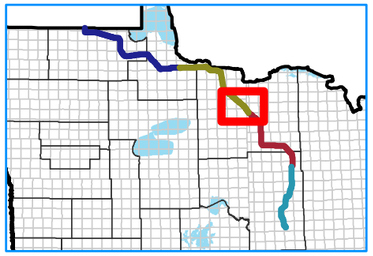
Hydrologic Soil Groups





Legend

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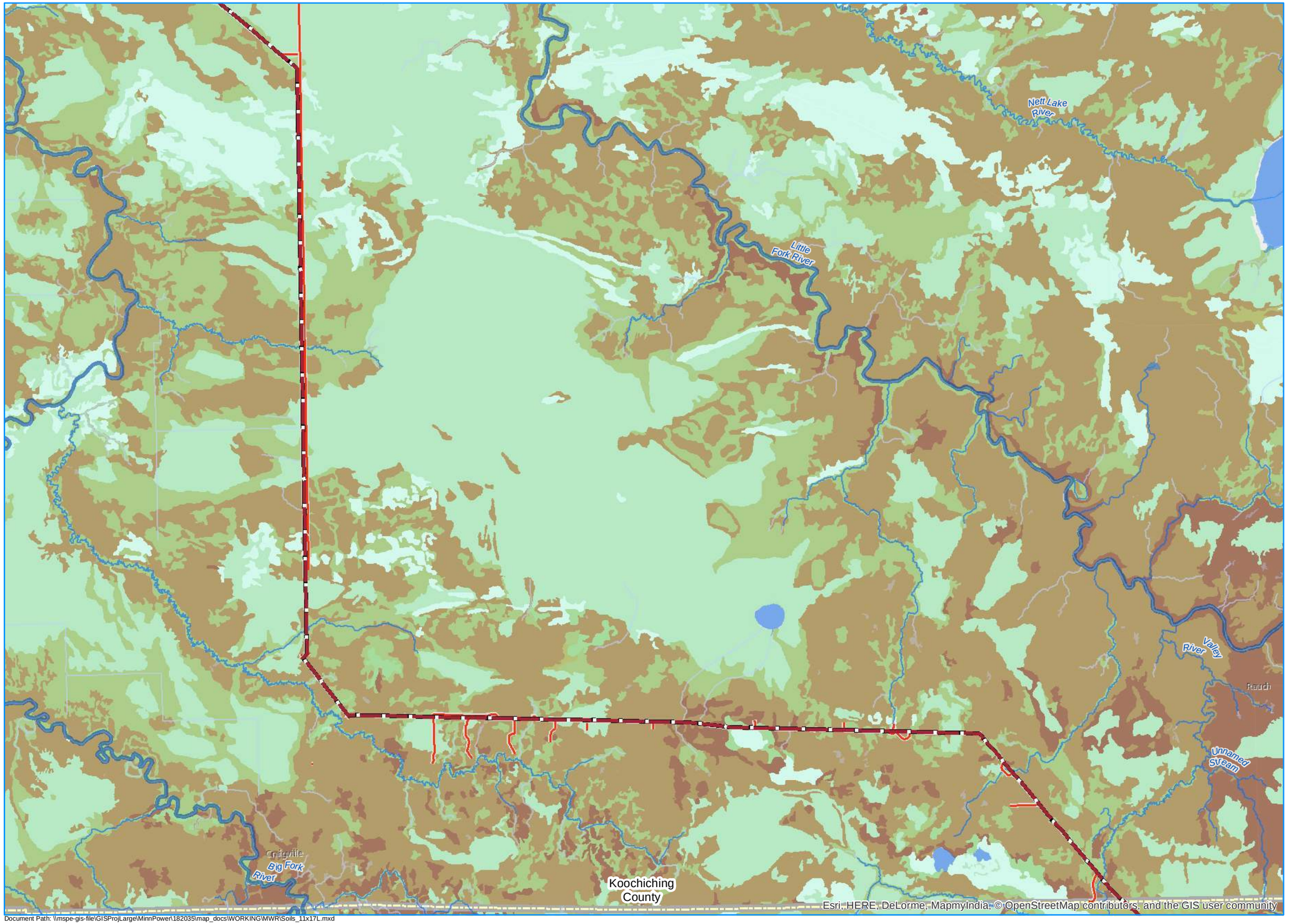

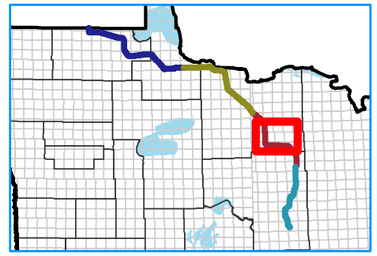

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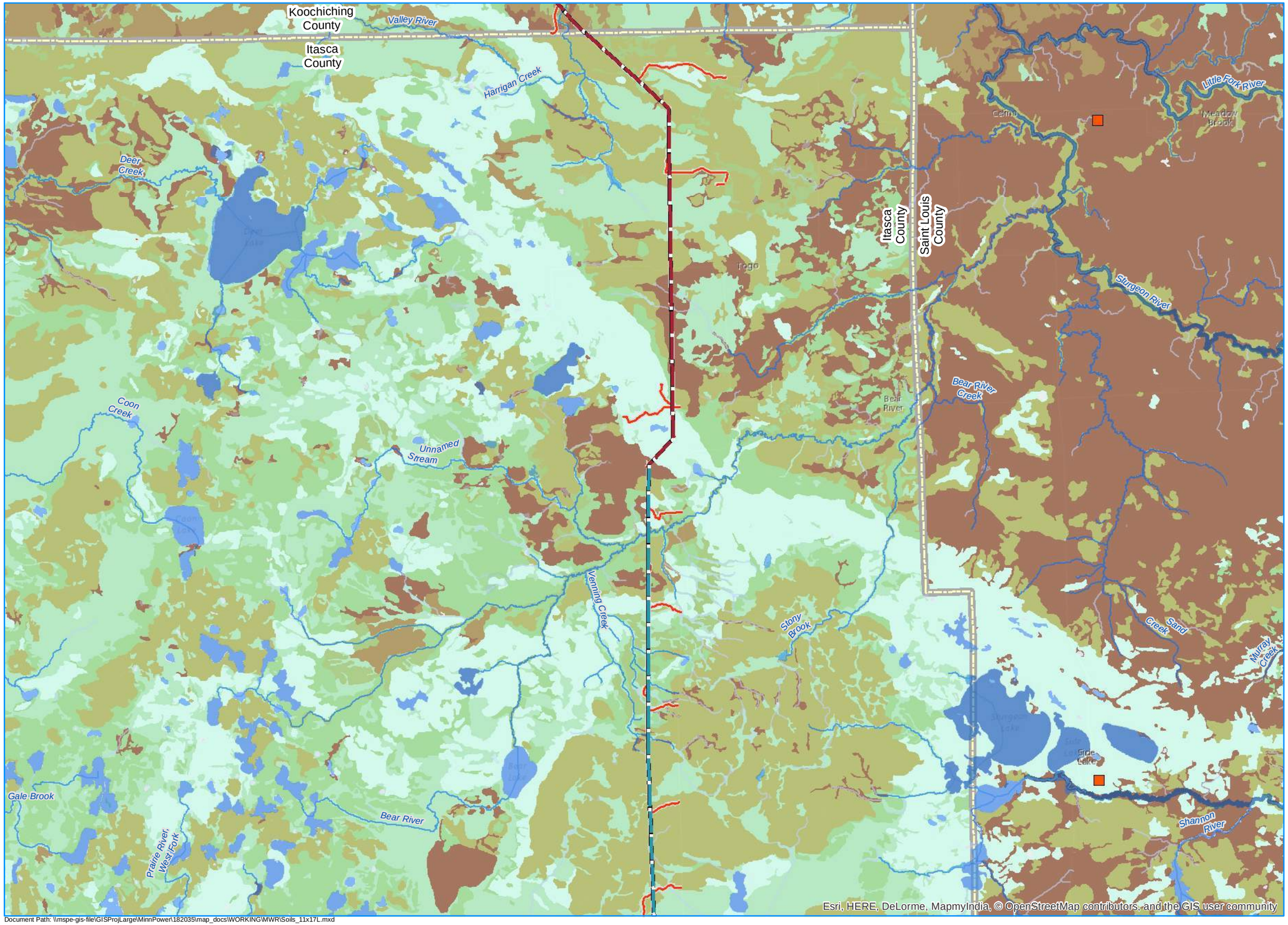
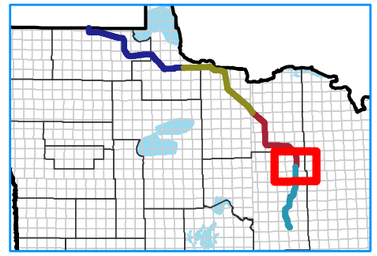
Hydrologic Soil Groups





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N

0 2 Miles

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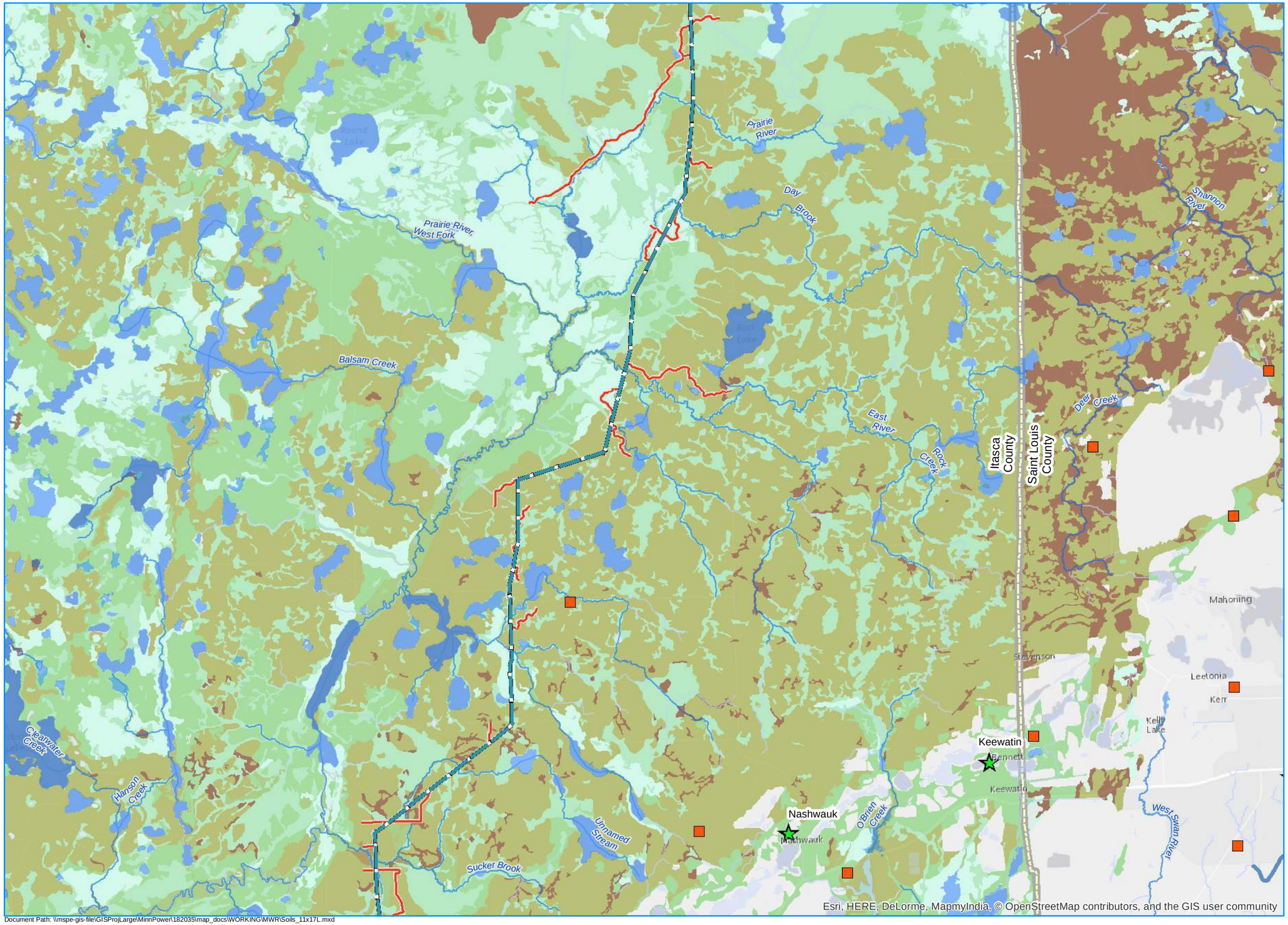
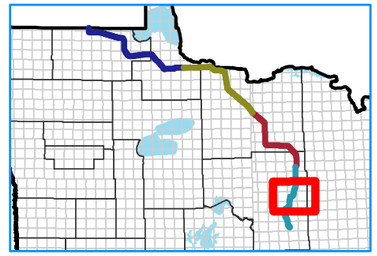
Hydrologic Soil Groups





Legend

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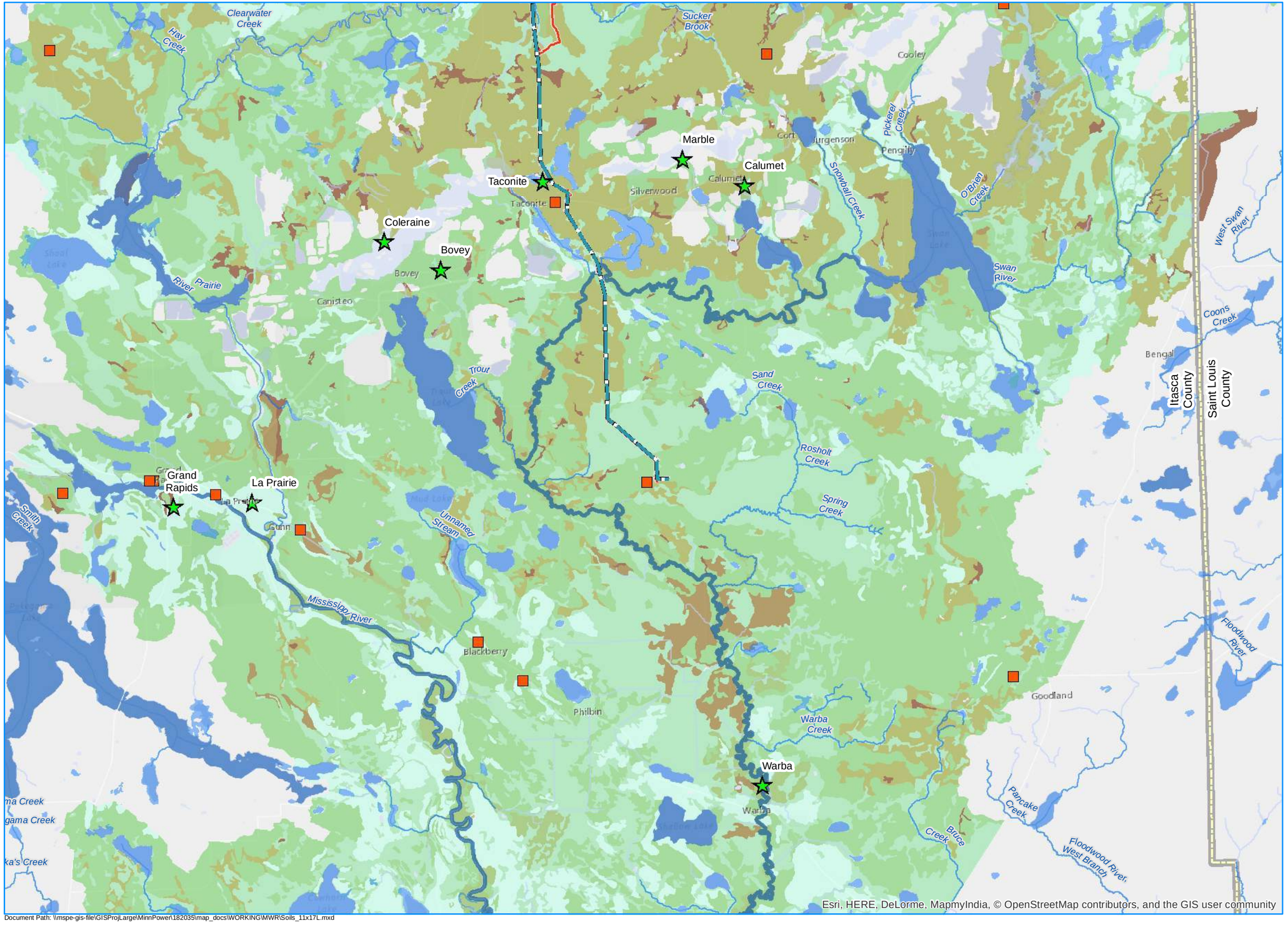
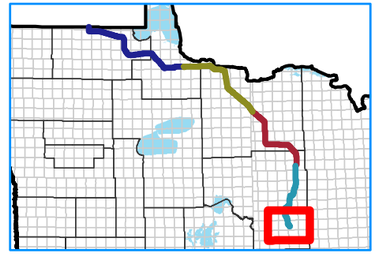
Hydrologic Soil Groups





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N

0 2 Miles

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Appendix H: Construction Details

To be attached separately.

Appendix I: Erosion Control Plan and Details

Erosion Control Plan for Segment 2 to be attached separately.

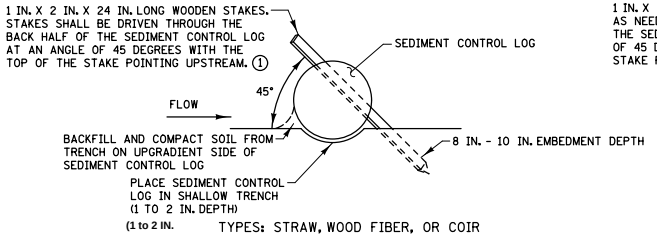
Segment 2 BMP Quantities

Erosion Control Item	Unit	Quantity
Silt Fence	Linear Feet	4,070
Sediment Control Log	Linear Feet	3,510
Ice Road / Matting*	Acres	350
Temporary Seed	lbs	Incidental
Mulch	Tons	Incidental

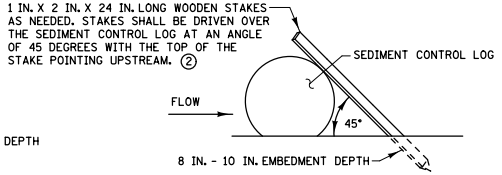
***** Includes work areas, multi-purpose yards, and access routes that span wetlands.*

Refer to Vegetation Management Plan for the following information and details:

- Temporary stream crossing specifications and details
- Clearing plans and specifications
- Site restoration and revegetation



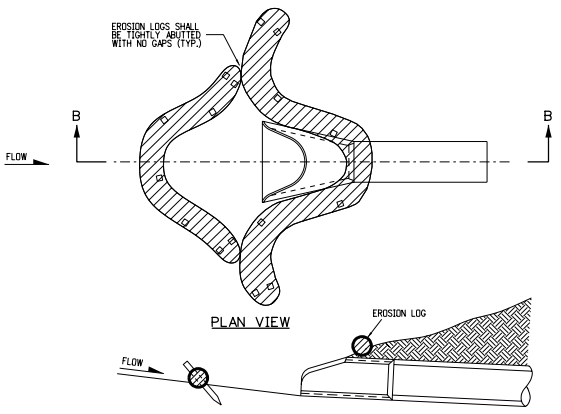
TYPES: STRAW, WOOD FIBER, OR COIR



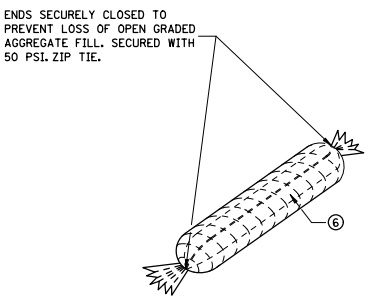
TYPES: WOOD CHIP, COMPOST, OR ROCK

(1 to 2 IN.

SEDIMENT CONTROL LOGS

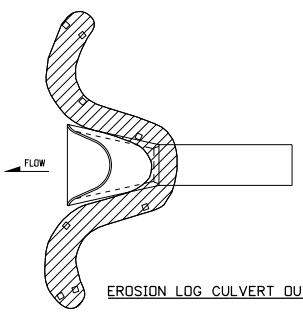


EROSION LOG CULVERT INLET PROTECTION



COMPOST LOG

SELF WEIGHTED WITH BIODEGRADABLE MESH

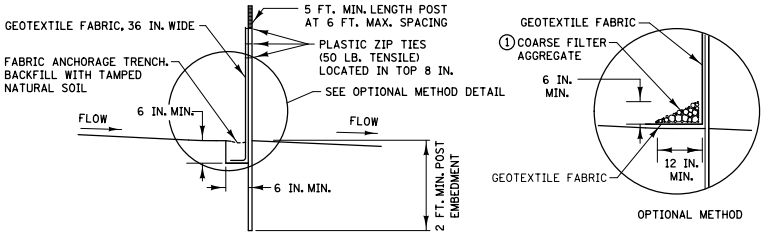


EROSION LOG CULVERT OUTLET PROTECTION

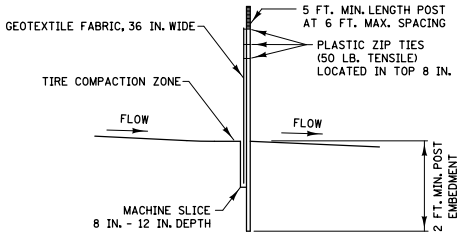
① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.

② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

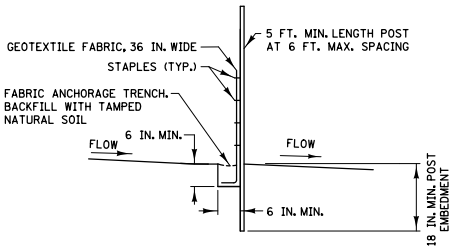
⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE



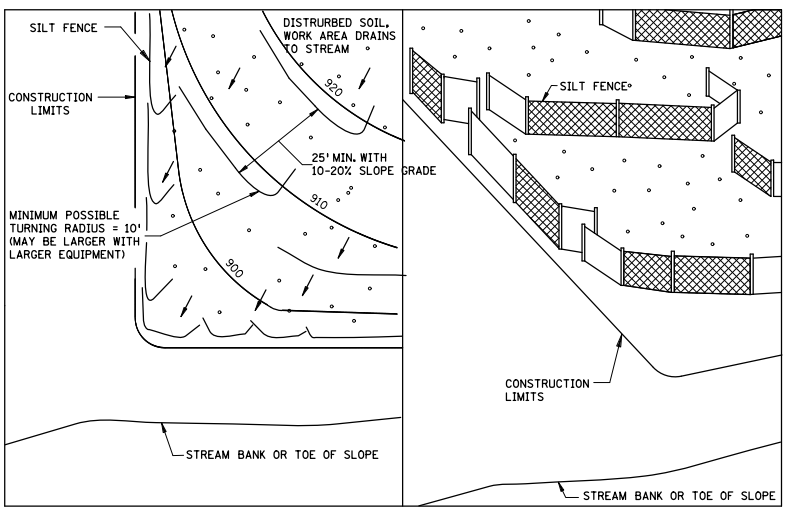
SILT FENCE TYPE HI ②
(HAND INSTALLED)

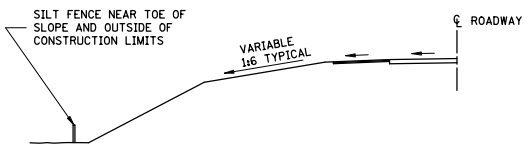


SILT FENCE TYPE MS ②
(MACHINE SLICED)



SILT FENCE TYPE PA ③
(PREASSEMBLED)





LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.

Appendix J: MnDNR Wildlife Friendly Erosion Control

Wildlife Friendly Erosion Control

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

Know Your Options

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

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

Know the Landscape

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

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

Protect Wildlife

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

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

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

Literature Referenced

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

Derraik, J.G.B. 2002. The pollution of the marine environment by plastic debris: a aeview. Marine Pollution Bulletin 44:842-852.

Fuller-Perrine, L.D., and M.E. Tobin. 1993. A method for applying and removing bird-exclusion netting in commercial vineyards. Wildlife Society Bulletin 21:47-51.

Johnson, S.W. 1990. Distribution, abundance, and source of entanglement debris and other plastics on Alaskan beaches, 1982-1988. Proceedings of the Second International Conference on Marine Debris 331-348.

Kapfer, J. M., and R. A. Paloski. 2011. On the threat to snakes of mesh deployed for erosion control and wildlife exclusion. Herpetological Conservation and Biology 6:1-9.

Minnesota DEPARTMENT OF NATURAL RESOURCES

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Appendix K: Vegetation Management Plan

To be attached separately.

Appendix L: Inspection Logs and Reports

NPDES Inspection Report

Summary

Site Name:		Owner:	
Permit Number:		Inspection Type:	Routine or Rainfall
Permit Description:		Inspector:	
Inspection Date/Time:		Qualifications:	
Inspection Notes:			

Weather

Has there been any precipitation since the last inspection? Y / N Approximate Amount (in):

Storm Start Date: Storm Duration: Current Weather:

Are there any discharges at the time of the inspection? Y / N

Do you suspect that discharges may have occurred since the last inspection? Y / N

Previous Inspection - Responsive Actions Due

Inspection Details

#	Question	Y/N/NA	Comments	Responsive Action	Date	Initials
1	Have perimeter controls been installed prior to land disturbing activities?					
2	Are sensitive areas protected with barriers or similar BMPs?					
3	Are all sediment and erosion control measures in proper functioning condition?					
4	Are stockpiles located and stabilized correctly?					
5	Do discharge points (e.g. drainage ways, outlets, outfalls) and basins (retention/detention) need maintenance?					

NPDES Inspection Report

#	Question	Y/N/NA	Comments	Responsive Action	Date	Initials
6	Have stabilization measures been initiated for exposed soil in areas where construction is temporarily suspended or complete?					
7	Is turbid water leaving the site?					
8	Is trash, debris and/or hazardous waste in work area collected & disposed of properly?					
9	Has sediment been tracked onto paved roads?					
10	Did any BMPs fail to operate as designed or prove inadequate for a particular location?					
11	Are there any action items to be addressed not outlined above?					

Signatures

Inspector: _____

Date:

The above signature also shall certify that this facility is in compliance with the Stormwater Pollution Prevention Plan and the State Generic Permit for Stormwater Discharge from large and small construction activities if there are not any instances of non-compliance identified above.

Appendix M: Revision Documentation

Revision	Date	Comments	Initials
00	10/11/2016	Draft	MWR
01			
02			
03			
04			
05			
06			
07			
08			

Appendix N: Notice of Termination

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CSW Notice of Termination/ Permit Modification Form

NPDES Construction Stormwater (CSW) Permit Program

Doc Type: Notice of Termination/Permit Modification

Purpose: Transfer or terminate your National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit. Allowable changes are permit termination and permit transfer for all or a portion of the site.

Questions: If you have questions about the administrative details of the permit process go to: http://www.pca.state.mn.us/publications/wq-strm2-60i.pdf or call the Stormwater Hotline at **651-757-2119 or 800-657-3804** (non-metro only).

Form will be invalid and returned to sender unless the checkbox associated with the applicable actions is checked and the corresponding signature is provided in section A-1, A-2, A-3, and/or A-4.

Submittals: You may either e-mail a signed and scanned PDF copy to csw.pca@state.mn.us, or you may mail a hard copy to:

Construction Stormwater Permit Program
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Existing Permit Identification

a. Current permit ID: C000 _ _ _ _ _ _ or SUB00 _ _ _ _ _

b. Project name: _____

Project location: _____

_____

Briefly describe where the construction activity occurs (for example: Intersection of 45th St. and Irving Ave.). Include address if available.

Select Option 1, 2, or 3

☐ **1. Notice of Termination (NOT) for entire site by existing owner**

Select this option when a project has achieved Final Stabilization (according to Part IV.G of the Permit) with the existing owner/contractor and part of the site is being transferred to a new owner and all construction activity is complete.

Owner and contractor currently authorized under the permit must sign under the "Current" Owner (A-1) and "Current" Contractor (A-2) sections respectively.

☐ **2. Transfer of entire site to new owner or contractor (Transfer/Modification)**

Select this option if the ***entire*** site (represented by the ID above) has either a new owner and/or new general contractor. *"Current" Owner must authorize and sign for any and all changes. The "Current" Contractor needs to sign only if there is a "New" Contractor for the site. After the "Current" parties have signed their sections respectively, proceed to fill out the "New" Parties information in Section A-3 and/or A-4.*

☐ **3. Transfer of a portion of a site to a new owner or contractor (Subdivision)**

Select this option if *a* ***portion*** of a site (permitted under the ID above) has either a new owner and/or new general contractor. *"Current" Owner must authorize and sign for any and all changes. The "Current" Contractor needs to sign only if there is a "New" Contractor for the site. After the "Current" parties have signed their sections respectively, proceed to fill out the "New" Parties information in Section A-3 and/or A-4.*

Describe the portion of the site being transferred: Lot: _____ Block: _____

Project location/address: _____

City, State, and Zip: _____

Example: SW quadrant of 45th Street and Irving Avenue or Lots 1-17 of block 20. Include list of addresses if available or include a map

New Owner/Contractor Information

"New" Owner (A-3)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

"New" Contractor (A-4)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact:

Last name: _____ First name: _____ Title: _____

E-mail address: _____ Telephone: (____) _____ Ext. _____

Certification – All Parties Involved

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

This Application must be signed by: ***Corporation:*** *a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.* ***Partnership or Sole Proprietorship****: a general partner or the proprietor.* ***Municipality, State, Federal or Other Public Agency:*** *principal executive officer or ranking elected official.*

Current Owner Authorized Representative (A-1)

By signing here, I certify the above statements to be true.

Print name: _____

Company: _____

Signature: _____

Date (mm/dd/yyyy): _____

Current Contractor Authorized Representative (A-2)

By signing here, I certify the above statements to be true.

Print name: _____

Company: _____

Signature: _____

Date (mm/dd/yyyy): _____

New Owner Authorized Representative (A-3)

By signing here, I certify the above statements to be true.

Print name: _____

Company: _____

Signature: _____

Date (mm/dd/yyyy): _____

New Contractor Authorized Representative (A-4)

By signing here, I certify the above statements to be true.

Print name: _____

Company: _____

Signature: _____

Date (mm/dd/yyyy): _____