

# **DAIRYLAND POWER COOPERATIVE**

APPLICATION TO THE  
MINNESOTA PUBLIC UTILITIES COMMISSION  
FOR A CERTIFICATE OF NEED AND ROUTE PERMIT TO

## **RELOCATE AN EXISTING 161-kV TRANSMISSION LINE IN WABASHA COUNTY, MN**

MPUC DOCKET NOS.  
ET3/CN-23-504  
ET3/TL-23-388

**March 27, 2024**



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## 1.1 Introduction and Need Summary

Dairyland Power Cooperative (Dairyland, or the Applicant) submits this joint Certificate of Need and Route Permit Application (Joint Application) to the Minnesota Public Utilities Commission (Commission) for a Certificate of Need and Route Permit to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation (the Wabasha Relocation Project, or the Project).

The Project will begin in the vicinity of Structure X-Q3-75 on the existing Dairyland LQ34 161-kV transmission line (the Wabaco-Alma transmission line or LQ34 line) near the Town of Plainview, Minnesota in Wabasha County. This structure will be removed as part of the Project and will be replaced with the starting structure for the new 161-kV line. After travelling 13.3 miles northeast and then east, it will tie directly into a new 4-acre 161-/69-kV substation located within a larger 10.8-acre site, which is proposed to be located off County Road 84, west of the Mississippi River and southeast of the City of Kellogg (Kellogg Substation). The Project is a relocation of approximately 10.4 miles of the existing LQ34 line, which presently connects to the Wabaco Substation (located approximately 2 miles south of the Town of Plainview) and to the Alma Substation (located on the east side of the Mississippi River in Wisconsin). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg in Wabasha County, Minnesota near the Mississippi River. The Project is shown on **Figure 1-1**.

The LQ34 line was originally built in 1955 on a direct, diagonal northeast route between the east side of the City of Rochester to the City of Kellogg, Minnesota. The Wabaco Substation (to which the line currently connects and supplies power) was constructed in 1981. In 2012, the portion of the LQ34 corridor between the Town of Plainview and the City of Kellogg was approved as the route for the CapX2020 Hampton-Rochester-La Crosse 345-kV Project (CapX2020).<sup>1</sup> The CapX2020 project was co-located with the Dairyland LQ34 line in this 10-mile corridor as a double circuit (161-/345-kV) transmission line carrying both the Dairyland 161-kV line and the CapX2020 345-kV line. Recognizing future capacity needs, all the CapX2020 lines were constructed to be capable of carrying two circuits of 345-kV lines.

In July 2022, the Midcontinent Independent System Operator (MISO) approved a long-range transmission plan (LRTP) including a new Wilmarth-North Rochester-Tremval transmission line.<sup>2</sup> This new 345-kV line, referred to as the Mankato to Mississippi River 345-kV Transmission Project in Minnesota, would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin.<sup>3</sup> Xcel Energy, Dairyland, Rochester Public Utilities, and Southern Minnesota Municipal Power Agency are filing certificate of need and route permit applications for the Mankato to Mississippi River 345-kV Transmission Project in MPUC Docket Nos. E002/CN-22-532 and TL-23-157. Therefore, the Dairyland 161-kV circuit must be relocated

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<sup>1</sup> Docket No. E002/TL-09-1448.

<sup>2</sup> <https://www.misoenergy.org/planning/long-range-transmission-planning/>

<sup>3</sup> <https://mmrtproject.com/>



from the CapX2020 structures to make room for a new, second 345-kV circuit on the existing CapX2020 structures.<sup>4</sup>

Dairyland's 161-kV transmission line must be relocated so that it may continue to supply power to the Wabaco Substation, which maintains reliability by providing power to the Town of Plainview and neighboring areas, following execution of the new Mankato to Mississippi River 345-kV Transmission Project. The new Kellogg Substation is required because the new Mankato to Mississippi River 345-kV Transmission Project's circuit across the Mississippi River will eliminate Dairyland's existing LN340 69-kV transmission line Mississippi River crossing and connection into the Alma Substation in Wisconsin. The new Kellogg Substation will then supply the LN340 69-kV transmission line, which travels north-south between Kellogg and the Utica, Minnesota area. Finally, constructing a 161-kV transmission path between Wabaco and Alma will maintain existing transmission capacity and generation outlet provided by the transmission line. Overall, the Project proposes to maintain the electrical capabilities of the existing transmission system in addition to making way for the new 345-kV line (Mankato to Mississippi River 345-kV Transmission Project) to use the existing infrastructure already capable of carrying a new 345-kV transmission line.

## 1.2 Dairyland Organization and System Background

Dairyland is a not-for-profit generation and transmission electric cooperative formed in December 1941 and based in La Crosse, Wisconsin. Dairyland provides the wholesale electrical requirements to more than 700,000 people through its 24 distribution cooperatives and 27 municipal utilities in a four-state area including Wisconsin, Minnesota, Iowa, and Illinois. This includes People's Energy Cooperative (Peoples) and MiEnergy Cooperative (MiEnergy), the distribution cooperatives serving cooperative members in the area in which the Project will be located. Dairyland's transmission system is interconnected directly with neighboring transmission owners, and Dairyland is a member of the Midwest Reliability Organization (MRO) and MISO. Dairyland and its member distribution cooperatives' mission is to power its communities and empower cooperative members to improve the quality of their lives. Dairyland's service area is shown on **Diagram 1-1**.

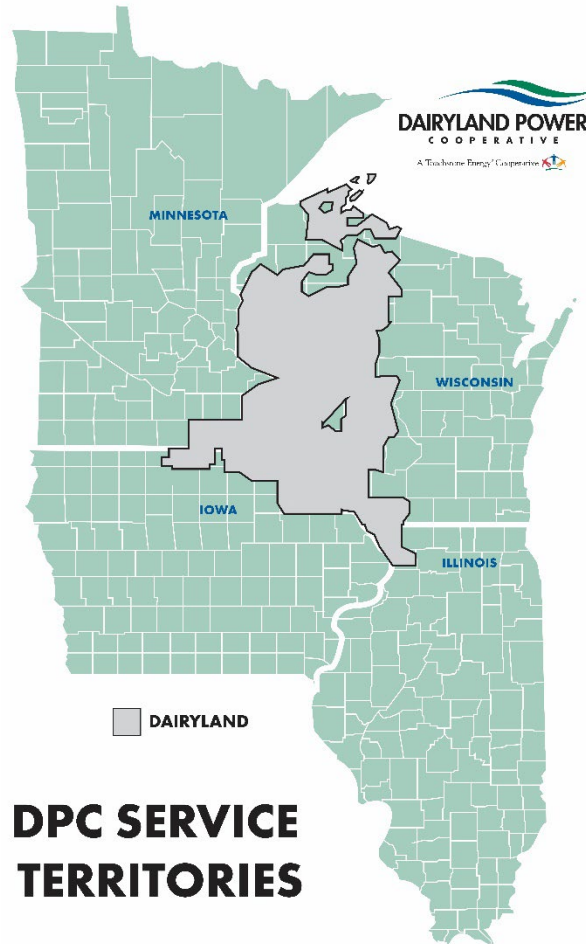
Dairyland generates electricity by using both traditional and renewable energy resources to provide safe, reliable, and affordable electricity. Dairyland's power plants have the capability to generate more than 1,038 megawatts (MWs), of which approximately 18% is provided from renewable sources (i.e., wind, solar, hydroelectric power, and biomass generation). In addition, Dairyland has power purchase agreements for 207 MWs of wind, 193 MWs of solar, and 78 MWs of hydroelectric energy in Iowa, Illinois, Minnesota, South Dakota, and Wisconsin. Dairyland owns over 3,300 miles of transmission line (34.5-kV and higher) and 232 substations in Minnesota, Wisconsin, Iowa, and Illinois.<sup>5</sup>

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<sup>4</sup> Docket No. E002/CN-22-532.

<sup>5</sup> <https://www.dairylandpower.com/sites/default/files/PDFs/Annual%20Reports/AnnualReport-DPC-2022-FINAL-PROOF.pdf>

**Diagram 1-1. Dairyland Service Area**



### **1.3 Project Contact**

Dairyland is the requested permittee for the Project. Dairyland’s address is:

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#### 1.4 Proposed Project and Location

Dairyland proposes to relocate the existing LQ34 161-kV transmission line that is currently located on the CapX2020 structures. The Project includes the installation of a new 13.3-mile 161-kV transmission line and a new Kellogg Substation, all in Wabasha County. The Project is discussed in more detail in **Section 3.0**. The purpose and need of the Project are discussed in detail in **Section 4.0**. Dairyland must have its relocated line operational to ensure continued service to the Wabaco Substation prior to the stringing of the second 345-kV Mankato to Mississippi River 345-kV Transmission Project circuit, which is planned to be in operation in June 2028.

The term Proposed Alignment is used to refer to the location of the transmission line and structures. Dairyland proposes that the Proposed Alignment follow an approximately 13.3-mile route starting in the vicinity of Structure X-Q3-75 on Dairyland's LQ34 161-kV transmission line northeast of the Town of Plainview, Minnesota in Wabasha County to the new 4-acre Kellogg Substation. Dairyland will use single-pole steel structures. All structures will be self-supporting; therefore, no guying will be required. Typical pole heights will range from 75 to 140 feet above ground and spans between poles will range from 250 to 1,000 feet. Construction will occur within a 100-foot-wide right-of-way (ROW) easement that Dairyland will obtain to operate the transmission line. The 100-foot-wide ROW easement is centered on the Proposed Alignment (or 50 feet on either side of the transmission line).

The Project Route Width (or Proposed Route) is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation. Dairyland requests a standard Route Width of 400 feet (200 feet on either side of the Proposed Alignment for most of the Project). Dairyland is requesting a wider Route Width in some areas, up to 2,300 feet wide, to allow for additional route study and the potential need to make minor modifications to the Proposed Alignment in these areas.

The Proposed Alignment, Route Width, and Kellogg Substation are shown on **Figure 1-1**. **Appendices A.1 and A.2** contain a series of topographic and aerial maps depicting the Proposed Alignment, 100-foot-wide ROW, requested Route Width, and Kellogg Substation footprint.

The Route Width (including the Project Alignment and Kellogg Substation) is located in Plainview, Highland, Watopa, and Greenfield Townships in Wabasha County, Minnesota, and in the Township, Ranges, and Sections as shown in **Table 1-1**.

**Table 1-1. Townships, Ranges, and Sections Crossed by the Project Route Width**

Township	Range	Sections
108	11	1
109	10	4,5,7,8,18
	11	13,23,24,25,26,35
110	9	30,31
	10	25,26,27,33,34,35,36

The Project is collocated<sup>6</sup> with other road, railroad, or utility ROWs for 9.5 miles, or 71% of its length. Northern States Power Company, dba Xcel Energy (Xcel Energy), and Peoples have existing overhead distribution lines in the Project Route Width. Dairyland currently understands that Xcel Energy and Peoples plan to bury these lines where they are overtaken by the Project, rather than attach them to the new 161-kV structures installed by Dairyland. This work will be undertaken by Xcel Energy and Peoples and will not be conducted or directed by Dairyland. Dairyland will be responsible for reimbursing Xcel Energy and Peoples for costs incurred to bury their distribution lines. For reference, the location of existing distribution is depicted on the maps in **Appendix A**.

At the beginning of the Project (milepost (MP) 0.0), existing Dairyland structure X-Q3-75 will be removed and replaced with a new starting structure for the Project. Conductors that continue from this structure on to the CapX2020 structures (to the northeast) will be removed to make room for the planned 345-kV CapX2020 circuit. Conductors that continue to the southwest will be connected to Dairyland’s first new structure. There is a possibility, based on engineering design, that the next structure beyond X-Q3-75 (to the southwest) will need to be replaced or modified to accommodate the changes in line configuration. There are some distribution circuits along various parts of the Proposed Alignment that will need to either be collocated with the new structures or relocated and/or buried underground.

The new 13.3-mile 161-kV transmission line will enter the Kellogg Substation from the west at MP 13.3. To the north of the Kellogg Substation, Dairyland structure X-N340-312 currently exists under the CapX2020 lines. This structure, which is within the Proposed Route, will be replaced or converted to 161-kV and brought directly into the northern side of the Kellogg Substation.

The new Kellogg Substation will then supply the LN340 69-kV transmission line, which travels north-south between Kellogg and the Utica, Minnesota area. Dairyland will modify approximately 1,500 feet of the existing 69-kV line to provide connection into the new Kellogg Substation. The 69-kV take-off structure in the Kellogg Substation may require some additional ROW as compared to the present ROW. Some 69-kV structures to the south of the Kellogg Substation will likely need to be replaced to accommodate the changes in line configuration. These structures will be wood poles and similar to what is presently installed.

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<sup>6</sup> Collocation is defined as any road or utility located within 200 feet either side of the Proposed Alignment.

## 1.5 Project Schedule and Cost

Dairyland estimates the Project will cost approximately \$32.4 million dollars, as further discussed in **Section 3.3**. Dairyland anticipates conducting site preparation activities at the Kellogg Substation site between June and July 2026. Then, Dairyland would build the Kellogg Substation and 161-kV transmission line between June 2027 – July 2028, as further discussed in **Section 3.4**. This timeline is consistent with the timeline associated with the Mankato to Mississippi River 345-kV Transmission Project, which is planned to be in-service by June 2028.<sup>7</sup>

## 1.6 Potential Environmental Impacts

Dairyland analyzed the potential environmental impacts from the Project (see **Section 8**) and anticipates that no significant unavoidable impacts will result from construction of the Project. Dairyland has selected a route that meets the Commission’s routing requirements and for most resources, minimizes or avoids the human and environmental impacts that would be realized along reasonable alternatives as presented in **Section 6**. Given the use of existing ROWs for 71% of the approximately 13.3-mile Project, the potential environmental impacts from the Project are anticipated to be limited to temporary construction impacts and permanent impacts where new ROW is needed. Dairyland will continue to coordinate with federal, state, and local agencies to obtain the permits and authorizations needed to construct the Project, as well as address natural resource concerns.

The Department of Commerce (DOC), Energy Environmental Review and Analysis (EERA) is responsible for environmental review of the Project. The Certificate of Need rules require the preparation of an Environmental Report,<sup>8</sup> whereas the Route Permit rules for the Alternative Process require preparation of an Environmental Assessment (EA).<sup>9</sup> The commissioner of the DOC may elect to prepare an EA (in lieu of preparing both an Environmental Report under the Certificate of Need rules and an EA under the Route Permit rules) for the Project that analyzes potential environmental impacts from the Project and meets all statutory and rule requirements of both the Environmental Report and the EA.<sup>10</sup>

## 1.7 Public Input and Involvement

Dairyland employs various engagement methods to provide information about the Project to the public and federal, state, and local agencies, Tribal Nation representatives, and non-government organizations. These engagement methods included in-person stakeholder meetings, in-person public open houses, newspaper ads, direct mailings, social media posts, a dedicated email and hotline to field questions and comments, an interactive online comment map, a Project website (<https://www.dairylandpower.com/wabasha-relocation-project>), and detailed maps that could be downloaded and printed from the Project website. Additional information regarding the public outreach efforts conducted prior to the filing of this Application is provided in **Section 9**. Copies of project correspondence is included in **Appendix B**. This includes pre-application letters sent to

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<sup>7</sup> Northern States Power Company Eighth Status Update to the Commission Letter In the Matter of the Application for a Certificate of Need for the Mankato to Mississippi River 345-kV Transmission Project, Docket No. E002/CN-22-532, January 29, 2024, Document ID 20241-202829-01.

<sup>8</sup> Minn. R. 7849.1200.

<sup>9</sup> Minn. R. 7850.3700.

<sup>10</sup> Minn. R. 7849.1900, subp. 1.

federal, state, and local units of government and Tribal nations to introduce the Project and serve as notice of the opportunity for a pre-application consultation meeting under Minnesota Statutes Section (Minn. Stat. §) 216E.03, subd. 3a.

## 2.1 Certificate of Need

Minn. Stat. § 216B.243, subdivision 2, states that “[n]o large energy facility shall be sited or constructed in Minnesota without the issuance of a Certificate of Need by the Public Utilities Commission....” A large energy facility is defined as “any high-voltage transmission line with a capacity of 100-kV or more with more than ten miles of its length in Minnesota or that crosses a state line.”<sup>11</sup> Dairyland is requesting a Certificate of Need to be granted under Minn. Stat. § 216B.243.

The Commission has adopted rules for the consideration of applications for Certificates of Need at Minn. R. Ch. 7849. On December 13, 2023, Dairyland filed a Petition for Exemption under Minn. R. 7849.0200, subp. 6, requesting that it be exempt from certain filing requirements under Minn. R. Ch. 7849. The Commission approved the Petition, with modifications, in an order dated February 13, 2024 (Exemption Order). This Application contains the information required under Minn. R. Ch. 7849, as modified by the Commission in its Exemption Order. A copy of the Commission’s Exemption Order is provided in **Appendix C**. A Certificate of Need completeness checklist is provided in **Appendix D** with cross references indicating where the information required by Minnesota statute and rules can be found in this Application.

## 2.2 Route Permit

Minn. Stat. § 216E.03, subdivision 2, provides that “[n]o person may construct a high voltage transmission line without a route permit from the commission.” An HVTL is defined by Minn. Stat. § 216E.01, subd. 4, as “a conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 100-kV or more and is greater than 1,500 feet in length.” Because the Project consists of a 161-kV transmission line that is greater than 1,500 feet in length, a Route Permit from the Commission is required.

This Application is submitted under the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minnesota Rules and Minn. R. 7850.2900 to 7850.3700 and 7850.4000 to 7850.4400. The Project qualifies for review under the alternative permitting process authorized by Minn. R. 7850.2800, subp. 1(C) because it is a high voltage transmission line of between 100 and 200 kilovolts.

Dairyland notified the Commission on January 29, 2024, that it intended to use the alternative permitting process for the Project. This letter complied with the requirements of Minn. R. 7850.2800, subp. 2, to notify the Commission of this election at least 10 days prior to applying for a Route Permit. A copy of this letter is attached as **Appendix E**.

The Commission has adopted rules for the consideration of Route Permit applications in Minn. R. Ch. 7850. Minnesota Rule 7850.1900, subparts 2 and 3, set forth the information that must be included in a Route Permit Application. A Route Permit completeness checklist is provided in

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<sup>11</sup> Minn. Stat. § 216B.2421, subd. 2(3) (2006).

**Appendix F** with cross references indicating where the information required by Minnesota statutes and rules can be found in this Application.

Under the Alternative Review Process, an Applicant is not required to propose any alternative routes but must disclose any other routes that were considered but rejected by the Applicant (Minn. Stat. § 216E.04, subd. 3). Further, an Environmental Impact Statement is not required under the Alternative Review Process. Instead, EERA is required to prepare an EA (Minn. Stat. § 216E.04, subd. 5). Unlike the full Route Permit process for higher voltage lines, a formal contested case hearing is not required (Minn. Stat. § 216E.04, subd. 6). The Alternative Review Process procedures are discussed below in **Section 2.3.2**. The regulatory process described in this section is the process that is followed to satisfy all the requirements under the Alternative Review Process Route Permit rules. *See* Minn. R. Ch. 7850.

### **2.2.1 Notice of Application**

Consistent with the Notice Plan approved by the Commission on February 13, 2024, Dairyland provided pre-application notice of this Application by mail to landowners, local government officials, and tribes and published notice in the Star Tribune and Wabasha County Herald. A compliance filing documenting these notices was efiled in this docket on March 22, 2024.

In accordance with Minn. Stat. § 216E.04, subd. 4, and Minn. Stat. § 216E.03, subd. 4, within 15 days of filing this Application, Dairyland will mail a notice of the filing to each owner whose property is along the Project's Proposed Route, to those persons who have registered their names with the Commission and expressed an interest in large energy projects, and to the tribal government and local government units (LGUs) whose jurisdictions are reasonably likely to be affected by the Proposed Project. In addition, Dairyland will publish notice in the *Wabasha County Herald* that announces the filing of this Application. *See* Minn. Stat. § 216E.04, subd. 4; Minn. R. 7850.2100.

An electronic version of the Application will be available on eDockets in docket numbers 23-504 and 23-388 and on the EERA webpage (<http://mn.gov/commerce/energyfacilities>). The Application will also be available on Dairyland's transmission projects webpage at: <https://www.dairylandpower.com/wabasha-relocation-project>.

As required by Minn. R. Ch 7850.2100, subp. 2.C, Dairyland has prepared a project mailing list that contains the information for all persons who own property adjacent to or within the Proposed Route (see **Appendix G**).

### **2.3 Request for Joint Certificate of Need and Route Permit Proceeding**

Minn. Stat. § 216B.243, subd. 4 and Minn. R. 7849.1900, subp. 4 permit the Commission to hold joint proceedings for the Certificate of Need and Route Permit in circumstances where a joint hearing is feasible, more efficient, and may further the public interest.

Dairyland respectfully requests that the Commission order a joint regulatory review process for the Certificate of Need and Route Permit applications. A joint public hearing is feasible and more efficient than two separate proceedings and will further the public interest by having both need and routing issues examined in a singular proceeding.



### **2.3.1 Environmental Review Process**

Upon acceptance of an Application for a Route Permit as complete, EERA will conduct an environmental review of the Project, which requires preparation of an EA. *See* Minn. R. 7850.3700. The EA will contain information on the human and environmental impacts of the Project and addresses mitigation measures for all routes considered. The EA also serves as the environmental report otherwise required under the Certificate of Need rules. *See* Minn. R. 7849.1900, subp. 1.

The process EERA must follow in preparing the EA is set forth in Minn. R. 7850.3700. This process requires EERA to schedule at least one scoping meeting and associated public comment period. The purpose of the meeting is to provide information about the Project and permitting process, answer questions, and gather input regarding potential impacts and mitigation measures that should be studied in the EA. The meeting also provides an opportunity to solicit potential route or route segment alternatives that mitigate impacts. Dairyland, EERA, and the Commission will have representatives available during the public meeting to answer questions and provide information for the public. The public meeting will be held within 60 days after the Application is accepted and deemed complete.

Once the scoping meeting has been held and after the public comment period closes, the Commissioner of the DOC will issue a scoping decision describing the issues and alternatives that will be evaluated in the EA. EERA will prepare the EA based on the scoping decision. Upon completion of the EA, EERA will publish notice of its availability in the *EQB Monitor*, a weekly publication of the Minnesota Environmental Quality Board (EQB) that can be accessed on the EQB webpage, <https://www.eqb.state.mn.us/eqb-monitor>. EERA will also send notice to persons who have placed their names on the Project mailing list. A copy of the EA will be available electronically through eDockets and the EERA webpage. The EA will become part of the record for consideration by the Commission.

### **2.3.2 Joint Process**

After the EA is issued, a public hearing and associated public comment period will be held to again solicit public input and to create an administrative record. The Commission will select a person to preside at the hearing, which, in practice, is usually an administrative law judge (ALJ) from the Office of Administrative Hearings. The Commission will establish the procedures to be followed at the hearing. *See* Minn. R. 7850.3800.

Once the hearing is concluded, the ALJ will prepare a report based on the entire Certificate of Need and Route Permit record. After the report is issued, the matter will come to the Commission for a decision. During an open meeting, the Commission will deliberate and decide as to the Certificate of Need and route for the Project, using the criteria set forth in Minn. Stat. §216B.243, subd. 3, Minn. R. 7849.0120, Minn. Stat. § 216E.03, subd. 7(b), and Minn. R. 7850.4100 to guide its decision.

A Certificate of Need must be issued within 12 months of submission of an application unless the Commission extends the time period for good cause. *See* Minn. Stat. § 216B.243, subd. 5. A route permit under the Alternative Review Process shall be issued six months after the Commission's

determination that the Application is complete. This timeframe may be extended up to three months for just cause or upon agreement by the Applicant. *See* Minn. Stat. § 216E.04, subd. 7.

## 2.4 Other Permits/Approvals

In addition to the Certificate of Need and Route Permit sought in this Application, several other permits, license, approvals, or consultations may be required to construct the Project depending on the actual route selected and the conditions encountered during construction. A list of the local, state, and federal permits that may be required for this Project is provided in **Table 2-1**. Any required permits will be obtained by Dairyland in a timely manner.

**Table 2-1. Summary of Possible Permits, Licenses, Approvals, and Consultations**

Permit	Jurisdiction
<b>Federal</b>	
Section 404 Clean Water Act Permit	United States Army Corps of Engineers
Lease for Utility System Facilities on Federal Lands and Property	United States Army Corps of Engineers
Section 7 Endangered Species Act / Migratory Bird Treaty Act Consultation/ Bald and Golden Eagle Protection Act	United States Fish and Wildlife Service
Part 7460 Airport Obstruction Evaluation	Federal Aviation Administration
<b>State</b>	
National Historic Preservation Act Consultation Minnesota Statutes Chapter 138 (Minnesota Field Archaeology Act and Minnesota Historic Sites Act)	State Historic Preservation Office Tribal Historic Preservation Offices
License to Cross Public Waters	Minnesota Department of Natural Resources – Lands and Minerals
Water Appropriation General Permit – Construction Dewatering	Minnesota Department of Natural Resources
State Endangered Species Consultation	Minnesota Department of Natural Resources – Ecological Services
Calcareous Fen No Effect Concurrence	Minnesota Department of Natural Resources
National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit Coverage	Minnesota Pollution Control Agency
Section 401 Clean Water Act Water Quality Certification	Minnesota Pollution Control Agency
Wetland Conservation Act	Minnesota Board of Water and Soil Resources Wabasha County Soil and Water Conservation District
Utility Accommodation on Trunk Highway ROW	Minnesota Department of Transportation
Miscellaneous Work Permit for Trunk Highways	Minnesota Department of Transportation
Oversize and/or Overweight Permit	Minnesota Department of Transportation
<b>Local</b>	
Road Crossing/Driveway/ROW/Utility Permits	Plainview, Highland, Watopa and Greenfield Townships, Wabasha County
Over-Width Load Permits	Plainview, Highland, Watopa and Greenfield Townships, Wabasha County
<b>Other</b>	
Crossing Permits/Agreements	Other utilities such as railroads

Dairyland proposes that the Project follow an approximately 13.3-mile route starting in the vicinity of Structure X-Q3-75 on the existing Dairyland LQ34 161-kV transmission line near the Town of Plainview, Minnesota before terminating in the new Kellogg Substation. The proposed Project is located in Plainview, Highland, Watopa, and Greenfield Townships, in Wabasha County, Minnesota. An overview of the Proposed Route is shown on **Figure 1-1**, and the Proposed Route width is shown in **Appendix A** on a series of larger scale aerial photo maps depicting the Proposed Alignment, Proposed Route, and 100-foot-wide ROW for the Project.

### 3.1 Project Description

#### 3.1.1 161-kV Line Proposed Alignment

The Proposed Alignment refers to the centerline of the transmission line. This Application includes a Proposed Alignment, which is Dairyland's initial thoughts on where the line will be built and where it turns or crosses from one side of a road to the other. The final alignment will likely be somewhat different due to input from landowners, agencies, and owners of other utilities in the area.

The Project will begin in the vicinity of Structure X-Q3-75 on Dairyland's existing LQ34 161-kV transmission line, located approximately 0.6 miles northeast of the intersection of Township Road 232 and 215<sup>th</sup> Ave in Plainview Township in Wabasha County. The Project Route will extend northwest for approximately 1.0 mile until 215<sup>th</sup> Ave, and then will continue north for approximately 0.6 mile to State Highway 42 near MP 1.6. From there, it will turn northeast and continue to follow State Highway 42 for approximately 6.4 miles until diverging south near MP 8.0. It will travel across a greenfield route for 1.7 miles until the crossing of U.S. Highway 61/Great River Road near MP 9.7. The Proposed Alignment will cross Great River Road and the Canadian Pacific Railroad, and then turn south on the east side of the railroad at MP 10.1. It will parallel the railroad for approximately 0.5 mile before turning east, then north and east again, to follow the south side of County Road 84. The Proposed Alignment then follows County Road 84 for approximately 1.7 miles to its connection point at the Kellogg Substation.

The Project will not be constructed within existing utility ROW; however, it will be collocated with existing utility, road, and railroad ROW for approximately 9.5 miles, or 71% of the Proposed Alignment.<sup>12</sup> Specifically, the Project:

- Is collocated with existing utility lines for 5.6 miles, as follows: Peoples' distribution lines for approximately 3.8 miles, Xcel Energy distribution lines for 1.3 miles, and Dairyland transmission lines for 0.5 mile. Some of these areas are also alongside road ROWs. Where the Project Alignment is collocated with existing distribution lines, Dairyland currently understands that Xcel Energy and Peoples plan to bury these lines where the Project overtakes them, resulting in the removal of those poles.

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<sup>12</sup> Total collocation factors in that in several locations, the Project is collocated with more than one type of existing corridor. Therefore, the sum of collocation presented below in the breakout will not equal this total.

- Is collocated with Township roads, County roads, and State highways for 8.4 miles. Some of these areas are also alongside utility ROWs.
- Is collocated with the Canadian Pacific Railroad for 0.6 mile.

### 3.1.2 Right-of-Way

The ROW is the physical land area along the Proposed Alignment that is needed to construct and operate the energy facility; this is the area that will be maintained by Dairyland. Dairyland will require easements which allow for a ROW width of 100 feet (typically 50 feet of each side of the Proposed Alignment).

Additional temporary workspace (ATWS) beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings, along steep slopes, and at stringing locations. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation. Dairyland will avoid the placement of ATWS in wetlands and near waterbodies as practicable.

New easements will be needed for the 161-kV transmission line. Dairyland representatives will work directly with individual landowners to acquire the necessary easements for the Project. At a minimum, the Project will require a total ROW width of 100 feet (typically 50 feet off each side of the transmission centerline) for the 161-kV transmission line system.

### 3.1.3 Route Width

A “route” or “route width,” referred to herein as the Proposed Route, is a wide corridor that is defined by the Commission in a route permit. The Proposed Route is wider than the ROW in order to provide flexibility in the Proposed Alignment and ROW placement to address human and environmental concerns that arise after the Route Permit has been issued.

Within this Application, Dairyland is generally requesting a 400-foot-wide Proposed Route; however, Dairyland is requesting a variable route width, up to 2,300 feet wide, for specific portions of the route to consider existing infrastructure, mitigate potential engineering challenges, and/or to facilitate any necessary realignments to accommodate agency and/or landowner requests. The route width areas are shown in **Appendix A**.

1. Variable width in some areas along State Highway 42 after the intersection with 215<sup>th</sup> Avenue (near MP 1.6) to just north of 615<sup>th</sup> Street (near MP 7.8) to account for flexibility in routing around homes, buildings, and features along the highway (**pages 2 to 6 of Appendix A.2**).
2. A variable, but up to 2,300-foot-wide route north of 615<sup>th</sup> Street (near MP 7.8) to just east of the U.S. Highway 61/Great River Road crossing (near MP 9.9) to account for flexibility in routing around steep slopes to the south of State Highway 42 and the U.S. Highway 61/Great River Road crossing (**pages 6 to 8 of Appendix A.2**).

3. A variable, but up to 1,850-foot-wide route near the Kellogg Substation between MPs 12.9 to 13.3 to allow for flexibility in the ultimate placement of the substation (**page 10 of Appendix A**).

#### **3.1.4 Kellogg Substation**

Substations are a part of the electric generation, transmission, and distribution system and contain high-voltage electric equipment to monitor, regulate, and distribute electricity. The Kellogg Substation is needed to connect the 161-kV transmission lines and the existing LN340 69-kV transmission line. Dairyland is proposing to develop a 10.8-acre property, of which 4 acres will include the fenced area, stormwater pond, parking, accessing road, and transmission line ROWs that will enter/exit the substation. The height of new structures at the Kellogg Substation will range from 45 to 75 feet above ground. The property is currently used for agricultural production. The substation footprint is an estimation at this time; the size, shape and precise location could potentially change per engineering design standards and landowner feedback. An initial layout of the Kellogg Substation is provided in **Appendix H**.

#### **3.1.5 Additional System Modifications**

A number of modifications will need to be made to the existing system to accommodate the Project.

At the beginning of the Project (MP 0.0), existing Dairyland structure X-Q3-75 will be removed and replaced with a new starting structure for the Project. Conductors that continue from this structure on to the CapX2020 structures (to the northeast) will be removed to make room for the planned 345-kV CapX2020 circuit. Conductors that continue to the southwest will be connected to Dairyland's first new structure. There is a possibility, based on engineering design, that the next structure beyond X-Q3-75 (to the southwest) will need to be replaced or modified to accommodate the changes in line configuration. Distribution circuits along various parts of the Proposed Alignment will be buried underground.

The new 13.3-mile 161-kV transmission line will enter the Kellogg Substation from the west at MP 13.3. To the north of the Kellogg Substation, Dairyland structure X-N340-312 currently exists under the CapX2020 lines. This structure will be replaced or converted to 161-kV and brought directly into the northern side of the Kellogg Substation.

The new Kellogg Substation will then supply the LN340 69-kV transmission line, which travels north-south between Kellogg and the Utica area. Dairyland will modify approximately 1,500 feet of the existing 69-kV line to provide connection into the new Kellogg Substation. The 69-kV take-off structure in the Kellogg Substation will require some additional ROW as compared to the present ROW. Some 69-kV structures to the south of the Kellogg Substation will likely need to be replaced to accommodate the changes in line configuration. These structures will be wood poles and similar to what is presently installed.

## 3.2 Engineering and Operational Design Considerations

Design of transmission lines and associated facilities occur through multiple stages including identification of existing ROWs; transmission line design; substation design; ROW acquisition; and geotechnical investigations. Each stage is discussed in further detail in the sections that follow.

### 3.2.1 Transmissions Structure and Design Considerations

Potential structure designs and photographs are provided in **Diagrams 3-1** and **3-2**. Structure dimensions are provided in **Table 3-1**.

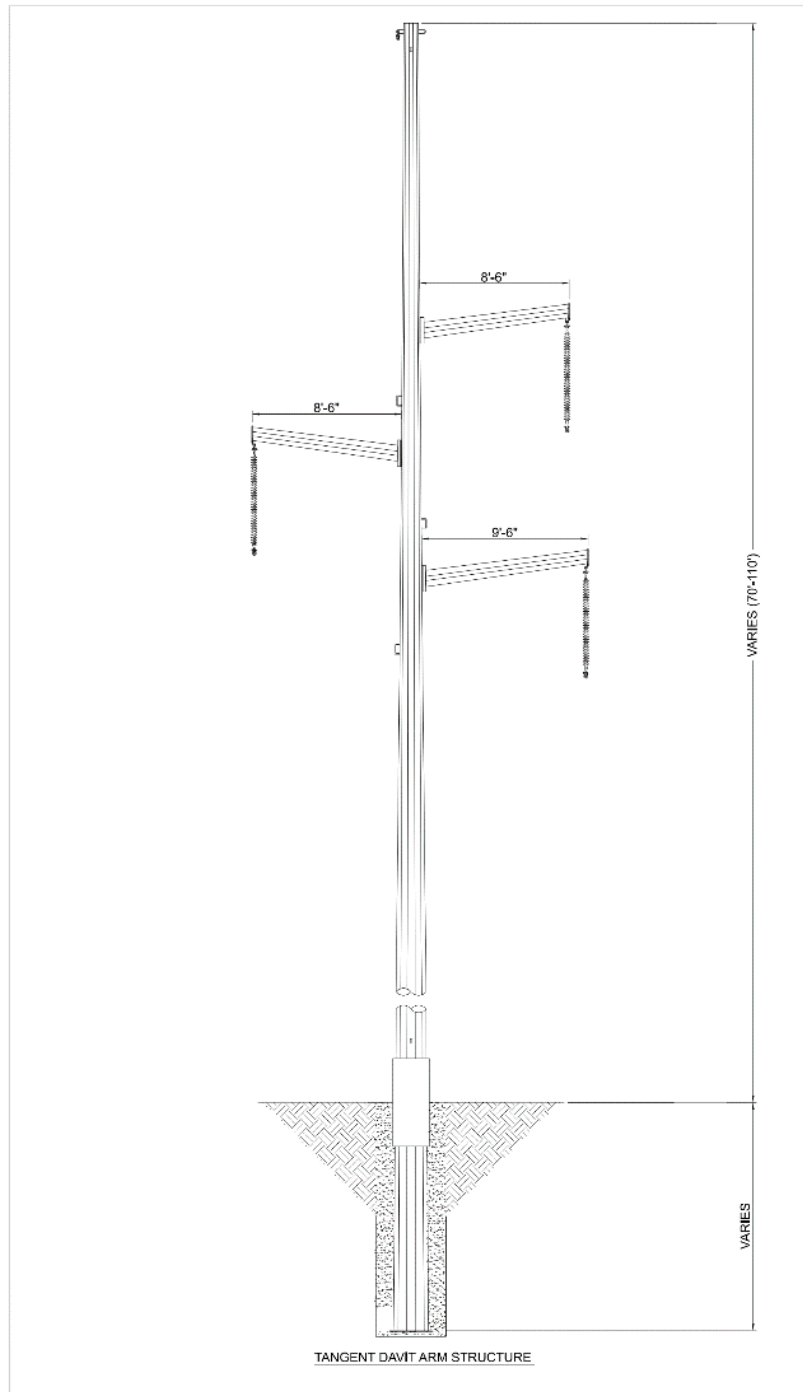
**Table 3-1. Typical 161-kV Structure Dimensions**

Structure Type	Material	Approximate Height Above Ground (feet)	Structure Base Diameter (inches)	Span Between Distances (feet)
Monopole with davit arms and suspension insulators	Steel	80 - 140	31 - 51	300 - 1,000
Monopole with strain attachments directly to pole	Steel	75 - 110	35 - 55	300 - 1,000

The majority of the new 161-kV transmission line will consist of single circuit steel structures spaced approximately 300 to 1,000 feet apart. Transmission structures will typically range in height from 75 to 140 feet above ground, depending upon the terrain and environmental constraints. The average diameter of the steel structures at ground level is 37 inches. Poles will be oriented in a delta configuration (one overhead ground wire at the top, two phases on one side and a single phase on the other) supported by suspension insulators at tangent structures and strain insulators at tension structures. All tangent poles with a line angle of 2 degrees or less will be directly embedded in the soil. Any structure with a line angle of greater than 2 degrees will be supported on a drilled shaft concrete foundation. Special horizontally configured structures (H-frame or 3 pole structures) may be required to cross under any higher voltage circuits in the corridor.

Multi-pole (e.g., 3-pole and/or H-frame structures) are designed in a horizontal configuration, which maintains the transmission line conductors parallel to the ground. Horizontal configuration is sometimes desirable where the proposed transmission line crosses under other existing high voltage transmission lines. The horizontal configuration allows the 161-kV transmission line to be as low as possible at the crossing point, while still maintaining the required clearances set by the National Electrical Safety Code (NESC). Specific sizing of these structures will be determined after a Route Permit is issued and detailed engineering design is initiated. Dairyland anticipates use of H-frame or 3-pole structures only near the new Kellogg Substation location to cross under the 345-kV CapX2020 circuit.

**Diagram 3-1. Typical 161-kV Transmission Structure Design**



**Diagram 3-2. Photo of Typical 161-kV Transmission Structure**





A deadend structure is used to change direction and/or wire tension on a transmission line. Deadend structures are also used as a “storm structure” to limit the number of structures damaged by a cascading effect due to higher line tensions when a pole is knocked down by a storm. Deadend structures will be steel on concrete foundation structures.

### 3.2.2 Geotechnical Borings

Collection of geotechnical data will be necessary for final design of the transmission line and will be performed prior to construction activities. Soil borings are generally completed using rubber tired or tracked drill rigs, depending on site and access conditions. A pick-up truck or all-terrain vehicle (ATV) transports the crew and drilling supplies to the work area. Construction mats may be installed as needed based on site conditions and where access is required in wetland areas. Sites will be restored to pre-construction conditions upon completion of geotechnical investigations. Dairyland will obtain the applicable permits and approvals prior to conducting this work.

The Project is located in a region of Minnesota known to have karst features (see **Section 8.6.2**). The Minnesota Department of Natural Resources (MDNR), in its early coordination comments, noted the presence of karst in the Project area, noting that several karst features have been documented within 1,000 feet of the Project area (see **Appendix B**). Karst landscapes can develop where the dissolution of soluble bedrock can result in voids, sinkholes, springs, caves, or other such features at or near the surface.<sup>13</sup> This necessitates planning to identify karst features prior to construction, as well as development of a contingency plan should karst features be encountered during construction.

Dairyland will develop a Karst Survey Plan that will identify the locations of the proposed geotechnical investigations in relation to proposed structure locations, in addition to geophysical studies. Dairyland will coordinate with the MDNR regarding the Karst Survey Plan prior to execution of the geotechnical investigations.

Two geophysical methods will be performed due to different limitations associated with each method. The first geophysical method to be prescribed will be resistivity. This will involve using a multi-channel resistivity measurement array to create a ground resistivity image from the ground surface to the desired depth. Two resistivity measurements will be taken at each structure location, perpendicular to the other. Resistivity imaging is particularly useful with karst voids filled with clay. Clay is highly conductive and shows up clearly in resistivity images. When voids are filled with air or water, resistivity imaging is not as informative.

The second geophysical method that Dairyland will use is Multichannel Analysis of Surface Waves (MASW), which is a type of seismic survey that prepares images of below the ground surface by measuring the propagation velocities of surface waves generated by a seismic source, such as a sledgehammer striking a metal plate. MASW can be better at imaging karst voids when they are air or water filled.

Combining the resistivity and MASW imaging is a proven method for increasing confidence in karst void detection. Ideally, no unexpected voids will be encountered during construction.

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<sup>13</sup> <https://www.nps.gov/subjects/caves/karst-landscapes.htm>

However, following completion of the studies noted above, Dairyland will develop a Karst Contingency Plan prior to construction that includes actions to take to mitigate any unexpected voids encountered during construction. Dairyland will work with the MDNR to develop the Karst Contingency Plan prior to construction.

### 3.2.3 Transmission Line Clearance Requirements

NESC sets minimum clearances of the conductors from structures adjacent to or within the ROW. NESC with U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) buffer clearance requirements are summarized in **Table 3-2**. For a 161-kV transmission line like the Project, the NESC minimum clearance under a 48 mile per hour (mph) wind is 9 feet. When there is no wind, the conductors must have a clearance of 9.5 to 12 feet from various structures as listed in **Table 3-2**. Dairyland Standard of Practice is to maintain a minimum of 12 feet horizontal distance with and without wind for lighting and traffic signal support and 14 feet for buildings with and without wind, which both exceed NESC and RUS requirements.

**Table 3-2. NESC Rule 234 Clearance Requirements for 161-kV with 2-foot RUS Buffer**

Risk Case	Minimum Separation (feet)	
	No Wind	NESC 48 mph wind
From a lighting support, traffic signal support, or support structure for another line.	9.5	9
From any other buildings, walls, projections, signs, chimneys, flagpoles, etc.	12	9

In addition, Dairyland typically requires the blowout to remain within the ROW under the same 48 mph wind condition. Approximately 5 feet are required from the blowout 161-kV conductors to the edge of ROW, in particular vegetation located at the edge of ROW. This is in accordance with the North American Electric Reliability Corporation (NERC) Standard FAC-003. The amount of blowout allowed depends on several factors including the span length and conductor type. On a typical 161-kV transmission line with a 700-foot span, blowout is approximately ten feet with 48 mph winds. The final line design will evaluate blowout based on actual span distances and the type of conductor being used.

### 3.2.4 Conductors

The single circuit structures will have three single conductor phase wires and one shield wire. It is anticipated that the phase wires will be 1590 thousand circular mil aluminum conductor steel supported (1590 Lapwing ACSS-HS) or a conductor with similar capacity. The shield wire will be 0.607-inch diameter optical ground wire.

### 3.2.5 Distribution Lines

On some projects, Dairyland has allowed other distribution utilities to attach distribution lines to its high voltage transmission line structures. This is commonly called “underbuild” or “underbuilt.” Xcel Energy and Peoples have existing distribution lines along State Highway 42

and County Road 84. Dairyland currently understands that Xcel Energy and Peoples plan to bury these lines where they are overtaken by the Project, rather than attach them to the new 161-kV structures installed by Dairyland. This work will be undertaken by Xcel Energy and Peoples and will not be conducted or directed by Dairyland. Dairyland will be responsible for reimbursing Xcel Energy and Peoples for costs incurred to bury their distribution lines.

### **3.2.6 Service Life**

The service life of a transmission line is approximately 65 years, although based on experience, it is quite possible that the line and structures will last longer than 65 years.

### **3.2.7 Annual Availability**

An average 161-kV transmission line is expected to be available approximately 99.9% of the year. Dairyland expects that this line should not be out of service for any extended period of time, other than the rare times when scheduled maintenance is required or when a natural event, such as a tornado, thunderstorm, or ice storm causes an outage.

### **3.2.8 Outages**

All necessary outages are coordinated in accordance with Dairyland requirements and procedures that are established and followed by all utilities as Good Utility Practice to meet personnel safety and NESC transmission requirements. Coordination is accomplished through well-defined outage scheduling procedures that utilize web-based tools, allow for study affirmation and ultimately approval of the submitted outage. Once approved, detailed switching orders are developed and shared with all parties involved using well-defined processes to ensure safety of personnel performing the work and transmission grid reliability. While distribution systems are not subject to MISO reporting requirements, Dairyland will also coordinate outages with Xcel Energy and Peoples, the local distribution utilities.

### **3.2.9 Substation Design Considerations**

The new Kellogg Substation will be designed to accommodate a full build out to a six-position 161-kV ring bus, eight-position 69-kV straight bus configuration, and two 161-/69-kV autotransformers. At the time of construction, three positions in the 161-kV ring bus, two positions in the eight-position 69-kV straight bus and one 161-/69-kV autotransformer will be built.

The scope of work at the Kellogg Substation includes:

- Installing three 161-kV circuit breakers, foundations, and control cables for transmission line switching;
- Installing two 69-kV circuit breakers, foundations, and control cables for transmission line switching;
- Installing one 161-/69-kV, 112 megavolt-ampere (MVA) autotransformer, foundation, and control cables;
- Installing 161-kV line steel dead-end structures with foundations to terminate the transmission lines;

- Installing a new building complete with auxiliary systems to house all necessary protection and control, communication, and Supervisory Data Control and Acquisition (SCADA) equipment;
- Installing fiber optic communication and SCADA equipment for system protection, remote control, and monitoring of the substation; and
- Installing disconnect switches, buswork, lightning protection structures, instrument transformers, surge arresters, and all appurtenances for a complete substation installation.

### 3.2.10 Future Expansion

Minnesota statutes and rules require the consideration of the potential for a project to accommodate future improvements to the transmission system. The Project is designed to maintain reliability requirements in the area and is sized to accommodate future expansion to the extent that future analysis determines it to be needed. The Kellogg Substation will be built for current system needs but designed to accommodate expansion if needed. Kellogg Substation will be designed for future expansion of the 161-kV and 69-kV bays and with enough space to add another transformer if needed. This will allow for future improvements, minimizing impacts to landowners and providing cost efficiency.

### 3.3 Project Costs

Estimated costs for the proposed Project are approximately \$32.4 million (2023 dollars). Costs and tasks are divided into six phases as summarized in **Table 3-3**. Costs include permitting, land acquisition and ROW, design/Engineering, procurement of materials, construction costs, and contingency. If the Commission selects a route other than the Proposed Route or imposes non-standard construction conditions, the Project cost estimates may change. These cost estimates assume that the Applicant will pay prevailing wages for applicable positions for the construction of the Project. All capital costs for the Project will be borne by Dairyland.

**Table 3-3. Estimated Costs for the Proposed Project**

Project	Planning/ State Permitting	Land Acquisition/ Permits	Design	Procurement	Construction	Contingency	Total
Transmission Line	\$1.3M	\$1.4M	\$1.5M	\$5.9M	\$8.1M	\$2.0M	<b>\$20.3M</b>
Substation	\$0.2M	\$0.2M	\$0.3M	\$5.5M	\$4.8M	\$1.1M	<b>\$12.1M</b>
<b>Total</b>							<b>\$32.4M</b>
Note: Totals do not add in all instances due to rounding.							

#### 3.3.1 Transmission Line Construction Costs

In rural areas, single pole construction and easement costs are approximately \$875,000 per mile (2023 dollars). The Project’s costs are anticipated to be higher than this per-mile average due to the Proposed Alignment largely following existing roads and the need to avoid existing homes and other existing structures. Specialty poles and foundations add additional cost as the Proposed

Alignment does not always follow a perfectly linear path. Contingency has also been included due to the uncertainty around material costs and the lead times.

### **3.3.2 Substation Costs**

Substation costs are fluctuating significantly. The most significant procurement item in a substation is the transformer. Over the last three years the costs to obtain a transformer have increased by a factor of two, and the lead times to acquire a transformer have almost tripled. Dairyland has and will continue to leverage its existing vendor agreements to contain project pricing and schedule. The current budget to construct a substation of this type and magnitude is currently at \$12.1M including a contingency of \$1.1M. Timing is critical as some of the lead times for equipment now exceed three years.

### **3.3.3 Operation and Maintenance Costs**

Once constructed, operation and maintenance costs associated with the new transmission lines will be initially driven by controlling regrowth vegetation within the ROW. The estimated annual cost of ROW vegetation maintenance is estimated at \$7,000 to \$15,000 every five years. Transmission line maintenance for the Project is estimated at \$30,000 to \$35,000 annually. Storm restoration, annual inspections, and ordinary replacement costs are included in these annual operating and maintenance costs.

Over the life of the new substation, inspections will be performed regularly to maintain equipment and make necessary repairs. Transformers, circuit breakers, batteries, protective relays, and other equipment need to be serviced periodically in accordance with the manufacturer's recommendation. Routine compliance inspections will be performed, and the site must also be kept free of vegetation and drainage maintained. Dairyland's substation maintenance costs typically range from \$20,000 to \$30,000 annually.

### **3.3.4 Effect on Rates**

The Commission's certificate of need rules require that an applicant provide the annual revenue requirements to recover the costs of a proposed project. Dairyland requested an exemption from this rule requirement. Instead, Dairyland committed to provide an explanation of how MISO will allocate the cost of the Project how MISO LRTP project costs are spread among users of the transmission grid.

The Project is part of the MISO LRTP Tranche 1 Portfolio, which has been determined by MISO to meet the criteria for being designated a Multi-Value Project (MVP) according to the MISO tariff. Therefore, the Project, along with all other projects in the LRTP Tranche 1 Portfolio, qualifies for regional cost allocation. MISO has determined that the LRTP Tranche 1 portfolio will be allocated to transmission customers in the MISO Midwest Subregion 14, where the portfolio is located and provides proximate benefits. The allocation of the Project's costs to transmission customers is governed by *Schedule 26-A, Multi-Value Project Usage Rate*<sup>14</sup>, in the MISO tariff.

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<sup>14</sup> [https://www.misoenergy.org/planning/multi-value-projects-mvps/#nt=%2Fmultivalueprojecttype%3AMVP%20Analysis%20Reports%20\(2022-Tranche%201\)&t=10&p=0&s=Updated&sd=desc](https://www.misoenergy.org/planning/multi-value-projects-mvps/#nt=%2Fmultivalueprojecttype%3AMVP%20Analysis%20Reports%20(2022-Tranche%201)&t=10&p=0&s=Updated&sd=desc)

The annual revenue requirement for the Project is determined pursuant to the formula rate in *Attachment MM - MVP Charge* in the MISO tariff. Loads withdrawing energy in the MISO Midwest Subregion pay the annual revenue requirement through *Schedule 26-A* charges, which are assessed based on actual monthly energy consumption by customers. Minnesota customers' allocated share of the annual revenue requirement is determined by the percent of total MISO energy used by Minnesota utilities, which has been estimated at approximately 15% to 20% based on MISO's posted 2021 energy withdrawal data.

MISO estimates Dairyland's local balancing authority will be allocated approximately 1.3% of the total costs for the Project with the rest of the costs being allocated to load in the remaining MISO Midwest Subregion. As a not-for-profit transmission and generation cooperative, Dairyland's costs are allocated to its member-owner distribution cooperatives based on a board approved formula rate methodology. This formula rate methodology allocates power supply and transmission costs by agreed upon applicable billing determinants. Each Dairyland member-owner distribution cooperative develops their own rates based on individual costs, including allocated costs from Dairyland, for their member-consumers via applicable customer rate class.

### 3.4 Project Schedule

Dairyland anticipates conducting site preparation activities at the Kellogg Substation site between June and July 2026. Then, Dairyland would build the Kellogg Substation and 161-kV transmission line between June 2027 and July 2028. The start of construction is dependent on the receipt of all required permits and approvals. Dairyland anticipates that the Project will be energized in July 2028. **Table 3-4** summarizes the permitting schedule that would enable the Project to be in service in time for CapX2020 to install the second circuit.

**Table 3-4. Anticipated Permitting Schedule**

Certificate of Need and Route Permit application filed	March 2024
Scoping meeting	June 2024
Public hearing	December 2024
Commission Decision	April/May 2025

### 3.5 Proposed Ownership

Dairyland will own the 13.3-mile 161-kV transmission line and the 10.8 acres associated with the 4-acre Kellogg Substation.

## 4.1 Chapter Overview

The Project's primary purpose and need is to maintain existing transmission grid capabilities and reliable service to area communities while relocating the existing 161-kV line from the CapX2020 structures to make way for a new 345-kV line – the Mankato to Mississippi River 345-kV Transmission Project – that will require use of the CapX2020 poles. The primary purpose and need fall into four areas are listed below and in more detail in **Sections 4.1 through 4.5**.

- Need to Remove Existing Line from CapX2020 Structures
- Need to Maintain 161-kV Line for Area Reliability
- Need to Maintain 161-kV Transmission Capacity in the Area
- Need for the New Kellogg Substation

**Sections 4.6 through 4.11** address additional Certificate of Need filing requirements.

## 4.2 Need to Relocate the Existing 161-kV Line

Dairyland's existing LQ34 161-kV circuit is one of four 161-kV transmission lines that have been supplying power to local communities in the Rochester/Alma area for decades.<sup>15</sup> In 2012, the Commission approved a route permit for the CapX2020 Project.<sup>16</sup> For approximately 13 miles between the communities of Plainview and Kellogg, the CapX2020 Project was co-located with the LQ34 line as a double circuit (161-/345-kV) transmission line carrying both the Dairyland 161-kV line and the CapX2020 345-kV line. However, recognizing future capacity needs, the CapX2020 Project was "upsized" at approval and constructed to be capable of carrying two circuits of 345-kV lines, with the Commission recognizing at that time that the 161-kV circuit would need to move off of the CapX2020 Project at some future date.<sup>17</sup>

In July 2022, MISO approved an LRTP portfolio including a new Wilmarth-North Rochester-Tremval 345-kV transmission line (now referred to as the Mankato to Mississippi River 345-kV Transmission Project).<sup>18</sup> This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester, Minnesota, and Alma, Wisconsin. Therefore, the 161-kV circuit must be removed and relocated from the CapX2020 structures to allow the second circuit to be operated at 345-kV.<sup>19</sup>

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<sup>15</sup> Amanda King Direct Testimony, *In the Matter of the Application of Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for Certificates of Need for Three 345 kV Transmission Lines with Associated System Connections*, Docket No. E002/CN-06-1115 (May 15, 2008) at 9.

<sup>16</sup> Order Issuing Route Permit as Amended, *In the Matter of Xcel Energy's Application for a Route Permit for the CapX 2020 Hampton-Rochester-La Crosse High Voltage Transmission Line*, Docket No. E002/TL-09-1448 (May 30, 2012).

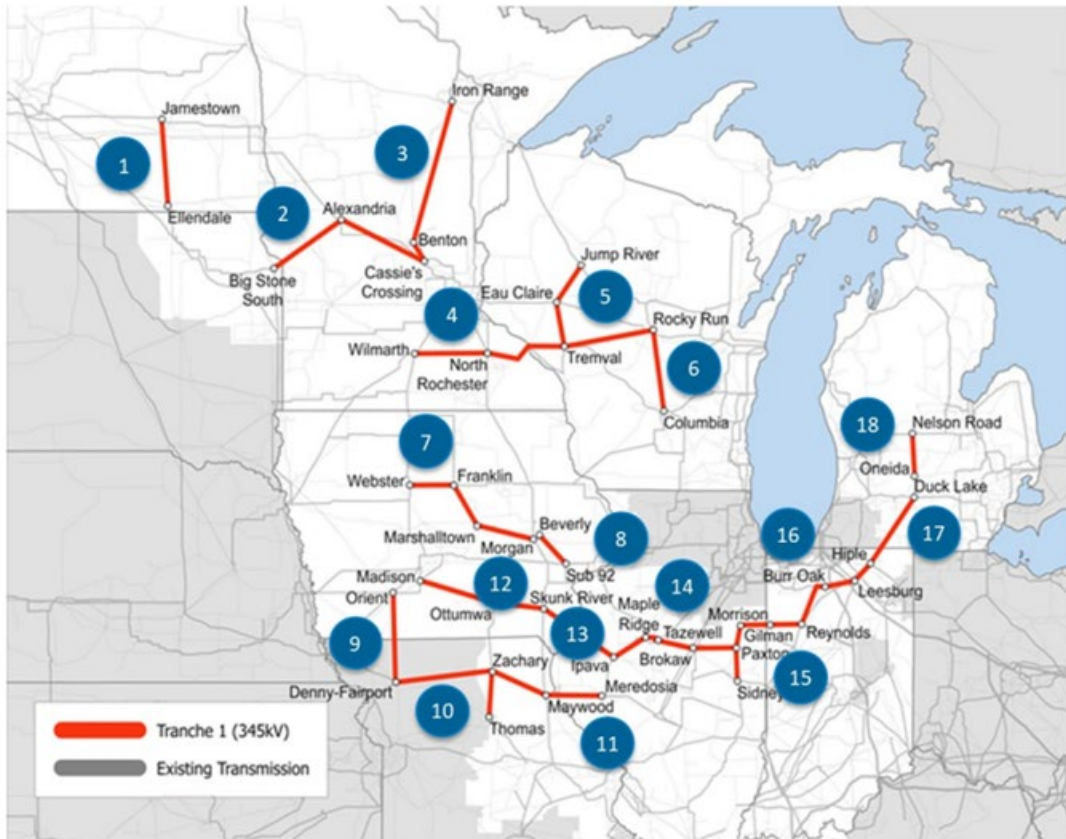
<sup>17</sup> Order Granting Certificates of Need with Conditions, *In the Matter of the Application of Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for Certificates of Need for the CapX 345-kV Transmission Projects*, Docket No. E002/CN-06-1115 (May 22, 2009).

<sup>18</sup> See MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Executive Summary (2022), <https://cdn.misoenergy.org/MTEP21%20Addendum-LRTP%20Tranche%201%20Report%20with%20Executive%20Summary625790.pdf>.

<sup>19</sup> See Docket No. E002/CN-22-532.

The need to maintain but relocate the 161-kV line was known at the time the CapX2020 Project was approved and confirmed again as part of MISO’s LRTP process. In July 2022, MISO approved the first phase or “tranche” of the LRTP. The MISO LRTP Tranche 1 Portfolio consists of 18 transmission projects. The Mankato to Mississippi River 345-kV Transmission Project was identified by MISO as project number four (**Diagram 4-1**). The MISO LRTP Tranche 1 Portfolio includes approximately 2,000 miles of new and upgraded high-voltage transmission lines equaling approximately \$10 billion in investment, to enhance connectivity and maintain adequate reliability for the Midwest by 2030 and beyond.

**Diagram 4-1. MISO LRTP Tranche 1 Portfolio**



Overall, the LRTP Tranche 1 Portfolio is needed to:

- Address reliability violations as defined by the NERC at over 300 different sites across the Midwest. In addition, increase transfer capability across the MISO Midwest subregion to allow reliability to be maintained for all hours under varying dispatch patterns driven by differences in weather conditions.
- Provide \$23.2 billion in net economic savings over the first 20 years of the LRTP Tranche 1 Portfolio’s service, which results in a benefit to cost ratio of at least 2.6. This amount



increases to \$52.2 billion in net economic savings over 40 years, resulting in a benefit to cost ratio of 3.8.<sup>20</sup>

- Support the reliable interconnection of approximately 43,431 MW in new, primarily renewable, generation capacity across the MISO Midwest subregion – 8,339 MW of which is in Minnesota and the surrounding region.

In addition to the 18 transmission lines identified in **Diagram 4-1**, MISO also identified lower voltage projects that are necessary to enable and fully recognize the benefits of the Tranche 1 projects. The Wabasha Relocation Project was included in MISO’s 2021 Transmission Expansion Plan (MTEP21) Appendix A as part of Project ID 23371.<sup>21</sup> Because this Project is required to accomplish and implement the overall LRTP Tranche 1 Portfolio and realize the benefits demonstrated by MISO, costs of the Project will be shared within the MISO region.

### 4.3 Need to Maintain 161-kV Line for Area Reliability

As noted above the existing LQ34 line 161-kV transmission line has been serving the local area since the 1950s. It provides several important reliability purposes, including reliably providing a source of power to the City of Rochester, in addition to maintaining high voltage connections to substations serving the 69-kV transmission grid that ultimately brings power to the load distribution network.

The LQ34 161-kV line connects to Dairyland’s existing Wabaco Substation. The Wabaco Substation is a 161-/69-kV transmission substation connecting the 161-kV and 69-kV transmission grids northeast of Rochester, Minnesota. In the existing transmission system, an outage on a section of the existing LQ34 161-kV line between the Rochester, Wabaco and Alma substations could be isolated using the existing remote control switches at the Wabaco Substation and a 161-kV source (from Rochester or Alma substations) and could be restored to the Wabaco Substation within minutes. If the LQ34 line is not relocated, the Wabaco Substation would be reduced to a single 161-kV transmission source from the Rochester Substation with no backup option for powering the 69-kV system served from the Wabaco Substation in the event that the Rochester Substation source was to go out of service. Substations served by the 69-kV network out of the Wabaco Substation would experience a decrease in local reliability and redundancy if the Wabaco-Alma 161-kV line is not maintained in its current state.

Similarly, the existing LQ34 161-kV line serves an important function providing power import capability to the City of Rochester, Minnesota. It is one of six 161-kV lines serving the City of Rochester. Maintaining the 161-kV connection provided by the Project will allow it to continue to function as a source of power to the Rochester area.

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<sup>20</sup> Values as of July 2022. While market forces, have driven project costs to increase since 2022, the same forces will also cause benefits to increase.

<sup>21</sup> See MTEP21 LRTP Addendum Appendix A (2022). <https://www.misoenergy.org/planning/transmission-planning/mtep/#nt=%2Fmtepstudytype%3AMTEP%20Reports&t=10&p=0&s=FileName&sd=desc>

#### 4.4 Need to Maintain 161-kV Transmission Capacity

Beyond the local reliability benefits summarized in **Section 4.3**, within the region, the Wabaco-Alma 161-kV transmission path represents a contiguous transmission system connecting the 161-kV transmission grid in southeastern Minnesota with the 161-kV transmission grid in western Wisconsin. The substations at Rochester and Alma serve as hubs to connect the 161-kV grid and serve an overall dual function of both transporting power on subregional basis to where it is needed as well as connecting 161-kV substations that serve the 69-kV transmission grid that ultimately brings the power to the distribution substations and end use consumers. Several hundred MW of power can flow on the existing Wabaco-Alma 161-kV transmission path. All previous transmission studies, including the MISO LRTP, yearly MTEP and ongoing MISO Generation Interconnection Queue (GIQ) studies to interconnect new generators have assumed this 161-kV transmission capacity to be in place to transport power. Not maintaining a Wabaco-Alma 161-kV transmission path would reduce the amount of transmission capacity and require the power to be rerouted elsewhere. MISO's LRTP report cites a driver for LRTP 4, 5 and 6 is "*...strong flows West to East across Minnesota to Wisconsin and a need for outlet of those renewables in times of high availability to deliver that energy to load centers in MISO.*"<sup>22</sup> Included in the available outlet capacity and transmission connection between Minnesota and Wisconsin is the Wabaco-Alma 161-kV transmission line. Not maintaining the Wabaco-Alma 161-kV path between Minnesota and Wisconsin may cause congestion and could reduce the benefits documented in the MISO LRTP analysis.

Due to a natural geographical constraint for transmission lines, like the Mississippi River, there are many miles between transmission lines crossing the river. The nearest high voltage transmission lines capable of transferring bulk power are at least 60 miles north or south of the Mississippi River transmission crossing at Alma. The existing Wabaco-Alma 161-kV line provides transmission capacity to efficiently move power from where it is produced to where it is consumed. While the LRTP 4 project will add a high voltage transmission line to the area, the lower voltage transmission must remain to provide transmission paths in the event of an outage of the higher voltage transmission and to serve the function of being a network of 161-kV transmission lines that move power and connect to the 69-kV grid that ultimately delivers power to the end use consumers. Removal of the 161-kV transmission line would remove existing transmission capacity, resulting in increased power flows elsewhere, leading to potential transmission congestion in the MISO market and impact existing LRTP, MTEP, and GIQ studies that were all completed and approved with the existing 161-kV transmission capacity in place. In order to remove the circuit from the CapX2020 structures and maintain the existing transmission capacity in this area, a replacement 161-kV transmission circuit as provided by the Project must be built to provide electrical connectivity between the Wabaco Substation and Alma Substation.

#### 4.5 Need for the Kellogg Substation

The new Kellogg Substation is required because the new Mankato to Mississippi River 345-kV Transmission Project's circuit across the Mississippi River will eliminate Dairyland's existing LN340 69-kV transmission line crossing of the Mississippi River and connection into the Alma

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<sup>22</sup> See MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Page 30 (2022), <https://cdn.misoenergy.org/MTEP21%20Addendum-LRTP%20Tranche%201%20Report%20with%20Executive%20Summary625790.pdf>.

Substation in Wisconsin. The new Kellogg Substation will supply the local 69-kV transmission grid in southeast Minnesota, which is a source of electrical power for serving end use consumers. The existing area is served by 161- to 69-kV substations at Wabaco, Alma, and Harmony (near Harmony, Minnesota). Removal of the connection to Alma Substation requires a new high voltage connection and is the primary driver for a Kellogg Substation connecting the Wabaco-Alma 161-kV line to the LN340 69-kV transmission line on the west side of the Mississippi River. The LN340 connects to Dairyland's 69-kV transmission grid in southeastern Minnesota. Several 69-kV transmission lines are networked in southeastern Minnesota relying on the high voltage substations at Wabaco, Alma and Harmony as sources of power to serve consumers and act redundantly to back each other up in the event of an outage. Transmission lines serving communities in the southeast Minnesota area include St. Charles, Altura, Rollingstone, Rushford, Stockton, Lewiston, and Utica.

#### **4.6 Project Area Load Data**

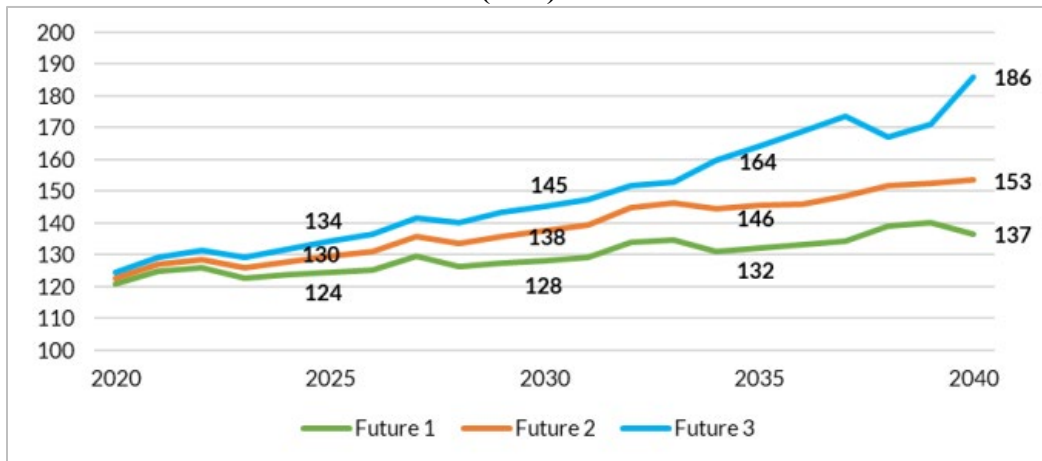
The Project is needed to support regional transmission system reliability as the MISO region undergoes baseload generator fleet transition and increasing renewable energy resource penetration levels. As the regional energy landscape continues to evolve, transmission reinforcements like the Mankato to Mississippi River 345-kV Transmission Project and other grid enhancements to implement the LRTP Tranche 1 Portfolio like the Project are necessary to serve current demand as well as projected future demand in southeastern Minnesota and the MISO region.

Dairyland has member distribution cooperatives in four states. Dairyland's Minnesota distribution cooperatives include Peoples, MiEnergy, and Freeborn Mower Electric Cooperative (Freeborn-Mower). Dairyland prepares a load forecast every other year in compliance with RUS guidelines as stated in 7 Code of Federal Regulations (CFR), Part 1710, Subpart E of the Federal Register. This load forecast is approved by Dairyland's Board of Directors and RUS. The load forecast includes projected peak load and energy growth for its 24-member distribution cooperatives. The most recent load forecast was completed in November 2022. For its Minnesota distribution cooperatives, Dairyland projects a peak load and energy growth of 2.3% over the years of 2022-2041. These growth rates include the impact of the integration of Peoples, MiEnergy, and Freeborn-Mower's Southern Minnesota Energy Cooperative (SMEC) load into Dairyland beginning in August 2025.

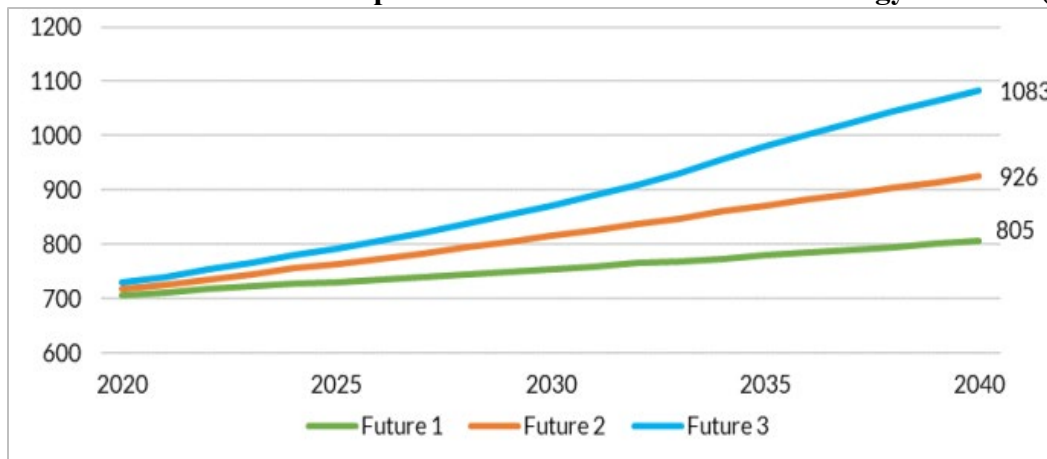
In addition to supporting reliability in southeastern Minnesota, the Project is needed to support the broader MISO region and enable the Mankato to Mississippi River 345-kV Transmission Project to be constructed. MISO's base demand forecast is developed by aggregating each MISO member's forecasts. To consider a broader range of potential outcomes to "bookend" uncertainty, MISO creates multiple demand and energy forecasts from the base forecast in its Futures Report. The load forecasts used in MISO's Futures Report consider different assumptions for demand response, energy efficiency, and distributed generation (e.g., behind-the-meter solar) and differing impacts of electrification. MISO's demand and energy forecasts are developed for each of MISO's ten Local Resource Zones to consider regional differences. MISO's ten Local Resource Zone forecasts are then aggregated to a MISO-wide forecast.

The MTEP21 Futures’ gross peak demand and annual energy forecasts for the MISO Market Footprint are provided in **Diagram 4-2** and **Diagram 4-3**, respectively. The associated peak demand and annual energy compound annual growth rates (CAGR) are provided in **Table 4-1**. It should be noted that MISO’s demand forecast used in planning modeling is a gross forecast, which does not include the net reductions from demand response or distributed generation as is done in the Dairyland’s load forecast. MISO’s planning process explicitly models demand response and distributed generation as a supply-side resource. Additional details on the MTEP21 Futures and load forecast can be found in the MISO 2021 Futures Report.<sup>23</sup>

**Diagram 4-2. MISO Market Footprint MTEP21 Futures Coincident Peak Load Forecast (GW)<sup>24</sup>**



**Diagram 4-3. MISO Market Footprint MTEP21 Futures Annual Energy Forecast (TWh)<sup>25</sup>**



<sup>23</sup> <https://cdn.misoenergy.org/MISO%20Futures%20Report538224.pdf>.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

**Table 4-1. MTEP21 Futures 20-Year CAGR**

<b>MTEP21 Future</b>	<b>Annual Demand 20-Year CAGR</b>	<b>Annual Energy 20-Year CAGR</b>
Future 1	0.60%	0.48%
Future 2	0.97%	1.09%
Future 3	1.41%	1.71%

**4.7 Estimated System Losses**

Losses are a measure of the energy flow across the system that is converted into heat due to impedance within the elements of the transmission system. It is necessary for utilities to provide enough generation to serve their respective system demands (plus reserves), considering the loss of the energy before it can be usefully consumed. When system losses are reduced or minimized, electrical energy is delivered to end users more efficiently, helping to defer the need to add more generation resources to a utility’s portfolio. Therefore, system loss reduction results in monetary savings in the form of less fuel required to meet the system demand plus potentially delayed capital investment in generation plant construction.

Each new transmission line that is added to the electric system affects the losses of the system. In determining the losses associated with a particular transmission project, it is not reasonable to consider only the project’s transmission facilities and calculate losses directly from operation of those new transmission facilities. Rather, it is necessary to look at the total losses of the Dairyland system that result with and without the proposed project. The losses were therefore studied using the larger Dairyland system for loss evaluation. In its Exemption Order, the Commission authorized Dairyland to provide line loss data for the system as a whole, rather than line loss data specific to an individual transmission line.<sup>26</sup>

Dairyland used power flow software PSS/E to calculate the losses at both peak demand and shoulder with high wind cases. The results are shown below in **Table 4-2**. The existing transmission system includes all projects with in-service dates prior to 2028.

**Table 4-2. Calculated Project Peak Demand Loss Savings**

<b>Scenario</b>	<b>System Losses (MW)</b>
<b>2028 Summer Peak Case</b>	
Existing Transmission System	34.2
System with Project	34.1
Difference	-0.1
<b>2028 Shoulder with High Wind Case</b>	
Existing Transmission System	44.8
System with Project	44.2
Difference	-0.6

<sup>26</sup> Exemption Order at 13 of 23.

The table shows that the Project’s proposed transmission infrastructure results in a small amount of decreased losses on the electrical system. Under summer peak demand conditions, the losses incurred on the Dairyland transmission system are 0.6 MW less when the Project is energized as compared to the existing system configuration. The results are reasonable as the Project’s primary need is to move off of the CapX2020 poles. The Project conductor will result in a slightly reduced impedance and lower losses.

Because demand for electric power is not constant and losses are related to the square of the current flowing through the transmission lines in the electric system, the losses will change over time, increasing as demand increases and decreasing as demand decreases. Because losses change over time, there is no precise method to calculate average annual loss reductions. One common method is to use the loss savings at peak demand to estimate the average annual loss savings based on the following formula:<sup>27</sup>

$$\text{Loss Factor} = (0.3 \times \text{Load Factor}) + (0.7 \times \text{Load Factor}^2)$$

$$\text{Annual Loss Savings (MWh)} = (\text{Loss Factor} \times \text{Peak Loss Savings}) \times 8760 \text{ hours/year}$$

Assuming a load factor of 55% and using the calculated loss savings at peak demand, the Project will reduce average transmission losses by an estimated 1,980 megawatt-hours (MWh) annually.

#### **4.8 Impact of Delay**

If the Project is delayed, there will be both regional and local reliability consequences. Delay of the Project could delay the in-service date of the Mankato to Mississippi 345-kV Transmission Project. The Mankato to Mississippi 345 kV Transmission Project relieves existing congestion on the system and is estimated to provide up to \$2.1 billion in economic savings across the MISO footprint over the first 20 years that it is in service and up to \$3.8 billion in economic savings across the MISO footprint over the first 40 years that it is in service.<sup>28</sup> A delay could also jeopardize Minnesota and other MISO states in meeting clean energy policy objectives given that the MISO Tranche 1 Portfolio provides critical infrastructure needed to meet Minnesota’s carbon-free by 2040 standard and its interim targets.

In addition to the regional impacts, a delay in the Project will also have local impacts. The Project is needed to maintain reliability in southeastern Minnesota and western Wisconsin. As discussed in **Sections 4.3 and 4.4**, the Project is essential to maintaining reliable service to communities including St. Charles, Altura, Rollingstone, Stockton, Lewiston, and Utica.

Dairyland and MISO have determined that this Project is needed to maintain a safe and reliable electric system in this region.

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<sup>27</sup> Gönen, Turan. *Electric Power Distribution System Engineering* at 55, 58-59, McGraw Hill (1986).

<sup>28</sup> See *In the Matters of the Application for a Certificate of Need and Route Permit for the Mankato – Mississippi River Transmission Project*, MPUC Docket Nos. E002/CN-22-532 and TL-23-157.

#### **4.9 Effect of Promotional Practices**

Dairyland has not conducted any promotional activities or events that have triggered the need for the Project. Rather, the Project maintains reliable service by ensuring that the reliability and generation outlet functions served by the existing LQ34 161-kV line continue to be available to serve the region and local communities.

#### **4.10 Effect of Inducing Future Development**

The Project is not intended to induce future development, but rather is intended to maintain reliable service to the regional and local communities.

#### **4.11 Socially Beneficial Uses of Facility Output**

The purpose of the Project is to maintain critical transmission reliability for Dairyland's members, local communities, and the broader MISO region. The existing LQ34 161-kV line has served as a backbone component of the local transmission grid since the 1950s. It is used to deliver power in the Rochester-Alma area, provide critical connections to local 69-kV systems that serve area towns, and provide generation outlet to the region. Each of these functions continues to support reliable service in the area and ensure local homes and businesses can rely on the electric system for day-to-day needs.

### **5.1 Analysis of Alternatives**

Minn. Stat. § 216B.243, subd. 2(6) requires that when assessing need, the Commission evaluate “possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation.” The Commission’s rules also require an applicant for a Certificate of Need to discuss in an application a number of alternatives. Minn. R. 7849.0260 states:

Each application for a proposed large HVTL must include:

B. a discussion of the availability of alternatives to the facility, including but not limited to:

- (1) new generation of various technologies, sizes, and fuel types;
- (2) upgrading of existing transmission lines or existing generating facilities;
- (3) transmission lines with different design voltages or with different numbers, sizes, and types of conductors;
- (4) transmission lines with different terminals or substations;
- (5) double-circuiting of existing transmission lines;
- (6) if the proposed facility is for DC (AC) transmission, an AC (DC) transmission line;
- (7) if the proposed facility is for overhead (underground) transmission, an underground (overhead) transmission line; and
- (8) any reasonable combinations of the alternatives listed in subitems (1) to (7).

Minn. R. 7849.0340 also requires an applicant to consider the option of not building the proposed facility.

This chapter discusses the various applicable alternatives to the Project that Dairyland considered, including: 1) generation; 2) demand-side management; 3) various transmission alternatives including upgrading the existing system, alternative transmission configurations, endpoints, and voltages; and 4) a no-build alternative. As discussed below, none of these alternatives is a more reasonable and prudent alternative to the Project.

### **5.2 Generation**

Dairyland considered generation solutions, including new peaking generation, distributed generation, renewable generation, and battery energy storage. To be a viable alternative to the Project, a generation (or combination of alternatives) must, at a minimum, address the need for the



Project by being available for reliability and at least maintaining or adding transmission capacity to transfer power including acting as an outlet for local generation. This section will provide discussion of each of the generation and non-wires solutions considered by Dairyland.

### **5.2.1 Peaking Generation**

Dairyland considered peaking generation as an alternative to the Project. Peaking generation means dispatchable generation that is interconnected to the transmission system and is able to generate when called upon, most likely using natural gas as the fuel source. Peak generation can be used to meet resource requirements but also as a form of congestion management to relieve a transmission overload by injecting power at the generator's point of interconnection.

Peaking generation can be called on and will generate as needed. The Project as proposed is for a 161-kV transmission line and new substation that generally have availability of over 99.99% to transmit power as opposed to a peaking generation facility that is called on for a small number of hours of the year. In order to meet the Project purpose and need as described in **Section 4.0**, a peaking generator would need to generate at all times to be available for reliability in the event the Rochester-Wabaco line were to go out of service unexpectedly. Additionally, part of the justification to maintain a Wabaco-Alma 161-kV path is for transmission capacity and generation outlet. Adding a generator does not add transmission capacity or generation outlet but may make transmission capacity constraints and congestion worse. Therefore, the addition of new peaking generation is not a more reasonable and prudent alternative to the Project.

### **5.2.2 Distributed Generation**

Dairyland considered distributed generation as an alternative to the Project. Distributed generation means dispatchable generation, most likely run on natural gas or other fossil fuels, which is connected to the local distribution system and able to run continuously when called upon. Renewable distributed generation and battery energy storage are also discussed in subsequent sections. Fossil-fueled distributed generation has the same fundamental limitations as transmission-connected peaking generation, as discussed in **Section 5.2.1**, and likely at a greater cost if consisting of a number of smaller generators in diverse locations. Therefore, the addition of new fossil-fueled distributed generators is not a more reasonable and prudent alternative to the Project.

### **5.2.3 Renewable Generation**

Dairyland considered renewable generation as an alternative to the Project. Renewable generation, in this context, means either solar or wind generation. The renewable generation may be interconnected at a single location on the transmission system or at multiple locations on the transmission or distribution system. To achieve the level of availability and provide reliability, to replicate replacing a transmission line, the power needs to be available when called upon in the amount required to provide power in the event of an outage to the Rochester-Wabaco transmission and replace power that would be provided by the Project. Because renewable generation is dependent on natural events, such as sunlight or wind speed, and cannot be dispatched if those conditions are not met, neither wind nor solar generation alone is a viable alternative to the Project.

Energy from these resources is not necessarily available at the times when it would be most necessary to support local reliability. For renewable generation to be an alternative to the Project, it would need to be available at all times of the day. The non-dispatchable nature of renewable generation is not a viable alternative to the Project. The combination of renewable generation with energy storage is discussed below in **Section 5.2.4**.

#### **5.2.4 Energy Storage**

Dairyland considered energy storage, both by itself and combined with new renewable generation, as an alternative to the Project. Energy storage, in this context, means a battery or some other energy storage technology capable of being charged and discharged when called upon to do so as long as there is sufficient energy available. In order to address voltage stability concerns and related thermal overloads for a single contingency, a significant amount of storage and reactive support is necessary. For shorter duration outages, eight-hour battery storage would be adequate. For longer duration outages (days), storage could be paired with solar to allow recharging of battery storage during daylight hours.

As summarized **Section 5.2**, a generation or energy storage solution would need to be available to provide a source of power at all times and for varying lengths of time to replace the power a transmission line would provide such as the Project. The limited duration of energy storage could create the risk of the energy storage running out of power and a scenario of reduced reliability with no remaining energy storage at a time of need. Further, as outlined in this **Section 4.4**, the Project must provide transmission capacity for power transfers and generation outlet. Like energy storage, adding more generation, regardless of the source, does not add transmission capacity, but conversely could consume local transmission capacity, impacting other generators and existing transmission capacity for transferring power and serving end use members. The addition of new energy storage in the Project area is not a more reasonable and prudent alternative to the Project.

### **5.3 Demand Side Management and Conservation**

Dairyland considered demand-side management and conservation as alternatives to the Project. In this context, demand side management and conservation are assumed to encompass all forms of peak shaving programs, such as interruptible loads and dual fuel programs, as well as more general energy conservation programs, such as energy-efficiency rebates. Dairyland has a robust energy conservation and demand side management program. The state of Minnesota's Energy Conservation and Optimization Act (ECO) acts as a modernized Conservation Improvement Program (CIP) to provide a more comprehensive approach to energy conservation and efficiency programs. Under this program, Dairyland provides support to its Minnesota member co-ops through energy efficiency rebates to promote beneficial electrification and energy efficiency upgrades. Dairyland's existing LQ34 161-kV transmission line has provided reliable service since before Dairyland began offering its CIP/ECO programs, and although conservation programs will continue to be implemented in the Project area to encourage efficient use of electricity, these programs cannot replace or eliminate the need to continue to operate the 161-kV line in this area. For these reasons, solutions involving demand-side management and conservation are not a more

reasonable and prudent alternative to the Project. Additional information regarding Dairyland's most recent CIP/ECO Plan are available in Docket No. CIP-22-24.<sup>29</sup>

#### 5.4 Upgrade of Existing Facilities

Dairyland considered upgrading existing transmission facilities as an alternative to the Project. To be a viable alternative to the Project, an alternative would need to address all of the Project purpose and needs as documented in **Section 4**. An alternative that upgrades existing facilities must, at a minimum, address the needs for the Project by moving the existing transmission infrastructure to allow for the existing 161-kV line conductor position on the CapX2020 poles to be utilized for the Mankato to Mississippi River 345-kV Transmission Project. Additionally, the upgrade of existing facilities alternative would need to maintain high voltage sources to the southeastern Minnesota 69-kV transmission system and finally, maintain existing transmission capacity provided by the 161-kV transmission system.

An upgrade to the existing 161-kV transmission line between Wabaco and Alma is not a viable alternative because it does not accomplish the need to move the transmission circuit off of the CapX2020 structures to allow for the Mankato to Mississippi River 345-kV Transmission Project to utilize those poles as a 345-kV double circuit. Any alternative that would accomplish this (moving off of the CapX2020 poles) would be considered to be the Project Dairyland is proposing in this docket, namely, moving and constructing the 161-kV transmission line on new ROW.

Any upgrades to the 69-kV or 345-kV system are covered in **Section 5.4**. The nearest 161-kV transmission facilities connecting Minnesota to Wisconsin is 83 miles to the north near St. Croix Falls, Wisconsin (note there are several lower voltages 69-kV and 115-kV connections) and electrically serves a different part of the transmission grid. To the south, the nearest transmission line is 62 miles away and provides a 161-kV transmission path between southeastern Minnesota and Western Wisconsin, similar to the existing Wabaco to Alma 161-kV line. For an upgrade of this facility to be considered a viable alternative to the Project it would need to address the Project purpose and needs outlined earlier. This includes maintaining reliability by providing high voltage sources to the southeastern Minnesota 69-kV transmission system and providing 161-kV transmission capacity. An upgrade of the 161-kV transmission facilities between the Harmony Substation and Genoa Substation in Genoa, Wisconsin would not provide a second 161-kV source to the Wabaco substation and alleviate the reliability issues created by not having a Wabaco to Alma 161-kV transmission line. Further, the Wabaco to Alma 161-kV line provides at least 300 MW of transmission capacity, allowing for the transfer of power and local generation outlet. If the Project were not built and existing facilities needed to be upgraded, at least 300 MW of transmission capacity would need to be added in this geographical location to be similar to the attributes provided by the Wabaco to Alma 161-kV line. The nearest 161-kV transmission is 83 miles to the north and 60 miles to the south and are not electrically similar to the geographic location of the Wabaco to Alma 161-kV line.

If the Project were not built, but needed to vacate the CapX2020 poles, any upgrade to existing facilities would not replicate the reliability the existing 161-kV Wabaco to Alma transmission line

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<sup>29</sup> See Electric Conservation Improvement Program (CIP) 2021 Results and 2023 Plan, MPUC Docket CIP-22-2 (December 7, 2022), eDockets ID 202212-191179-02.

provides and would not be able to accomplish similar transmission capacity attributes in a similar geographic location as the Wabaco to Alma 161-kV transmission path provides. For these reasons, upgrading of existing facilities is not a viable alternative to the Project.

## 5.5 Alternative Voltages

### 5.5.1 Lower Voltage Alternatives

Dairyland considered lower voltage solutions involving additions of 69-kV, 115-kV, or 138-kV equipment to the local transmission system as an alternative to the Project.

An alternative that utilizes the 69-kV transmission system instead the Project was analyzed to review its ability to meet the Project's purpose and need. A 69-kV alternative was developed that connects the Wabaco 69-kV substation with a new 69-kV substation near Kellogg. The 69-kV alternative would include the following:

- A new 69-kV termination at Wabaco substation
- New three position 69-kV substation near Kellogg
- New 19-mile 69-kV line on new ROW between the Wabaco and Kellogg substations

A proposed 69-kV alternative would need to be on new ROW, allowing for the CapX2020 poles to be used for the Mankato to Mississippi River 345-kV Transmission Project. The 69-kV line would add a transmission line into Wabaco, and it would maintain the Alma Substation source to southeastern Minnesota via the 69-kV Mississippi River transmission crossing. There are three primary reasons Dairyland is not pursuing a lower voltage alternative that installs new 69-kV infrastructure via a new substation and a new 69-kV transmission line.

#### 1. A 69-kV line cannot maintain the existing level of transmission capacity and generation outlet as a 161-kV line.

Part of the purpose and need of the Project is to maintain existing transmission capacity and generation outlet provided by the 161-kV line and maintain 161-kV connections as sources of power to the Wabaco substation in southeastern Minnesota. As proposed as part of the Project, the Wabaco-Kellogg-Alma 161-kV line will have a summer capacity of 321 MVA of capacity in the summer and up to 407 MVA in the winter under normal conditions. The limit can increase for a short period of time as an emergency limit. Conversely, Dairyland's highest capacity 69-kV line is constructed with a high capacity 69-kV conductor and has a summer/winter normal capacity of 120/157 MVA, respectively. The 161-kV limits are over 2.5 times that of the 69-kV limits for transporting electrical power. This is primarily due to a lower voltage resulting in higher current levels and an inability to transfer equivalent amounts of power as compared to a 161-kV line. As a result, although this 69-kV alternative would provide a contiguous transmission path from southeastern Minnesota to Alma in western Wisconsin, the capacity would be significantly less than the Project. As outlined in **Section 4.4**, the generation outlet capacity of a 69-kV line would not align with assumptions utilized in all previous MISO studies, assessing generation outlet for local generators connected to the grid, nor would it match the assumed capacity utilized in the MISO Tranche 1 LRTP Portfolio. These studies assumed the transmission capacity provided by

the Project was in place as power transfers occurred due to the changing dispatch pattern of renewables.

## **2. 69-kV transmission is not an efficient way to transfer power**

A 69-kV line cannot efficiently transfer the same amount of power as the Project. Related to a 69-kV path being of lower capacity, the calculation for apparent power is summarized below and is a function of voltage and current. As voltage decreases, the current will increase to maintain the same amount of electrical power. A lower voltage 69-kV system of equal power capacity to the Project would require significantly more current to transfer the same amount of power. An increase in current flow requires higher capacity equipment that is higher in cost and size as well. In the case of a 69-kV option, equipment with the same ampacity as a 161-kV line is not possible.

$$\text{Apparent Power } (S) = \text{Voltage}(V) * \text{Current}(I)$$

Additionally, a lower voltage alternative is not as efficient. An electrical power system experiences losses as dissipation of heat in the line and equipment. System losses are a function of the square of the current multiplied by the line resistance, the 69-kV system can experience significantly more losses than utilizing the 161-kV system to transfer power due to an increase in current when trying to achieve a similar level of power transfer at a lower voltage.

$$\text{Power System Losses } (W) = \text{Current}^2(I) * \text{Resistance}(R)$$

## **3. A lower voltage alternative does not maintain the high voltage transmission network in the Alma area**

The 69-kV alternative as proposed does not maintain the 161-kV line into Alma from Wabaco and the transmission capacity that line provides. In this alternative, the 69-kV line ends at a new 69-kV substation in Minnesota. In order to develop an electrical alternative closer to the Project and provide an increase in capacity into Alma, a new river crossing would be required to make it electrically similar. Based on experience from the development of the CapX2020 345-kV line, a new Mississippi River transmission crossing through the U.S. Fish and Wildlife Service (USFWS) Upper Mississippi River National Wildlife and Fish Refuge is highly unlikely to be approved.

Transmission operated at 115-kV and 138-kV are also lower voltage alternatives than the Project's proposed 161-kV transmission line. Beyond the fact that there is no 115- or 138-kV transmission in the area within 45 and 80 miles respectively, any option involving a 115- or 138-kV line would require operating the line and remaining on the CapX2020 poles, not accomplishing a primary purpose and need of the Project to move and make way for the Mankato to Mississippi River 345-kV Transmission Project. If a 115- or 138-kV line would be required to be constructed on new ROW, a new 115- or 138-kV line would be similar to the Project but would require additional transformers to convert the voltage to 115-kV or 138-kV adding cost, complexity and system losses and is therefore not a viable alternative. Based on this analysis, any lower voltages alternatives, such as 69-kV, 115-kV, or 138-kV, do not perform electrically similar to the Project and would require new transformers, increasing cost and transmission system losses and are not a more reasonable or prudent alternative to the Project.

## 5.5.2 Higher Voltage Alternatives

Dairyland considered higher voltage solutions involving new 345-kV transmission and substation infrastructure as an alternative to the Project.

An alternative utilizing the 345-kV infrastructure instead of the Project would require new 345-kV substations at Wabaco and Alma connecting to either the North Rochester-Briggs Road 345-kV line or the future Mankato to Mississippi River 345-kV Transmission Project. Adding 345-kV connections as an alternative to the Project could meet several of the Project purposes and needs. First, the 345-kV substation alternative would allow the existing 161-kV transmission line to vacate the CapX2020 structures making way for the Mankato to Mississippi River 345-kV Transmission Project. Second, the 345-kV substation near Wabaco would electrically replicate the redundant source that the Wabaco to Alma 161-kV line provides in the Project. In the event of an outage on Rochester-Wabaco, the Wabaco 345-kV source would provide electrical power to maintain the level of reliability to the local grid provided today and if the Project were constructed. Finally, a 345 to 161-kV substation near Wabaco and Alma would maintain that electrical transmission connectivity between southeastern Minnesota and western Wisconsin.

There are three primary reasons Dairyland is not proposing an alternative that installs 345-kV substations at both ends the Project instead of a 161-kV line.

### 1. The 345-kV alternative is not as reliable and redundant as the Project.

When a transmission line is removed from service, either forced or due to planned maintenance, the power that would have utilized that transmission capacity is required to go elsewhere as the transmission capacity provided by the line experiencing an outage is fully removed from the system. The Project as proposed would result in three high voltage transmission paths between southeastern Minnesota and western Wisconsin, the Wabaco to Alma (via Kellogg) 161-kV line, and both 345-kV lines, North Rochester-Briggs Road, and the Mankato to Mississippi River 345-kV Transmission Project currently under development. In the event of an outage on any of these lines, power is rerouted, and often will electrically take a similar path of least resistance. A 345-kV alternative would not include a 161-kV path, only 345-kV substations on both ends. If the 345-kV line connected to those substations were to go out of service, only a single path is maintained between southeastern Minnesota and western Wisconsin. The MISO LRTP Tranche 1 Portfolio was planned with all three transmission paths providing transmission capacity in the area. Further, as summarized earlier, MTEP and GIQ studies in the region were studied and approved with all transmission capacity available.

### 2. The 345-kV alternative is more costly than the Project.

Dairyland's Project is estimated \$32.4M. A 345-kV alternative would require two new substations. Utilizing MISO's MTEP21 cost estimates in the Tranche 1 portfolio, a 345-kV substation with a connection to the 161-kV system could cost an estimated \$56.2M, or \$28.1M per substation. These costs include the required 345-kV circuit breakers, 345-/161-kV transformers, 161-kV circuit breakers and finally transmission line work to connect the substation to the existing 345- and 161-kV transmission systems. The costs estimate here are for installed costs only, ongoing operations and maintenance costs would continue. Substations involve many pieces of complex equipment

for monitoring and operations requiring ongoing maintenance costs beyond what a transmission line may require and could reasonably be projected to be higher ongoing operations and maintenance costs than the transmission line being proposed as part of the Project.

### **3. The 345-kV alternative is not an approved MISO Multi-Value Project**

The 345-kV alternative is more costly than the Project being proposed by Dairyland, and it is important to note that the 345-kV alternative is not a currently a MISO MVP approved project that could recover project costs through MISO's MVP cost recovery mechanism.

Overall, while electrically a 345-kV option could be an alternative to allow the CapX2020 poles to be utilized for the Mankato to Mississippi River 345-kV Transmission Project, the 345-kV option is more costly for an upfront installed cost, would require a higher level of ongoing operations and maintenance costs. Further it does not have the same level of transmission capacity as MISO assumed the Project would provide as part of the overall MISO LRTP Tranche 1 Portfolio. Based on this analysis, a higher voltage alternative utilizing the 345-kV system is not a more reasonable or prudent alternative than the Project.

### **5.6 Double-Circuiting and Other Engineering Considerations**

Double-circuiting is the construction of two separate transmission circuits (three phases per circuit) on the same structure. Placing two transmission circuits on common structures generally reduces ROW requirements, which potentially reduces human and environmental impacts. The electrical transmission line related to the Project is currently constructed as a double circuit on the CapX2020 poles and is operated as a 345-/161-kV double circuit. The Project would accomplish the need to vacate the CapX2020 poles by constructing on new ROW to make way for the Mankato to Mississippi River 345-kV Transmission Project to utilize the existing CapX2020 poles that are already 345-/345-kV double circuit capable.

The area the Project is proposed to be routed does not have other transmission lines to double circuit with. The only other transmission level voltage lines are Dairyland's 69-kV line between Alma, Wisconsin and Utica, Minnesota. Due to its location and distribution substations it connects to, this is not a double circuit candidate.

Dairyland also considered triple-circuit structures to reduce ROW requirements. Triple-circuiting is the construction of three transmission circuits on a common structure. Triple-circuiting is typically used in only limited applications due to reliability, resiliency, cost, and safety implications. NERC reliability standards require that the transmission system be planned to be able to withstand potential contingencies – including the loss of a common structure. For a triple-circuit to be a viable alternative, the system must be able to remain reliable if all three circuits were simultaneously lost. In addition, triple-circuits require larger, taller, and more expensive structures compared to a double- or single-circuit, requiring a wider ROW with the potential for greater impacts. A triple-circuit would also increase costs and have negative market impacts due to the removal of an existing transmission line.

For triple-circuit structures to be evaluated as an alternative, the Mankato to Mississippi River 345-kV Transmission Project would need to propose a 345-/345-/161-kV triple circuit in this 10- to 15-mile stretch of transmission ROW. If built, the system would need to withstand the loss of a

common tower removing all three circuits from service. While these transmission lines are not load-serving, loss of all three lines would sever east to west transmission paths and remove thousands of MWs of transmission capacity on the transmission system. Further, any transmission maintenance activities may also require the outage of all three transmission paths, potentially increasing congestion. Finally, the CapX2020 poles were constructed in 2015 and, in the relevant locations in this area, were already strung for 345-kV capability, reducing the need to disturb difficult to reach structure locations in southeastern Minnesota with additional construction. As further discussed in **Section 6.2**, if a triple circuit were constructed, it would require significant outages and construction work to replace existing infrastructure with significant life remaining.

Due to the location of the Project and existing infrastructure, additional co-location of lines or double circuiting are not alternatives.

### **5.7 Alternative End Points**

The Project would maintain a 161-kV line between the Wabaco and Alma substations with a new mid-point substation called Kellogg. Alternative 161-kV end points were considered on the west end of the Project in Minnesota and on the east end of the project in Wisconsin.

On the west end of the Project, the nearest 161-kV substations that could connect to a 161-kV transmission line are the Rochester substation, adding 20 miles of construction, or the Harmony substation, adding 45 miles of construction. Both would require substation modifications to accommodate a new transmission line, and neither would provide a second transmission line to Wabaco for reliability as part of the Project need.

On the east end of the project, the Tremval and Rock Elm substations are the closest 161-kV substations that could connect a 161-kV line, 35 and 33 miles away from Alma, respectively. Both of these substations already have 161-kV transmission lines originating from the Alma substation. The Wabaco and Alma end points are the closest two 161-kV substations in this area, shortening construction length and helping to form the transmission grid locally for redundancy. Variations on these end points do not achieve the Project need and would add costs and therefore are not recommended.

### **5.8 Alternative Number, Size, and Type of Conductor**

Dairyland considered five different ACSS conductors for this project. After evaluation, Dairyland decided to use a single Lapwing ACSS-HS conductor due to the higher ampacity requirement of 3000 amps set by MISO, while also selecting conductors that are commonly manufactured. The process of selecting a conductor including the following factors:

- Conductor and supporting hardware cost;
- Supporting structure cost;
- Supporting structure height; and
- Maximum Operating Temperature of Conductor.



The two conductors that were considered in the final selection were ACSS Lapwing and Falcon, both normal tensile strength and high strength. Using Falcon ACSS (normal strength or high strength) resulted in generally higher overall costs than the Lapwing. When comparing the Lapwing ACSS normal strength and high strength, it was determined that the use of the high strength conductor resulted in slightly higher conductor costs, but lower supporting structure costs and shorter supporting structures. The estimate to construct the line was about the same for both types of Lapwing ACSS conductor considered, so the wire that resulted in shorter structures was selected, Lapwing ACSS-HS.

## **5.9 Direct Current Alternative**

High voltage direct current (HVDC) lines are typically proposed for transmitting large amounts of electricity over long distances because line losses are significantly less over long distances on an HVDC line than on an alternative current (AC) line. An HVDC line is not a reasonable alternative to the proposed Project. The Project is being proposed to connect to the existing AC transmission system and substation approximately 20 miles apart, in addition to serving local load via the connections to the 69-kV system. In contrast, HVDC lines are typically proposed for regional transmission projects. The Project must be readily tapped now, and in the future, to serve consumers in the Project area or connect generators in the MISO GIQ. HVDC lines require expensive conversion stations at each delivery point because the direct current (DC) power must be converted to AC power before it can be used by customers. Such conversion stations would add significantly to the cost of the Project. There is no justification – in terms of reliability, economy, performance, or otherwise – for an HVDC line in this case.

## **5.10 Underground Alternative**

Undergrounding is an alternative that is seldom used for high-voltage transmission lines like the Project. One of the primary reasons underground high-voltage transmission lines are seldom used outside congested city areas is that they are significantly more expensive than overhead lines. The cost range depends on the design voltage, the type of underground cable required, the extent of underground obstructions like rock formations, the thermal capability of the soil, the number of river crossings, and other factors, but the construction cost of locating the entire length of the Project's proposed transmission underground is estimated to be as much as 5 to 15 times greater per mile than if it were to be constructed overhead as proposed. This cost does not include the large reactors that would likely be required at each substation to counteract the large line charging currents present on underground high-voltage lines. In addition, there are increased line losses and additional maintenance expenses incurred throughout the useful life of an underground high-voltage line further increase the total additional cost of building an underground line instead of an overhead line.

Beyond initial costs, another important consideration of undergrounding lines is consistency with existing lines and standards. Dairyland does not have any buried lines at voltages above 69-kV. The addition of underground transmission is outside Dairyland's current practice and would require new installation and maintenance training, tooling, equipment, and new inventory to be carried for maintenance and critical spares resulting in increased costs and/or a reduction in inventory levels of other items, which then results in diminished maintenance and emergency restoration responsiveness and effectiveness.

A common argument in favor of implementing underground lines is that they will minimize the human and environmental impacts above ground. However, there are human and environmental impacts both during and after construction of an underground transmission line. During both underground and overhead transmission line construction, the ROW must be cleared of vegetation. For overhead transmission, excavation work is concentrated to line structure foundations; however, underground transmission excavation work is along the entirety of the line. This results in increased impact especially in sensitive environmental areas. In addition, large areas for access roads capable of supporting heavy construction equipment, trenching activities, and cable installation are needed for underground transmission. After construction, the ROW needs to be maintained free of all woody vegetation to reduce soil moisture loss, since high-voltage underground conductors make use of soil moisture for conductor cooling. A permanent road must also be maintained along the ROW for maintenance and repair.

Underground lines can also be more challenging to operate and maintain. While overhead lines are typically subject to more frequent outages than underground cables, service can usually be quickly restored. This is accomplished by automatic reclosing of circuit breakers, which results in only a momentary outage of the line. Since circuit breakers on underground lines are typically not reclosed until it can be verified that a fault has not occurred on the underground cable, the smaller number of outages is typically offset by their increased duration. A faulted underground line takes much longer to restore because of the difficulty in locating the fault and accessing the site to make repairs. If the fault is due to a failure in the cable, the segment of failed cable must typically be replaced. This usually involves completely replacing the failed cable between two man-hole splice points, which are ordinarily located every 1,500 to 2,000 feet along the line. To replace failed cable, it must be possible to bring heavy equipment, including cable reels weighing 30,000 to 40,000 pounds, into the ROW during all seasons of the year. If the fault occurs in a wetland area where all-season roads are not maintained, restoration can be delayed due to the need to install wetland matting to gain access to the utility holes involved in replacing the failed cable.

Due to the construction, maintenance, reliability, and cost drawbacks of high-voltage underground transmission lines, undergrounding is not a more reasonable and prudent alternative for any portion of the Project.

### **5.11 Combination of Alternatives**

Individually, alternatives considered in **Section 5** are not able to match the benefits and need requirements provided by the Project. Creating a combination of the considered alternatives is also not able to achieve the need addressed by the Project.

A combination of alternatives, such as an alternative transmission voltage and a generator, would not be able to overcome the shortcoming outlined for each alternative individually as documented in **Section 5**. Combining a generator alternative with a transmission alternative at a different voltage would increase costs beyond the Project and not deliver similar benefits. The Project as proposed utilizes the local transmission voltage to connect substations with a transmission line and no generator is needed to provide the reliability, redundancy and transmission capacity needed. Combining a generator with an alternative voltage would increase costs and complexity and not achieve all of the benefits delivery by the Project. Through the alternative consideration process,

Dairyland believe the Project as proposed is optimally planned and sized to achieve the needs as outlined.

## **5.12 No-Build Alternative/Consequence of Delay**

As required by Minn. R. 7849.0340, Dairyland also considered the no build alternative, i.e., no new transmission constructed to meet the identified reliability needs in southeastern Minnesota. If the Project were not constructed, the need benefits described in Chapter 4 would not be realized, resulting in less reliable service southeastern Minnesota and less available transmission outlet capacity. As detailed in **Sections 5.1 to 5.11**, demand side management and conservation, peaking generation additions, additional distributed generation, additional renewable generation, additional energy storage, additional reactive support resources, or existing system upgrades were not reasonable alternatives to the Project. Should the Project be delayed and/or not constructed, there would be local and regional reliability, policy, and economic consequences.

### **5.12.1 Reliability Consequences of Delay**

Should the Project be delayed, it would have a direct impact on the schedule for the related Mankato to Mississippi River 345-kV Transmission Project. The Project is needed to make way for the Mankato to Mississippi River 345-kV Transmission Project and keep the existing transmission infrastructure in place to maintain existing transmission reliability to local load in southeastern Minnesota and existing transmission capacity.

### **5.12.2 Policy Consequences of Delay**

The Project as it relates to the Mankato to Mississippi River 345-kV Transmission Project and the broader MISO LRTP Tranche 1 Portfolio is needed to maintain regional reliability as utilities and Minnesota add new clean energy resources and modify the way they use existing fossil-fuel plants. These additions and modifications in the coming decades are a key component of the changing resources in the area and part of the MISO market. A delay in the Project could result in a delay in the transition of generation resources in the area that proceed through the MISO generation interconnection queue to connect to the grid. As MISO studies the addition of new generators to the grid, including renewables, the transmission capacity that will be added to the grid through all the MISO Tranche 1 Portfolio of projects will be critical to enabling the connection of new generators. A delay of the Project would impact the overall transmission of generation resources and their ability to connect to the grid to utilize the transmission capacity that will be added once the LRTP Tranche 1 Portfolio is energized.

## 6.1 Route Selection Process

### 6.1.1 Route Development Process Summary

Dairyland used a multi-stage, interactive routing process to identify the Proposed Route<sup>30</sup> that focused on the use of existing transmission/distribution line or other utility and transportation ROWs. This process was intended to identify a Proposed Route that met the objectives of the Project along with minimizing impacts to the environment in conformance with Minnesota’s routing considerations. The iterative process started with development of an initial area for evaluation for the Project, which was the area in the vicinity of the existing transmission line. As part of the LRTP 4 Project, MISO identified that the existing 161-kV transmission line currently located between the Wabaco Substation and the Mississippi River would need to be relocated to facilitate construction of 345-kV facilities in the existing location of the 161-kV facilities. Additionally, Dairyland determined that a new 161-kV substation would be needed near the Mississippi River. Therefore, it developed a study area that remained generally proximate to the location of the existing line.

The study area was then reviewed in light of the CapX2020 Environmental Impact Statement (EIS) (August 2011) (Docket No. E002/TL-09-1448). Relevant components of this review were used as a starting point for considerations on routing options, potential benefits, and potential disadvantages studied in prior environmental reviews.

This initial review resulted in a more detailed study of four potential routing options – one of which ultimately became the Proposed Route, and three of which were considered but ultimately rejected (see additional discussion in **Section 6.2**). All options benefitted from the presence of existing HVTLs, distribution lines, and road ROWs with which a potential route could collocate. Dairyland presented an initial route at the November 2023 open houses (see **Section 9**) and during meetings with agency stakeholders in the 4<sup>th</sup> Quarter of 2023. Some additional refinements to the Proposed Route presented in this application were made following these meetings and consultations with stakeholders.

### 6.1.2 Routing Factors

The factors to be considered by the Commission in designating a route for an HVTL are set forth in Minn. Stat. § 216E.03, subd. 7<sup>31</sup> and Minn. R. 7850.4100. These factors directed Dairyland’s route development process.

Minn. Stat. § 216E.03, subd. 7(a) provides that the Commission’s route permit determinations “must be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.” Subdivision 7(e) of the same section requires the Commission to “make specific findings that it

<sup>30</sup> “Proposed Route” is defined in **Section 1.4**.

<sup>31</sup> Although Dairyland has applied for a Route Permit under the alternative review provisions of Minn. Stat. § 216E.04, Minn. Stat. § 216E.04, subd. 8 provides that the considerations of Minn. Stat. § 216E.03, subd. 7 shall apply.

has considered locating a route for an HVTL on an existing HVTL route and the use of parallel existing highway right-of-way and, to the extent those are not used for the route, the Commission must state the reasons.”

In addition to the statutory factors noted above, Minn. Stat. § 216E.03, subd. 7(b) and Minn. R. 7850.4100 provide factors that the Commission will consider in determining whether to issue a route permit for an HVTL. These routing factors from Minn. R. 7850.4100 are:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;
- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing ROWs, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;
- J. use of existing transportation, pipeline, and electrical transmission systems or ROWs;
- K. electrical system reliability;
- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.

In 2023, the Minnesota Legislature amended Minn. Stat. § 216E.03, subd. 7(b) to also include the following considerations when designating routes:

- evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;
- evaluation of the proposed facility’s impact on socioeconomic factors; and
- evaluation of the proposed facility’s employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility’s local employment and economic impacts and may reject or place conditions on a site or route permit based on the local employment and economic impacts.

Dairyland used these statutory and rule routing criteria, routing experience, engineering considerations, and stakeholder feedback to develop the Proposed Route for the Project. Dairyland started with the identification of existing linear infrastructure in the vicinity of the existing transmission line, which offered existing ROWs along which a new transmission line might be collocated to minimize impacts to the natural and human environment. Dairyland then identified routing opportunities and constraints in these ROWs through further review and a series of public engagement activities discussed in detail in **Section 9**.

Routing opportunities include existing linear infrastructure or other features (e.g., roads, transmission lines) along which siting an HVTL would be most compatible. Routing opportunities also facilitate Project development by minimizing impacts to identified resources. Minn. R. 7850.4100 requires the Commission to consider the use or paralleling of existing ROWs (e.g., transportation corridors, pipelines, and electrical transmission lines). Examples of constraints include natural resources such as lakes; existing land uses such as residences, and schools; federal, state, and locally designated environmental protection areas; critical habitats or sensitive natural resource areas; cultural resources such as national landmarks and archaeological sites; and public infrastructure such as airports and aeronautical and commercial telecom structures. The routing process aims to avoid and/or minimize constraints where practicable.

Technical and reliability considerations also affect the routing process. These include specific engineering requirements, standards, and objectives associated with the design and construction of the Project. For example, there are circumstances where technical and maintenance objectives make certain line collocations unworkable. Other engineering objectives may include spacing for line entrances into a substation, minimizing the overall line length, ensuring adequate access for construction and inspections, minimizing the number of angles, minimizing the number of “special” structures, and considering the use of longer than average spans between structures. Landowner considerations including proximity to existing or planned structures, desired land use, residences, and center pivot irrigation systems were also important when developing the Project.

### 6.1.3 Prior Environmental Review

The Proposed Route is similar to the “North Rochester Substation to Mississippi Segment Alternative 3B-003” that was considered in the CapX2020 EIS along State Highway 42.<sup>32</sup> In the ALJ Findings of Fact, Conclusions of Law, and Recommendation, the ALJ indicated that the MDNR supported the use of the State Highway 42 route option (3B-003).<sup>33</sup> However, ultimately this route was not selected by the Commission due to:

- A new corridor without transmission lines.
- Higher number of homes within the route width that might result in displacement.
- Larger elevation changes with slopes of more than 12%.
- Greater number of historical architectural sites impacted relative to the other routes.
- Parallel route to the existing CapX2020 corridor would present separate new potential hazards to bird migration parallel to the North American Mississippi River flyway.
- Minnesota Department of Transportation (MnDOT) concerns regarding steep banks, erosion, slope failure, water drainage, and rock fall along State Highway 42.
- Impacts on the State Highway 42 viewshed.

However, using a present-day analysis and consideration that the CapX2020 system was ultimately placed in the preferred route for that project, there are environmental advantages to Dairyland’s Proposed Route, as compared to the alternatives considered but rejected in **Section 6.2**.

## 6.2 Alternatives Considered but Rejected

Under Minn. R. 7850.3100, Dairyland must identify rejected route alternatives in the Application with an explanation of the reasons for rejecting them. Rejected Route Alternatives are discussed below and shown in **Figure 6-1**.

Dairyland explored the potential to move the 161-kV line to another location on the existing CapX2020 structures that would still allow for the stringing of the second 345-kV circuit. Stringing the 161-kV transmission line on the existing CapX2020 structures is not possible without rebuilding the section in question to triple circuit. While rebuilding this section to triple circuit is possible, it is not feasible from an outage and reliability perspective. Replacing the over 10 miles of the CapX2020 system in this area with triple circuit structures would require a lengthy outage on the existing 345-kV circuit, which is already experiencing congestion that has resulted in curtailment of renewable energy sources. This alternative is rejected because it does not meet the Project schedule and would result in service disruptions.

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<sup>32</sup> See *In the Matter of the Route Permit Application for the CapX 2020 Hampton – Rochester – La Crosse 345 kV Transmission Line*, MPUC Docket No. E-002/TL-09-1448, OAH Docket No. 3-2500-21181-2, Final Environmental Impact Statement at 3 (Aug. 31, 2011). See also, *In the Matter of the Route Permit Application for the CapX 2020 Hampton – Rochester – La Crosse 345 kV Transmission Line*, MPUC Docket No. E-002/TL-09-1448, OAH Docket No. 3-2500-21181-2, Findings of Fact, Conclusions of Law, and Recommendation at 3-5 (Feb. 8, 2012).

<sup>33</sup> *In the Matter of the Route Permit Application for the CapX 2020 Hampton – Rochester – La Crosse 345 kV Transmission Line*, MPUC Docket No. E-002/TL-09-1448, OAH Docket No. 3-2500-21181-2, Findings of Fact, Conclusions of Law, and Recommendation at 85 (Feb. 8, 2012).

Dairyland then studied three Route Alternatives that would meet the purpose of the Project. Dairyland compared the human and environmental features of the three route alternatives in **Table 6-1** below. Crossings of sensitive features are discussed in more detail in **Sections 6.2.1 through 6.2.3**. Figures showing each route alternative as compared to the Proposed Route are included in **Figures 6-2 to 6-4**.

**Table 6-1. Comparison of Human and Environmental Features Crossed by the Proposed Route and Route Alternatives <sup>a</sup>**

<b>Resource / Characteristic</b>	<b>Proposed Route</b>	<b>Capx2020 Alternative</b>	<b>County Road 14 Alternative</b>	<b>County Road 41/26 Route Alternative</b>
Length (Miles)	13.3	10.5	13.0	14.1
Percent Collocated <sup>b</sup>	71.1	100.0	100.0	85.8
<b>Land Use Features</b>				
Residences within 200 feet of centerline	1	0	14	11
Parcels (No. Crossed)	51	41	65	56
U.S. Highway 61 (Great River Road) – Scenic Byway (No. of Crossings)	1	1	1	1
Snowmobile Trails (No. Crossed)	2	5	3	9
MDNR-Administered Wildlife Management Area (WMA) Land (Miles Crossed)	0.0	1.7	1.2	3.2
MDNR-Administered State Forest Land (Miles Crossed)	0.0	3.7	0.0	1.1
MDNR Scientific Natural Areas (Miles Crossed)	0.0	0.0	0.1	0.1
MDNR State Forest Easements (Miles Crossed)	0.0	1.2	0.5	2.0
MDNR WMA Easements (Miles Crossed)	0.0	0.0	0.0	0.6
U.S. Fish and Wildlife Service (USFWS) Wildlife Refuge (Miles Crossed)	0.0	0.0	0.0	0.8
U.S. Army Corps of Engineers Land (Miles Crossed)	1.1	0.2	0.5	0.5
The Nature Conservancy Easement (Miles Crossed)	0.0	0.0	0.7	0.7
MDNR / USFS Forest Legacy Program, Forest Stewardship Easement (Miles Crossed)	0.0	0.0	0.4	0.0
<b>Geologic Features</b>				
Regions Prone to Karst (Miles Crossed)	8.3	5.2	3.9	7.5
<b>Surface Water Features</b>				
National Wetlands Inventory (Miles Crossed)	0.2	2.0	0.6	1.3



Resource / Characteristic	Proposed Route	Capx2020 Alternative	County Road 14 Alternative	County Road 41/26 Route Alternative
MDNR Rivers and Streams (No. Crossed)	11	19	16	13
MDNR Lakes and Reservoirs (Miles Crossed)	0.0	0.0	<0.1	<0.1
MDNR Shallow Lakes (Miles Crossed)	0.0	0.0	0.1	0.4
MDNR Public Water Basin/Wetlands (Miles Crossed)	0.0	0.0	0.1	0.4
Impaired Streams (No. Crossed)	1	0	0	0
Floodplains (Miles Crossed)	1.6	2.4	1.2	1.7
Trout Streams (No. Crossed)	0	8	11	6
MDNR Public Water Watercourses (No. Crossed)	1	4	2	1
Proximity to Designated Calcareous Fen (Distance from in Miles)	1.4	0.2	2.0	2.0
<b>Rare and Sensitive Resources</b>				
Rusty Patch Bumblebee Low Potential Zones (Miles Crossed)	12.0	8.8	7.5	9.5
Rusty Patch Bumblebee High Potential Zones (Miles Crossed)	1.4	1.7	5.5	4.6
Important Bird Area (Miles Crossed)	0.0	1.5	5.2	8.0
Minnesota Biological Survey Sites of Biodiversity Significance with Good, High or Outstanding Ranking (Miles Crossed)	0.1	1.0	1.0	1.6
MDNR Native Prairies (Miles Crossed)	0.0	0.0	0.4	0.4
Minnesota Native Plant Communities with S1, S2, or S3 ranking (Miles Crossed)	0.0	0.2	0.6	0.6
Notes:				
<sup>a</sup> To provide a reasonable comparison between the Proposed Route and Route Alternatives, resource impacts were assessed based on “miles crossed” by the Proposed Alignment or Route Alternatives. <sup>b</sup> Collocation is defined as any utility, road or trail located within 200 feet either side of the centerline based on the proposed clearing width.				

**6.2.1 CapX2020 Collocation Alternative**

As discussed in **Sections 5.6 and 6.2**, the 161-kV line cannot be installed on the same CapX2020 structures as the two 345-kV transmission lines. Dairyland therefore looked at installing a new 161-kV transmission line parallel to/alongside the CapX2020 alignment as shown on **Figure 6-2**. The present CapX2020 route was ultimately selected as the preferred route for that project because:

- It followed Dairyland’s existing 161-kV transmission line corridor that was already present at the time of permitting;
- Had a flatter topography than the other route alternatives and less impacts to a state forest, businesses, farms, tree farms and a resort relative to the other route alternatives considered at the time;

- It was the shortest and most direct and the least expensive option; and
- It impacted fewer residences relative to other route alternatives considered at the time.

A separate 161-kV transmission line could feasibly be constructed parallel to the existing CapX2020 line, and it would be 10.5 miles long (or 2.8 miles shorter than the Proposed Route). It could also likely be collocated with CapX2020 for the entirety of its length. However, the CapX2020 Collocation Alternative was rejected by Dairyland for the following landowner, constructability, and environmental reasons:

- A new 161-kV line would need to be offset from the CapX2020 system and would require an additional 100 feet of new ROW in addition to the present CapX2020 ROW width of 150 to 310 feet. The new ROW would further directly impact residential and agricultural properties already impacted by the CapX2020 line with a cumulative ROW width of between 350 to 510 feet. Residential impacts would be similar for each route option (one home within 200 feet on the Proposed Alignment; no homes within 200 feet on the CapX2020 Collocation Alternative).
- The span lengths for the 161-kV poles are shorter than those of the CapX2020 system. Therefore, new poles on the CapX2020 Collocation Alternative would not be able to be aligned with existing poles in all instances, resulting in additional structural impedances to farm equipment and landowner access around the structures.
- Construction of a new adjacent 161-kV line would require a lengthy outage of the CapX2020 345-kV circuit to avoid induction issues. An outage on the CapX2020 system is not desirable, as the system is experiencing congestion that has resulted in curtailment of renewable energy sources and thus the need for the new 345-kV line between North Rochester, Minnesota, and Alma, Wisconsin.
- The CapX2020 Collocation Alternative would cross MDNR-administered land associated with the McCarthy Lake Wildlife Management Area (WMA; 1.7 miles) and the Richard J. Dorer Memorial Hardwood State Forest (3.7 miles). These crossings would require a License to Cross Public Lands from the MDNR. The MDNR manages these areas for forestry and wildlife habitat purposes. In contrast, the Proposed Route crosses no MDNR-administered lands. The CapX2020 Collocation Alternative also crosses 1.2 miles of MDNR easements associated with the State Forest; the Proposed Route does not cross these areas.
- The CapX2020 Collocation Alternative has five snowmobile trail crossings that include one crossing of the MDNR Snake Creek Unit Snowmobile Trail and four crossings of the Zumbrowatha Trail system. The Proposed Route only has two snowmobile crossings of the Zumbrowatha Trail system.
- The CapX2020 Collocation Alternative would have a greater impact on waterbodies, including crossings of eight trout streams and four public water watercourses, as compared to one public water watercourse and no trout streams crossed by the Proposed Route. It would also cross 19 streams and rivers identified by the MDNR, as opposed to the 11 crossed by the Proposed Route.

- The CapX2020 Collocation Alternative would cross approximately 2.0 miles of National Wetlands Inventory (NWI) wetlands as opposed to 0.2 miles on the Proposed Route.
- The CapX2020 Collocation Alternative would result in impacts to more lands designated as unique for their natural resource characteristics. The CapX2020 Collocation Alternative would cross 1.0 mile of land identified by the Minnesota Biological Survey (MBS) as Sites of Biodiversity Significance (SOBS) with a Good, High, or Outstanding ranking and 0.2 miles of land identified as a Native Plant Community (NPC) with rankings between S1 and S3. The Proposed Alignment, being mostly in agricultural areas, crosses 0.1 miles of SOBS with a Good, High, or Outstanding ranking and no NPCs.
- Each route crosses a similar mileage of lands identified as a High Potential Zone for the Rusty Patched Bumblebee (1.4 miles for the Project as compared to 1.7 miles for the CapX2020 Collocation Alternative), although the Project does cross more miles of Low Potential Zone (12.0 miles as compared to 8.8 miles for the CapX2020 Collocation Alternative). The CapX2020 Collocation Alternative crosses the 1.5 miles of Whitewater Valley Important Bird Area (IBA), which the Project avoids.
- Regarding sensitive geologic features, both route options cross regions prone to karst (5.2 miles for the CapX2020 Collocation Alternative and 8.3 miles for the Project). Additional coordination with the MDNR will be required regarding construction in karst-prone areas.
- The CapX2020 Collocation Alternative is located within approximately 0.2 mile of a state-listed calcareous fen within the McCarthy Lake WMA whereas the Proposed Alignment is 1.4 miles from the same calcareous fen.

In summary, the CapX2020 Alternative is shorter than the Project and could be collocated for more of its length. Due to the additive, direct impact to landowners already impacted by the CapX2020 corridor, the induction and outage issues associated with constructing the new 161-kV line adjacent to the operating CapX2020 system, and the unique crossing of sensitive state lands, waterbodies, proximity to a calcareous fen, and other environmental resources which are avoided, minimized, or similarly impacted along the Proposed Alignment, Dairyland has eliminated the CapX2020 Collocation Alternative from further consideration.

### **6.2.2 County Road 14 Alternative**

Dairyland also considered a route alternative that would involve paralleling the CapX2020 corridor for approximately 2.8 miles to Wabasha County Road 14 (the “County Road 14 Alternative”). The County Road 14 Alternative would then turn east and follow County Road 14 until crossing U.S. Highway 61/Great River Road and joining Dairyland’s LN340 69-kV line to the north. The County Road 14 Route Alternative would then involve upgrading Dairyland’s existing LN340 69-kV transmission line to a double circuit 69-/161-kV line. This would require expanding Dairyland’s existing 80-foot-wide ROW to a minimum of 100 feet, and potentially wider, in some locations with steeper slopes. This route would still require the installation of the new Kellogg Substation to accommodate for the removal of the LN340 69-kV crossing of the Mississippi River to the Alma Substation (**Figure 6-3**).

The County Road 14 Alternative could feasibly be constructed along this path, and it would be a similar length as the Proposed Route (0.3 miles shorter). It would also be collocated with existing roads for the majority of its length. However, the County Road 14 Alternative was rejected by Dairyland for the following landowner, constructability, and environmental reasons:

- The County Road 14 Alternative would not avoid some of the additive CapX2020 landowner impacts as outlined in **Section 6.2.1**. Landowners along the 2.8-mile stretch where the alternative is collocated would still be impacted by a widened ROW and by new poles that would be offset from the CapX2020 system structures, and impacts related to induction issues and a necessary outage of the CapX2020 system would still occur. There are also 14 homes within 200 feet of the County Road 14 Route Alternative as opposed to one home within 200 feet of the Project.
- From an Engineering perspective this route also has some terrain challenges and would require additional angles due to the windy nature of the roads followed.
- Although the County Road 14 Alternative would occur along Dairyland’s existing 69-kV utility corridor east of U.S. Highway 61; a wider easement would be required to double-circuit the 161-kV line with the 69-kV line. The 69-kV line presently crosses 0.1 miles of the MDNR’s Kellogg Weaver Dunes Scientific Natural Area (SNA) and 1.2 miles of the McCarthy Lake WMA. Therefore, in order to be double-circuited, the County Road 14 Alternative would require an easement width expansion across these conservation lands. require a wider easement through these areas.

Crossing of SNAs is generally prohibited by the Commission per Minn. R. 7850.4300, subp. 2, “*unless the transmission line would not materially damage or impair the purpose for which the area was designated and no feasible and prudent alternative exists. Economic considerations alone do not justify use of these areas for a high voltage transmission line.*”<sup>34</sup> However, it could ultimately be possible to route the County Road 14 Alternative outside of the existing 69-kV ROW to avoid the crossing of the SNA, as the County Road 14 Alternative crosses the SNA on the far northwestern edge.

The crossing of the WMA would require a License to Cross Public Lands from the MDNR. The MDNR manages this area for wildlife habitat purposes. In contrast, the Proposed Route crosses no MDNR-administered lands set aside for wildlife habitat.

- The County Road 14 Alternative also crosses 0.5 miles of MDNR easements associated with the Richard J. Dorer Memorial Hardwood State Forest and 0.4 miles of land under a MDNR/U.S. Forest Service Forest Legacy Program Stewardship Easement, which would require state and federal review. The Proposed Route does not cross these areas.
- Similarly, the County Road 14 Alternative where double-circuited with Dairyland’s 69-kV line would also result in additive impacts to 0.7 miles of land held by The Nature

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<sup>34</sup> <https://www.revisor.mn.gov/statutes/cite/86A.05> and <https://www.revisor.mn.gov/rules/7850.4300>

Conservancy (TNC) associated with the Weaver Dunes area. A wider easement would be required through this area.

- The County Road 14 Alternative would cross the Zumbrowatha Trail system three times, whereas the Proposed Route would cross the same system twice.
- The County Road 14 Alternative would have a greater impact on waterbodies, as it would cross 11 trout streams and two public water watercourses, as compared to one public water crossing and no trout stream crossings along the Proposed Route. It would also cross 16 streams and rivers identified by the MDNR, as opposed to the 11 crossed by the Proposed Route.
- The County Road 14 Alternative would cross approximately 0.6 miles of NWI wetland, as opposed to 0.2 miles on the Proposed Route. It would also cross 0.1 miles of a MDNR Public Water basin located within the McCarthy WMA, which is also designated as a Shallow Lake and Lake/Reservoir by the MDNR.
- The County Road 14 Alternative would result in impacts to more lands designated as unique for their natural resource characteristics. The County Road 14 Alternative would cross 1.0 mile of land identified by the MBS as SOBS with a Good, High, or Outstanding ranking and 0.6 miles of land identified as an NPC with rankings between S1 and S3, of which 0.4 miles is associated with native prairie. The Proposed Alignment, being mostly in agricultural areas, crosses 0.1 miles of SOBS with a Good, High, or Outstanding ranking and no NPCs or native prairie.
- Although the County Road 14 Alternative would cross 7.5 miles of Low Potential Zone for the Rusty Patched Bumblebee as compared to the 12.0 miles crossed by the Project, the County Road 14 Alternative would cross 4.1 more miles of High Potential Zone (5.5 miles as compared to the 1.4 crossed by the Project). The County Road 14 Alternative also crosses 5.2 miles of the Whitewater Valley IBA, which the Project avoids.
- Regarding sensitive geologic features, both route options cross regions prone to karst (3.9 miles for the County Road 14 Alternative and 8.3 miles for the Project). Additional coordination with the MDNR will be required regarding construction in karst-prone areas.

The County Road 14 Alternative would be collocated for more of its length and is similar to the Project in total length. However, due to the additive, direct impact to landowners already impacted by the CapX2020 corridor, the induction and outage issues associated with constructing the new 161-kV adjacent to the operating CapX2020 system, and the unique crossing of sensitive state lands, waterbodies, and other environmental resources which are avoided, minimized, or similarly impacted along the Proposed Alignment, Dairyland has eliminated the County Road 14 Alternative from further consideration.

### **6.2.3 County Road 41/26 Route Alternative**

The County Road 41/26 Route Alternative would start at the CapX2020 corridor where the Project originates and follow the CapX2020 corridor for 0.3 mile. It would then traverse greenfield for

approximately 2 miles before connecting with Wabasha County Road 41/26 until double-circuiting with Dairyland's existing LN340 69-kV transmission line west of the Community of Weaver at the existing Weaver Substation. The County Road 41/26 Route Alternative would then involve upgrading Dairyland's existing LN340 69-kV transmission line to a double circuit 69-/161-kV line from Weaver Substation to the new Kellogg Substation. This would require expanding Dairyland's existing 80-foot-wide ROW to a minimum of 100 feet, and potentially wider, in some locations with steeper slopes. This route would still require the installation of the new Kellogg Substation to accommodate for the removal of the LN340 69-kV crossing of the Mississippi River to the Alma Substation. This route alternative is shown in **Figure 6-4**.

The County Road 41/26 Route Alternative could feasibly be constructed along this path, and it would be 0.8-mile longer than the Proposed Route. It would also be collocated with existing ROW for approximately 86% of its length. However, the County Road 41/26 Route Alternative was rejected by Dairyland for the following landowner, constructability, and environmental reasons:

- The County Road 41/26 Route Alternative would not avoid some of the additive CapX2020 landowner impacts as outlined in **Section 6.2.1**. Landowners along the 0.3-mile stretch where the alternative is collocated would still be impacted by a widened ROW and by new poles that would be offset from the CapX2020 system structures, and impacts related to induction issues and a necessary outage of the CapX2020 system would still occur. There are also 11 homes within 200 feet of the County Road 41/26 Route Alternative, as opposed to one home within 200 feet of the Project.
- From an Engineering perspective this route also has some terrain challenges and would require additional angles due to the windy nature of the roads followed (i.e., the bluff area west of the Community of Weaver to U.S. Highway 61)
- As described in **Section 6.2.2**, Dairyland's LN340 69-kV line traverses MDNR and TNC property, including the MDNR Kellogg Weaver Dunes SNA (0.1 mile), the McCarthy Lake WMA (1.1 mile), and the TNC's Weaver Dunes Area (0.7 mile); these would also be crossed by the County Road 41/26 Route Alternative. Crossing of SNAs is generally prohibited by the Commission per Minn. R. 7850.4300, subp. 2. However, it could ultimately be possible to route the County Road 41/26 Route Alternative outside of the existing 69-kV ROW to avoid the crossing of the SNA, as the County Road 14 Alternative crosses the SNA on the far western edge.
- In addition to the 1.1 miles of the McCarthy Lake WMA crossing, the County Road 41/26 Route Alternative crosses 2.1 miles of the over 27,400-acre Whitewater WMA. Whitewater is the eighth-largest WMA in the state and is popular with hunters, trappers, anglers, and wildlife watchers and receives over 500,000 visitors annually.<sup>35</sup> Similar to other WMAs, the crossing of Whitewater WMA would require a License to Cross Public Lands from the MDNR. The MDNR has developed a 2023-2033 Master Plan for the WMA to preserve its characteristics as one of the largest remaining contiguous expanses of habitat in southeast Minnesota.<sup>36</sup> The County Road 41/26 Route Alternative also crosses 0.6 miles of land

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<sup>35</sup> [https://www.dnr.state.mn.us/areas/wildlife/whitewater\\_wma.html](https://www.dnr.state.mn.us/areas/wildlife/whitewater_wma.html)

<sup>36</sup> <https://files.dnr.state.mn.us/areas/wildlife/whitewater/master-plan.pdf?v=2023.02.10-13.12.26>

associated with MDNR WMA easements. In contrast, the Proposed Route crosses no MDNR-administered lands or MDNR easements.

- The County Road 41/26 Route Alternative also crosses 1.1 miles of state fee-owned land and 2.0 miles of MDNR easements associated with the Richard J. Dorer Memorial Hardwood State Forest, which would require state and federal review. The Proposed Route does not cross these areas. The crossing of state fee-owned land within the state forest would require a License to Cross Public Lands from the MDNR.
- Unique among all routes considered, the County Road 41/26 Route Alternative crosses the USFWS Upper Mississippi River National Wildlife and Fish Refuge for 0.8 mile on the north side of U.S. Highway 61. Although Dairyland has an existing 80-foot-wide ROW through this land, Dairyland would need to request additional easement to accommodate the 161/69-kV double-circuit.
- The County Road 41/26 Route Alternative would cross the Zumbrowatha Trail system nine times, whereas the Proposed Route crosses this same system twice.
- The County Road 41/26 Route Alternative would have a greater impact on designated waterbodies, as it would cross six trout streams as opposed to none for the Project. Both the Project and the County Road 41/26 Route Alternative would one public water watercourse. The County Road 41/26 Route Alternative would also cross 13 streams and rivers identified by the MDNR, as opposed to the 11 crossed by the Proposed Route.
- The County Road 41/26 Route Alternative would cross approximately 1.3 miles of NWI wetlands as opposed to 0.2 miles on the Proposed Route. Some of these wetlands are associated with the Upper Mississippi River Floodplain, which was designated as a wetland of international significance under the Ramsar Convention.<sup>37</sup> The Proposed Route does not cross any such features. It would also cross 0.4 miles of a MDNR Public Water basin located within the McCarthy WMA and the USFWS Upper Mississippi River National Wildlife and Fish Refuge, which is also designated as a Shallow Lake and Lake/Reservoir by the MDNR.
- The County Road 41/26 Route Alternative would result in impacts to more lands designated as unique for their natural resource characteristics. The County Road 41/26 Route Alternative would cross 1.6 miles of land identified by the MBS as SOBS with a Good, High, or Outstanding ranking and 0.6 miles of land identified as an NPC with rankings between S1 and S3, of which 0.4 miles is associated with native prairie. The Proposed Alignment, being mostly in agricultural areas, crosses 0.1 miles of SOBS with a Good, High, or Outstanding ranking and no NPCs or native prairie.
- Although the County Road 41/26 Route Alternative would cross 9.5 miles of Low Potential Zone for the Rusty Patched Bumblebee as compared to the 12.0 miles crossed by the

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<sup>37</sup> <https://rsis.ramsar.org/tris/1901>

Project, the County Road 41/26 Route Alternative would cross 3.2 more miles of High Potential Zone (4.6 miles as compared to the 1.4 miles crossed by the Project).

- The County Road 41/26 Route Alternative also crosses the Whitewater Valley and Upper Mississippi/Trempealeau IBAs for 8.0 miles, which the Project avoids.
- Regarding sensitive geologic features, both route options cross regions prone to karst (7.5 miles for the County Road 41/26 Route Alternative and 8.3 miles for the Project). Additional coordination with the MDNR will be required regarding construction in karst-prone areas.

The County Road 41/26 Route Alternative is longer than the Project and is collocated for a similar length. However, the County Road 41/26 Route Alternative presents many unique issues compared to the Project and other alternatives. It involves crossing the USFWS Upper Mississippi River National Wildlife as well as the MDNR's Whitewater WMA. It has the same additive, direct impact to landowners already impacted by the CapX2020 corridor, the induction and outage issues associated with constructing the new 161-kV adjacent to the operating CapX2020 system, and the unique crossing of sensitive state lands, waterbodies, and other environmental resources where it follows the same route as the County Road 14 Alternative, along with new impacts where it is collocated with County Road 41/26. The Project avoids all of these sensitive resources. Therefore, Dairyland has eliminated the County Road 41/26 Alternative from further consideration.

### **6.3 Routing Conclusions**

Dairyland is requesting a Route Permit for the Proposed Route because, as compared to the route alternatives considered and rejected, the Proposed Route best balances the Commission's routing criteria because of its collocation with existing infrastructure for 71% of its route while minimizing environmental impacts where possible. The Proposed Route will result in fewer waterbody crossings; no trout stream crossings; avoidance of all MDNR WMA, SNA, and State Forest lands (as well as any other land under MDNR fee ownership or easement interest); avoidance of TNC conservation land; avoidance of USFWS National Wildlife Refuge land; avoidance of NPCs, native prairie, and fewer snowmobile trails, SOBS, waterbody, public water and NWI wetland impacts. It is also further away from residences than two alternatives.

Further, Dairyland has the potential to avoid or reduce impacts to resources such as forested areas and wetland features during final design through modification of the Route Alignment and pole placement within the ROW. The impacts of the Project are outlined in detail in **Section 8**. Dairyland will continue to consult with agency stakeholders, such as the MDNR, USACE, and USFWS, to minimize impacts to sensitive resources as a result of the Project.



## **7 RIGHT-OF-WAY ACQUISITION, CONSTRUCTION, RESTORATION, AND OPERATION AND MAINTENANCE**

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### **7.1 Landowner Coordination and Right-of-Way Acquisition Procedures**

Dairyland has initiated landowner outreach by providing information on the Project via letters mailed to potentially impacted landowners, interested parties and federal, state, and local governmental officials; publishing notices in area newspapers and online; and holding informational Open Houses (**Section 1.7**). Dairyland will continue to engage with landowners throughout the permitting process to answer any questions they may have regarding the easement process or the Project.

The land within the majority of the Proposed Route is privately owned. New easements will be needed for the 161-kV transmission line route and the new Kellogg Substation. Dairyland representatives will work directly with individual landowners to negotiate the necessary easements. At a minimum, the Project will obtain a total ROW of 100 feet (typically 50 feet from each side of the transmission centerline) for the 161-kV transmission line system. Where the transmission line parallels roads, the transmission line structures are typically installed one to five feet outside of road ROW, resulting in approximately 55 feet of ROW needed outside of the road ROW. In addition to acquiring needed easements, Dairyland will acquire the 10.8-acre site on which the 4-acre Kellogg Substation will be built.

During formal land rights acquisition, Dairyland will provide the landowners the transmission line easement, an offer of compensation, and information regarding the Project schedule, Dairyland's construction practices, vegetation removal, and construction damage settlement policy. Additional information may also be given to each landowner regarding preliminary pole placement (if available at that time), structure design or photos, and power line safety. Dairyland would respond to any comments or questions landowners may have, including those related to the transmission line construction practices or operations of the transmission line.

In addition to permanent easements needed for the construction of the line, agreements may be obtained from certain landowners for temporary construction or staging areas for storage of poles, vehicles, or other related items.

As part of early transmission design work, Dairyland will need to complete preliminary survey work and may need to acquire some soil characteristics data (see **Section 3.2.2**). Dairyland will notify landowners in the event site access for soil boring is required to determine soil suitability in areas where special transmission structure design may be required.<sup>38</sup>

If a negotiated easement cannot be reached, Dairyland will use the eminent domain process to obtain the needed rights. *See* Minn. Stat. § 216E.12; Minn. Stat. Ch. 117. The eminent domain process allows impartial Commissioners the ability to determine just compensation for the acquisition of right of way.

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<sup>38</sup> Survey work and geotechnical studies do not require that the Commission issue a route permit for this work to occur. Minn. R. 7850.1200, subp. 5.

## 7.2 Construction Procedures

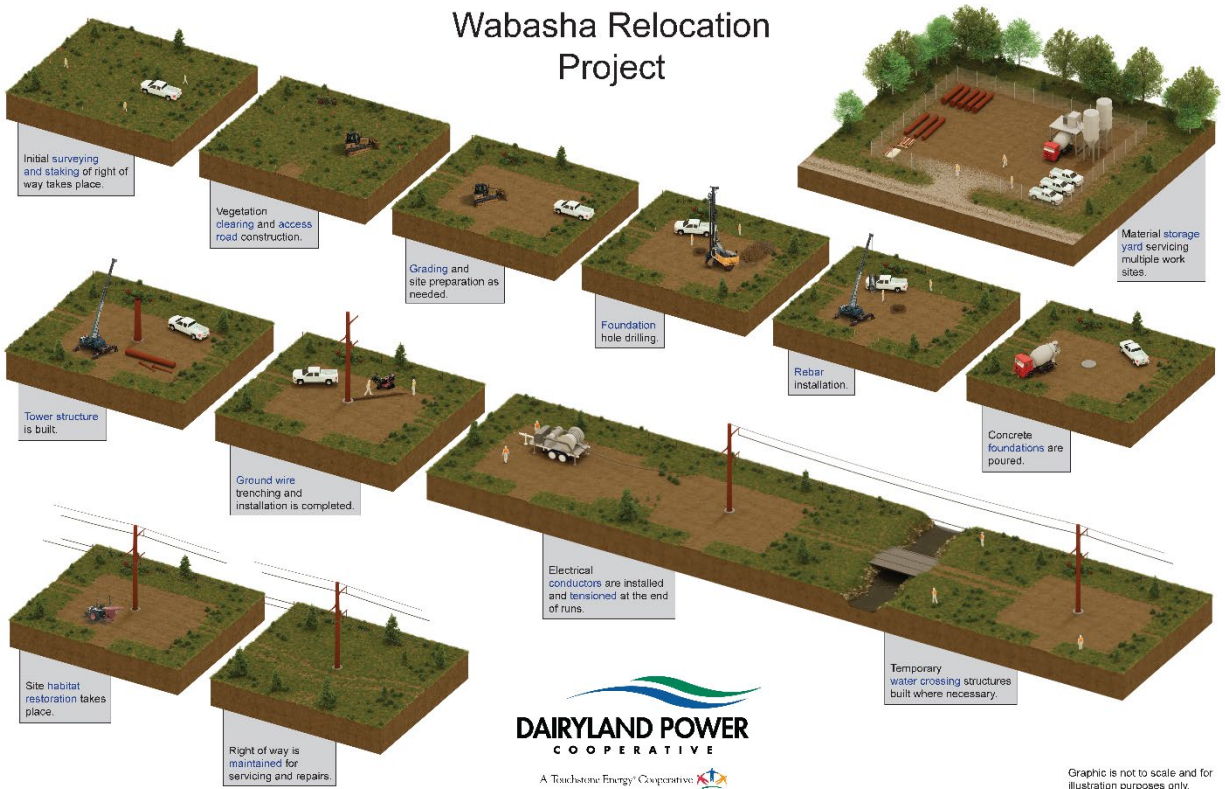
As illustrated in **Diagram 7-1** and described further below, construction will follow Dairyland's standard construction and mitigation best practices. Construction of a transmission line typically occurs as follows:

- Collection of geotechnical data (soil borings) required for final design of the transmission line, discussed in **Section 3.2.2**;
- Surveying and staking will be used conducted during multiple phases of the Project;
- Installation of erosion and sediment control best management practices (BMPs) prior to anticipated ground disturbance activities;
- Mobilization and preparation of staging / laydown yards;
- Road improvements or development to provide access to the ROW;
- Clearing activities of the ROW;
- Installation of construction mats in wetlands or other unstable soil areas, and installation of temporary bridges across waterways prior to construction along the ROW;
- Temporary material staging along the ROW prior to construction installation;
- Grading, excavation, and foundation installation;
- Structure setting;
- Wire stringing and clipping once there are enough structures set consecutively in a row to support a wire pull;
- Removal of existing transmission circuits;
- Cleanup and restoration of ROW; and
- Demobilization and laydown yard cleanup.

Construction of an overhead transmission line requires several different activities at any given location. The following subsections generally describe the major construction activities and approximate sequence.

After land rights have been secured and prior to any construction activities starting, landowners will be notified of the Project schedule and other related construction activities.

**Diagram 7-1. Transmission Line Construction Sequence**



### 7.2.1 Transmission Line Construction

During construction of an overhead transmission line, several different work functions happen concurrently at any given location. The following information generally describes the major construction activities, their approximate sequence, typical construction machinery used, and the anticipated impacts associated with each activity:

**Surveying and Staking** – Surveying and staking will be conducted during multiple phases of the Project and will include locating and marking the ROW and authorized off-ROW access roads, sensitive environmental resource boundaries, foundations or structure locations, property or section lines, underground and aboveground utilities, etc. Surveying and staking will be performed prior to and sometimes after construction activities such as during constructability reviews, soil borings (geotechnical investigations), staging / laydown yards, clearing, installation of foundations and hole excavations. These activities have limited impact on the environment or landowners and are generally completed by a two-person crew travelling by foot, ATV, or pick-up truck.

**Erosion and Sediment Control** – Installation of erosion and sediment control BMPs will be implemented prior to anticipated ground disturbance and in accordance with the Minnesota Pollution Control Agency (MPCA) National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (see **Table 2-1**). Erosion and sediment control equipment

includes ATVs and trucks for crew transportation, as well as skid loaders, tractors, backhoes, hydro-seeders, and other light-duty equipment. BMPs will be inspected, maintained, repaired, and replaced in accordance with the MPCA Construction Stormwater General Permit.

**Mobilization and Preparation of Staging / Laydown Yards** – Initially, labor and equipment will be mobilized to prepare laydown yards for temporary trailer(s) and security measures to receive materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment, etc. Activities involved to prepare the staging / laydown yards include installation of erosion and sediment control BMPs, any leveling of uneven surfaces, stripping and stockpiling of topsoil (if necessary), and installation of gravel, tracking pads near entry/exit, if needed, installation of culvert(s), power, and fencing. This work is generally completed using equipment such as a bulldozer and dump trucks. The disturbance from the laydown yard is dependent on soil type and topography. Depending on landowner preferences, laydown yards may be left in place or returned to prior conditions following construction activities.

**Road Improvements and Development** – In order to access the ROW, Dairyland may need to improve existing access roads, or develop new access roads. Road improvements may include tree trimming, tree clearing, road grading, widening and fill placement. Only construction mats will be used in wetland features; construction mats will be removed after completion of construction activities (see Construction Matting and Bridge Installation below). This work is generally completed using equipment such as a bulldozer, track-hoe, skid-loader, and dump trucks. The travel surface of the access road is generally 20 to 25 feet wide. The total amount of disturbance of the road (cut slope to base of the spoils slope) is dependent on soil type and topography. Depending on landowner preferences and permit requirements, access roads may be left in place or returned to prior conditions following construction.

**Clearing of ROW** – To facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line, all vegetation will be cleared for the full width of the ROW. Vegetation will be cut at or slightly above the ground surface using mechanized mowers, sky trims, processors, harvesters, or by hand. Rootstocks will generally be left in place, except in areas where stump removal is necessary to facilitate the movement of construction vehicles, or when reasonably requested by the landowner. Side trimming the ROW would happen shortly after the clearing is completed. Following the side trimming, a final mowing of debris and stump cleanup will be completed. Where permission of the landowner has been obtained, stumps of tall-growing species will be treated with an herbicide to discourage re-growth.

**Construction Matting and Bridge Installation** – Matting will be used as a protective measure that minimizes ground impacts and will be installed to provide access through wetlands or other unstable soil areas prior to construction. Mats are also used to support and stabilize large equipment required for construction. Construction mat travel lanes will generally be 16 to 20 feet wide. Construction matting may consist of composite timber, or laminate mats and will be installed with rubber-tired grapple trucks, forwarders, forklifts, or skid loaders. The line will be constructed in segments with mats being moved and used in other segments as construction progresses.

In addition, permitted temporary bridges will be installed over waterways. Equipment bridges will be designed to meet the requirements of the applicable agencies and local authorities. Bridges will be installed during clearing and will be removed as soon as possible during final restoration once

the bridge is no longer required to complete and monitor restoration activities. Fording of waterbodies is prohibited (i.e., civil survey, potholing, or other equipment are not permitted to ford waterbodies prior to bridge placement).

**Additional Temporary Workspace** – ATWS beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings and along steep slopes. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation. This work involves such equipment as semi-trucks, loaders, and cranes to unload structures and other materials near each work location. Dairyland will avoid the placement of ATWS in wetlands and near waterbodies as practicable.

**Grading, Excavation, and Foundation Installation** – Prior to foundation installation, Dairyland will install a construction mat platform generally 40 feet by 40 feet around the structure location to ensure a level and safe working area. In some cases, Dairyland may grade an area approximately 40 feet by 40 feet around the structure location.

Excavation is required for all structures whether they are direct-embedded or use reinforced concrete foundations. In general, the excavated holes for each type of foundation will range from five to 10 feet in diameter and 20 to 50 feet in depth, or greater, depending on soil conditions. The method of installation, diameter and depth of the foundation will vary depending on the soil capability and structure loadings. For direct-embedded poles, a hole will be excavated to the appropriate depth. The base of the structure will be placed into the excavated hole or, if soils are unstable, into a culvert, the area around the pole will be backfilled with clean granular fill or concrete. For structures requiring a reinforced concrete foundation, the required hole will be excavated, and a rebar cage and anchor bolts will be placed into the excavation. The excavation will then be filled with concrete to a point where the rebar cage and anchor bolts are covered leaving a typical one to two-foot reveal of the foundation above grade with exposed threaded anchor bolts. The complete caisson will then be allowed to cure. Typical equipment for this phase of construction would include dump trucks, drill rigs, cranes, vacuum trucks, concrete mixers, and tanker trucks.

In areas with high water tables, or where water is needed to stabilize the hole during drilling, it may be necessary to dewater the excavation. Depending on site conditions, the water may be filtered through a geotextile filter bag or similar method and discharged to an upland area where it can re-infiltrate or be removed from the site via a tank truck. Appropriation and discharging activities will follow applicable regulations and permit requirements to ensure compliance with Minnesota water quality standards.

**Structure Setting** – For base plate structures (mounted on concrete foundation), the above-grade structure would be placed on the anchor bolt pattern, leveled, and tightened down. For direct-embedded structures, the base section would be installed, leveled, and backfilled with granular or flow-able fill. After that, the top section or sections will be installed. At each section, hydraulic jacking systems are typically used to slide the joints together to the engineered and fabricated tolerances. Equipment used for this phase of construction would include cranes and bucket trucks at each structure location.

**Wire Stringing and Clipping** – Once there are a sufficient number of structures set consecutively in a row to support a wire pull, the equipment for the wire pull is mobilized to the pull area and is set up. The conductor and static wires are then pulled and clipped into place. This stringing and clipping activity requires access to each structure with a bucket truck, crane, or helicopter. Other handling equipment used for this phase of construction includes reel trailers, wirepullers, and related stringing equipment.

Wire stringing areas or wire pulling areas are approximately 40 feet by 300 feet. At a minimum, at each wire pulling area, matting will be placed under wire equipment for construction grounding purposes. Incidental matting will also be required at most road crossings. Matting will be removed by similar equipment used for installation as each wire pull or construction segment is completed. During mat placement, use, and removal, standard procedures will be implemented to prevent or minimize the spread of invasive species.

**Removal of Existing Facilities** – Where replacing or overbuilding existing transmission circuits, the existing structures and wire will be removed. The removed materials will be evaluated to determine their appropriate disposal. Typical equipment used includes cranes, bucket trucks, reel trailers, wirepullers, and related stringing equipment. Where existing transmission structures are to be removed, it is common practice to remove the structure to a depth of at least 4 feet below grade; however, in some cases the structure may be cut off at grade. The determination will be site specific and will be based on the type of structure, land use at the site, and construction vehicle access constraints.

**Cleanup and Restoration of ROW** – Upon completion of construction, cleanup and site restoration occurs. This includes removing construction mats, temporary bridges, and other material or debris from the ROW. Any necessary seedbed preparation and seeding is performed along with BMPs. Typical equipment used for these activities include mat trucks, bobcats, pickup trucks, and other light-duty vehicles.

**Demobilization and Laydown Yard Cleanup** – The last step in the construction process is final cleanup of the laydown yards by removing all items such as trailers, security fence, left over materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment from the Project site. Once the final laydown restoration is complete per contractual agreement with the applicable landowner, the construction phase is complete.

## **7.2.2 Substation Construction**

The Kellogg Substation facilities are proposed to be sited on 4 acres within a larger 10.8-acre parcel of land. Approximately 4 acres of the site will be used for the substation, access drive, and stormwater drainage features. An initial layout of the Kellogg Substation is provided in **Appendix H**.

Site preparation would include installing erosion and sediment control BMPs, stripping topsoil, and hauling in structural fill to build up the subgrade for the substation pad. Once the substation pad is built to the subgrade, all areas will be restored, and the site will be ready for use. This work will occur the year prior to transmission line and substation construction to allow for one winter to allow the ground to settle.

Construction within the newly prepared substation pad will consist of drilled pier foundations ranging in size from three to seven feet in diameter and 10 to 35 feet deep. The foundations will be installed to support transmission line dead-end structures, static masts, and bus and equipment support structures. Slabs-on-grade eight feet square by two feet thick will be used for 161-kV circuit breakers, and six-foot square by two feet thick will be used for 69-kV circuit breakers. The control building will be on a 20-foot by 40-foot- by 1-foot-thick concrete slab. Transformer and reactor secondary oil containment will be a concrete-lined pot filled with stone. Conduit for control and communication cables and grounding conductor will be installed prior to the placement of the final layer of crushed rock surfacing. The ground grid will be installed 18 inches below the subgrade surface throughout the substation pad and extend four feet outside the substation security wall.

### **7.3 Restoration Procedures**

Disturbed areas will be restored to their original condition to the maximum extent practicable, or as negotiated with the landowner.

Post-construction reclamation activities will include removing and disposing of debris, removing all temporary facilities (including staging and laydown areas), installing appropriate erosion and sediment control BMPs, reseeding areas disturbed by construction activities with vegetation similar to that which was removed with a seed mixture certified as free of noxious or invasive weeds, and restoring the areas to their original condition to the extent possible. In cases where soil compaction has occurred, the construction crew or a restoration contractor uses various methods to alleviate the compaction, or as negotiated with landowners. Further details are provided in Dairyland's Vegetation Management Plan (VMP) provided in **Appendix I**.

Dairyland will contact landowners after construction is complete to determine if the clean-up measures have been to their satisfaction and if any other damage may have occurred. If damage has occurred to crops, fences, or the property, Dairyland will compensate the landowner. In some cases, an outside contractor may be hired to restore the damaged property as near as possible to its original condition.

For the Kellogg Substation site, a detailed restoration plan will be developed after the Commission's routing decision is made, and the plan will be prepared as part of Dairyland's Stormwater Pollution and Prevention Plan in accordance with the MPCA Construction Stormwater General Permit. This plan will include the overall site design, including graveled areas, vegetated areas, and a stormwater pond.

### **7.4 Construction Work Force Required**

Although the workforce will ebb and flow over the course of the Project, Dairyland anticipates that approximately 20-30 construction (Dairyland employees and contract workers) workers will be employed during construction over the construction phase of the Project, and Dairyland will utilize Union labor. Dairyland will also have a construction supervisor onsite throughout the construction phase.

## 7.5 Operations and Maintenance

Dairyland’s long-term goal of the vegetation management maintenance program is to establish a sustainable ROW consisting of vegetation that would be considered compatible. The NESC states that “vegetation that may damage ungrounded supply conductors should be pruned or removed.” Trees along the ROW edge will need to be trimmed from time to time to manage the appropriate clearance distances between the conductors and the trees. To ensure continued safe operation of the line, tree removals may also occur outside the easement area when a tree tall enough to impact our facilities is dead, dying, diseased, leaning or compromised.

Integrated vegetation management practices are utilized in Dairyland’s vegetation management program to establish the long-term goals of the program on a nominal 3- to 5-year cycle. Dairyland implements the use of many control methods within their vegetation management maintenance program that vary based on site conditions and can include manual (chainsaws), mechanical (mowers and other specialized vegetation management equipment including aerial saws where appropriate) and herbicides.

Herbicide application methods utilized will vary based on vegetation density, size and location, time of year, environmental conditions and property owner or easement restrictions. Some application methods include basal, cut stump, foliar or cut stubble. In general, our herbicide applications are selective in nature targeting woody species. Through the new easement acquisition process, landowners will be able to give or decline permission for the use of herbicides on their property.

Dairyland has developed a VMP to outline the practices that will apply to operational vegetation management activities across the Project (see **Appendix I**). The use of herbicides focuses on controlling woody vegetation within the ROW to reduce the impacts of the need to mow on a property and help establish a sustainable ROW that can be managed with selective herbicide treatments. A timeframe for the conversion of a ROW to establish compatible, non-woody vegetation will vary based on site conditions. A property owner could also encourage this conversion of the ROW to compatible vegetation by allowing selective herbicide use and through planting vegetation that results in increasing compatible vegetation within a ROW.



## 8 ENVIRONMENTAL ANALYSIS OF ROUTE

This portion of the Application provides a description of the human and environmental resources crossed by the Proposed Alignment, within the Proposed Route, or in the vicinity of the Project; potential impacts to these resources; and proposed mitigation measures.

### **8.1 Environmental Setting**

The Project lies in The Blufflands Subsection, Paleozoic Plateau Section of the Eastern Broadleaf Forest Province, according to the MDNR Ecological Classification System. The MDNR describes The Blufflands as:

*This subsection consists of an old plateau covered by loess (windblown silt) that has been extensively eroded along rivers and streams. It is characterized by highly dissected landscapes associated with major rivers in southeastern Minnesota. Bluffs and deep stream valleys (500 to 600 feet deep) are common. River bottom forests grew along major streams and rivers.<sup>39</sup>*

The environmental setting of the Project area includes several hydrologic features, such as wetlands, ponds, streams, lakes, including McCarthy Lake, Gorman Creek, and the Mississippi River to the east of the Kellogg Substation. Land use within the Project area is primarily agricultural and rural residential, with some wooded areas limited to areas of steep slopes associated with the Mississippi River bluffs. There is some developed/commercial land as the Project nears Kellogg and the Canadian Pacific Railroad. The majority of the Project (71%) is collocated with existing electric distribution, road, and railroad corridors (see **Section 3.3.1**, and route maps in **Appendix A**). The landscape and characteristics of the Project area are further described in the following subsections. The characteristics of the Project area are typical of the surrounding area and do not preclude development of this Project.

### **8.2 Human Settlement**

#### **8.2.1 Aesthetics**

The proposed transmission line will be visible along the Proposed Route. The majority of the poles will be single-pole steel structures (see **Diagrams 3-1 and 3-2**). Special horizontally configured structures (H-frame or 3 pole structures) may be required to cross under any higher voltage circuits. All structures will be self-supporting; therefore, no guying will be required. Typical pole heights will range from 75 to 140 feet above ground and spans between poles will range from 300 to 1,000 feet.

Xcel Energy and Peoples have existing overhead distribution lines in the Project Route Width for approximately 5.1 miles, primarily along State Highway 42 and County Road 84 (see maps in **Appendix A**). Dairyland currently understands that Xcel Energy and Peoples plan to bury these distribution lines where they are overtaken by the Project, rather than attach them to the new 161-kV structures installed by Dairyland.

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<sup>39</sup> <https://www.dnr.state.mn.us/ecs/222Lc/index.html>

Design standards for a 161-kV line require taller structures than for distribution lines.<sup>40</sup> Where the Project is adjacent to existing distribution lines and the distribution poles will be removed and those line will be buried, there will be fewer 161-kV structures than distribution structures because the taller structure heights allow for longer spans between structures. Therefore, although the view will change with the new, taller poles, the new poles will not contribute additive impact to the poles that are presently installed.

The landscape in the Project area west of U.S. Highway 61 is a mix of agricultural land, rural residential, and some wooded lands along the Mississippi River bluffs. East of U.S. Highway 61, the landscape is rural residential, commercial/industrial, and open space until the Kellogg Substation. Land to the east of the substation consists of a wooded buffer between the site and first the Zumbro River, then the Mississippi River. Utility infrastructure is common across the Project, including near the site of the Kellogg Substation where multiple transmission and distribution lines meet (see **page 10 of Appendix A.2**).

The visual effect experienced from the Project will depend largely on the perceptions of the observers across these various landscapes but will remain similar to current conditions. Although the area already has existing distribution lines and transmission lines in the viewshed, the visual contrast added by the taller transmission structures and lines may be perceived as a visual disruption. Conversely, the removal of some distribution poles and the height of the wires on the new transmission poles may contribute to an improved viewshed from some perspectives.

The Kellogg Substation will not be visible from the Zumbro or the Mississippi River, as densely wooded areas lie in between these features. Approximately 0.3 mile of trees stand between the substation parcel and the Zumbro River, and then between the Zumbro River and the Mississippi River stand another approximately 500 feet of trees. No trees will be cleared to construct the substation or facilitate connection of the transmission infrastructure to the substation.

During the CapX2020 proceeding, the State Highway 42 route option (3B-003), which was in that proceeding parallel to State Highway 42, was opposed by some stakeholders during the CapX2020 proceeding due to its scenic nature, despite it not formally being designated as a scenic byway.<sup>41</sup> The road winds and drops in grade significantly through a wooded corridor from approximately 615 Street to U.S. Highway 61 (see **page 7 of Appendix A.2**) In contrast to that alignment, Dairyland has designed the Project Alignment to deviate to the south of the State Highway 42 through a cleared, mostly unwooded area with less relief. Where trees are cleared through this segment, they will not be visible from the road. This will reduce the impacts to the wooded areas along State Highway 42 that contribute to its scenic nature.

The Project crosses U.S. Highway 61 at milepost 9.7 (see **page 8 in Appendix A.2**), which is part of the Great River Road, a National Scenic Byway. The Great River Road is a network of roads that follow the Mississippi River through ten states that promote exploration and interpretation of the Mississippi River. The Great River Road in Minnesota is overseen by the Minnesota Mississippi River Parkway Commission (MRPC), whose mission is to “preserve, promote and

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<sup>40</sup> The existing 69-kV structures are typically approximately 50-60 feet above ground.

<sup>41</sup> See *In the Matter of the Route Permit Application for the CapX 2020 Hampton – Rochester – La Crosse 345 kV Transmission Line*, MPUC Docket No. E-002/TL-09-1448, OAH Docket No. 3-2500-21181-2, Findings of Fact, Conclusions of Law, and Recommendation at 88-91 (Feb. 8, 2012).

enhance the scenic, historic and recreational resources of the Mississippi River, to foster economic growth in the corridor and to develop the national, scenic and historic byway known as the Great River Road.”<sup>42</sup> The MRPC’s work is organized and guided under Minn. Stat. § 161.1419 and managed under the umbrella of the Legislative Coordinating Commission and is guided by a Corridor Management Plan<sup>43</sup> with support from MnDOT under Minn. Stat. § 161.142. National Scenic Byway designation does not confer land use regulation or permitting authority, but through the Corridor Management Plan, there is encouragement to safeguard the road’s scenic qualities.

It would not be possible to construct the Project without crossing the Great River Road in some location. The existing CapX2020 system which presently carries the Dairyland 161-kV line crosses the Great River Road about 1.9 miles south of the proposed Project crossing. Therefore, Dairyland met with the MRPC, as well as MnDOT, early in Project planning to discuss the Proposed crossing location (see Project correspondence in **Appendix B** and discussion in **Section 9.2**).

Dairyland presented the Project to the MRPC in November 2023 and held a meeting in December 2023 where Dairyland reviewed the proposed crossing of U.S. Highway 61. Dairyland selected this crossing location as to avoid the steep topography on the west side along State Highway 42 (see note above), and to consider properties owned by the U.S. Army Corps of Engineers (USACE) (see **Section 8.4.5**) as well as in consideration of the Wabasha County Highway Department’s future improvement plans for County Road 84 (see **Section 8.2.7**).

The MRPC offered several suggestions on the crossing, including the following:

- minimize the tree clearing on both sides and/or try to site the poles behind the treed areas to screen the structures as much as possible;
- use a perpendicular crossing rather than paralleling the roadway;
- set back the poles as far as possible, to the extent practicable;
- choose a color of poles that blends into the landscape; and
- provide visual simulations of before and after the crossing.

Later in December 2023, Dairyland reached out to MRPC to advise of a change in the Project alignment approximately 0.4 mile east of the U.S. Highway 61 crossing. This change was driven by subsequent meetings with the USACE regarding their interests along County Road 84. The new Project Alignment, presented in this Application, now parallels the Canadian Pacific Railroad on the eastern side, away from U.S. Highway 61. In between the Proposed Alignment and U.S. Highway 61 are numerous wooded areas, a tree line, the railroad, and various buildings and structures, including a solar field.

Dairyland has also met with MnDOT regarding the U.S. Highway 61 crossing. MnDOT advised that Dairyland coordinate with MRPC; in addition, MnDOT noted that there is a scenic byway group within MnDOT that will review and advise on the U.S. Highway 61 crossing. After MnDOT’s initial review of the crossing location in MnDOT’s Environmental Landscape Mapper<sup>44</sup>, there is a gap in the Scenic Area in the area where the Project is currently crossing.

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<sup>42</sup> <https://www.mnmississippiriver.com/about-us/>

<sup>43</sup> <https://www.mnmississippiriver.com/about-us/management-plan/>

<sup>44</sup> <http://www.dot.state.mn.us/project-development/subject-guidance/environmental-landscapemapper/index.html>

Dairyland has prepared a visualization of the U.S. Highway 61 crossing; this information was shared with the MRPC on March 13, 2024 and the MnDOT on March 14, 2024. Visualization images are presented in **Diagrams 8-1 through 8-3**.

#### 8.2.1.1 Impacts and Mitigation

Because the Project will replace existing Xcel Energy and Peoples distribution lines for 5.1 miles and will otherwise largely be collocated with existing road and railroad ROW (see **Section 3.1.1**), aesthetic impacts in most areas along the Project Alignment are anticipated to be minimal. The existing distribution lines have been in place for decades, as the area has developed. Visual impacts might be perceived by a viewer as less because the existing distribution lines will be buried by the owner of those facilities and there will be fewer structures. The new transmission line structures will be 20 to 30 feet taller with larger insulators, which might increase the visual impacts perceived by a viewer.

Where trees need to be cleared, this change to the landscape is typically a noticeable visual impact to receptors. The Proposed Alignment south of County Road 84 was designed in part to minimize the amount of tree clearing, which helps to minimize visual impacts. No trees will be cleared as part of the Kellogg Substation and the substation will not be visible from the Zumbro or Mississippi Rivers. Dairyland will work with landowners to identify concerns related to the transmission line and aesthetics. In general, mitigation includes enhancing positive effects as well as minimizing or eliminating negative effects. Potential mitigation measures include:

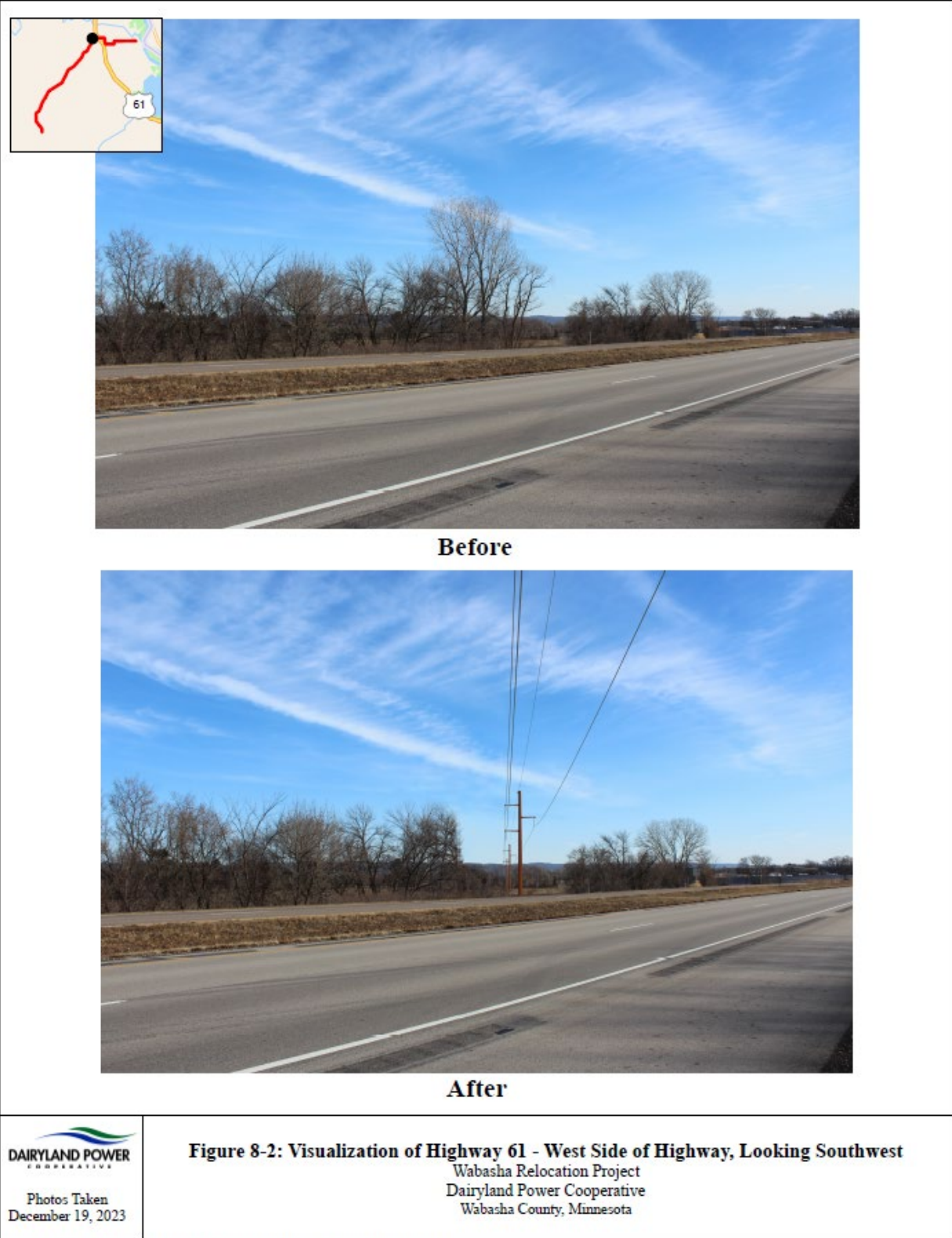
- Location of structures, ROW, and other disturbed areas will be determined by considering input from landowners to minimize visual impacts.
- Care shall be used to preserve the natural landscape. Construction and operation shall be conducted to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work.
- Landowners may be compensated for the removal of trees and vegetation based on easement negotiations.
- Structures will be placed at the maximum feasible distance from water crossings, within limits of structure design and applicable regulations.

**Diagram 8-1. Visualization of Highway 61 – West Side of Highway, Looking South**

	
<b>Before</b>	
	
<b>After</b>	
 Photos Taken December 19, 2023	<b>Figure 8-1: Visualization of Highway 61 - West Side of Highway, Looking South</b> Wabasha Relocation Project Dairyland Power Cooperative Wabasha County, Minnesota



**Diagram 8-2. Visualization of Highway 61 – West Side of Highway, Looking Southwest**



**Diagram 8-3. Visualization of Highway 61 – East Side of Highway, Looking North**



**Before**



**After**



Photos Taken  
December 19, 2023

**Figure 8-3: Visualization of Highway 61 - East Side of Highway, Looking North**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota

Regarding the U.S. Highway 61 crossing, there will be a new visual impact as a result of the Project. Distribution and transmission line crossings exist elsewhere along U.S. Highway 61. Dairyland has worked with the MRPC to understand concerns related to the new crossing location. On the west side of U.S. Highway 61, although some trees will be cleared within the 100-foot-wide ROW, Dairyland placed the Proposed Alignment to minimize tree clearing. The westerly pole will be shielded from view to some extent by the remaining forested area (see **Diagram 8-3**). Regarding the east side of U.S. Highway 61, Dairyland has placed the easterly alignment in an area where minimal large tree removal will occur on the north side of the Proposed Alignment (see **Diagrams 8-1 and 8-2**). The south side of the alignment is presently sparsely vegetated. The span length between the two poles is approximately 800 feet, which is near the maximum span length of 1,000 feet. The poles will be red-brown (weathered steel), which will allow them to blend with existing colors in the area. The crossing will also occur perpendicular to the road, which was the preference of the MRPC. After sending the visualizations to MRPC and MnDOT, MRPC had no further comments on the crossing or visualizations; MnDOT is reviewing the visualizations as part of the Utility Early Notification Memo process. Dairyland will continue to coordinate with the MRPC and MnDOT as the Project progresses.

### 8.2.2 Displacement

No displacement of residential homes, structures, or businesses will occur as a result of this Project. The NESC and Dairyland standards require certain clearances between transmission line structures and buildings or structures within the ROW for safe operation of the proposed transmission line (**Table 3-2**). Dairyland reviewed the locations of homes, buildings, and other structures during the development of the Proposed Route and has sited the Project purposely to avoid these features, moving the transmission line to the other side of the road, or further offset from the road, to avoid impacts to farmsteads, homes, or buildings that were built closer to the road (see **page 5 of Appendix A.2** as an example). The width of the Proposed Route provides sufficient design flexibility and distances from existing homes and structures for a transmission line design that achieves the requisite clearances.

The nearest residences to the Project are located along State Highway 42. There is one home within 200 feet of the Proposed Alignment, and it is approximately 134 feet away near MP 8.7 (see **page 7 of Appendix A.2**). The nearest residence to the substation is approximately 430 feet to the northern edge of the substation property boundary, with existing transmission lines separating the substation from the property structures (see **page 10 of Appendix A.2**). **Table 8-1** summarizes the residential and non-residential buildings within 200 feet of the Proposed Alignment.

**Table 8-1. Building Distances from Proposed Alignment**

Building Type	0-50 feet	50-100 feet	100-150 feet	150-200 feet	Total
Home	0	0	1	0	1
Business	1	0	0	0	1
Outbuilding	0	0	1	3	4
<b>Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>6</b>



### 8.2.2.1 Impacts and Mitigation

No residences or businesses are anticipated to be displaced by the Project. Dairyland’s new transmission line will be designed in compliance with local, state, NESC, and Dairyland standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and ROW widths. Dairyland has sited the Project purposely to avoid these features. Dairyland will work with landowners during the easement acquisition process to address alignment adjustments or pole placement, as necessary.

### 8.2.3 Noise

There will be temporary noise associated with the construction phase of the Project and from operation of the Project. Because human hearing is not equally sensitive to all frequencies of sound, the most noticeable frequencies of sound are given more “weight” in most measurement schemes. The A-weighted scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in dBA, which is the A-weighted sound level recorded in units of decibels.

A noise level change of 3 dBA is considered the lowest perceptible level to human hearing. A 5 dBA change in noise level is considered clearly noticeable. A 10 dBA change in noise level is perceived as a doubling of noise loudness, while a 20 dBA change is considered a dramatic change in loudness. **Table 8-2** shows noise levels associated with common, everyday sources.

**Table 8-2. Common Noise Sources and Levels**

Sound Pressure Level (dBA)	Noise Source
110	Rock band at 5 meters
100	Jet flyover at 300 meters
90	Gas lawnmower at 1 meter
80	Food blender at 1 meter
70	Vacuum cleaner at 3 meters
60	Normal speech at 1 meter
50	Dishwasher next room, quiet urban daytime
40	Library, quiet urban nighttime
30	Bedroom at night
20	Quiet rural nighttime
10	Broadcast recording studio
0	Threshold of hearing

Source: Minnesota Pollution Control Agency. 2015. A Guide to Noise Control in Minnesota. Available online at: <https://www.pca.state.mn.us/sites/default/files/p-gen6-01.pdf>.

The MPCA noise regulations<sup>45</sup> establish Noise Area Classifications (NAC) based on the land use activities at the location of the receiver and noise standards are applied to that land use activity. Residential areas, churches, educational and health services, and similar type land use activities are included in NAC 1; commercial-type land use activities are included in NAC 2; and industrial-type land use activities are included in NAC 3. Established daytime and nighttime noise standards

<sup>45</sup> Minnesota Rule 7030.0040

per NAC are provided in **Table 8-3**. The standards are expressed as limiting levels of dBA within a one-hour period; L<sub>50</sub> is the dBA not to be exceeded over 50% of the time (30 minutes) within an hour, while L<sub>10</sub> is not to be exceeded over 10% of the time (6 minutes) within the hour.

**Table 8-3. MPCA Noise Limits by Noise Area Classification (dBA)**<sup>46</sup>

Applicable Noise Area Classification		Description	Daytime (7a – 10p)		Nighttime (10p – 7a)	
			L <sub>50</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>10</sub>
1		Residential-type Land Use Activities	60	65	50	55
2		Commercial-type Land Use Activities	65	70	65	70
3		Industrial-type Land Use Activities	75	80	75	80

Noise-sensitive receptors (NSRs) along the Project Route include residences and businesses. There are 44 NSRs (8 residences, 4 commercial buildings, and 31 outbuildings) within the Proposed Route. NSRs in the vicinity of the Project are shown on the maps in **Appendix A.2**. The nearest residence to the transmission line is approximately 134 feet from the Proposed Alignment near MP 8.7 (see **page 7 of Appendix A.2**). The nearest residence to the Kellogg Substation is approximately 430 feet from the northern edge of the substation property boundary (see **page 10 of Appendix A.2**).

#### 8.2.3.1 Noise Related to Construction

Construction noise is generally expected to occur during daytime hours as the result of heavy equipment operation and increased vehicle traffic associated with the transport of construction personnel and materials to and from the work area. Construction activities will be performed with standard heavy equipment such as backhoes, cranes, boom trucks, and assorted small vehicles. Construction equipment noise levels will typically be less than 85 dBA at 50 feet when equipment is operating at full load<sup>47</sup> and will only occur when equipment is operating. Upon completion of construction activities, noise associated with construction equipment will cease.

#### 8.2.3.2 Noise Related to the Transmission Line

Operational noise levels produced by a 161-kV transmission line are generally less than outdoor background levels and are therefore not usually perceivable. As such, appreciable operational noise impacts are not anticipated from the Project. Further, proper design and construction of the transmission line in accordance with industry standards will help to ensure that noise impacts are not problematic.

Transmission lines can generate a small amount of sound energy during corona activity where a small electrical discharge caused by the localized electric fields (EF) near energized components and conductors ionizes the surrounding air molecules. Corona is the physical manifestation of

<sup>46</sup> This table identifies the classifications potentially relevant to this Project. See Minn. R. 7030.0050 for the complete text of the rule.

<sup>47</sup> [https://www.fhwa.dot.gov/environment/noise/construction\\_noise/handbook/handbook00.cfm](https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook00.cfm).

energy loss and can transform discharge energy into small amounts of sound, radio noise, heat, and chemical reactions of the air components. Several factors, including conductor voltage, shape and diameter, and surface irregularities such as scratches, nicks, dust, or water drops can affect a conductor’s electrical surface gradient and its corona performance.

Noise emission from a transmission line occurs during certain weather conditions. In foggy, damp, or rainy weather, power lines can create a crackling sound due to the small amount of electricity ionizing the moist air near the wires. During heavy rain, the background noise level of the rain is usually greater than the noise from the transmission line. As a result, people do not normally hear noise from a transmission line during heavy rain.

The industry standard for utilities is calculated based on L<sub>50</sub> for audible noise emissions. The worst-case scenario is when the transmission line is exposed to heavy rain conditions (i.e., one inch per hour). Anticipated noise levels for heavy rain conditions for a typical 161-kV line based on the results from the Bonneville Power Administration Corona and Field Effects Program version 3 (U.S. Department of Energy, Bonneville Power Administration, Undated) are listed in **Table 8-4**.

**Table 8-4. Anticipated 161-kV Transmission Line Noise Levels with Heavy Rain**

Load Condition	Audible Noise (dBA) (Rain)											
	Line Current (Amp)	Cross Section Distance to 161-kV Transmission Line (feet)										
		-300	-200	-100	-50	-25	0	25	50	100	200	300
Average Historic Load	541	15.45	17.38	20.53	23.25	25.08	26.64	26.11	24.11	21.06	17.66	15.64
Peak Historic Load	1115	15.46	17.39	20.55	23.29	25.16	26.77	26.22	24.17	21.09	17.68	15.65
Peak Rated Load	2000	15.51	17.45	20.64	23.44	25.43	27.24	26.61	24.36	21.18	17.74	15.71
Maximum Operating Temperature	2182	15.53	17.47	20.66	23.49	25.51	27.38	26.73	24.42	21.21	17.76	15.73

The Project is located in a rural residential area. Ambient noise level in a rural residential area is about 40 dBA, day/night average sound level L<sub>dn</sub><sup>48</sup>. As shown in **Table 8-5**, the noise contribution due to corona effects will result in a change of 0.12 dBA above ambient. This change will not be noticeable to the human ear.

<sup>48</sup> USEPA. 1978. Protective Noise Levels

**Table 8-5. Anticipated Total Noise Levels Associated with Heavy Rain**

Item	Sound Level (dBA)
Ambient Sound Level - Rural Residential	40.0
Sound Contribution of Project Corona (maximum calculated)	27.4
Sound Contribution of Corona Noise plus Ambient	40.12
Potential Increase above the Ambient Level	0.12

8.2.3.3 Noise Related to the Substation

Dairyland is proposing to construct a 4-acre 161-/69-kV substation as part of the Project to supply the LN340 69-kV transmission line. An initial layout of the Kellogg Substation is provided in **Appendix H**. The nearest residence to the substation is approximately 700 feet from the northern edge of the substation property boundary (see **page 10 of Appendix A.2**), and over 1,000 feet from the substation transformer.

Sound power levels from the new transformer and control building heating, ventilation, and air control system were modeled with the conservative assumption of continuous operation at maximum operating levels. Acoustical modeling of noise levels from equipment is based on ISO 9613-2 International Standard Acoustics—Attenuation of Sound Propagation Outdoors. The acoustical model utilizes this calculation methodology in a grid system and accurately calculates sound pressure levels from substation operations at any coordinate(s) surrounding the substation property.

As presented in **Table 8-3**, the most stringent applicable MPCA noise standard for Class 1 Property is the L50 daytime and nighttime standards equivalent to 60 dBA and 50 dBA, respectively. Households, including farmhouses, are considered Class 1 property in Minnesota Reg. 7030.0050 Noise Area Classification. Agricultural land is considered Class 3 which corresponds to the actual substation site. The Class 3 daytime and nighttime standard is 75 dBA for both time periods.

The modeled sound impact at the roadway entrance to the nearest residence is 38.2 dBA and drops to 36.9 dBA at the nearest residence. As presented in **Table 8-2**, levels below 40 dBA correspond to sound levels one might experience in a library, or quiet bedroom at night.

The modeled sound level impact of the substation at the northwest property corner (nearest to the residence) is 41.5 dBA. These levels are well below the applicable noise standards and substation noise will not cause excursions of the most stringent 50 dBA noise standard.

8.2.3.4 Impacts and Mitigation

Sound levels associated with construction of the Project will be temporary in nature. To mitigate noise impacts associated with construction activities, work will generally be limited to daytime hours between 7 a.m. and 9 p.m. weekdays. Occasionally, there may be construction outside of those hours mentioned or on a weekend if Dairyland has to work around customer schedules, line outages, or if the schedule has been significantly impacted due to permitting delays or other factors. Dairyland will work with applicable stakeholders in the event construction becomes necessary

outside of these hours. Heavy equipment will also be equipped, as required by local ordinances, with sound attenuation devices such as mufflers to minimize the daytime noise levels.

Operational noise levels for the Project demonstrate compliance with the applicable state noise standards. The new transformer will comply with the National Electrical Manufacturers Association (NEMA) TR-1 standards<sup>49</sup> published by NEMA for transformers, step voltage regulators, and reactors. These standards cover a wide range of topics, including:

- Design and construction.
- Testing and performance.
- Marking and labeling.
- Safety requirements.
- Noise.

Compliance with NEMA TR-1 noise standards that were updated and published in 2019 is considered good engineering practice, and no further noise reduction for the site would be necessary to comply with state standards.

#### 8.2.4 Socioeconomics & Environmental Justice

The socioeconomic setting of the Project area was evaluated on a regional basis, comparing data for Wabasha County and the State of Minnesota. Data compiled from the U.S. Census Bureau are summarized in **Table 8-6**.

**Table 8-6. Socioeconomic Characteristics within the Project Area<sup>50</sup>**

Location	2022 Population	White Alone Population	Median Income (2018-2022)	Percent Below Poverty Level	Language Other than English Spoken at Home (2018-2022)
State of Minnesota	5,714,300	82.6%	\$84,313	9.6%	12.0%
Wabasha County	21,658	96.8%	\$75,063	7.5%	3.1%

An environmental justice analysis for the Project was completed using the methodology in Minn. Stat. 216B.1691, subd. 1(e) (rev. 2023), which provides:

“Environmental justice area means an area in Minnesota that, based on the most recent data published by the United States Census Bureau, meets one or more of the following criteria:

- (1) 40% or more of the area's total population is nonwhite;
- (2) 35% or more of households in the area have an income that is at or below 200% of the federal poverty level;

<sup>49</sup> NEMA TR-1 includes noise standards for transformers, regulators, and reactors. These standards are outlined in Table 3 of the document titled "Sound Levels for Transformers, Regulators, and Reactors". This table specifies the maximum allowable average decibel (dB) levels based on the kVA rating of the equipment and its cooling type.

<sup>50</sup> <https://data.census.gov/>.

- (3) 40% or more of the area's residents over the age of five have limited English proficiency; or
- (4) the area is located within Indian country, as defined in United State Code, title 18, section 1151.”<sup>51</sup>

Census tracts that intersect with the Project were analyzed for environment justice areas, consistent with this statute. Census tracts are the best approximation of a geographic area where adverse impacts can occur from the Project. The Project Route Width intersects one census tract identified in **Table 8-7** and shown on **Figure 8-1**. Wabasha County was used as a reference population for the census tracts.

**Table 8-7. Environmental Justice Communities per Minn. Stat. 216B.1691, subd. 1(e) Criteria<sup>52</sup>**

Census Tract	Percent People of Color	Percent Below 200% of Poverty Level	Percent Limited-English Speaking Population (2017-2021)
Census Tract 4902	2.9	16.2	0.3

Dairyland utilized MPCA’s “Understanding Environmental Justice in Minnesota” web-based mapping tool by drawing the Project Route Width into the mapping tool to determine whether the Project intersects any census tracts with environmental justice populations based on the definition above. It is important to note that MPCA’s web-based tool accounts for a margin of error in determining environmental justice areas of concern.

Based on the data provided in MPCA’s web-based mapping tool, the census tract intersected by the Project is not considered an environmental justice community under the definition provided in Minn. Stat. 216B.1691, subd. 1(e). Additionally, the Project does not cross any areas located within “Indian country,” as defined in 18 United States Code 1151.

Dairyland also conducted this environmental justice analysis in accordance with the U.S. Environmental Protection Agency (USEPA) Federal Interagency Working Group on Environment Justice (EJ) and National Environmental Policy Act (NEPA) Committee’s publication, Promising Practices for EJ Methodologies in NEPA Reviews (Promising Practices).

Using this methodology, the USEPA’s Environmental Justice Screening Tool (EJScreen) was used as an initial step to gather information regarding minority and/or low-income populations; potential environmental quality issues; environmental and demographic indicators; and other important factors. The USEPA recommends that screening tools, such as EJScreen, be used for a “screening-level” look and a useful first step in understanding or highlighting locations that may require further review. EJScreen was used to evaluate the Proposed Route plus a 0.25-mile buffer. Using EJScreen, the communities in this are estimated to have 2% people of color and 17% low income.

<sup>51</sup> Although this statute does not prescribe requirements for a Route Permit application, Dairyland employs this methodology here consistent with the methodology used by EERA in a recently issued Environmental Assessment. See Docket No. ET2/22-235.

<sup>52</sup> <https://mpca.maps.arcgis.com/apps/MapSeries/index.html?appid=f5bf57c8dac24404b7f8ef1717f57d00>

According to Promising Practices, minority populations are those groups that include American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Following the recommendations set forth in Promising Practices, the 50% and the meaningfully greater analysis methods were used to identify minority populations. Using this methodology, minority populations are defined where either (a) the aggregate minority population of the block groups in the affected area exceeds 50%; or (b) the aggregate minority population in the block group affected is 10% higher than the aggregate minority population percentage in the county. The guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using Promising Practices’ low-income threshold criteria method, low-income populations are identified as block groups where the percent of low-income population in the identified block group is equal to or greater than that of the county. Wabasha County is the comparable reference community to ensure that all affected environmental justice communities are properly identified.

**Table 8-8** identifies the minority populations by race and ethnicity and low-income populations within the State of Minnesota, Wabasha County, and the two U.S. Census block groups within the Census Tract crossed by the Project (refer to **Figure 8-1**). U.S. Census 2022 American Community Survey 5-Year Estimate Data File# B17017 and File# B03002 for the race, ethnicity, and poverty data were analyzed at the block group level. No block groups crossed by the Project are considered environmental justice communities using the USEPA methodology.

**Table 8-8. Minority and Low-Income Populations within the Project area (USEPA methodology)<sup>53</sup>**

State/County/Census Block Group	% Total Minority <sup>a</sup>	% Below Poverty Level
State of Minnesota	21.7	9.3
Wabasha County	6.0	8.4
Census Tract 4902, Block Group 2	3.4	8.1
Census Tract 4902, Block Group 3	1.9	6.7

<sup>a</sup> “Minority” refers to people who reported their ethnicity and race as something other than non-Hispanic White.

#### 8.2.4.1 Impacts and Mitigation

During construction, there may be short-term positive impacts to the nearby communities. Potential increases in local revenue may occur for businesses, such as hotels, grocery stores, gas stations and restaurants to support utility personnel and contractors.

Long term benefits of the Project include the ongoing reliable electrical services and the ability to serve existing and new local load growth. The benefits apply to the local community regardless of economic status, race, and personal identification.

<sup>53</sup> 5-Year Estimates Detailed Tables File# B03002 and File #B17017, <https://data.census.gov/>



There are no environmental justice communities impacted by the Project, so no environmental justice impacts are anticipated. Because impacts to socioeconomics will be generally short-term and beneficial, no mitigation is proposed.

## 8.2.5 Zoning and Land Use Compatibility

The Project area consists largely of agricultural and rural development land use patterns. Land use cover along the Proposed Route is primarily agricultural, with some wooded areas west of the U.S. Highway 61 crossing (**Figure 8-2**).

### 8.2.5.1 Wabasha County Zoning Regulations

Wabasha County is located in southeastern Minnesota. It has approximately 21,000 residents, and comprises 525 square miles organized into seventeen Townships, nine cities, and two villages. The County is bisected by the Zumbro River and bounded on the east by the Mississippi River. The County has highly diverse land cover, but the most predominant land use is agricultural production. The County's Land Use Plan<sup>54</sup> was adopted in 1998 to guide development and management activities within the four geographic areas identified in the plan: the Agricultural Area; Common Interest Areas; the Lower Valley Area; and the Upper Valley Area. The Plan is intended, among other things, to reduce conflict related to non-farm development in agricultural areas, address environmental and natural resource concerns, and emphasize retention of historical and traditional land uses within the County.

Wabasha County has also adopted a Zoning Ordinance that generally applies to all areas falling outside of the boundaries or extra-territorial jurisdiction of incorporated municipalities.<sup>55</sup> Similar to the Land Use Plan, the Zoning Ordinance is intended to provide for orderly development of the County, limit incompatible uses within the County, ensure the County has adequate public facilities, utilities, and transportation, and protect and conserve the natural and scenic resources of the County. The Zoning Ordinance identifies four primary—primarily agricultural—use districts, and three overlay districts. The overlay districts cover uses in floodplains, shoreland, and blufflands. Each of these overlay districts has a particular ordinance governing activities within those districts. The bluffland ordinance is intended to protect the unique and valuable blufflands that are found within the County. The floodplain and shoreland district ordinances are authorized by and derived from Minnesota statutes. Given the abundance of water resources in the County, and the resulting extensive presence of shorelands and floodplains within the County, these ordinances are important to protect both public and private property and minimize losses due to flooding.

The Project corridor runs entirely through the A-1 (Agricultural Protection) and A-2 (Agricultural Fringe) primary zoning districts. It also crosses through both shoreland (“Shoreland Overlay Zone”) and floodplain (“General Floodplain District”) overlay areas for 2.1 and 1.6 miles, respectively. The substation is located outside of shoreland and floodplain areas. The Project, including the planned substation, has been sited to avoid blufflands. Shoreland and floodplain areas are shown on **Figure 8-3**. The Zoning Ordinance recognizes utilities as an important service within

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<sup>54</sup> <https://cms9files1.revize.com/wabasha/planning%20and%20zoning/Zoning%20Maps%20and%20Resources/Land%20Use%20Plan.pdf>

<sup>55</sup> [https://cms9.revize.com/revize/wabasha/departments/planning\\_and\\_zoning/permit\\_applications\\_and\\_forms.php#outer-121sub-147](https://cms9.revize.com/revize/wabasha/departments/planning_and_zoning/permit_applications_and_forms.php#outer-121sub-147)



the County, but does not specifically identify utility infrastructure, like transmission lines, as either a permitted or conditional use within any of its districts.

Minn. Stat. § 103F.121 requires each county to develop floodplain zoning ordinances in order to preserve the capacity of floodplains to carry and discharge floods and minimize flood hazards. Similarly, Minn. Stat. §§ 103F.201 *et seq.* requires municipalities to develop shoreland ordinances to preserve the economic and environmental values of shorelands and protect and enhance surface waters. Unlike floodplains and shorelands, blufflands do not have mandated state protection. They are, however, ubiquitous in the County and important for their scenic, historic, and ecological value. The County has therefore elected to enact special restrictions on development in these areas. The County’s floodplain and shoreland regulations are contained within the Wabasha County Zoning Ordinance.<sup>56</sup> Despite the presence of these zoning regulations, the Project will not need to obtain any special zoning permits to construct the Project, as such local permits are preempted under state law with issuance of a Route Permit (see Minn. Stat. § 216E.10.1).

#### 8.2.5.2 U.S. Army Corps of Engineers Properties

Early in Project planning, Dairyland identified that several tracts within the area it studied for the initial Project Alignment, prior to the Open Houses held as described in **Section 9.1**, were owned by the USACE, and were recently purchased with the intention of using the land for Mississippi River dredge material beneficial reuse. Dairyland reached out to the USACE in August 2023 and met with USACE staff in November 2023. At the meeting, the USACE explained its goals for the site, which was to use the land to store dredged material from Pool 5 of the Mississippi River and develop a rolling prairie habitat that will eventually be open to the public for recreation purposes (the “Rolling Prairie Property”). A Feasibility Report and Integrated Environmental Assessment was completed in February 2020.<sup>57</sup> The USACE has since drafted a Land Use and Operational Plan as of March 2023.<sup>58</sup> This plan outlines the use for 944 acres of land on the north and south sides of County Road 84 to satisfy dredged material placement needs for the next 100 years.

At the first meeting, USACE staff expressed initial concern with the clearance under the transmission lines and if it would present issues with development of the Rolling Prairie Property. They also indicated that several buildings on one property had been removed and that a public access area has been developed. USACE land, as well as the buildings which have since been removed, are shown on **pages 9 and 10 of Appendix A.2**. As part of the plans, the USACE was considering a “beneficial reuse” area where the public could come in and take sand for beneficial reuse on their own properties.

Dairyland then held its Open Houses as described in **Section 9.1**. Dairyland contacted the USACE in December 2023 after review of Open House comments regarding impacts to residences along County Road 84, along with information obtained from the Wabasha County Highway Department regarding future improvements to the road in this area (see **Section 8.2.7**). Originally, Dairyland

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<sup>56</sup> [https://cms9.revize.com/revize/wabasha/departments/planning\\_and\\_zoning/permit\\_applications\\_and\\_forms.php#outer-121sub-147](https://cms9.revize.com/revize/wabasha/departments/planning_and_zoning/permit_applications_and_forms.php#outer-121sub-147)

<sup>57</sup> [https://www.mvp.usace.army.mil/Portals/57/docs/Navigation/DMMP/Pool%205/Pool%205\\_Final%20DMMP.pdf?ver=YEiOo\\_bgWZIpoo3yoqu5uQ%3d%3d](https://www.mvp.usace.army.mil/Portals/57/docs/Navigation/DMMP/Pool%205/Pool%205_Final%20DMMP.pdf?ver=YEiOo_bgWZIpoo3yoqu5uQ%3d%3d)

<sup>58</sup> U.S. Army Corps of Engineers. Draft Land Use and Operational Plan. Rolling Prairie Property Dredged Material Management Mixed Use Site. Upper Mississippi River Pool 5 DMMP, Wabasha County, Minnesota. Draft Plan – March 2023.

proposed collocating with County Road 84 between 195<sup>th</sup> Avenue and the first curve to the south on County Road 84. Landowners off County Road 84 near 157<sup>th</sup> Avenue expressed concern regarding the proximity of the transmission lines to their residences located on opposite sides of the road, and the Wabasha County Highway Department had indicated that the County eventually plans to soften the curves along the road (see correspondence provided in **Appendix B** and discussion in **Section 8.2.7**). Based on these comments, Dairyland was considering revising this portion of the alignment. Dairyland considered a route realignment north of County Road 84 through agricultural land and across the USACE property that was designated for the Rolling Prairie restoration. In addition, Dairyland also was considering a route realignment to the south of County Road 84 that would address landowner and Wabasha County Highway Department concerns, in addition to avoiding McCarthy Lake, a public water basin and wild rice water (see **Section 8.6.4.2**), a wetland mitigation bank, and a BWSR conservation easement (see **Section 8.2.5.3**) located between the Canadian Pacific Railroad and the Old Channel of the Zumbro River (see **pages 8 and 9 of Appendix A.2**). The USACE expressed its concern with the northern route realignment option relative to its plans to develop the Rolling Prairie Property and expressed its support of the southern realignment option. A Proposed Alignment south of County Road 84 would not impact the rolling prairie features and would limit the impacts to an area designated for future parking. Following the meeting, Dairyland advised the USACE in December 2023 that it had incorporated the USACE suggestions into the Proposed Alignment, which is the alignment presented in this Application.

The Project crosses approximately 1.1 miles of USACE land. Dairyland has since corresponded with the USACE regarding the approvals needed for the transmission line. The USACE will issue Dairyland an easement (Lease for Utility System Facilities on Federal Lands and Property) following Dairyland's completion of the necessary federal forms once a route is issued by the Commission. Issuance of this easement will not require a separate formal federal environmental review process. The Project in its present alignment will not be incompatible with the USACE's goals for the Rolling Prairie Property. Communications with USACE are presented in **Appendix B**.

#### 8.2.5.3 Conservation Easements

Between MPs 10.7 and 11.0, the Proposed Route crosses a conservation easement on private land held by the Minnesota Board of Water and Soil Resources (BWSR; see **pages 8 and 9 of Appendix A.2**). However, the Project Alignment and 100-foot-wide ROW do not cross the BWSR easement as it is contained to the parcel to the north. There will be no impacts to the easement during construction or operation.

#### 8.2.5.4 Impacts and Mitigation

The Project as proposed has incorporated the general requirements and design criteria outlined in the shoreland and floodplain ordinances, which do not prohibit the infrastructure proposed by the Project. No local permits will be needed to construct the Project in shoreland and floodplain areas. Impacts to land use as a result of the Project are expected to be minimal, and construction of the line will not change land uses, particularly given that the Project will be collocated with existing road ROW for a majority of its length. Short-term agricultural impacts might occur during

construction, which will be mitigated through restoration and compensatory payments. Minimal impacts to residential land uses are anticipated; therefore, no additional mitigation is proposed.

### **8.2.6 Cultural Values**

Cultural values include those perceived community beliefs or attitudes in a given area, which provide a framework for community unity. The Wabasha County Comprehensive Land Use Plan<sup>59</sup> states that Wabasha County is one of the nine original counties created by the territorial legislature of Minnesota in 1849. Prior to 1826, this area was inhabited by the Mdewakanton Tribe of the Isanti (Santee) Dakota (Sioux Nation), led by Chief Wa-pa-Shaw. Their principal village, Kiyuska, was located in the Mississippi River valley, near present day Winona, Minnesota. Chief Wa-pa-Shaw's nephew, Augustin Rocque, son of Joseph Rocque, a French fur trader, and the sister of Chief Wa-pa-Shaw, was generally regarded as the first white settler in this area although he was of mixed heritage. Between 1825 and 1830, a series of four treaties referred to as the Treaty of Prairie du Chien surrendered Native American claims to land in Western Iowa, Northwestern Missouri, the Des Moines River Valley, and western side of the Mississippi River in Minnesota Territory<sup>60,61</sup>.

Today, agriculture is the most predominant land use in Wabasha County. Agricultural activities include dairy farming, row and vegetable crops, fruit trees, pastures and hay, and forestry. Because of the desirable landscape in Wabasha County and its location near Rochester, non-farm residences have been established in historically farmed areas. Since 1940, rural population in Wabasha County has become increasing non-farm, rural residential. Non-farm business owners have outnumbered farm owners since 1972, showing an increase since 1969 while the number of farm owners has slowly decreased.

Several economic development associations are active in Wabasha County, including: several city Chambers of Commerce and the Main Street Wabasha organization; the Wabasha County Community Development Corporation; Economic Development Commissions in the cities of Wabasha and Plainview; and Mississippi Valley Partners, a regional economic development initiative involving businesses and communities surrounding Lake Pepin, including the cities of Wabasha and Lake City.

Regarding natural resources, some of the best tracts of dry prairie, wet meadow, emergent marsh, and floodplain forest in southeastern Minnesota occur in the Weaver Dunes-McCarthy Lakes-Zumbro Bottoms area. The major natural resource features in Wabasha County are the Lower Zumbro and Mississippi Rivers. Steep slopes rising nearly 500 feet from the bottom lands to higher farming areas are characteristic of both the Zumbro and Mississippi Rivers.

Recreation is a significant land use in Wabasha County. Recreational activities center on the Zumbro River, the Mississippi River and MDNR managed lands. Recreational activities include

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<sup>59</sup>

<https://cms9files1.revize.com/wabasha/planning%20and%20zoning/Zoning%20Maps%20and%20Resources/Land%20Use%20Plan.pdf>

<sup>60</sup> <https://www.wabashacountyhistory.org/history>

<sup>61</sup> <https://www.wabasha.org/community-resources/about/wabashas-chronological-history-heritage/>

fishing, hunting, canoeing, tubing, snowmobiling, walking on trails, bicycling, horseback riding, use of off-road vehicles, and skiing.

### 8.2.6.1 Impacts and Mitigation

Construction of the proposed Project is not expected to conflict with the cultural values of the area, as the 161-kV currently exists within Wabasha County. Its relocation within Wabasha County will be a new impact in a specific area; however, distribution and transmission lines are common occurrences throughout the County. As described in **Section 4.3**, the existing LQ34 line 161-kV transmission line has been serving the local area since the 1950s. It provides several important reliability purposes including maintaining high voltage connections to substations serving the 69-kV transmission grid that ultimately brings power to the load distribution network in the area. The Project will contribute towards continued reliability for residents and others who utilize energy in the region. Therefore, no mitigation is proposed.

### 8.2.7 Public Services and Transportation

The Project is located in a principally agricultural and rural residential area. Private landowners in the Project area have their own private wells and individual sewage treatment systems. The residents also have access to other utility services by various providers, including waste collection, natural gas, cable television, electricity, and telephone. Site improvements, such as septic systems and wells, will be identified during survey activities.

Several existing overhead distribution and transmission lines are located in the Project area (see **Appendices A.1 and A.2**). There are no crude oil or interstate natural gas pipelines in the vicinity of the Project. The Proposed Route will follow the path of existing distribution lines maintained by Xcel Energy and Peoples for approximately 5.1 miles, primarily along State Highway 42 (see **Appendix A.2**).

The Proposed Route will parallel and/or intersect with several township, county, and state-managed roads and highways as described in **Table 8-9** and shown in the maps in **Appendix A**.

**Table 8-9. Highways or Roads within the Project Area**

Highway / Road Name	Jurisdiction	Parallel / Intersects	Traffic Volumes (AADT / 2023) <sup>62</sup>
565 <sup>th</sup> Street	Township	Intersect	Not Available
215 <sup>th</sup> Avenue	Township	Parallel	Not Available
State Highway 42	State	Parallel/Intersect	Not Available
575 <sup>th</sup> Street	Township	Intersect	Not Available
578 <sup>th</sup> Street	Township	Intersect	Not Available
580 <sup>th</sup> Street	Township	Intersect	Not Available
590 <sup>th</sup> Street	Township	Intersect	Not Available
608 <sup>th</sup> Street	Township	Intersect	Not Available
615 <sup>th</sup> Street	Township	Intersect	Not Available
U.S. Highway 61 / Great River Road (Scenic Byway)	State/U.S.	Intersect	4,241 (Seq. 5984)
161 <sup>st</sup> Avenue	Township	Intersect	Not Available

<sup>62</sup> <https://www.dot.state.mn.us/traffic/data/tma.html>

Highway / Road Name	Jurisdiction	Parallel / Intersects	Traffic Volumes (AADT / 2023) <sup>62</sup>
159 <sup>th</sup> Avenue	Township	Intersect	Not Available
County Road 84	County	Parallel/Intersect	Not Available
145 <sup>th</sup> Avenue	Township	Intersect	Not Available

Dairyland has coordinated with the MRPC regarding the crossing of U.S. Highway 61 (Scenic Byway) (see **Section 8.2.1**), in addition to the MnDOT, and the Wabasha County Highway Department for roads under their jurisdiction.

Dairyland met with MnDOT in October 2023 to present the Project. Notes from that meeting regarding the crossing of U.S. Highway 61 are included in **Section 8.2.1**. MnDOT indicated that the agency plans to repave U.S. Highway 61 in 2029; otherwise, no highway expansion projects are currently planned in the Project area. MnDOT recently completed work at the intersection of State Highway 42 and U.S. Highway 61; repaving was done in this area recently as well. No projects are currently forecast for State Highway 42 at this time. Dairyland and MnDOT staff also discussed crossing angles, footings, sight corners, and other technical issues. MnDOT requested that Dairyland complete its Utility Early Notification Memo form and submit it prior to this Application so that staff may begin to conduct an initial environmental review of the Project. Dairyland submitted this form to MnDOT on March 14, 2024. Communications with MnDOT are presented in **Appendix B**.

Dairyland met with the Wabasha County Highway Department in August 2023, early in Project planning. The Wabasha County Engineer advised that work within any Wabasha County Highway ROW, including crossing or adjacent to and within the County’s ROW would require a utility permit from the Wabasha County Highway Department. Dairyland then met with the Wabasha County Highway Department in October 2023 to discuss the County Road 84 alignment. At that time, the initial Project route followed County Road 84 east as it traveled out of the City of Kellogg. The Wabasha County Highway Department described that it planned to eventually soften three 90-degree s-curves along County Road 84. Although there are not currently plans for this work, it could possibly occur within the next 8 to 10 years. The ROW width along County Road 84 is approximately 33 feet (66 feet edge to edge); any improvements made in the future that involve roadway expansion would require pole movement. Considering these restrictions, and alongside coordination with the USACE regarding its development plans for the Rolling Prairie Area (see **Section 8.2.5.2**), and addressing residents’ concerns along County Road 84, Dairyland moved the Project alignment to its present position, which avoids the s-curves and future expansion potential along County Road 84. Communications with the Wabasha County Highway Department are presented in **Appendix B**.

The nearest airport to the Project is the Winona Municipal Airport, located approximately 18 miles southeast of the Project. The Red Wing Regional Airport, located in Hager City, Wisconsin, is over 30 miles northwest of the Project.

#### 8.2.7.1 Impacts and Mitigation

Dairyland will coordinate Project construction schedules, including any outages, with Xcel Energy and Peoples distribution services to avoid and/or minimize disruptions to service in the area. Based

on the location of other existing utilities and site improvements that were identified during survey activities, the transmission line will be designed to meet or exceed required clearances and pole locations. No structure locations will be placed on or near existing utilities. Because the majority of the Proposed Alignment will follow existing ROW, no impacts to public services are anticipated and, therefore, no mitigation is proposed. Similarly, because the Project is primarily proposed to be routed near ROW, Dairyland does not anticipate impacts to site improvements such as wells or septic systems; however, this will be confirmed with landowners during the easement acquisition process.

Temporary access for construction of the transmission line would be along the transmission line ROW. Temporary and infrequent traffic impacts associated with equipment/material delivery and worker transportation will occur. Stringing the conductors and shield wire across roads can be accomplished with minimal traffic impacts. Typically, a pulling rope is simply carried across the road, which is then pulled overhead. Temporary structures may be installed inside or outside of road ROW to ensure pulling lines, shield wire, or conductors to have sufficient clearance over roads. Dairyland will work with MnDOT through its application process for a Utility Accommodation Permit in MnDOT ROW and comply with all permit conditions. Applicable utility permits where the line impacts Wabasha County and local township roads will also be obtained and complied with (see **Table 2-1**).

When appropriate, pilot vehicles will accompany the movement of heavy equipment. Traffic control barriers and warning devices will be used when appropriate. All necessary provisions will be made to conform to safety requirements for maintaining the flow of public traffic. Construction operations will be conducted to offer the least possible obstruction and inconvenience to the traveling public. Dairyland will plan and execute delivery of heavy equipment in coordination with the appropriate road authorities and in a manner that would avoid traffic congestion and reduce the likelihood of dangerous situations along local roadways.

Given that the Project will primarily follow existing utility and road ROW, there will be minimal impacts to other utilities. Dairyland has coordinated with the Wabasha County Highway Department to avoid an area where future curve softening will occur on County Highway 84. Dairyland is not aware of any roadway expansion or repaving projects that will occur at the same time as the Project; therefore, no mitigation measures are proposed. To ensure that any short-term and infrequent traffic impacts are minimized, Dairyland will coordinate with all affected road authorities and, to the extent practicable, schedule large material/equipment deliveries to avoid periods when traffic volumes are high.

Dairyland has initiated consultation with the Federal Aviation Administration (FAA; see **Appendix B**) and will complete a Part 7460 Airport Obstruction Evaluation once a route is determined (see **Table 2-1**). Dairyland does not anticipate any aviation impacts as a result of the Project due to the distance from the nearest airports.

## **8.3 Public Health and Safety**

### **8.3.1 General Construction Safety**

The Project will be designed in compliance with local, state, NESC, and Dairyland standards regarding clearance to the ground, clearance to crossing utilities, strength of materials, and ROW widths. Construction crews and/or contract crews will comply with local, state, and NESC standards regarding installation of facilities and standard construction practices. Dairyland's established safety procedures and industry safety procedures will be followed during and after installation of the transmission line, including clear signage during all construction activities.

#### **8.3.1.1 Impacts and Mitigation**

Dairyland will ensure that safety requirements are met during construction and operation of the facilities. Additionally, when crossing roads or railroads during stringing operations, guard structures will be utilized to eliminate traffic delays and provide safeguards for the public. With implementation of these safeguards and protective measures, no additional mitigation is proposed.

### **8.3.2 Stray Voltage and Induced Voltage**

“Stray voltage” is a voltage that exists between the neutral wire of the service entrance and grounded objects in buildings such as barns and milking parlors.

Transmission lines do not, by themselves, create stray voltage because they do not connect to businesses and residences. Transmission lines can, however, induce a current on a distribution circuit that is parallel and immediately under the transmission line. Structures and other facilities made of conductive material located in close proximity to electric transmission lines may experience an induced current and voltage due to electric and magnetic field coupling between the facilities.

#### **8.3.2.1 Impacts and Mitigation**

If a landowner has stray voltage concerns on their property, Dairyland suggests they contact their electric service provider to discuss the situation with technical staff, including the possibility of an on-site investigation. Additionally, Dairyland will coordinate with local distribution companies to perform pre- and post-construction testing of potentially impacted facilities to ensure no adverse impacts and address property owner concerns.

Induction and its potential impacts can be mitigated through implementation of appropriate design measures and techniques, such as:

- Cancellation – The arrangement of transmission line conductors and shield wires to lower electric and magnetic field levels;
- Separation – Increasing the distance between the transmission line and other conductors or conductive objects. Electric and magnetic field levels decrease rapidly with distance; and
- Grounding of non-energized conductors or conductive objects.

Dairyland will design and construct the proposed facilities to minimize the potential for induction issues. Peoples and Xcel Energy distribution lines will be buried where collocated to eliminate physical conflicts with the Project.

### **8.3.3 Electronic Interference**

Under certain conditions, the localized EF near an energized transmission line conductor can produce small electric discharges, ionizing nearby air. This is commonly referred to as the “corona” effect. Most often, corona formation is related to some sort of irregularities on the conductor, such as scratches or nicks, dust buildup, or water droplets. The air ionization caused by corona discharges can result in the formation of audible noise and radio frequency noise.

Corona formation is a function of the conductor radius, surface condition, line geometry, weather condition, and most importantly, the line’s operating voltage. This section summarizes the potential impacts of the Project on electronic communication and communication devices, including radios, televisions, and microwave communication.

Electromagnetic noise from transmission lines may interfere with electronic communications when it is generated at the same frequencies as communication and media signals. This noise could interfere with the reception of these signals depending on the frequency and strength of the signal and distance from the electromagnetic noise source. Corona interference from transmission lines causes the greatest disturbance in a relatively narrow frequency spectrum, in the range of about 0.1 to 50 megahertz (MHz). Because many communication and media signals are transmitted at higher frequencies, impacts to communication signals are limited.

AM radio frequencies are most commonly affected by corona-generated noise. AM radio frequency interference typically occurs immediately under a transmission line and dissipates rapidly within the ROW to either side.

Television broadcast frequencies are typically high enough that they are not affected by corona-generated noise. In particular, digital and satellite television transmissions are not affected by corona-generated noise because they are dependent on packets of binary information transmitted in the Ku band of radio frequencies (12,000-18,000 MHz). Digital and satellite transmissions are more likely to be affected by multi-path reflections (shadowing) generated by nearby towers. In addition, line-of-sight interference from transmission line structures can affect satellite television transmissions. The use of shielded coaxial cable for cable television transmittals generally makes them insusceptible to interference from electromagnetic noise.

Cellular phone signals use an ultra-high frequency, generally around 900 MHz, which is significantly higher than the range of electromagnetic noise generated by transmission line conductors. GPS signals operate at a higher frequency as well, within the range of 1,225 to 1,575 MHz.

Electromagnetic noise from transmission lines is not an issue for microwave communications. However, microwave communications can be physically blocked by taller transmission structures. Microwave beams are transmitted along aerial pathways between microwave communication



towers. Microwave beam pathways can extend as close as 150 feet to the ground. Transmission line structures for this project would be 75 feet to 140 feet tall.

#### 8.3.3.1 Impacts and Mitigation

No impacts to radio, cellular phones, or GPS units are expected from construction or operation of the Project. Because both cellular phone signals and GPS operate at frequencies outside the range of electromagnetic noise generated by transmission line conductors, the risk of interference is negligible.

Electromagnetic interference to digital and satellite television signals as a result of the Project is not anticipated. If electromagnetic interference to these signals were to occur from multi-path reflections or line-of-sight interference, such interference can be mitigated by use of an outdoor antenna to improve digital signals or by moving the affected satellite antenna to a slightly different location. Electromagnetic interference from a spark discharge source due to imperfections on the conductor or associated equipment can be found and corrected.

Because no impacts on radio, television, cellular phones, or GPS units are anticipated from construction or operation of the Project, no mitigation measures are proposed.

### 8.3.4 Electric and Magnetic Fields

Electricity produces two types of fields, electric and magnetic. These fields are often combined and referred to as EMF.

#### 8.3.4.1 Electric Fields

EF are created wherever there is electricity and when any device or wire is connected to a source of electricity, even when current is not flowing, or if the device is not turned on. Electric fields produced by high-voltage electric transmission lines have little ability to penetrate buildings, or even skin, and are easily shielded by common objects such as trees, fences, and walls.<sup>63</sup>

Although there is no state or federal standard for transmission line EF exposures, the EQB developed a standard of a maximum EF limit of 8-kV per meter (kV/m) at one meter (3.28 feet) above ground; the Commission has adopted this standard. Dairyland has calculated the approximate EF for the Project's transmission configuration and estimates the peak magnitude of EF density to be well below the EQB standard at approximately 1.2-kV/m underneath the conductors, one meter above ground. **Table 8-10** summarizes the EFs calculated for the proposed single circuit transmission line. These EF calculations are also shown graphically in **Diagram 8-4**.

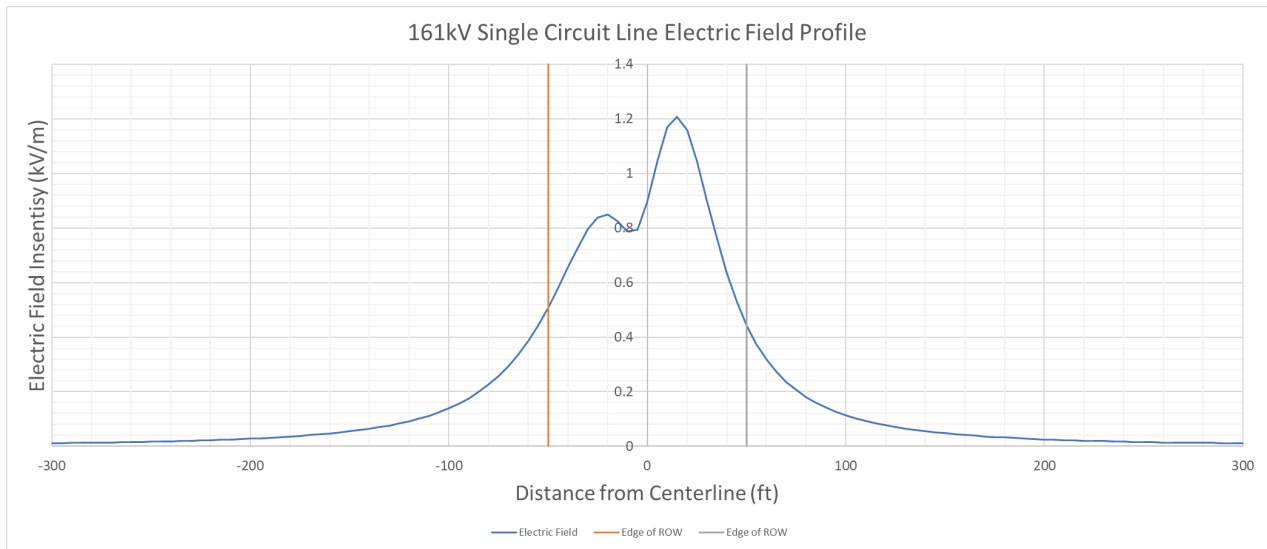
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<sup>63</sup> <https://psc.wi.gov/Documents/Brochures/EMF.pdf>. Accessed on August 24, 2023.

**Table 8-10. Calculated Electric Fields (kV/M) for Proposed Alignment  
(One meter (3.28 feet) above ground)**

Operating Voltage (kV)	Max Operating Voltage (kV)	ELECTRIC FIELD STRENGTH (kV/m)										
		Lateral Distance to Proposed Alignment (feet)										
		-300	-200	-100	-50	-25	MAX	25	50	100	200	300
161	169	0.01	0.03	0.14	0.51	0.84	1.21	1.05	0.44	0.11	0.03	0.01

**Diagram 8-4. 161-kV Single Circuit Line Electric Field Profile**



### 8.3.4.2 Magnetic Fields

Magnetic fields (MF) are created only when there is an electric current, the motion of electric charges (electrons) in a conductor, such as a wire. The magnitude of a MF is proportional to the current flow through an electric line, not the voltage. As the current increases, so does the MF. MFs become weaker rapidly with distance from the source; however, they do pass through most non-metallic materials and are therefore more difficult to shield. In the literature, MF data are presented in either units of Gauss (G) or Tesla (T).

Any device that uses electric current creates a MF. Electric appliances such as computers and refrigerators and the wiring that runs through walls and ceilings in homes produce MFs when current is flowing. **Table 8-11** lists sample ranges of MFs for various appliances and tools. Typical background environmental or ambient MF levels are most often around 1 to 3 milliGauss (mG)<sup>64</sup>.

<sup>64</sup> <https://psc.wi.gov/Documents/Brochures/EMF.pdf>.

**Table 8-11. Magnetic Fields of Common Electric Appliances (mG)<sup>65</sup>**

Appliance*	Distance from Source	
	6 inches	2 feet
Microwave Ovens	100-300	1-30
Dishwashers	10-100	2-7
Refrigerators	Ambient – 40	Ambient - 10
Fluorescent Lights	20-100	Ambient - 8
Copy Machines	4-200	1-13
Drills	100-200	3-6
Power Saws	50-1,000	1-40
* Different makes and models of appliances, tools, or fixtures will produce different levels of MFs. These are generally-accepted ranges.		

There are no federal or Minnesota exposure standards for MFs. The EQB and the Commission have recognized Florida (a 150-mG limit) and New York (a 200-mG limit) state standards. Both state standards are to be considered at the edge of ROW. Studies of the health effects from MFs conclude that the evidence of health risk is weak.<sup>66</sup> The general standard is one of prudent avoidance.

**Table 8-12** summarizes the MFs calculated for the proposed transmission line configuration with power flow at peak historic loading (current line), average loading (current line) and peak rated loading of proposed new line. The MF calculations are also shown graphically in **Diagram 8-5**. The maximum MF under expected peak rated conditions is 78.83 mG at the edge of ROW, as shown in **Table 8-12**. This is well below the standards set by the state of both Florida and New York.

Because the actual power flow on a transmission line could potentially vary throughout the day depending on electric demand, the actual MF level could also vary widely from hour to hour. In any case, the typical magnitude of the MF associated with the proposed transmission line is expected to be well below the calculated intensity at the expected peak rated loading.

**Table 8-12. Calculated Magnetic Fields (mG) for Proposed Alignment Design**

Load Condition	Line Current (Amps)	MAGNETIC FIELD STRENGTH (mG)										
		Lateral Distance to Proposed Alignment (feet)										
		-300	-200	-100	-50	-25	MAX	25	50	100	200	300
Average Historic Load	541	0.83	1.80	6.33	17.32	30.83	43.67	34.62	19.43	6.85	1.88	0.85

<sup>65</sup>

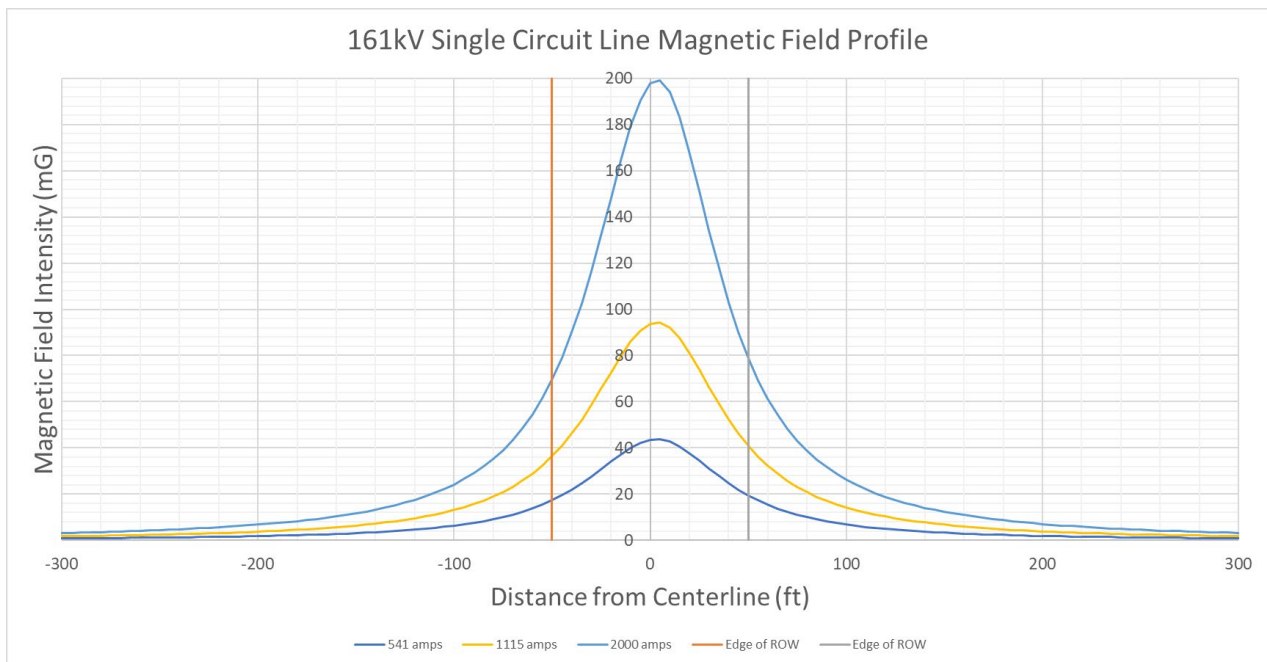
[https://www.niehs.nih.gov/health/materials/electric\\_and\\_magnetic\\_fields\\_associated\\_with\\_the\\_use\\_of\\_electric\\_power\\_questions\\_and\\_answers\\_english\\_508.pdf](https://www.niehs.nih.gov/health/materials/electric_and_magnetic_fields_associated_with_the_use_of_electric_power_questions_and_answers_english_508.pdf)

<sup>66</sup> [www.niehs.nih.gov/health/topics/agents/emf/](http://www.niehs.nih.gov/health/topics/agents/emf/)

Load Condition	Line Current (Amps)	MAGNETIC FIELD STRENGTH (mG)										
		Lateral Distance to Proposed Alignment (feet)										
		-300	-200	-100	-50	-25	MAX	25	50	100	200	300
Peak Historic Load	1115	1.71	3.73	13.16	36.38	65.64	94.17	74.02	40.91	14.23	3.89	1.76
Peak Rated Load	2000	3.08	6.76	24.22	69.66	132.10	199.06	151.31	78.83	26.22	7.06	3.17

Notes: Gray shading indicates edge of ROW.

**Diagram 8-5. 161-kV Single Circuit Line Magnetic Field Profile**



### 8.3.4.3 Implantable Medical Devices

High intensity EMF can have adverse impacts on the operation of implantable medical devices (IMDs) such as pacemakers and defibrillators. While research has shown that the MFs associated with HVTLs do not reach levels at which they could cause interference with such devices, it is possible that the EFs associated with some HVTLs could reach levels high enough to induce sufficient body currents to cause interference.

Modern “bipolar” cardiac devices are much less susceptible to interactions with EFs. Manufacturers of pacemakers and other IMDs, have indicated that EFs below 6-kV/m are unlikely to cause interactions affecting operation of most of their devices. **Table 8-10** and **Diagram 8-4**

show that the EFs for the Project are well below levels at which modern bipolar devices are susceptible to interaction with the fields.

The older “unipolar” designs of cardiac devices are more susceptible to interference from EFs. Research from the early 1990s indicates that the earliest evidence of interference with these types of IMDs could occur in EFs ranging from 1.2 to 1.7-kV/m. For older style unipolar designs, the EFs do exceed levels that research from the 1990s has indicated may produce interference. However, research conducted in 2005 concluded that the risk of interference to unipolar cardiac devices from high voltage power lines in everyday life is small. In 2007, Minnesota Power and Xcel Energy conducted studies with Medtronic, Inc. under 115-kV, 230-kV, 345-kV, and 500-kV transmission lines to confirm these 2005 findings. The analysis was based on real life public exposure levels under actual transmission lines in Minnesota and found no adverse interaction with pacemakers or IMDs. The analysis concluded that although interference may be possible in unique situations, device interference as a result of typical public exposure would be rare.<sup>67</sup>

In the unlikely event that a pacemaker is impacted, the effect is typically a temporary asynchronous pacing (commonly referred to as reversion mode or fixed rate pacing). The pacemaker will return to its normal operation when the person moves away from the source of the interference.

#### 8.3.4.4 Health Studies and Potential Health Impacts

More than 25,000 scientific epidemiological, occupational safety, laboratory animal and cellular studies have been published regarding EMF from respected national and international organizations. Overall, most scientists are convinced that the evidence that power line fields cause or contribute to cancer is weak to nonexistent. The biological studies conducted to-date have not been able to establish a cause-and-effect relationship between exposure to MFs and human disease. Scientists have been unable to identify any plausible biological mechanism by which EMF exposure might cause human disease. There is a general consensus within the scientific community that exposure to EMF is not responsible for human disease.<sup>68</sup>

In 1999, the National Institute of Environmental Health Sciences (NIEHS) issued its final report on “Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields” in response to the Energy Policy Act of 1992. In the report, the NIEHS concluded that the scientific evidence linking EMF exposures with health risks is weak and that this finding does not warrant aggressive regulatory concern. However, in light of the weak scientific evidence supporting some association between EMF and health effects and the fact that exposure to electricity is common in the United States, the NIEHS stated that passive regulatory action, such as providing public education on reducing exposures, is warranted.<sup>69</sup> Other studies have come to similar decisions.<sup>70</sup>

Based on findings like those of the Working Group and NIEHS, the Commission has consistently found that “there is insufficient evidence to demonstrate a causal relationship between EMF

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<sup>67</sup> 2007 Minnesota Power Systems Conference Proceedings (University of Minnesota), *Electromagnetic Compatibility of Active Implantable Medical Devices (AIMD) and Their Interaction with High Voltage Power Lines*, at 23.

<sup>68</sup> <https://psc.wi.gov/Documents/Brochures/EMF.pdf>. Accessed on August 24, 2023.

<sup>69</sup> <http://www.niehs.nih.gov/health/topics/agents/emf/>

<sup>70</sup> Minnesota Department of Health. 2002. *A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options*; World Health Organization. 2007. *Environmental Health Criteria Volume No. 238 on Extremely Low Frequency Fields*

exposure and any adverse human health effects.”<sup>71</sup> This conclusion was further justified in the Route Permit proceedings for the Brookings Project. In the Brookings Project Route Permit proceedings, Great River Energy and Xcel Energy and one of the intervening parties both provided expert evidence on the potential impacts of ELF-EF and ELF-MF, including the World Health Organization findings. The ALJ in that proceeding evaluated written submissions and a day-and-a-half of testimony from the two expert witnesses. The ALJ concluded: “there is no demonstrated impact on human health and safety that is not adequately addressed by the existing State standards for [EF and MF] exposure.”<sup>72</sup> The Commission adopted this finding on July 15, 2010.<sup>73</sup>

#### 8.3.4.5 Impacts and Mitigation

No impacts to public health and safety are anticipated as a result of the Project. The Project will be designed in compliance with local, state, NESC, and Dairyland standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and ROW widths. The Kellogg Substation will be equipped with protective breakers and relays. The protective equipment is designed to de-energize the transmission line when needed. The Kellogg Substation will be protected by barbed-wire-topped fencing. Signage attached to the fence will list the owner (the Kellogg Substation will be owned by Dairyland), provides a telephone contact number, and warns about electrical hazards within the substation.

### 8.3.5 Air Quality and Greenhouse Gases

#### 8.3.5.1 Criteria Pollutants

The Clean Air Act (42 United States Code 7401 et seq. as amended in 1977 and 1990) is the principal federal statute governing air pollution. Under the Clean Air Act, the USEPA set National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants considered harmful to public health and the environment: carbon monoxide (CO), ozone, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead, particulate matter equal to or less than 10 microns in diameter (PM<sub>10</sub>), and fine particulate matter equal to or less than 2.5 microns in diameter (PM<sub>2.5</sub>). The NAAQS include primary standards that are designed to protect human health and secondary standards that are intended to protect public welfare, including visibility and damage to crops and vegetation.

The USEPA and state agencies operate a system of air quality monitoring stations. Data from these monitoring stations are compared to the NAAQS to categorize the air quality of a particular area. Regions of the country that do not meet the NAAQS are designated as “nonattainment” areas. Some areas of the country do not have extensive air quality monitoring networks and are considered “unclassifiable.” Unclassifiable regions are presumed to be in attainment with the

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<sup>71</sup> See, for example, *In the Matter of the Application for a HVTL Route Permit for the Tower Transmission Line Project*, Docket No. ET-2, E015/TL-06-1624, Findings of Fact, Conclusions of Law and Order Issuing a Route Permit to Minnesota Power and Great River Energy for the Tower Transmission Line Project and Associated Facilities (August 1, 2007).

<sup>72</sup> *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, ALJ Findings of Fact, Conclusions and Recommendation at Finding 216 (April 22, 2010, and amended April 30, 2010)

<sup>73</sup> *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, Order Granting Route Permit (September 14, 2010)

NAAQS. Wabasha County is designated as in attainment or unclassifiable for the NAAQS (40 CFR Part 81.324).

### 8.3.5.2 Emissions Related to Construction

During construction, temporary air emissions will occur from the operation of construction equipment, vehicular traffic, and soil disturbance. Construction activities will be performed with standard heavy equipment such as backhoes, cranes, boom trucks, and assorted small vehicles. Dairyland anticipates conducting site preparation activities at the Kellogg Substation site between June and July 2026, and building the Kellogg Substation and 161-kV transmission line between June 2027 – July 2028, as further discussed in **Section 1.5**.

**Table 8-13** summarizes the estimated potential emissions of criteria pollutants from construction activities for the Project. Construction emissions are based on typical counts of diesel-fueled construction equipment, expected hours of operation, and estimated vehicle miles traveled. Detailed emission calculations are provided as **Appendix J**.

**Table 8-13. Construction Emissions of Criteria Pollutants (tons per year)**

Description	NO <sub>x</sub>	CO	VOC <sup>a</sup>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road Engine Emissions	40.71	8.72	2.86	0.02	1.51	1.51
Unpaved Roads	--	--	--	--	4.73	0.48
Commuters and Delivery Vehicles	19.50	3.79	0.75	0.01	0.59	0.59
Earthmoving	--	--	--	--	12.18	1.29
<b>TOTAL</b>	<b>60.20</b>	<b>12.51</b>	<b>3.61</b>	<b>0.03</b>	<b>19.05</b>	<b>3.86</b>
<sup>a</sup> Volatile organic compounds.						

### 8.3.5.3 Emissions Related to Operation

The only potential air emissions from a transmission line result from corona. Corona can produce ozone and oxides of nitrogen in the air surrounding the conductor. Ozone is a very reactive form of oxygen molecule that combines readily with other elements and compounds in the atmosphere, making it relatively short lived. Ozone forms naturally in the lower atmosphere from lightning discharges and from reactions between solar ultraviolet radiation and air pollutants such as hydrocarbons from auto emissions. The natural production rate of ozone is directly proportional to temperature and sunlight, and inversely proportional to humidity. Thus, the conditions that are most likely to cause corona formation on a transmission line – humid, rainy, or foggy conditions – actually inhibit the production of ozone.

Corona-induced ozone, and nitrogen oxides (NO<sub>x</sub>) are typically not a concern for power lines like the Project with operating voltages at or below 161-kV because the EF intensity is too low to produce significant corona. Therefore, Dairyland expects ozone and NO<sub>x</sub> concentrations associated with the Project to be negligible, and well below all federal standards (NO<sub>2</sub> – 100 parts

per billion (ppb) as one-hour average, 53 ppb as annual average; ozone 70 ppb as 8-hour average).<sup>74</sup>

#### 8.3.5.3.1 Impacts and Mitigation

Temporary and localized air quality impacts caused by construction vehicle emissions and fugitive dust from ROW clearing and construction are expected to occur. Exhaust emissions from diesel equipment will vary during construction but will be minimal and temporary. The magnitude of emissions is influenced heavily by weather conditions and the specific construction activity taking place. Appropriate dust control measures will be implemented, including but not limited to:

- Reduced speed limits on access roads and water or other non-chloride-containing dust suppression applications;
- Water application to the ROW to suppress dust during dry weather, as needed;
- If the ROW is wet during construction activities, vehicle tracking of soil from the ROW will be minimized by using wooden or plastic matting at access points; and
- Street sweeping where soils are tracked onto paved roads in accordance with the MPCA Construction Stormwater General Permit.

At the completion of construction activities, all construction-related air impacts would cease. No impacts to air quality are anticipated due to the operation of the transmission line.

#### 8.3.5.4 Greenhouse Gas Emissions

The State of Minnesota is taking significant action to reduce the amount of greenhouse gas emissions produced in the state. As of 2020, Minnesota has experienced a 23% reduction in greenhouse gas emissions across all industry sectors.<sup>75</sup>

Construction of the transmission line will result in temporary minor greenhouse gas emissions from fuel combustion in construction equipment, commuter vehicles, and delivery trucks. **Table 8-14** summarizes the estimated potential emissions of greenhouse gas from construction activities for the Project. Emissions are based on typical counts of diesel-fueled construction equipment, expected hours of operation, and estimated vehicle miles traveled. Detailed emission calculations are provided as **Appendix J**. At the completion of construction activities, all construction-related air impacts would cease.

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<sup>74</sup> “The Clean Air Act, which was last amended in 1990, requires USEPA to set National Ambient Air Quality Standards (40 CFR part 50) for six principal pollutants ("criteria" air pollutants) which can be harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. *Primary standards* provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. *Secondary standards* provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.” <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

<sup>75</sup> <https://www.pca.state.mn.us/sites/default/files/lraq-2sy23.pdf>.



**Table 8-14. Preliminary Estimate: Greenhouse Gas Emissions**

Description	CO <sub>2</sub> (Short Tons)	CH <sub>4</sub> (Short Tons)	N <sub>2</sub> O (Short Tons)	CO <sub>2</sub> e (Short Tons)
Off-Road Engine Emissions	2,697.87	0.11	0.02	2,707.20
Commuters and Delivery Vehicles	188.09	0.00	0.00	188.09
<b>TOTAL</b>	<b>2,885.96</b>	<b>0.11</b>	<b>0.02</b>	<b>2,895.30</b>
Notes: CO <sub>2</sub> – carbon dioxide CH <sub>4</sub> – methane; 1 short ton CH <sub>4</sub> = 25 short tons CO <sub>2</sub> e N <sub>2</sub> O – nitrous oxide; 1 short ton N <sub>2</sub> O = 298 short tons CO <sub>2</sub> e CO <sub>2</sub> e – carbon dioxide equivalent Source: 40 CFR 98 Table A-1: <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98#Table-A-1-to-Subpart-A-of-Part-98">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98#Table-A-1-to-Subpart-A-of-Part-98</a>				

The Project does not include expanded services or increased system capacity. As such, there will be no changes to upstream or downstream greenhouse gas emissions during operation of the transmission line.

#### 8.3.5.4.1 Impacts and Mitigation

Dairyland will minimize vehicle emissions by limiting vehicle idling to only times when necessary. Dairyland also encourages workers to carpool to worksites to minimize the number of vehicles on the ROW, which also limits vehicle emissions.

USEPA’s Greenhouse Gas Reporting Tool<sup>76</sup> shows emissions within Minnesota totaled 34,929,605 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) (38,502,906 tons) in 2020. Accordingly, the preliminary estimate of Project greenhouse gas emissions identified here would be negligible.

#### 8.3.5.5 Climate Resiliency

Climate change is the change in global or regional climate patterns over time. Changes in average precipitation or temperature over years or decades may indicate climate change. Generally, Minnesota’s climate already is changing and will continue to do so. Noticeable effects into the future include warmer periods during winter and at night, increased precipitation, heavier downpours, increased summer heat, and the potential for longer dry spells.<sup>77</sup>

From 1895 to 2024, Wabasha County has experienced an increase in temperature of 0.18 degrees Fahrenheit (°F) per decade and an increase in precipitation of 0.52 inch per decade.<sup>78</sup>

<sup>76</sup> <https://ejscreen.epa.gov/mapper/>

<sup>77</sup> [https://www.dnr.state.mn.us/climate/climate\\_change\\_info/climate-trends.html](https://www.dnr.state.mn.us/climate/climate_change_info/climate-trends.html)

<sup>78</sup> <https://arcgis.dnr.state.mn.us/ewr/climatetrends>

#### 8.3.5.5.1 Impacts and Mitigation

Climate change could result in an increased risk of flooding in the Project area, increased temperatures, extreme weather events such as high winds, and excessive rainfall. The Project as proposed will be designed to withstand these changes and will increase reliability in the Project area.

### 8.4 Land-based Economies

#### 8.4.1 Agriculture

According to the 2017 USDA Census of Agriculture, Wabasha County has 809 individual farms with an average farm size of 285 acres and farmland covers approximately 230,800 acres (66%) of the county. The market value of agricultural products sold was over \$186 million in 2017.<sup>79</sup>

Agricultural lands are the most common land type within the Proposed Route (**Figure 8-2**). Agricultural lands crossed by the Project consist of properties used for pasture, hay, and cultivated crops. The Project is compatible for future and ongoing use as pasture, hay, or other crop cultivation. The Proposed Alignment will cross about 11.2 miles of agricultural land, which conservatively is 135.8 acres (within the 100-foot ROW).<sup>80</sup> There will be some loss of production where poles are installed within areas used for agricultural use. Accordingly, there will be minor, but largely negligible impacts to pasture, hay, and cultivated lands. There is one organic farm within the Proposed Route near MP 2.9; however, it is not crossed by the Proposed Alignment and will not be affected by the Project.<sup>81, 82</sup>

##### 8.4.1.1 Impacts and Mitigation

Some agricultural land may be temporarily removed from production during transmission line construction. Construction of the proposed transmission structures will require repeated access to structure locations to install the structures and to string conductors. Equipment used in the construction process will include backhoes, cranes, boom trucks and assorted small vehicles. Operation of these vehicles on adjoining farm fields can cause rutting and soil compaction, particularly during springtime and otherwise wet conditions. Permanent impacts will occur where transmission structures are placed.

Dairyland will work with landowners to minimize impacts to agricultural activities along the Proposed Alignment and will compensate landowners for any crop damage/loss and soil compaction that may occur during construction. Areas disturbed during construction will be repaired and restored to pre-construction contours as required so that all surfaces blend with the natural terrain and are left in a condition that will facilitate natural revegetation, provide for proper

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<sup>79</sup>

[https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/Minnesota/st27\\_2\\_001\\_0001.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Minnesota/st27_2_001_0001.pdf)

<sup>80</sup> <https://www.usgs.gov/programs/gap-analysis-project/science/land-cover-data-download>

<sup>81</sup> <https://www.mda.state.mn.us/organic-farm-directory-county>

<sup>82</sup> <https://organic.ams.usda.gov/integrity/>

drainage, and prevent erosion. Dairyland will compensate landowners for areas lost for agricultural use due to pole placement.

Specific mitigation measures to be implemented include:

- Local roads will be used as practicable for moving equipment and installing structures.
- Where local roads cannot be used, movement of crews and equipment will be limited to the ROW to the greatest extent possible, including access to the route. Contractors employed by Dairyland will limit movement on the ROW to minimize damage to grazing land or property. If movement outside of the ROW is necessary during construction, permission will be obtained, and any damage will be paid to the landowner.
- Construction will be scheduled during periods when agricultural activities will be minimally affected to the extent possible, or the landowner will be compensated accordingly.
- Ruts that are hazardous to agricultural operations will be repaired or compensation will be provided as an alternative if the landowner desires. Such ruts will be leveled, filled, and graded or otherwise eliminated in an approved manner. In the pasture area, compacted soils will be loosened, and ruts will be leveled by scarifying, harrowing, disking, or by other approved methods. Damage to ditches, terraces, roads, and other features of the land will be corrected using approved methods and landowner-approved seeds or plants where necessary. The land and facilities will be restored as nearly as practicable to their original conditions.
- ROW easements will be purchased through negotiations with each landowner affected by the Project. Restoration or compensation will subsequently be made for reasonable crop damage or other property damages that occurs during construction or maintenance as negotiated.
- Fences, gates, and similar improvements that are removed or damaged will be promptly repaired or replaced.

As discussed in **Section 7.2**, ATWS will be needed for the Project. For temporary staging / laydown yards, which will provide space to store material and equipment, and ATWS along the ROW, Dairyland will work with local landowners to lease the space by agreement with the respective landowner(s), remove and properly dispose of all material and debris, and repair all damages and perform restoration, as necessary. It is anticipated that ATWS on property immediately adjacent to the ROW and on private property will be needed, with the exception of limited equipment access and pulling areas.

#### **8.4.2 Forestry**

Forested areas are shown in **Figure 8-2**. The Proposed Route does not cross any MDNR fee surface lands that are managed as part of a State Forest. Based on review of forested areas using aerial photographs, Dairyland estimates that it will need to clear approximately 14.4 acres of trees within the 100-foot-wide ROW to construct and operate the Project. The ROW will need to be maintained for the safe and reliable operation of the transmission line and therefore, woody vegetation that is removed or cut back within the 100-foot-wide ROW will not be allowed to re-grow to heights that present a concern for transmission line safety.

#### 8.4.2.1 Impacts and Mitigation

Because the Project will largely be collocated and parallel with existing utility and road ROWs, there will be minimal incremental impacts to forested areas from the construction and maintenance of the Project.

Mitigation measures for potential impacts to forest resources would be as follows:

- Dairyland has attempted to follow forest edges where possible to minimize the potential for habitat fragmentation.
- Compensation for the removal of vegetation in the ROW will be offered to landowners during easement negotiations.
- Landowners will be given the option to keep any portions of the trees (e.g., timber, branches, chips, shreds) cut within the easement area.

Dairyland has also developed a VMP for this Project (**Appendix I**).

### 8.4.3 Tourism

Tourism is a significant contributor to the economy of Wabasha County. Tourist destinations near the Project include the Richard J. Dorer Memorial Hardwood State Forest, the Zumbro River, the Mississippi River, McCarthy Lake State WMA, Kellogg-Weaver Dunes SNA, the Upper Mississippi River National Wildlife and Fish Refuge, the U.S. Highway 61 Scenic Byway, and others. Popular activities include fishing, boating, swimming, biking, hiking, camping, horseback riding, hunting, nordic and alpine skiing, etc. Further, locals and tourists value this area alike for its scenic nature (see **Section 8.2.1**).

#### 8.4.3.1 Impacts and Mitigation

The Proposed Route avoids impacts to areas in Wabasha County that would be considered tourist destinations, including avoiding impacts to all public lands. The Project would not preclude tourism activities or appreciably diminish the use or experience at tourist destinations. Dairyland has minimized impacts to tree clearing (see **Section 8.4.2**) by selecting a route through areas that have already been predominately cleared. Dairyland will implement the mitigation measures recommended by the MRPC for the U.S. Highway 61 Scenic Byway crossing, as further discussed in **Section 8.2.1**, and has coordinated with USACE to select a route that is compatible with the Rolling Prairie Property, which may be used for future tourism opportunities (see **Section 8.2.5**). Therefore, no additional mitigation measures are proposed.

### 8.4.4 Mining

There is no mining activity within the Proposed Route or near the Project. Review of the MDNR's Mineral Resource data did not locate any mines within 2 miles of the Project.<sup>83</sup> Several sand and

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<sup>83</sup> [https://www.dnr.state.mn.us/lands\\_minerals/gis\\_data\\_maps/index.html](https://www.dnr.state.mn.us/lands_minerals/gis_data_maps/index.html)

gravel quarries are located in Wabasha County; the closest mines to the Project are located in the city of Wabasha.<sup>84</sup> As no impacts to mining are anticipated, no mitigation is proposed.

#### 8.4.5 Recreation

Recreational resources crossed by and near the Proposed Route are shown on **Figure 8-4**. The Project avoids the majority of the major recreational resources in the Project area.

The Project Alignment crosses two sections of the Zumbrowatha Grant-In-Aid snowmobile trail system at MPs 0.2 and 9.7. The Elba Snowbirds manage the trail system. The Project Alignment also crosses USACE interests associated with the Rolling Prairie Property (see **Section 8.2.5.2**) as well as the U.S. Highway 61 Scenic Byway (see **Section 8.2.1**).

The Zumbro River is located approximately 0.3 mile north and east of the Kellogg Substation. Major recreational activities associated with the Zumbro River include swimming, wading, fishing, and kayaking. The Mississippi River is located beyond the Zumbro River, approximately 0.5 mile east of the Kellogg Substation. Major recreational activities associated with the Mississippi River include fishing, boating, and picnicking.

Several MDNR interests are in the Project area but will not be crossed or otherwise impacted by the Project. The Richard J. Dorer Memorial Hardwood Forest, McCarthy Lake WMA and Kellogg-Weaver Dunes SNA are located south of the Project. The state forest, WMA, and SNA offer varied opportunities for hiking, nordic skiing, snowmobiling, and snowshoeing, as well as hunting, fishing, trapping, and wildlife observation. Several Aquatic Management Areas are located in the Project area but are not crossed, offering opportunities for fishing, including trout fishing. Fishing lakes in proximity to the Project area include McCarthy Lake. There are several parks associated with Wabasha County including Carley State Park, Whitewater State Park, the National Eagle Center, and Coffee Mill Ski Area, all of which are avoided by the Project.

##### 8.4.5.1 Impacts and Mitigation

Dairyland has designed the Project to avoid impacts to the recreational opportunities in the Project area. Regarding the snowmobile trail crossings, transmission lines are compatible with snowmobile trails. The Zumbrowatha trail system presently crosses the CapX2020 system in the area of the first crossing, and the second crossing is near Highway 61. Dairyland currently plans to construct the Project from June 2027 – July 2028, which will likely not conflict with the winter use of the trail system. If construction activities will impact any of the snowmobile trails, Dairyland will coordinate with the trail associations regarding notifications and possible temporary trail closures and/or re-routes. Dairyland is minimizing impacts to the U.S. Highway 61 Scenic Byway (see **Section 8.2.1**) and has coordinated the route across USACE interests in the Rolling Prairie Property, which may be used for future recreational opportunities (see **Section 8.2.5**). Therefore, no additional mitigation measures are proposed.

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<sup>84</sup> <http://www.us-mining.com/minnesota/wabasha-county>

## 8.5 Archaeological and Historic Resources

Based on nineteenth-century General Land Office (GLO) maps and notes on file with the Bureau of Land Management<sup>85</sup>, conditions in 1870 were noted as predominately floodplain with many streams and rivers. Aerial photographs from 1939 show that roads had been constructed and farms established, with agricultural fields dominating the landscape, and by 1949 the City of Kellogg had been established. Subsequent historic and modern aerial photographs show that the landscape of the Project area has remained largely the same since that time, with roads being the main addition to the area.

A cultural resource literature review of the Proposed Alignment and a 0.5-mile buffer on either side was conducted by Merjent, Inc. (Merjent). This literature review and Merjent's evaluation of the possible effects of the proposed Project on historic properties in the Project area was provided to the Minnesota State Historic Preservation Office (SHPO) in a letter dated February 6, 2024 (see communications in **Appendix B** and summary of correspondence in **Section 9.2**<sup>86</sup>); SHPO response to this letter is pending. The following summarizes the results of the literature review.

On December 22, 2023, Merjent retrieved cultural resources site files (archaeological sites and historic structures) and on Tuesday January 16, 2024, retrieved previous survey files from the SHPO. Merjent Cultural Resource Specialists reviewed archaeological site files on the Office of the State Archeologist (OSA) online portal, as well as the GLO maps and available historical aerial photography accessed online through the OSA Portal.<sup>87</sup>

One previous past archaeological survey was identified in the area studied by Merjent. The survey overlaps the current Project at the eastern terminus and includes the area that is proposed for the Kellogg Substation. This survey identified and evaluated some sites and determined that they are not eligible for listing on the National Register of Historic Places (NRHP).

Based on OSA and SHPO files, no archaeological sites intersect the Project Alignment. There are seven archaeological sites within 0.5 miles of the Project. All of these sites range from 430 to 2,580 feet from any Project elements and will not be directly impacted due to distance.

- One site is located north of, but does not intersect, the Project Alignment. This site is characterized as a historic artifact scatter and includes some structural ruins. It has been recommended as Not Eligible for inclusion in the NRHP. According to the site form, this site has been heavily disturbed by plowing and the removal of buildings. The USACE recently purchased this property as part of the Rolling Prairie Area (see **Section 8.2.5.2**).
- Two sites are precontact lithic scatters that are located in close proximity to each other. Both have been determined Not Eligible for listing on the NRHP. Nearby is another site which is a precontact artifact scatter that is unevaluated for the NRHP.

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<sup>85</sup> <https://glorerecords.blm.gov/>

<sup>86</sup> Dairyland has filed public and non-public versions of correspondence with the SHPO in **Appendix B** because it contains sensitive cultural resource data protected by the Archaeological Resources Protection Act of 1979 (16 United States Code 470hh, as amended), and National Park Service and Related Programs (54 United States Code 300101, formerly known as the National Historic Preservation Act, 16 United States Code 470-1).

<sup>87</sup> <https://osa.gisdata.mn.gov/OSAportal>

- The remaining sites consist of two historic artifact scatters which have been determined Not Eligible for inclusion in the NRHP, and one burial mound which is unevaluated for the NRHP.

Fourteen historic buildings and structures are located within the Study Area, four of which intersect the Project area.

- State Highway 42 has the most significant overlap with the Project Route, as the Project follows parallel to State Highway 42 for a large portion of the route. State Highway 42 was determined Not Eligible for listing on the NRHP in 2022.
- U.S. Highway 61 intersects perpendicularly with the Project. U.S. Highway 61 is a designated Scenic Byway. This property was determined Not Eligible for listing on the NRHP in 2018. Dairyland has met with the MRPC and MnDOT regarding this crossing (see **Section 8.2.1 and Appendix B**) and has included photo simulations of the crossing as **Diagrams 8-1 through 8-3**.
- A previously used portion of U.S. Highway 61 (Old Highway 61) intersects perpendicularly with the Project. It was constructed in 1927 and was later superseded when the present-day U.S. Highway 61 was constructed; it is currently designated 161<sup>st</sup> Avenue and is a paved, crowned-and-ditched road. There is an existing overhead distribution line along this road. This site has not been evaluated for listing on the NRHP. Due to collocation with the existing distribution line, this Project will not result in an appreciable change in viewshed.
- The St. Paul and Chicago Railway Company/Chicago Milwaukee and St. Paul Railway Company/Chicago Milwaukee St. Paul and Pacific Railroad Company River Division Railroad Corridor Historic District is a linear railroad-related property that extends from St. Paul to La Crescent, Minnesota. Various sections of this railroad were constructed between 1869 and 1876. This linear district is considered eligible for listing on the NRHP. It intersects perpendicularly with the Project. At the point of intersection, multiple overhead distribution lines are visible 0.2 miles or less from the railroad. Due to extant lines near this property, the Project will not result in an appreciable change in viewshed. It is also actively used by the Canadian Pacific Railroad.

The remaining historic buildings and structures include nine farmsteads, one bridge, and one culvert and do not intersect Project components. Some buildings have since been removed for the Upper Mississippi River Pool 5 Dredged Material Management Plan Rolling Prairie Site (see **Section 8.4.5**).

Dairyland requested feedback on the Project from the 11 federally recognized Tribes with geography within Minnesota and the Minnesota Indian Affairs Council in its Project notification letters sent in December 2023. These correspondences are included in **Appendix B**. To date, no Tribe has conveyed concerns regarding the Project. A copy of the literature review was requested and provided to the Tribal Historic Preservation Officer (THPO) of the Shakopee Mdewakanton

Sioux Community on February 7, 2024 (see communications in **Appendix B** and summary of correspondence in **Section 9.2**);

#### 8.5.1.1 Impacts and Mitigation

Seven archaeological sites and fourteen historic buildings and structures were identified during the literature review. There is potential for Historic-era sites within the Project area because the area has been inhabited at least since the 1930s; however, given that the Project is an overhead transmission line project proposed mostly within already disturbed ROWs, there is a low potential for intact historic sites. The Project area could contain pre-contact sites given its location among several water sources. Given that the Project is located in an area with several existing overhead distribution and transmission lines and will be constructed along and within areas of previous disturbance such as existing ROWs, Dairyland is not presently planning to conduct archaeological surveys ahead of construction. Dairyland will continue to communicate with SHPO and THPOs, as requested, regarding the Project (see **Table 2-1**).

Dairyland has developed an Unanticipated Discoveries Plan (UDP) that outlines the procedures to follow, in accordance with state and federal laws, should archaeological materials or human remains be discovered during construction of the Project (see **Appendix K**). If any such discovery occurs, construction work will be stopped and the UDP will be consulted as to how to proceed. If human remains are encountered during construction activities, all ground disturbing activity will cease, and local law enforcement will be notified per Minn. Stat. § 307.08.

### 8.6 Natural Environment

#### 8.6.1 Topography

The Proposed Route travels across varying topography. The western 8.5 miles of the Proposed Route occurs over flat and rolling terrain ranging in elevation from approximately 1,100 to 1,200 feet above mean sea level (amsl). The Proposed Route then decreases in elevation sharply from approximately 1,100 feet to 700 feet amsl from MPs 8.5 to 9.7 as the Proposed Route descends the bluff on the east side of the Mississippi River valley. The remaining portion of the Proposed Route between MPs 9.7 to 13.3 is generally flat with a minor decrease in elevation from 700 feet to 680 feet. Elevations are shown on **Figure 8-5**.

#### 8.6.1.1 Impacts and Mitigation

Construction of the Project will not alter the topography along the Proposed Alignment and associated 100-foot-wide ROW; therefore, no mitigation is proposed.

#### 8.6.2 Geology

The Blufflands subsection of the Ecological Classification indicates that the depth of drift over bedrock varies from 0 to 50 feet. Bedrock can be exposed in river and stream valleys. Sediment thickness varies by landscape position. Large exposures of bedrock occur in the steep ravines. These exposures are primarily Ordovician dolomite, limestone, and sandstone with Cambrian



sandstone, shale, and dolomite exposed along the valley walls of the Mississippi River. Devonian dolomite and limestone are more locally exposed along the western edge of the subsection.<sup>88</sup>

Karst landscapes can develop where limestone and dolostone are at or near the surface. Limestone is composed mostly of the mineral calcite (calcium carbonate); dolostone is composed mostly of the mineral dolomite (calcium magnesium carbonate). Over time, the carbonate minerals in these rocks are dissolved by rain and groundwater, creating karst. In Minnesota, limestone and dolostone underlie the southeastern corner of the state, and erosion has removed most of the glacial cover and exposed the carbonate bedrock.<sup>89</sup> The MDNR has documented regions prone to surface karst feature development across the state; this information is presented for the Project on **Figure 8-6**.<sup>90, 91</sup> MDNR also noted the presence of karst in its early coordination comments regarding the Project (see **Appendix B**).

Karst is characterized by sinkholes, caves, springs, and underground drainage dominated by rapid conduit flow.<sup>92</sup> A field-verified karst feature, such as a sinkhole, is direct evidence that karst processes are active both on the surface and in a karst aquifer in the subsurface. However, the absence of karst features on the land surface does not imply the absence of karst processes on the land surface or karst hydrology in the subsurface.

As shown on **Figure 8-6**, the Project Route is located in karst-prone areas for approximately 8.3 miles, generally between MPs 0.0 to 8.6. Documented sinkholes are located within 1,000 feet of the Project. The closest sinkholes to the Proposed Alignment and associated 100-foot-wide ROW are located approximately 55 feet west of the ROW at MP 2.4 and 860 feet east of the ROW at MP 3.7. Based on the available attribute data, the locations were identified in 1995 and 2001, respectively. Both locations have been filled.<sup>93</sup> Springs are located within the general Project area, but the closest springs are approximately 1.2 miles from the ROW. The Kellogg Substation is not located in a karst-prone area.

#### 8.6.2.1 Impacts and Mitigation

The Project is located within a region prone to surface karst and within 1,000 feet of documented karst features. However, transmission and distribution line projects have been successfully constructed and operated through this area, including the CapX2020 system. To ensure structural stability in this geological setting, Dairyland will perform geotechnical investigations as outlined in **Section 3.2.2**, including development of a Karst Survey Plan and additional coordination with the MDNR. Following completion of the studies, Dairyland will work with the MDNR to develop a Karst Contingency Plan prior to construction that includes actions to mitigate any unexpected voids encountered during construction.

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<sup>88</sup> <https://www.dnr.state.mn.us/ecs/222Lc/index.html>

<sup>89</sup> <https://cse.umn.edu/mgs/caves-and-karst>

<sup>90</sup> <https://gisdata.mn.gov/dataset/geos-surface-karst-feature-devel>

<sup>91</sup> [https://files.dnr.state.mn.us/waters/groundwater\\_section/mapping/gw/gw01\\_report.pdf](https://files.dnr.state.mn.us/waters/groundwater_section/mapping/gw/gw01_report.pdf)

<sup>92</sup> [https://www.dnr.state.mn.us/waters/groundwater\\_section/mapping/springs.html](https://www.dnr.state.mn.us/waters/groundwater_section/mapping/springs.html)

<sup>93</sup> <https://gisdata.mn.gov/dataset/geos-karst-feature-inventory-pts>

### 8.6.3 Soils

The Blufflands subsection of the Ecological Classification states that the loess thickness is variable and ranges from 30 feet thick on broad ridgetops to less than a foot on valley walls. The predominant soils are Udalfs, with localized Aquents along the floodplains of major rivers. Cambrian siltstones, sandstones, and shales influence soil properties.<sup>94</sup>

USDA, Natural Resources Conservation Service (NRCS) STATSGO2 data were reviewed to describe soil resources in the Project area. The STATSGO2 Database<sup>95</sup> is also referred to as the Digital General Soil Map of the United States and is a broad-based inventory of soils for use in broad planning. Soils are organized by general association units which are derived from more detailed soil survey maps. The general association units were determined by transecting or sampling areas on the detailed maps and then statistically expanding the data to characterize the whole map unit. Each association unit represents a distinctive pattern of soils, relief, and drainage, and is a unique natural landscape. Typically, an association consists of one or more major soils and some minor soils. There are two soil association units that intersect the Proposed Route. These soil associations are listed in **Table 8-15** and shown in **Figure 8-5**.

**Table 8-15. Soil Associations in the Project Area**

Soil Association <sup>96</sup>	General Description <sup>97</sup>
Port Byron-Garwin (s3642)	<b>Port Byron-Garwin</b> association unit is characterized as very deep, well drained to deep poorly drained soils. The soils formed in loess and are found in uplands, terraces, and slightly concave heads of upland drainageways, interfluves on dissected till plains, and treads on stream terraces. Slopes range from 0 to 30%.
Seaton-Palsgrove-New Glarus (s3657)	<b>Seaton-Palsgrove-New Glarus</b> association unit is characterized as very deep to deep, well drained soils that formed in dolostone, other limestone, coarse loess, or residuum formed from limestone. The soils are located on ridge tops and side slopes on uplands near the bluffs along the major valleys and on treads and risers on high stream terraces. Slopes range from 0 to 60%.
Seaton-Lamoille-LaCrescent-Elbaville (s3658)	<b>Seaton-Lamoille-LaCrescent-Elbaville</b> association unit is characterized as very deep, well drained soils that formed in loess. The soils are located on shoulders, side slopes, foot slopes of dissected uplands near the bluffs along major valleys and on treads and risers on high stream terraces. Slopes range from 0-90%.
Waukegan-Sparta-Sartell-Kasota-Estherville-Dickman (s3590)	<b>Waukegan-Sparta-Sartell-Kasota-Estherville-Dickman</b> association unit is characterized as very deep, well to excessively drained soils that formed in glacial outwash plains. The soils are located on concave to convex slopes on glacial outwash plains, valley trains, stream terraces, deltas, kames on moraines, and dune fields. Slopes range from 0 to 70%.
Shiloh-Comfrey (s3716)	<b>Shiloh-Comfrey</b> association unit is characterized as very deep, poorly drained, or very poorly drained soils formed in silty or clayey sediments or loess or loamy alluvium on floodplains and alluvial fans. Slopes range from 0 to 2%.

<sup>94</sup> <https://www.dnr.state.mn.us/ecs/222Mb/index.html>

<sup>95</sup> <https://www.nrcs.usda.gov/resources/data-and-reports/description-of-statsgo2-database>

<sup>96</sup> <https://gisdata.mn.gov/dataset/geos-statsgo2>

<sup>97</sup> <https://www.nrcs.usda.gov/resources/data-and-reports/official-soil-series-descriptions-osd>

### 8.6.3.1 Impacts and Mitigation

Potential impacts of construction are compaction of the soil associated with construction equipment traffic and exposing the soils to wind and water erosion. Soil compaction within wetlands would be mitigated by installation of construction mats, and as described in **Section 7.3**, the restoration contractor would take measures to alleviate soil compaction where needed. Erosion and sediment control methods and BMPs will be utilized to minimize runoff during line construction. Such BMPs may include but are not limited to the installation of sediment barriers (silt fence, straw bales, bio-logs), filter socks, mulch, upslope diversions, and slope breakers. As described in **Section 7.3**, disturbed areas will be restored to their original condition to the extent practicable. Dairyland has also developed a VMP for this Project (**Appendix I**).

There should be no long-term impacts to soil resulting from transmission line construction. Permanent impacts to soil would be limited to areas associated with construction of the structures and the Kellogg Substation.

### 8.6.4 Water Resources

Hydrologic features in the Project area and along the Proposed Route are shown in **Figures 8-7 and 8-8**. Hydrologic features such as wetlands, lakes, and rivers perform several important functions within a landscape, including flood attenuation, groundwater recharge, water quality protection, and wildlife habitat production. The Project lies within the Mississippi River- Winona and Zumbro River watersheds, in the east-central portion of the Lower Mississippi River Basin.<sup>98</sup>

#### 8.6.4.1 Groundwater

The MDNR divides Minnesota into six groundwater provinces. The western segment of the Project, from MPs 0.0 to 8.8, is located in the Karst Province (Province 3), and the eastern segment of the Project, MPs 8.9 to 13.3, is located in the East-central Province (Province 1). The Karst Province is characterized by thin or absent sediment, and therefore aquifers are not as productive, except in major river valleys where sediment thickness is greater. Province 3 is underlain by productive bedrock aquifers; however, those closest to the land surface are often impacted by human activities. The East-central Province is characterized by buried sand aquifers and relatively extensive surficial sand plains, part of a thick layer of sediment deposited by glaciers overlying the bedrock. This Province is underlain by sedimentary bedrock with good aquifer properties.<sup>99</sup>

The Minnesota Department of Health (MDH) enforces the federal Safe Drinking Water Act including the National Primary Drinking Water Regulations created under the Act.<sup>100</sup> These regulations are legally enforceable standards and treatment techniques that apply to public water systems to protect drinking and source water. As a result, Minnesota adopted the State Wellhead Protection (WHP) Rule 4720.5100-4720.5590 in 1997.<sup>101</sup> The MDH is responsible for administering the State WHP Program. Under the WHP Program, public water systems are required to develop and implement a plan that protects its drinking water source. Wellhead

<sup>98</sup> <https://www.dnr.state.mn.us/watersheds/map.html>

<sup>99</sup> <https://www.dnr.state.mn.us/groundwater/provinces/index.html>

<sup>100</sup> <https://www.health.state.mn.us/communities/environment/water/rules/index.html>

<sup>101</sup> <https://www.health.state.mn.us/communities/environment/water/rules/wellhead.html>

Protection Areas (WHPA) are approved surface and subsurface area surrounding a public water supply well or well field that supplies a public water system, through which contaminants are likely to move toward and reach the well or well field.<sup>102</sup> Drinking Water Supply Management Areas (DWSMAs) contain the WHPA but are outlined by clear boundaries, like roads or property lines. The DWSMA is managed in a WHP plan, usually by a city.<sup>103</sup>

The Project Alignment does not cross any DWSMAs or WPAs. The closest DWSMA to the Proposed Alignment is the Kellogg DWSMA, located approximately 770 feet northwest of MPs 9.4 to 9.6 (see **Figure 8-7**).

The County Well Index (CWI) is a database that contains subsurface information for over 533,000 water wells drilled in Minnesota. CWI is maintained by the Minnesota Geological Survey (MGS) in partnership with the MDH. The data are derived from well contractors’ logs of geologic materials encountered during drilling and later interpreted by geologists at the MGS.<sup>104</sup> The CWI indicates that there are four wells located within the Proposed Route, none of which are within the proposed 100-foot-wide ROW. The wells are identified in **Table 8-16**.

**Table 8-16. CWI Wells within the Proposed Route**

Unique ID	Within ROW	Surface Elevation	Well Depth (feet)	Static Water Level (Depth to Water)	Status	Use
160808	N	1205	500	300	Active	Domestic Consumption
432365	N	1180	425	240	Active	Domestic Consumption
570739	N	1145	500	400	Active	Domestic Consumption
674653	N	690	50	N/A	Active	USACE Monitor Well

#### 8.6.4.2 Lakes or Ponds

There are no lakes or ponds<sup>105</sup> crossed by the Proposed Alignment or associated 100-foot-wide ROW; however, there are ponds located within the Proposed Route as shown in **Table 8-17**. In addition, McCarthy Lake is located approximately 240 feet north of the Proposed Alignment and associated ROW near MP 11.0 (**pages 8 and 9 of Appendix A.2**). McCarthy Lake is adjacent to a wetland mitigation bank, which is located to the northeast of the lake. It is also listed as a Public Waters Basin (refer to **Section 8.6.4.4**), a shallow lake by the MDNR<sup>106</sup>, and a wild rice water by the MPCA.<sup>107</sup> McCarthy Lake is not identified on the MDNR’s statewide wild rice inventory.<sup>108</sup> No other wild rice waters or shallow lakes are crossed by the Proposed Route. The next closest wild rice water and shallow lake are 1.8 and 1.6 miles, respectively, from the Proposed Alignment.

<sup>102</sup> <https://gisdata.mn.gov/dataset/water-wellhead-protection-areas>.

<sup>103</sup> <https://www.health.state.mn.us/communities/environment/water/swp/mapviewer.html>.

<sup>104</sup> <https://cse.umn.edu/mgs/cwi>.

<sup>105</sup> <https://gisdata.mn.gov/dataset/water-dnr-hydrography>

<sup>106</sup> <https://gisdata.mn.gov/dataset/water-shallow-lakes-id-by-wldlif>

<sup>107</sup> [https://public.tableau.com/app/profile/mpca.data.services/viz/wild\\_rice\\_v4/Information](https://public.tableau.com/app/profile/mpca.data.services/viz/wild_rice_v4/Information)

<sup>108</sup> [https://files.dnr.state.mn.us/fish\\_wildlife/wildlife/wildrice/statewide-inventory-wild-rice-waters.pdf](https://files.dnr.state.mn.us/fish_wildlife/wildlife/wildrice/statewide-inventory-wild-rice-waters.pdf)

**Table 8-17. Lakes/Ponds Within the Proposed Route**

Lake/Pond Name	Approximate Milepost	NWI Classification	Length Crossed by ROW (feet)	Appendix A.2 Map Page
Unnamed Pond	6.4	Palustrine Unconsolidated Bed (PUBH)	0	5
Unnamed Pond	7.4	Palustrine Unconsolidated Bed (PUBFh)	0	6
Unnamed Pond	7.9	Palustrine Unconsolidated Bed (PUBFh)	0	10

Sources:  
MDNR. 2019. National Wetland Inventory for Minnesota. <https://gisdata.mn.gov/dataset/water-nat-wetlands-inv-2009-2014>. Accessed February 2024.  
MDNR. 2024. MDNR Hydrography Dataset. <https://gisdata.mn.gov/dataset/water-dnr-hydrography>. Accessed February 2024.

8.6.4.3 Rivers and Streams

The MDNR Hydrography dataset has mapped 11 rivers and streams that intersect the Proposed Route and Proposed Alignment<sup>109</sup> (**Figure 8-8, Table 8-18**). All but one of the streams are mapped as unnamed, intermittent streams. The remaining stream is located near MP 9.5 and is a perennial stream named Gorman Creek (see page 8 on **Appendix A.2**). It is also a MDNR Public Waters watercourse (refer to **Section 8.6.4.4**). All of the streams are tributaries to the Mississippi River, which is approximately 0.4 miles from the Kellogg Substation.

**Table 8-18. Rivers and Streams Within the Proposed Route**

River / Stream Name (Kittle Number)	Approximate Milepost	Flow Regime	Agency Designations	Crossed Proposed Alignment (Y/N)	Appendix A.2 Map Page
Unnamed Stream (M-032-031-001)	0.7	Intermittent	NA	Y	1
Unnamed Stream (MAJ-070410210)	1.0	Intermittent	NA	Y	1
Unnamed Stream (MAJ-070413040)	2.6	Intermittent	NA	Y	2
Unnamed Stream (M-034-017-003)	3.2	Intermittent	NA	Y	3
Unnamed Stream (MAJ-07046913)	8.7 9.4	Intermittent	NA	Y (2 crossings)	7, 8
Gorman Creek (M-033)	9.5	Perennial	Public Water, Impaired	Y	8
Old Channel Zumbro River (MAJ-070411303)	11.3 11.4 (2 crossings)	Intermittent	NA	Y (3 crossings)	9
Unnamed Stream (MAJ-07046396)	12.9	Intermittent	NA	Y	10

Source:  
MDNR. 2024. MDNR Hydrography Dataset. <https://gisdata.mn.gov/dataset/water-dnr-hydrography>. Accessed February 2024.

<sup>109</sup> <https://gisdata.mn.gov/dataset/water-dnr-hydrography>

#### 8.6.4.4 Public Waters

Public Waters are wetlands, water basins and watercourses of significant recreational or natural resource value in Minnesota as defined in Minn. Stat. § 103G.005. The MDNR has regulatory jurisdiction over these waters, which are identified on the MDNR Public Waters Inventory maps.<sup>110</sup>

The Proposed Route and Proposed Alignment intersect one MDNR Public Water at MP 9.5, a watercourse named Gorman Creek (see **page 8 on Appendix A.2**).<sup>111</sup> This crossing was identified by MDNR in its early coordination review comments (see **Appendix B**). Gorman Creek is a tributary to the Zumbro River which ultimately connects to the Mississippi River. One additional public water basin, McCarthy Lake, is adjacent to, but outside the Proposed Route (see **Section 8.6.4.2**). It is approximately 240 feet north of the ROW, near MP 11.0 (**page 9 of Appendix A.2**).

#### 8.6.4.5 Impaired Waters

Section 303(d) of the Federal Clean Water Act requires states to publish, every two years, a list of streams and lakes that are not meeting their designated uses because of various impairments. The list, known as the 303(d) list, is based on violations of water quality standards and listed waters are described as “impaired.” In Minnesota, the MPCA has jurisdiction over determining 303(d) waters. The 2022 Impaired Waters<sup>112</sup> and the Draft 2024 Impaired Waters<sup>113</sup> data were evaluated for this Project. The segment of Gorman Creek that crosses the Proposed Route (see **page 8 on Appendix A.2**) is listed under the 2022 data as impaired for Aquatic Macroinvertebrate Bioassessments and is further listed under the draft 2024 data as impaired for Fishes Bioassessments. The next closest impaired water is the Zumbro River. The Zumbro River is approximately 0.3 mile east of the Kellogg Substation and was listed in 2022 and is proposed for relisting in 2024 as impaired for Fecal Coliform, Mercury in Fish Tissue, PCB in Fish Tissue, and Turbidity.

#### 8.6.4.6 Wetlands

Wetlands are important resources for flood abatement, wildlife habitat, and water quality. Wetlands that are hydrologically connected to the nation’s navigable rivers are protected federally under Section 404 of the Clean Water Act.

The USFWS produced maps of NWI wetlands based on aerial photographs and NRCS soil surveys starting in the 1970s. The NWI data were further updated for the state of Minnesota through a multi-agency effort lead by the MDNR and were published in 2019.<sup>114</sup> Wetlands identified by the Minnesota NWI may be inconsistent with current wetland conditions; however, Minnesota NWI data is the most accurate and readily available database of wetland resources within the Project area and were therefore used to identify wetlands occurring within the Proposed Route.

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<sup>110</sup> [https://www.dnr.state.mn.us/waters/watermgmt\\_section/pwi/maps.html](https://www.dnr.state.mn.us/waters/watermgmt_section/pwi/maps.html)

<sup>111</sup> <https://gisdata.mn.gov/dataset/water-mn-public-waters>

<sup>112</sup> <https://gisdata.mn.gov/dataset/env-impaired-water-2022>

<sup>113</sup> <https://gisdata.mn.gov/dataset/env-impaired-water-2024-draft>

<sup>114</sup> <https://gisdata.mn.gov/dataset/water-nat-wetlands-inv-2009-2014>

The Proposed Route contains a number of discrete wetland communities and wetland complexes. These wetlands are primarily located along the eastern portion of the Project, between MPs 10.7 and 12.8 (see **Figure 8-8**). Wetland Cowardin classifications contained within the Proposed Route include Palustrine Forested (PFO) and Palustrine Emergent (PEM). Wetlands within the Proposed Route and crossed by the Proposed Alignment, along which poles would be installed and within the 100-foot-wide ROW, where vegetation clearing would occur, are identified in **Table 8-19** and are shown on maps in **Appendix A.2**.

**Table 8-19. Wetlands Within the Proposed Route**

Approximate Milepost Location	NWI Classification	Length Crossed by Proposed Alignment (poles) (feet)	Length Crossed by 100-foot-wide ROW (clearing) (feet)	Appendix A.2 Map Page
3.9	Palustrine Forested Wetland (PFO1Ah)	0	0	3
8.7	Palustrine Emergent Wetland (PEM1Ch)	0	0	7
9.5	Palustrine Emergent Wetland (PEM1A)	0	0	8
10.8-11.0	Palustrine Forested Wetland (PFO1A)	0	1,130	8, 9
10.8-11.2	Palustrine Emergent Wetland (PEM1A/PEM1Af)	0	0	8, 9
11.3-11.4	Palustrine Forested Wetland (PFO1A)	75	325	9
11.4	Palustrine Emergent Wetland (PEM1Af)	0	0	9
11.5	Palustrine Forested Wetland (PFO1A)	0	0	9
11.8	Palustrine Emergent Wetland (PEM1Af)	185	260	9
12.0	Palustrine Emergent Wetland (PEM1Af)	185	215	9
12.8-12.9	Palustrine Emergent / Forested Wetland Complex (PEM1Af/PEM1C/PFO1A) McCarthy Lake MBS	440	460	10
12.9 (north of Proposed Alignment)	Palustrine Emergent Wetland (PEM1A)	0	0	10
12.9 (north of Proposed Alignment)	Palustrine Forested Wetland (PFO1A)	0	0	10

Source: MDNR. 2019. National Wetland Inventory for Minnesota. Updated 5/23/2019. <https://gisdata.mn.gov/dataset/water-nat-wetlands-inv-2009-2014>

In Minnesota, wetlands are also protected under the Wetland Conservation Act (WCA). In Wabasha County, the Wabasha Soil and Water Conservation District (SWCD) is the LGU for WCA (see communication in **Appendix B**). WCA places special preservation requirements on wetlands that qualify as Rare Natural Communities (RNCs). RNCs may include wetlands NPCs with high conservation status rank (e.g., S1, S2, or S3), or MBS sites with an Outstanding or High

ranking; however, the MDNR ultimately determines whether a plant community constitutes a RNC.<sup>115</sup> Dairyland submitted a Minnesota Conservation Explorer (MCE) online review of the Project on December 13 and 14, 2023, which identified the McCarthy Lake MBS site located between MPs 12.8 and 12.9 as a potential RNC requiring additional consultation with the MDNR (see **Section 8.6.5.1** for additional detail).

The MCE online review also identified a designated calcareous fen<sup>116</sup> in the vicinity of the Project (**Appendix B**). Calcareous fens are a rare and unique type of peat-accumulating wetland with unique vegetation influenced by its calcium-rich (non-acidic) chemistry, low oxygen and relatively cold soil conditions, and upwelling groundwater hydrology.<sup>117</sup> Fens are protected under Minn. Stat. 103G.223, which provides that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by an activity, unless approved by the MDNR through a fen management plan. Based on the review of the MDNR's Calcareous Fen geospatial dataset,<sup>118</sup> one designated fen is located 1.4 miles south of MP 10.8 within the MDNR's McCarthy Lake WMA (**Figure 8-7**). The designated fen is named McCarthy Lake Fen, with the unique fen ID number 31975.

#### 8.6.4.7 Impacts and Mitigation

No impacts to groundwater or groundwater supplies are anticipated as a result of the Project. Dewatering activities are not expected for this Project, and if the need arises, would likely be minor. The MDNR can issue water appropriation authorizations if dewatering should exceed permit thresholds (see **Table 2-1**). Any effects on water tables would be localized and short term and would not affect hydrologic resources.

As described in **Section 8.6.4.6**, McCarthy Fen is located 1.4 miles south of the Proposed Alignment. This feature is located adjacent to U.S. Highway 61, the Canadian Pacific Railway and within 750 feet of the CapX2020 transmission line. Residences and agricultural buildings and structures are also located within 0.5 miles of the fen feature. Review of the CWI Well Log data for domestic consumption wells (**Table 8-16**) indicates that the depth to water level is between 240-400 feet deep; therefore, pole installation would not affect aquifers. Once a final route has been selected, Dairyland will further coordinate with the MDNR to ensure that ground disturbance activities, such as pole placement, do not disrupt potential groundwater hydrology associated with the calcareous fens (see **Table 2-1**).

There are no lakes crossed by the Proposed Alignment and associated 100-foot-wide ROW. Waterbodies crossed by the Proposed Alignment and associated ROW, including the Gorman Creek Public Water (subject to a License to Cross Public Waters from the MDNR; see **Table 2-1**), are spaced such that construction activities related to pole placement will avoid impacts to those water resources and work will occur outside of the Ordinary High Water Level. Dairyland may elect to install temporary bridges across waterways prior to construction along the ROW as described in **Section 7.2.1**. In addition, Dairyland will utilize erosion and sediment control BMPs

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<sup>115</sup> [https://bwsr.state.mn.us/sites/default/files/2019-01/Wetland\\_WCA\\_Rare\\_Nat\\_Comm\\_Tech\\_Guidance.pdf](https://bwsr.state.mn.us/sites/default/files/2019-01/Wetland_WCA_Rare_Nat_Comm_Tech_Guidance.pdf).

<sup>116</sup> Calcareous fens are protected under Minn. Stat. 103G.223 and Minn. Rules Part 8420.0935.

<sup>117</sup> [https://files.dnr.state.mn.us/natural\\_resources/water/wetlands/calcareous\\_fen\\_fact\\_sheet.pdf](https://files.dnr.state.mn.us/natural_resources/water/wetlands/calcareous_fen_fact_sheet.pdf)

<sup>118</sup> <https://gisdata.mn.gov/dataset/biota-nhis-calcareous-fens>.



(e.g., silt fencing) to mitigate the potential for sediment to reach any streams or ponds adjacent construction activities. The Project will not contribute to Gorman Creek’s impaired listing for Aquatic Macroinvertebrate Bioassessments as no work will occur in the waterbody.

Temporary impacts to wetlands within the 100-foot-wide ROW identified in **Table 8-19** will occur during construction of the transmission line. No wetland impacts will occur during construction of the Kellogg Substation. As discussed in **Section 7.2.1**, construction mats will be installed in wetlands to minimize compaction and impacts to vegetation. Dairyland will avoid placement of ATWS for material storage and staging or stringing setup areas within or adjacent to water resources to the extent practicable. As discussed in **Section 7.3**, wetlands will be restored to pre-construction conditions following completion of construction activities.

As shown in **Table 8-19**, the majority of the wetlands crossed by the Proposed Alignment centerline are less than 300 feet long. Span distances between pole structures will vary between 300 and 1,000 feet (see **Table 3-1** in **Section 3.2.1**), which would allow Dairyland to place most poles outside of the wetland footprints and avoid permanent fill. If, however, the final transmission line design cannot enable the Project to span discrete wetland segments, permanent impacts to wetlands will occur where a structure is located in the wetland. The wetland complex crossed by the Proposed Alignment between MP 12.8 and 12.9 (page 10 in **Appendix A.2**) is listed as an MBS site ranked as “High” and qualifies as a potential RNC (see **Section 8.6.5.1**). No poles will be placed in this wetland.

Vegetation maintenance procedures under transmission lines prohibit the establishment of trees. Existing trees will be removed throughout the entire ROW, including forested wetlands. The ROW will cross approximately 1,700 feet of forested wetlands; these forested wetlands will undergo permanent vegetative changes within the ROW. Dairyland has also developed a VMP for this Project (**Appendix I**).

As described in **Section 2.4** and as shown in **Table 2-1**, Dairyland, in consultation with the USACE, St. Paul District, anticipates seeking coverage under the Utility Regional General Permit for Section 404 wetland impacts once design of the Project is complete. Dairyland has been assigned a Regulatory File Number (No. MVP-2023-01630-RMH) and a USACE Project Manager for this Project (**Appendix B**). The MPCA’s has issued Section 401 Water Quality Certification for projects that meet the conditions of the Regional General Permit (see **Table 2-1**). Dairyland will also coordinate with the Wabasha County Soil and Water Conservation District regarding WCA.

## **8.6.5 Flora and Fauna**

### **8.6.5.1 Flora**

Flora can be generally characterized for the Project area using the Ecological Classification System.<sup>119</sup> The system was developed by the MDNR and U.S. Forest Service for ecological mapping and landscape classification. The top three tiers of the system consist of Province,

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<sup>119</sup> <https://www.dnr.state.mn.us/ecs/index.html>

Section, and Subsection. The Project falls in the Eastern Broadleaf Forest Province, Paleozoic Plateau Section, and Blufflands subsection.

The Eastern Broadleaf Forest Province serves “as a transition, or ecotone, between semi-arid portions of the state that were historically prairie and semi-humid mixed conifer-deciduous forests to the northeast. The western boundary of the province in Minnesota is sharply defined along much of its length as an abrupt transition from forest and woodland to open grassland.”<sup>120</sup>

The Paleozoic Plateau Section is a rugged region of bluffs and valleys that was originally a plateau underlain by flat-lying sedimentary rocks of the Paleozoic Era; however, in the past 10,000 years the landscape has been highly eroded and dissected by tributary streams and rivers to the Mississippi River, such as the Root, Whitewater, Zumbro, and Cannon rivers and their predecessors. The most important factors influencing the pattern of vegetation in the historical landscape were slope, aspect, flooding, and the likelihood of burning. Prairies occupied the flat, fire-prone remnants of the plateau in the western part of the section. Steep slopes in dissected areas protected the landscape from fire, which allowed dry prairies to form on the tops of southwest-facing bluffs and oak woodlands to develop downslope and northward and eastward along the slopes.<sup>121</sup>

The Blufflands subsection further details the flora that is characteristic of the Project area. Pre-settlement vegetation was comprised of tallgrass prairie and bur oak savanna on ridge tops and dry upper slopes. Red oak-white oak-shagbark hickory-basswood forests were present on moister slopes, and red oak-basswood-black walnut forests in protected valleys. Prairie was restricted primarily to broader ridge tops, where fires could spread, but also occurred on steep slopes with south or southwest aspect. The current vegetation and land use is partially made up of cropland (30%) and pasture (20%). The remaining 50% of the subsection is woodland.<sup>122</sup>

Through the MBS, MDNR systematically collects, interprets, and delivers baseline data on the distribution and ecology of rare plants, rare animals, NPC classes, and functional landscapes and designates sites which exhibit these characteristics as SOBS. MBS sites established by the MDNR are then ranked as follows:

- **Outstanding:** Sites contain the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most ecologically intact or functional landscapes.
- **High:** Sites contain very good quality occurrences of the rarest species, high-quality examples of rare native plant communities, and/or important functional landscapes.
- **Moderate:** Sites contain occurrences of rare species moderately disturbed native plant communities, and/or landscapes that have strong potential for recovery of native plant communities and characteristic ecological processes.

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<sup>120</sup> <https://www.dnr.state.mn.us/ecs/222/index.html>

<sup>121</sup> <https://www.dnr.state.mn.us/ecs/222L/index.html>

<sup>122</sup> <https://www.dnr.state.mn.us/ecs/222Lc/index.html>

- Below: Sites lack occurrences of rare species and natural features or do not meet MBS standards for outstanding, high, or moderate rank.

The Proposed Alignment crosses one MBS site known as “McCarthy Lake” (ranked as High) for approximately 440 feet between MPs 12.8 and 12.9 (see **page 10 of Appendix A.2**). Because this is a wetland MBS site, it may qualify as an RNC following review by MDNR. There are no other MBS sites within the Proposed Route. There are no NPCs within the Proposed Route or crossed by the Proposed Alignment.

There are no other designated areas within the Proposed Route or crossed by the Proposed Alignment which are associated with rare flora communities, such as MDNR SNAs, Native Prairies, or Railroad ROW Prairies. Calcareous fens are discussed in **Section 8.6.4.6**. Federal and state-listed species are discussed in **Section 8.6.7**.

#### 8.6.5.2 Fauna

The Project is located in the MDNR Nongame Wildlife – Central Region.<sup>123</sup> The Central Region provides habitat for non-game species such as tundra swans during migratory periods, red-headed woodpeckers, raptors, trumpeter swans, mice, turtles, frogs, and snakes. Additional species that inhabit the Project area include deer, small game, forest upland birds, pheasants, waterfowl, turkey, and doves.

The Proposed Route and Proposed Alignment do not cross any MDNR WMAs.<sup>124</sup> The closest MDNR WMA is the McCarthy Lake WMA, which is located approximately 0.2 miles south of the Proposed Alignment near MP 11.3.

Dairyland reviewed the USFWS National Realty<sup>125</sup> tract data; the Upper Mississippi River National Wildlife and Fish Refuge is located approximately 265 feet to the northeast of the Kellogg Substation. This area is also designated as an IBA. No USFWS administered properties are located in the Proposed Route or are crossed by the Proposed Alignment. Federal and state-listed species are discussed in **Section 8.6.7**.

#### 8.6.5.3 Impacts and Mitigation

Minimal impacts to native vegetation are anticipated. The Proposed Alignment will primarily follow existing road corridors or would be located in agricultural fields, which will minimize impacts to previously undisturbed vegetation in that area. As described in **Section 8.4.2**, Dairyland will clear approximately 14.4 acres of trees within the 100-foot-wide ROW associated with the Proposed Alignment. Dairyland has also developed a VMP for this Project (**Appendix I**).

The McCarthy Lake MBS site (MPs 12.8 to 12.9; **page 10 in Appendix A.2**) occurs within PFO and PEM wetlands identified in **Section 8.6.4.7**. The Proposed Alignment would be collocated with County Road 84 at the McCarthy Lake MBS crossing. Temporary impacts to the MBS site

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<sup>123</sup> <https://www.dnr.state.mn.us/eco/nongame/central.html>

<sup>124</sup> <https://www.dnr.state.mn.us/maps/compass/index.html>

<sup>125</sup> FWS National Realty Tracts | FWS National Realty Tracts | U.S. Fish & Wildlife Service GIS Data (arcgis.com)

will occur during construction activities. To minimize impacts to this MBS site, Dairyland has committed to the following BMPs:

- utilize construction mats to minimize ground disturbance;
- not park equipment, stockpile supplies, or place spoil within the MBS site;
- inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of invasive species;
- use effective erosion and sediment control BMPs;
- revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible; and
- use only certified weed-free mulches and seed mixes.

Dairyland's VMP (**Appendix I**) reflects these commitments within this MBS site. Further, Dairyland will avoid placement of pole structures within the MBS site by spanning this area and will minimize forested vegetation clearance by collocating with the road ROW.

There is minimal potential for the displacement of wildlife and loss of habitat from construction of the Project. Wildlife that inhabits natural areas could be impacted in the short-term within the immediate area of construction. The distance that animals will be displaced will depend on the species. Additionally, these animals will be typical of those found in agricultural and forested settings and should not incur population level effects due to construction. Impacts and mitigation regarding federal and state-listed species are discussed in **Section 8.6.7.1**.

Raptors, waterfowl, and other bird species may be affected by the construction and placement of the transmission lines. Avian collisions are a possibility after the completion of the transmission lines. Waterfowl are typically more susceptible to transmission line collision, especially if the transmission line is placed between agricultural fields that serve as feeding areas, or between wetlands and open water, which serve as resting areas. Project design and construction will be done in accordance with Avian Power Line Interaction Committee (APLIC) guidelines. Any eagle or other migratory bird nests discovered during survey of the line or in the land acquisition process will be reported to the USFWS and Dairyland will adhere to guidance provided.

### **8.6.6 Invasive Species Management**

The movement of construction equipment to, from, and between various work sites may introduce and/or spread invasive species. Terrestrial plant invasive and noxious species in Minnesota are regulated by the Minnesota Department of Agriculture (MDA),<sup>126</sup> and aquatic invasive and noxious species are regulated by the MDNR.<sup>127</sup> The MDNR also manages terrestrial plant invasive and noxious species on public lands and at public waters. The MDNR maintains a geospatial

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<sup>126</sup> Minn. Stat. § 18.75-18.913

<sup>127</sup> <https://www.dnr.state.mn.us/invasives/index.html>

dataset of terrestrial invasive and noxious species observations;<sup>128</sup> according to this dataset, wild parsnip (*Pastinaca sativa*), an MDA control species, has been documented at several locations along State Highway 42 and also along County Road 84.

#### 8.6.6.1 Impacts and Mitigation

Dairyland will manage documented occurrences of terrestrial plant invasive and noxious species that are listed as “eradicate”<sup>129</sup> or “control”<sup>130</sup> under the “Prohibited Noxious Weed” category by the MDA. Further, Dairyland will adhere to the requirements set forth by the MDNR Utility License to Cross Public Waters and Natural Heritage Review consultation process. Dairyland proposes to implement the following BMPs during Project construction to minimize the potential for the introduction or spread of terrestrial plant invasive and noxious species:

- Limiting grading and excavation to areas surrounding pole structure foundations, and only as needed along access roads and workspace areas for a level and safe working area.
- Installing construction mats for travel lanes in wetlands and other specific locations as described in **Section 7.2**.
- All disturbed areas will be revegetated using “Noxious Weeds; None Found” seed mixes.
- All disturbed areas will be revegetated using seed mixes labelled “Noxious Weeds; None Found” in accordance with regulations and will utilize yellow tag seed when available.
- Compliance with MPCA Construction Stormwater General Permit, including stabilization requirements, and inspection, maintenance and repair of erosion and sediment control BMPs. Certified weed-free straw or weed-free hay will be used for erosion and sediment control BMPs.
- All construction equipment must be clean prior to entering and before leaving the work site.
- Manual, mechanical, or chemical management of invasive and noxious weed infestations.
- The Construction Field Representative will oversee BMP installation and effectiveness.

Dairyland has also developed a VMP for this Project that will incorporate these BMPs (**Appendix I**). Dairyland will not conduct activities within waterbodies; therefore, no mitigation to manage aquatic invasive and noxious species are proposed.

#### 8.6.7 Rare and Unique Natural Resources

Dairyland’s consultant, Merjent, submitted a formal Minnesota Natural Heritage Review Request (2023-00935) on December 13, 2023, through the MDNR’s MCE, and provided an updated route on December 14, 2023. The MDNR’s December 18, 2023 early coordination letter confirmed this submittal and noted that a manual Natural Heritage review was required by the MDNR due to the presence of rare features and state-listed species within the vicinity of the Project area, and that

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<sup>128</sup> <https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs>

<sup>129</sup> Prohibited noxious weeds placed on the noxious weed eradicate list are plants that are not currently known to be present in Minnesota or are not widely established. These species must be eradicated (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

<sup>130</sup> Prohibited noxious weeds placed on the noxious weed control list are plants that are already established throughout Minnesota or regions of the state. Species on this list must be controlled (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

Natural Heritage Review staff would contact Dairyland when the final Natural Heritage Review letter is complete and provide all recommendations and requirements for state-listed species. MDNR’s Natural Heritage Review response is still pending as of the date of this Joint Application. Correspondence with the MDNR to-date is included in **Appendix B**.

In addition, Dairyland reviewed the USFWS Information for Planning and Consultation (IPaC) website<sup>131</sup> to obtain a list of federally threatened and endangered species, candidate species, and designated critical habitat that have been previously documented within the vicinity of the Proposed Route.

#### 8.6.7.1 State-Listed Species

In addition to the MCE request above, Merjent consulted the MDNR Natural Heritage Inventory System (NHIS) data through License Agreement LA 1066 on December 14, 2023. MDNR recommends that Project proposers evaluate NHIS records for state-listed species within one mile of Project impacts. Species within one mile of the Project Alignment and associated 100-foot-wide ROW that are listed as special concern, threatened, or endangered are provided in **Table 8-20**. Species and suitable habitat descriptions for the listed threatened or endangered species are provided below, as well as an evaluation whether there is suitable habitat present within the Proposed Route. Species of special concern are considered state-listed but are not legally protected.

**Table 8-20. State-Listed Species within One Mile of the Project Alignment**

Common Name	Scientific Name	State Status
A Jumping Spider	<i>Pelegrina arizonensis</i>	Special Concern
A Jumping Spider	<i>Phidippus apacheanus</i>	Special Concern
A Jumping Spider	<i>Habronattus viridipes</i>	Special Concern
A Jumping Spider	<i>Sassacus papenhoei</i>	Special Concern
American Eel	<i>Anguilla rostrata</i>	Special Concern
Bell's Vireo	<i>Vireo bellii</i>	Special Concern
Black Sandshell (mussel)	<i>Ligumia recta</i>	Special Concern
Blue Sucker	<i>Cycleptus elongatus</i>	Special Concern
Cattail Sedge	<i>Carex typhina</i>	Special Concern
Creeping Juniper	<i>Juniperus horizontalis</i>	Special Concern
Goat's Rue	<i>Tephrosia virginiana</i>	Special Concern
Gophersnake	<i>Pituophis catenifer</i>	Special Concern
Gray's Sedge	<i>Carex grayi</i>	Special Concern
Green Dragon	<i>Arisaema dracontium</i>	Special Concern
Kentucky Coffee Tree	<i>Gymnocladus dioica</i>	Special Concern
Lake Sturgeon	<i>Acipenser fulvescens</i>	Special Concern
Lark Sparrow	<i>Chondestes grammacus</i>	Special Concern
Leonard's Skipper	<i>Hesperia leonardus leonardus</i>	Special Concern
Mississippi Silvery Minnow	<i>Hybognathus nuchalis</i>	Special Concern
Muskingum Sedge	<i>Carex muskingumensis</i>	Special Concern

<sup>131</sup> <https://ecos.fws.gov/ipac/>

Common Name	Scientific Name	State Status
North American Racer	<i>Coluber constrictor</i>	Special Concern
Old Field Toadflax	<i>Nuttallanthus canadensis</i>	Special Concern
Plains Hog-nosed Snake	<i>Heterodon nasicus</i>	Special Concern
Plains Wild Indigo	<i>Baptisia bracteata var. glabrescens</i>	Special Concern
Red-shouldered Hawk	<i>Buteo lineatus</i>	Special Concern
Regal Fritillary	<i>Argynnis idalia</i>	Special Concern
Rhombic Evening Primrose	<i>Oenothera rhombipetala</i>	Special Concern
Round Pigtoe (mussel)	<i>Pleurobema sintoxia</i>	Special Concern
Swamp White Oak	<i>Quercus bicolor</i>	Special Concern
Yellow Pimpernel	<i>Taenidia integerrima</i>	Special Concern
Yellow-fruit Sedge	<i>Carex annectens</i>	Special Concern
Beach Heather	<i>Hudsonia tomentosa</i>	Threatened
Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened
Butterfly (mussel)	<i>Ellipsaria lineolate</i>	Threatened
Clasping Milkweed	<i>Asclepias amplexicaulis</i>	Threatened
Davis' Sedge	<i>Carex davisii</i>	Threatened
Fawnsfoot (mussel)	<i>Truncilla donaciformis</i>	Threatened
Monkeyface (mussel)	<i>Theliderma metanevra</i>	Threatened
Mucket (mussel)	<i>Actinonaias ligamentina</i>	Threatened
Spike (mussel)	<i>Eurynia dilatata</i>	Threatened
Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened
Wood Turtle	<i>Glyptemys insculpta</i>	Threatened
Crystal Darter	<i>Crystallaria asprella</i>	Endangered
Ebonysell (mussel)	<i>Reginaia ebonus</i>	Endangered
Pallid Shiner	<i>Hybopsis amnis</i>	Endangered
Pistolgrip (mussel)	<i>Tritogonia verrucosa</i>	Endangered

## Beach Heather

Beach heather is a low mat-forming evergreen shrub, typically about ankle high. In Minnesota, they occur on high and sandy beaches of large lakes, but most often, they are found on active sand dunes that are not directly associated with lakes. If dune blowouts are not kept open by wind, they become overgrown by grasses and other plants, and the beach heather will disappear. On active dunes, beach heather can become nearly buried by blowing sand, but it produces new roots along the buried portions of the stem, allowing it to continue to grow upwards.<sup>132</sup> Suitable habitat for beach heather is not present within the Proposed Route.

## Blanding's Turtle

The Blanding's turtle averages 5.9 to 9.8 inches in length and has a domed upper shell with bright yellow chin and throat. These turtles prefer calm, shallow waters, including wetlands associated with rivers and streams with rich aquatic vegetation. Blanding's turtles typically overwinter in

<sup>132</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=PDCIS03030>

muddy bottoms of deep marshes, backwater pools, ponds, and streams. Small, temporary wetlands are frequently used by Blanding's turtles in spring and early summer when these habitats provide basking sites and mating opportunities. Nesting occurs in sparsely vegetated uplands with well-drained, sandy soils.<sup>133</sup> Suitable habitat for the Blanding's turtle is present within the Proposed Route.

### **Butterfly Mussel**

The butterfly mussel has a triangular shell up to 5 inches long. The butterfly mussel usually inhabits areas of large rivers with swift currents in sand or gravel substrates but can be found in reservoirs in some southern states. Butterfly mussels spend most of their lives buried in the bottom sediments of permanent waterbodies, and often live in multi-species communities called mussel beds.<sup>134</sup> Suitable habitat for butterfly mussels is not present within the Proposed Route.

### **Clasping Milkweed**

Clasping milkweed is a perennial plant reaching 1.6 feet in height and has large opposite leathery leaves. In Minnesota, clasping milkweed occurs exclusively in dry, sandy, and sparsely vegetated soil in savannas, upland prairies, and requires full sunlight and minimal competition from other perennials. Clasping milkweed requires that the original open conditions of savannas or upland prairies be maintained or recreated, preferably with a program of controlled burns conducted in early spring before the plants have emerged from winter dormancy.<sup>135</sup> Suitable habitat for the clasping milkweed is not present within the Proposed Route.

### **Davis' Sedge**

Davis' sedge is a grass-like perennial herb of forested floodplains and swamps in the Midwest and east-central states. All Minnesota Davis' sedge populations occur in mature alluvial forests associated with major river valleys of the Mississippi River drainage in the southeastern corner of the state and seems to be restricted to floodplain zones that are inundated by only the highest flood events. Davis' sedge has not been recorded in areas that remain inundated for weeks at a time.<sup>136</sup> Suitable habitat for Davis' sedge is not present within the Proposed Route

### **Fawnsfoot Mussel**

Fawnsfoot is a small mussel with a stout elliptical shell that typically inhabits flowing waters of permanent large rivers or lakes, buried in sediments. In Minnesota, the Fawnsfoot occurs in

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<sup>133</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ARAAD04010>

<sup>134</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV13010>.

<sup>135</sup>

<https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=PDASC02020#:~:text=The%20flowers%20are%20green%2C%20with,the%20axils%20of%20the%20leaves.>

<sup>136</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=PMCYP033G0>.



flowing areas of large rivers in soft or coarse substrate, and they have been found at depths up to 30 feet.<sup>137</sup> Suitable habitat for Fawnsfoot is not present within the Proposed Route.

### **Monkeyface Mussel**

Monkeyface is a mussel with a shell squarish in shape that can reach up to 5 inches long. Monkeyface are typically found in the St. Croix River in stable substrates in water over 6.6 feet deep and are very rarely found in the Mississippi River. They spend most of their lives buried in the bottom sediments of permanent waterbodies, and often live in multi-species communities called mussel beds.<sup>138</sup> Suitable habitat for the Monkeyface is not present within the Proposed Route.

### **Mucket Mussel**

Mucket is a mussel with an oblong shell that can reach up to 6 inches long. The mucket mussel is known to inhabit medium to large rivers, substrates that are most preferred include coarse sand and gravel. They spend most of their lives buried in the bottom sediments of permanent waterbodies, and often live in multi-species communities called mussel beds. Mucket mussels are now common only in the St. Croix River and some of its tributaries and occurs in low densities in the Mississippi River.<sup>139</sup> Suitable habitat for the mucket is not present within the Proposed Route.

### **Spike Mussel**

Spike is a mussel with an elongate shell that can reach up to 6 inches long. Spike mussels are usually found in small to large rivers, but they are also known to inhabit reservoirs and lakes. They are most often found in sand and gravel substrates in depths ranging from 2 to 24 feet and are usually associated with outlet habitats dominated by swift currents. Spike is now common only in the St. Croix River and its tributaries, Rose Creek, and at the outlet of Lake Pepin on the Mississippi River.<sup>140</sup> Suitable habitat is not present within the Proposed Route.

### **Timber Rattlesnake**

The timber rattlesnake is a large snake, averaging 31.5 to 48 inches in length. In Minnesota, the ideal habitat for timber rattlesnakes includes forested bluffs, south-facing rock outcrops, and bluff prairies, particularly in the Mississippi River valley. Bluff prairies located on steep, south or west-facing hillsides, with rock outcroppings and ledges, are essential habitat components because over-wintering dens are often located in these areas. Surrounding forests, prairies, and agricultural lands are used as summer feeding grounds. Two necessary habitat components for this species are open areas for thermoregulation and dens for over-wintering.<sup>141</sup> Suitable ideal habitat for timber

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<sup>137</sup>

<https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV45020#:~:text=In%20Minnesota%2C%20the%20Fawnsfoot%20occurs,range%20has%20expanded%20above%20St>

<sup>138</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV39080>.

<sup>139</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV01020>.

<sup>140</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV14100>.

<sup>141</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ARADE02040>.

rattlesnakes is not present within the Proposed Route; however, suitable summer feeding grounds are present within the Proposed Route.

### **Wood Turtle**

Wood turtle averages 5.5 to 8 inches in length and its shell is comprised of individual plate-like scales. The wood turtle preferring small- to medium-sized, fast-moving rivers and streams with adjacent deciduous and coniferous forests. The substrates of wood turtle streams typically consist of sand or gravel. Wood turtles will occupy adjacent alder thickets, forest, grassland habitat, and agriculture fields for basking and foraging. Sandy, sparsely vegetated areas that are not prone to flooding and have ample exposure to direct sunlight provide important nesting sites.<sup>142</sup> Suitable streams with deciduous and coniferous forests are not present within the Proposed Route; however, agricultural fields that provide suitable habitat for basing and foraging are present within the Proposed Route.

### **Crystal Darter**

Crystal darters can reach up to 6.3 inches long and are pale yellow, slender, and have 4 to 8 dark side bars, often connected to 4 dark saddles across the back. In Minnesota, crystal darters occur in medium to large rivers, usually with clean sand and gravel bottoms and moderate to swift currents.<sup>143</sup> Suitable habitat for the crystal darter is not present within the Proposed Route.

### **Ebonysell Mussel**

The ebonysell is a mussel that has a round shell reaching up to 4 inches long. The ebonysell mussel primarily inhabits large rivers in sand or gravel. Ebonysells live buried in the bottom sediments of permanent waterbodies, and often live in multi-species communities called mussel beds. In Minnesota, the ebonysell is presently restricted to the lower St. Croix River above Lakeland and at Prescott.<sup>144</sup> Suitable habitat for the ebonysell is not present within the Proposed Route.

### **Pallid Shiner**

Pallid Shiner is a small, slender minnow that reaches a maximum total length of about 2.6 inches. Pallid Shiners inhabit large- and medium-sized rivers and occasionally streams, often at the downstream ends of sand and gravel bars. In Minnesota, pallid shiners have been found in the St. Croix and Mississippi Rivers.<sup>145</sup> Suitable habitat for the pallid shiner is not present within the Proposed Route.

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<sup>142</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ARAAD02020>.

<sup>143</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=AFCQC01010>

<sup>144</sup>

<https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV17060#:~:text=The%20ebonyshell%20was%20originally%20listed,an%20endangered%20species%20in%201996>

<sup>145</sup>

<https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=AFCJB15010#:~:text=Conservation%20%2F%20Management,to%20impacts%20from%20human%20activities>

## Pistolgrip Mussel

Pistolgrip is a mussel with an elongate shell reaching 8 inches long. They spend most of their lives buried in the bottom sediments of permanent waterbodies, and often live in multi-species communities called mussel beds. In Minnesota, the pistolgrip is most often found inhabiting larger rivers in areas with moderate current and gravel substrates, the best remaining populations are in the lower St. Croix River.<sup>146</sup> Suitable habitat for the pistolgrip is not present within the Proposed Route.

### 8.6.7.2 Federally Listed Species

Based on the official species list provided by the USFWS (**Appendix B**), five species federally listed under Endangered Species Act (ESA), one species proposed for listing, and one candidate species has been previously documented within the vicinity of the Proposed Route (**Table 8-21**). Species and suitable habitat descriptions for the species in **Table 8-21** are provided below, as well as a conclusion whether there is suitable habitat present within the Proposed Route. No federally designated critical habitat is present within the Proposed Route.

**Table 8-21. Federally Protected Species within the Proposed Route**

Common Name	Scientific Name	Federal Status
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered
Rusty Patched Bumble Bee	<i>Bombus affinis</i>	Endangered
Higgins Eye Pearlymussel	<i>Lampsilis higginsii</i>	Endangered
Sheepnose Mussel	<i>Plethobasus cyphus</i>	Endangered
Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	Endangered
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered
Monarch butterfly	<i>Danaus plexippus</i>	Candidate

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are not legally protected under the ESA or in the state of Minnesota. The Bald and Golden Eagle Protection Act (BGEPA), however, protects and conserves bald and golden eagles from take of an individual bird, chick, egg, or nest, including alternate and inactive nests. BGEPA prohibits disturbance that may lead to biologically significant impacts, such as interference with feeding, sheltering, roosting, and breeding or abandonment of a nest. The disturbance distance for active bald eagle nests is 660 feet (0.125 mile).<sup>147</sup>

## Northern Long-eared Bat

The range of the northern long-eared bat (NLEB) stretches across much of the eastern and midwestern United States. During summer, the bats roost singly or in colonies under bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places such as caves and mines. This species is thought to be opportunistic in selecting roosts, using tree species based on the tree's ability to retain bark or provide cavities or

<sup>146</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IMBIV44010>

<sup>147</sup> [https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines\\_0.pdf](https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines_0.pdf)

crevices. It has also been found, rarely, roosting in structures such as barns and sheds. In winter, NLEBs use caves and mines as hibernacula.<sup>148</sup> Suitable habitat for the NLEB is present within the Proposed Route.

### **Rusty Patched Bumble Bee**

The rusty patched bumble bee is a medium-sized bumble bee; workers and males are characterized by a rusty-colored patch located centrally on the second abdominal segment. Queens lack the species' eponymous rusty patch and can be further distinguished from workers and males by their large size.

Suitable habitat for the rusty patched bumble bee can be found in grasslands, prairies, marshes, agricultural areas, woodlands, and residential parks and gardens. The species is a generalist forager and utilizes both pollen and nectar from a wide variety of plants. Nests are commonly established underground in abandoned rodent burrows or other cavities; however, the species may also use clumps of grass aboveground. Rusty patched bumble bees may choose sites in sandy, moss-covered soils on northwest slopes, and may be found in interior forest areas; areas with these characteristics near forested edges and open fields may be especially important. They may also use other areas, such as compost piles or mole hills.<sup>149,150</sup> Suitable habitat for the rusty patched bumble bee is present within the Proposed Route.

The USFWS has identified “high potential zones” around current records (i.e., 2007-present); these areas indicate a high probability of rusty patched bumble bee presence. Within these zones, both suitable and unsuitable habitat may be present.

A portion of the Proposed Route between MPs 12.0 to 13.3, including the Kellogg Substation is within a high potential zone for rusty-patched bumble bees.<sup>102</sup> Based on a desktop assessment, the majority of this segment of the Proposed Route is currently in agricultural production, which does not provide suitable habitat for the rusty patched bumblebee. However, the MDNR MBS site between MPs 12.8 and 12.9 (see **Section 8.6.5.2**) is a non-agricultural area within the high potential zone, which may provide suitable habitat for the rusty patched bumble bee.

### **Higgins Eye Pearlymussel**

The Higgins eye pearlymussel is a freshwater mussel of larger rivers where it is typically found in deep water with moderate currents. The animals bury themselves in sand and gravel river bottoms with just the edge of their partially opened shells exposed; the species feeds by siphoning the water for microorganisms. Since 1980, live Higgins eye pearlymussels have been found in parts of the upper Mississippi River north of Lock and Dam 19 at Keokuk, Iowa, and in three tributaries of the Mississippi River: the St. Croix River between Minnesota and Wisconsin, the Wisconsin River in

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<sup>148</sup> <https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>.

<sup>149</sup> <https://www.fws.gov/species/rusty-patched-bumble-bee-bombus-affinis>.

<sup>150</sup>

<https://www.fws.gov/sites/default/files/documents/Section%207%20guidance%20for%20rusty%20patched%20bumble%20bee%20%28Bombus%20affinis%29.pdf>.

Wisconsin, and the lower Rock River between Illinois and Iowa.<sup>151</sup> Suitable habitat for the Higgin's eye pearly mussel is not present within the Proposed Route.

### **Sheepnose Mussel**

Sheepnose is a freshwater mussel which reaches 5.5 inches in length. Sheepnose are generally found in medium to large stream systems, typically within shallow shoal habitats with moderate to swift currents over mixtures of coarse sand, gravel, and clay. Individuals may occur in aquatic areas ranging from riffles of a few inches in depth to runs that exceed six meters in larger rivers. Sheepnose continues to occupy the Upper Mississippi, Ohio, Tennessee, and Lower Mississippi River basins.<sup>152</sup> Suitable habitat for the sheepnose mussel is not present within the Proposed Route.

### **Spectaclecase Mussel**

Spectaclecase are a large freshwater mussel with an elongated shell that can grow up to 9 inches in length. Spectaclecase mussels are found in large rivers where they live in areas sheltered from the main force of the river current. This species often clusters in firm mud and in sheltered areas, like beneath rock slabs, between boulders and even under tree roots. The spectaclecase's current range includes Alabama, Arkansas, Illinois, Iowa, Kentucky, Minnesota, Missouri, Tennessee, Virginia, West Virginia, and Wisconsin.<sup>153</sup> Suitable habitat for the spectaclecase is not present within the Proposed Route.

### **Tricolored Bat**

The tricolored bat is one of the smallest bats species native to North America. The species overwinters in caves and mines where available. However, throughout much of its range in the southern United States, roadside culverts, tree cavities, and abandoned water wells may also serve as suitable overwintering habitat.

During the active season (generally, April 1 to October 31), the species may be found roosting among leaf clusters (live and dead) on living or recently dead deciduous hardwood trees. Roost choice may also vary by region and this species has been observed roosting in eastern red cedar trees and pine needles, as well as within manufactured structures such as barns and bridges.<sup>154</sup> Suitable habitat for the tricolored bat is present within the vicinity of the Proposed Route.

On September 13, 2022, the USFWS published a proposed rule listing the tricolored bat as federally endangered under the ESA.<sup>155</sup>

### **Monarch Butterfly**

The monarch butterfly is a large butterfly with an approximate 3- to 4-inch wingspan and characterized by bright orange coloring on the wings, with distinctive black borders and veining.

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<sup>151</sup> <https://www.fws.gov/species/higgins-eye-lampsilis-higginsii>.

<sup>152</sup> <https://www.fws.gov/species/sheepnose-plethobasus-cyphus>

<sup>153</sup> <https://www.fws.gov/species/spectaclecase-cumberlandia-monodonta>.

<sup>154</sup> <https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus>.

<sup>155</sup> <https://www.fws.gov/press-release/2022-09/proposal-list-tricolored-bat-endangered>.

The species can be found in a wide variety of habitats including prairies, grasslands, urban gardens, road ditches, and agricultural fields, provided a supply of nectaring plants are available for adult foraging and milkweed plants are present for laying eggs and as a food source for caterpillars.<sup>156</sup> Suitable habitat for the monarch butterfly may be present within the Proposed Route.

On December 17, 2020, the USFWS published the result of its 12-month review of the monarch butterfly and determined that listing the species under the ESA was “warranted but precluded,” meaning the species meets the criteria for listing as an endangered or threatened species, but the USFWS cannot currently implement the listing because there are other listing actions with a higher priority. The species is now a candidate for listing; however, candidate species are not protected under the ESA.<sup>157</sup> The USFWS has added the monarch to the updated national listing workplan and based on its listing priorities and workload, intends to propose listing the monarch in Fiscal Year 2025, if listing is still warranted at that time, with a possible effective date within 12 months of the proposed rule. The USFWS will also conduct an annual status review to determine if changes in prioritization are necessary. Suitable habitat for the monarch butterfly may be present within the Proposed Route.

### **Bald Eagles**

Bald eagles may occur and nest throughout Minnesota in areas with suitable habitat.<sup>158</sup> Bald eagles commonly nest in trees but may also nest in other tall structures, such as rocky outcrops, cliffs, utility poles, and communication towers. They typically nest near bodies of water. Bald eagle breeding pairs may have more than one nest and may alternate use of these nests from year to year. Bald eagles may roost communally during migration, winter, and summer.<sup>159</sup> Suitable nesting habitat for bald eagles is present within the Proposed Route and within the vicinity of the Proposed Alignment.

#### 8.6.7.3 Impacts and Mitigation

Dairyland will continue to coordinate with the MDNR and USFWS to avoid and minimize Project impacts on sensitive species (also see **Table 2-1**).

The following general measures will be used to help avoid or minimize impacts to rare and unique natural resources during and after the completion of the proposed transmission line:

- BMPs will be used to prevent erosion of the soils in the areas of impact.
- Sound water and soil conservation practices will be implemented during construction and operation of the Project to protect topsoil and adjacent water resources and minimize soil erosion. Practices may include containing excavated material, protecting exposed soil, and stabilizing restored soil.
- Disturbed areas will be re-vegetated with native species and wildlife conservation species, where applicable if the landowner agrees.

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<sup>156</sup> <https://www.fws.gov/species/monarch-butterfly-danaus-plexippus>.

<sup>157</sup> USFWS. Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly. 85 Federal Register 81813 (December 17, 2020).

<sup>158</sup> <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ABNKC10010>

<sup>159</sup> Ref. at 158

- Raptor protection measures will be implemented, including following APLIC Avian Safe Design recommendations and placement of bird flight diverters on the line after consultation with the MDNR and/or USFWS.

#### 8.6.7.3.1 State-Listed Threatened and Endangered Species

Suitable habitat for the following state-listed threatened and endangered species is not present within the Proposed Route; therefore, impacts are not anticipated, and no mitigation measures are needed:

- Beach Heather;
- Butterfly mussel;
- Claspig Milkweed;
- Davis' Sedge;
- Fawnsfoot mussel;
- Monkeyface mussel;
- Mucket mussel;
- Spike mussel;
- Crystal Darter;
- Ebonyshell mussel;
- Pallid Shiner; and
- Pistolgrip mussel.

Suitable habitat for the following state-listed threatened and endangered species is present within the Proposed Route:

- Suitable habitat for the Blanding's turtle;
- Suitable feeding grounds for the timber rattlesnake; and
- Suitable basking and foraging habitat for the wood turtle.

MDNR's Natural Heritage Review response is still pending as of the date of this Joint Application Dairyland anticipates that the MDNR's MCE letter will provide requirements and recommendations to avoid and minimize impacts to these species. Once a final route has been selected, Dairyland will work with the MDNR to implement avoidance and conservation measures necessary to minimize impacts to these species.

#### 8.6.7.3.2 Federally Listed Species

Suitable habitat for the following federally endangered mussel species is not present within the Proposed Route; therefore, impacts are not anticipated, and mitigation is not needed:

- Higgin's Eye (Pearlymussel);
- Sheepnose mussel; and
- Spectaclecase mussel.

Suitable habitat for the following federally listed, candidate, and species proposed for listing is present within the Proposed Route.

## Northern Long-eared Bat

Based on the USFWS Determination Key (DKey) for the NLEB, in areas with a federal nexus, the Project “may affect, but is not likely to adversely affect” the species. With that determination of effect, a “Consistency Letter” (**Appendix B**) was generated. For areas that do not have a federal nexus, the Project is unlikely to result in “unauthorized take” of NLEB. Dairyland will commit to the minimization and avoidance measures outlined in the DKey; therefore, no impacts are anticipated.

## Rusty Patched Bumble Bee

A portion of the Proposed Route between MPs 12.0 and 13.3, including the Kellogg Substation is within a high potential zone for rusty-patched bumble bees; however, based on a desktop assessment, the majority of the Proposed Route within this segment is in agricultural production, which does not provide suitable habitat for the rusty patched bumblebee. The Proposed Route does cross a non-agricultural area within the high potential zone between MPs 12.8 and 12.9. This area corresponds with the McCarthy Lake MBS site discussed in **Section 8.6.5.2 (page 10 in Appendix A.2)** as well as the wetland complex discussed in **Section 8.6.4.6**. Similar to Dairyland’s avoidance of that MBS site and wetland, Dairyland will avoid placing structures in the high potential zone location by spanning this area; however, the forested components within the ROW will be permanently converted to herbaceous vegetation. Further, temporary impacts will occur during construction including clearing activities, installation of construction mats, and equipment travel down the ROW. Dairyland has committed to a number of BMPs as outlined in **Section 8.6.5.3**. Therefore, impacts to the rusty patched bumble bee are not anticipated.

## Tricolored Bat

Potential impacts to individual tricolored bats may occur if clearing or construction takes place when the species is roosting in its summer habitat, in trees outside of hibernacula. Bats may be injured or killed if occupied trees are cleared during this active window. Tree clearing activities conducted when the species is in hibernation and not present on the landscape will not result in direct impacts to individual bats but could result in indirect impacts due to removal of suitable roosting habitat.<sup>160</sup>

## Monarch Butterfly

If the USFWS determines the Monarch Butterfly should be listed and protections for the species coincide with Project planning, permitting, and/or construction, Dairyland will review Project activities for potential impacts to the species and develop appropriate avoidance and mitigation measures.

Constructing within and/or adjacent to an existing utility ROW minimizes impacts to suitable habitat for the Monarch Butterfly.

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<sup>160</sup> <https://ecos.fws.gov/ServCat/DownloadFile/221212>



## **Bald Eagle**

If bald eagle nests are identified within 660 feet of construction activities, during the eagle's active season, Dairyland will coordinate with the USFWS and MDNR regarding potential impacts and to obtain the necessary permits.

### **8.7 Summary of Potential Environmental Effects**

Dairyland analyzed the potential environmental effects of the proposed Project. Generally, Project effects are anticipated to be temporary and/or minor. No homeowners will be displaced by the Project. All land impacted during construction will be restored to the extent possible, and landowners will be compensated for any crop losses due to construction operations or structure and conductor placement.

The peak magnitude of EF associated with the new line (1.2-kV/m) will be significantly less than the maximum EF limit adopted by state regulators (8-kV/m). No stray voltage issues are anticipated. Similarly, Project facilities will comply with applicable noise standards. The Project will parallel existing roads, railroad, and utility ROWs for much of its length. The routing of the Project minimizes potential tree removal but may require the permanent removal of approximately 14.4 acres of trees within its ROW. There are wetlands within the proposed transmission line ROW. Dairyland prefers to span wetlands and all wetlands crossed by the Proposed Alignment could feasibly be spanned as the majority are less than 300 feet in length, and the maximum only 440 feet long. In addition, sometimes stakeholder requests may preclude the design from avoiding some wetlands. Unavoidable impacts include a change in aesthetics, the presence of additional traffic during construction on the local roads, and permanent clearing of forested areas within the 100-foot-wide ROW. The Proposed Route also occurs in karst-prone areas that will require additional geotechnical investigation prior to construction activities. These and other potential environmental effects, as well as applicable avoidance and minimization measures, are described in more detail in **Chapter 6** of this Application.

EERA is responsible for environmental review of the Project and will prepare an EA that analyzes the Project's potential environmental impacts.

### **8.8 Unavoidable Impacts**

Minnesota Rule 7850.1900, subpart 3(G) requires that an application discuss "human and environmental effects that cannot be avoided if the facility is approved at a specific site or route." The Project will be designed, constructed, and operated using processes and procedures, as described in this Application, which will avoid, minimize, and mitigate potential impacts. There will nevertheless be nominal impacts that cannot be avoided. The nominal impacts from construction activities will include soil compaction and erosion, short-term traffic delays, vegetative clearing, visual impacts, habitat loss, temporary disturbance and displacement of wildlife, and loss of land use for other purposes. The nominal impacts from operations will include the continued maintenance of tall growing vegetation, conversion of agricultural land, visual impacts, interference with AM radio signals, and individual wildlife impacts from habitat reduction and avian collisions.

The Project will require only minimal commitments of resources that are irreversible and irretrievable. Irreversible commitments of resources are those that result from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments are those that result from the loss in value of a resource that cannot be restored after the action. For the Project, those commitments that do exist are primarily related to construction. Construction resources will include aggregate resources, concrete, steel, and hydrocarbon fuel. During construction, vehicles necessary for these activities will be deployed on site and will need to travel to and from the construction area, consuming hydrocarbon fuels. Other resources will be used in pole construction, pole placement, and other construction activities.

As described in **Section 1.7**, Dairyland employed various methods to engage and inform the public and federal, state, and local agencies and Tribal Nation representatives regarding the Project.

### **9.1 Public Outreach**

Dairyland hosted two in-person public open houses and an online on-demand open house to gather feedback on the Proposed Route for the Project. Copies of the communications supporting this effort are provided in **Appendix L**.

Dairyland held two public open house events at St. Agnes Catholic Church in the City of Kellogg, Minnesota, on November 9, 2023. Prior to the open houses, Dairyland developed a list of key stakeholders, which included local, regional, and state elected officials, community organizations, agencies, and school districts. A total of 130 letters, including a Project fact sheet with map, were mailed to stakeholders on October 19, 2023. An email was sent to the same list of contacts on November 3, 2023.

Dairyland pulled parcel information and created a mailing list for landowners within the Notice Area (**see Figure 9-1**), a 5-mile buffer zone surrounding the Project Alignment. Dairyland mailed approximately 3,537 postcards to recipients within the Notice Area on October 26, 2023. A printed newspaper advertisement ran in the Wabasha County Herald on October 31 and November 7.

Social media posts and advertisements were used to promote the open houses and online engagement opportunities, engage the communities near the Project area, and drive traffic to the Project website. Social media campaigns included the following: targeted Facebook advertisements (November 2 – 9 to advertise the open houses, and November 12 – 20 to encourage participation in the online open house); post on Dairyland’s Facebook page; Twitter/X posts (November 2, 7, and 16); and LinkedIn post (November 6). The open house opportunities were also included on the Dairyland website at <https://www.dairylandpower.com/wabasha-relocation-project>.

Approximately 60 people signed in at the November 9, 2023 open houses. Some attendees chose not to sign-in and were not included in the sign-in sheets. Dairyland technical representatives provided information about the Project and answered questions and/or responded to comments concerning:

- the reason for the Project;
- the process for permitting;
- tree/vegetation cutting or removal;
- what would be needed for easements;
- how easements are acquired; and
- when the permitting and construction process would occur.

There were no formal presentations; attendees were welcome to come anytime during the meeting times to review and provide feedback on the Proposed Route. Large posters showing the proposed

transmission line alignment and pictures of what the pole structures would look like were also available for review.

Some landowners asked if Dairyland could string the new proposed 161-kV line on existing distribution structures on their property. Some landowners had questions regarding EMF and transmission line safety. Some landowners expressed concern regarding the Project's impact on their property, including their property value, and/or impacts to operations on their property (e.g., location of the Project near existing or planned structures, impacts to farming and dairy operations).

In addition to the in-person open houses, Dairyland hosted an online on-demand open house for the public to learn more about the Project and share their comments. The online open house was available November 2 – 23, 2023. The site hosted the same information that was available at the in-person open house, including all content from the open house boards. It also included an interactive map for participants to add comments and questions to the Proposed Route by dropping a pin at a specific location on the map. The website included ADA compliant accessibilities for those who needed them. A Project email address was set up for landowners, stakeholders, etc. to leave their comments or ask questions about the Project. From November 2 – 23, a total of five emails were sent to [connect@dairylandtransmissionproject.com](mailto:connect@dairylandtransmissionproject.com).

Dairyland also implemented its Notice Plan, as approved by the Commission, by mailing a notice letter to local and tribal officials, as well as landowners within a 5-mile notice area. Notice was published in the Star Tribune and the Wabasha County Herald.

The public will be afforded additional opportunities to participate and comment on the Project in accordance with Minnesota laws and regulations. This process is described in **Section 2.3**. The first opportunity for public involvement in the regulatory process is a public information and scoping meeting conducted by Commission staff and EERA staff after the Commission's acceptance of this Application as complete.

The public and interested stakeholders will have the opportunity to review this Application and to submit comments to the Commission about the Project. A copy of the Application will be available on the DOC's energy project website (<http://mn.gov/commerce/energyfacilities>) and on the Project's website (<https://www.dairylandpower.com/wabasha-relocation-project>). Additionally, this application will be available for the public to review at:

Plainview Public Library  
345 1st Ave NW  
Plainview, MN 55964

Public information and scoping meetings will be held in the Project area by Commission and EERA staff after the Commission's acceptance of this Application as complete to answer questions about the Project and to solicit public comments and suggestions for matters to examine during environmental review. After EERA prepares an EA for the Project, public hearings will be held in the Project area, and members of the public will be given an opportunity to ask questions and submit comments. Dairyland will also present further evidence to support the need and route for the Project.

Persons interested in receiving notices and other announcements about the Project’s Certificate of Need and Route Permit Application can subscribe to the dockets by visiting <https://mn.gov/puc/edockets/>, clicking on “Go to eDockets” in the middle of the page, clicking on “eFiling Home/Login” in the left menu, clicking on the “Subscribe to Dockets” button, entering their email address and select “Docket Number” from the “Type of Subscription” dropdown box, then select “[23]” from the first Docket Number drop down box and enter “[504]” in the second box before clicking on the “Add to List” button. You must then click the “Save” button at the bottom of the page to confirm your subscription to the Project’s Certificate of Need docket. These same steps can be followed to subscribe to the Project’s Route Permit docket (23-388).

Persons wanting to have their name added to the Project mailing list may send an email to [eservice.admin@state.mn.us](mailto:eservice.admin@state.mn.us) or call (651) 201-2246. Please be sure to note: (1) how you would like to receive notices (regular mail or email); (2) your complete mailing or email address and (3) the docket numbers (ET3/CN-23-504 (Certificate of Need) or ET3/TL-23-388 (Route Permit)).

Contact information for the Minnesota state regulatory staff for this Project are listed below:

**Minnesota Public Utilities Commission**

Trevor Culbertson  
121 7th Place East, Suite 350  
St. Paul, MN 55101-2147  
(651) 201-2200  
(800) 657-3782  
[trevor.culbertson@state.mn.us](mailto:trevor.culbertson@state.mn.us)  
[www.mn.gov/puc](http://www.mn.gov/puc)

**Minnesota Department of Commerce – EERA**

Jim Sullivan  
85 7th Place East, Suite 280  
St. Paul, MN 55101-2198  
(651) 539-1059  
(800) 657-3710  
[jim.sullivan@state.mn.us](mailto:jim.sullivan@state.mn.us)  
[www.mn.gov/commerce/energyfacilities](http://www.mn.gov/commerce/energyfacilities)

**9.2 Agency and Tribal Outreach**

Dairyland began contacting agencies with potential interest in the Project in mid-2023. Then, once the Proposed Alignment was developed after the open houses described in **Section 9.1**, Dairyland sent initial notification letters to federal, Tribal, state, and local agencies listed below on December 18, 2023. Copies of these letters, as well as all other correspondence to date, is included in **Appendix B**. Dairyland has incorporated information received during agency consultations into the relevant sections of this Joint Application. Where additional coordination has occurred, Dairyland has summarized that outreach below with references to the section of this Application which provides additional detail.

**Federal Agencies**

- U.S. Army Corps of Engineers
  - Section 404 Regulatory Division
    - The USACE, St. Paul District, responded to Dairyland’s December 2023 notification letter in January 2024 with assignment of a Regulatory File No. (MVP-2023-01630-RMH) and a USACE Project Manager. Communications are included in **Appendix B**. See discussion in **Section 8.6.4.7**.

- Rivers and Harbors Division
  - Dairyland has been communicating with the USACE, Rivers and Harbors division since October 2023 regarding impacts to USACE-owned tracts obtained to store dredged material from Pool 5 of the Mississippi River and develop the “Rolling Prairie Property.” Dairyland has worked with the USACE to develop a route across the USACE properties that is acceptable to the USACE and will not be incompatible with the USACE’s goals for the Rolling Prairie Property. Communications are included in **Appendix B**. See discussion in **Section 8.2.5**.
- U.S. Fish and Wildlife Service
  - The USFWS responded to Dairyland’s December 2023 project notification letter asking Dairyland to complete an IPaC review and develop an Official Species List. Later, the USFWS inquired about the Project’s use of federal funding, to which Dairyland responded that none will be used. Communications are included in **Appendix B**. See discussion in **Section 8.6.7.2**.
- U.S. Department of Agriculture, Natural Resources Conservation
- Federal Aviation Administration
  - Dairyland communicated with the FAA in December 2023 regarding the Project and the Part 7460 Airport Obstruction Evaluation. Communications are included in **Appendix B**. See discussion in **Section 8.2.7**.

### **Tribal Nations**

- Bois Forte Band of Chippewa
- Fond du Lac Band of Lake Superior Chippewa
- Grand Portage Band of Ojibwe
- Leech Lake Band of Ojibwe
- Lower Sioux Indian Community
- Mille Lacs Band of Ojibwe
- Prairie Island Indian Community
- Red Lake Nation
- Shakopee Mdewakanton Sioux Community
  - In December 2023, the THPO requested that Dairyland provide the results of its literature review and Phase IA Cultural Resources Assessment. Dairyland provided

this in February 2024. Communications are included in **Appendix B**. See discussion in **Section 8.5**.

- Upper Sioux Community
- White Earth Nation

### **Minnesota State Agencies**

- Board of Water and Soil Resources
- Department of Agriculture
- Department of Health
- Department of Natural Resources
  - Dairyland initiated communications with the MDNR in October 2023. In December 2023, Dairyland submitted a request for a Natural Heritage Review through MDNR’s online MCE program. Results of the MCE automated review include the following topics, which are addressed in the respective section of this Joint Application: tree removal (see **Section 8.4.2**); ecologically significant areas (potential RNCs) including MBS Sites (see **Section 8.6.5.2**), and calcareous fens (see **Section 8.6.4.6**); state-listed endangered, threatened, or special concern species (see **Section 8.6.7.1**); and federally listed species (IPaC review and rusty patched bumblebee high potential zone; see **Section 8.6.7.2**). The MDNR Natural Heritage Review staff is conducting further review; this response has not yet been received. Later in December 2023, MDNR provided the results of an early coordination review. Results of the early coordination review include the following topics, which are addressed in the respective section of this Joint Application: Public Water watercourses (see **Section 8.6.4.4**); MCE NHIS review (see note above); federally listed species (see **Section 8.6.7.2**); collocation (see **Section 3.1.1**); and karst (see **Sections 3.2.2 and 8.6.2**). Communications are included in **Appendix B**.
- Department of Transportation
  - Dairyland met with MnDOT in October 2023 to present the Project. Topics discussed included the U.S. Highway 61 Scenic Byway, potential for highway expansion and paving projects, technical items, and the MnDOT Utility Early Notification Memo. Dairyland submitted the Utility Early Notification Memo to MnDOT in March 2024; MnDOT is presently reviewing the submittal. Communications and meeting minutes are included in **Appendix B**. See discussion in **Section 8.2.7**.
- Minnesota Indian Affairs Council

- Mississippi River Parkway Commission
  - Dairyland has conducted additional coordination with the MRPC regarding the U.S. Highway 61 / Great River Road crossing between November 2023 and March 2024. Following submittal, MRPC indicated it did not have questions or comments on the crossing or visualization, but requested to be updated if there were changes to the Highway 61 / Great River Road crossing. Communications and meeting minutes are included in **Appendix B**. See discussion in **Section 8.2.1**.
- Office of State Archaeologist
- State Historic Preservation Office
  - Dairyland submitted the results of its literature review and Phase IA Cultural Resources Assessment to SHPO in February 2024. Communications are included in **Appendix B**. See discussion in **Section 8.5**.

## Local Agencies

- Wabasha County
  - Dairyland communicated with the Wabasha County Highway Department in September and October 2023 regarding work that would be adjacent to or intersect Wabasha County ROW as well as County Road 84 improvements. Dairyland later moved the Project alignment to its present position (the Proposed Alignment filed in this Application), which avoids the s-curves and future expansion potential along County Road 84. Communications and meeting minutes are included in **Appendix B**. See discussion in **Section 8.2.7**.
- Wabasha County Invasive Species Management
- Wabasha County Planning and Zoning
  - Dairyland communicated with the Wabasha County Zoning Administrator in January 2024 regarding the required setback from County Road 84 for the Kellogg Substation. Communications are included in **Appendix B**.
- Wabasha County Soil and Water Conservation District
  - The Wabasha SWCD responded to Dairyland's Project notification letter noting that it is the LGU for WCA in Wabasha County and would like to be apprised of future wetland permitting efforts as well as review plans for forest clearing and vegetative management. Communications are included in **Appendix B**. See discussion in **Section 8.6.4.6**.



### **10.1 Certificate of Need Criteria**

Pursuant to Minn. Stat. § 216B.243, the Commission has established criteria under Minn. R. 7849.0120 that it will apply to determine whether an applicant has established that a new proposed HVTL is needed and shall be granted a Certificate of Need. Dairyland has described in this Application the reasons why the Commission should grant a Certificate of Need to build the Project. Those reasons are summarized below.

#### **10.1.1 Denial Would Adversely Affect the Energy Supply**

Denial of a Certificate of Need for the Project would adversely affect the future adequacy, reliability, or efficiency of energy supply to the Applicant, its members, and to electric customers in southeastern Minnesota and western Wisconsin. The Project is needed to maintain the reliable service currently provided by the LQ34 161-kV line, including: (1) delivering power to the Rochester-Alma area; (2) maintaining the important reliability connection to local 69-kV facilities; and (3) providing generation outlet. If the Project is not approved, the regional and local transmission systems would suffer negative impacts as would Dairyland’s members and their customers.

#### **10.1.2 No Reasonable and Prudent Alternative**

As discussed in **Chapter 5**, a more reasonable and prudent alternative was not demonstrated by the study work and analysis conducted by Dairyland. Dairyland evaluated multiple alternatives including: (1) generation, including renewable energy and storage alternatives; (2) demand side management and energy conservation; (3) size alternatives (different voltages or conductor arrays, and double-circuit); (4) alternative endpoint and configurations; and (5) no build alternatives. After evaluating these alternatives, Dairyland concluded that none of these alternatives is a more reasonable and prudent alternative to the Project.

#### **10.1.3 Project will Provide Benefits to Society in a Manner Compatible with Protecting the Environment**

The Project will maintain critical transmission reliability for Dairyland’s members, local communities, and the broader MISO region. The existing LQ34 161-kV line has served an important role in providing reliable service as part of the local transmission grid since the 1950s. It is used to deliver power in the Rochester-Alma area, provide critical connections to local 69-kV systems that serve area towns, and provide generation outlet to the region. In relocating the existing 161-kV line, Dairyland is promoting the efficient use of transmission ROWs by freeing up the existing circuit on the CapX2020 Project to operate at 345-kV as identified by MISO. Further, Dairyland has proposed routing the Project following existing ROWs for over 71% of its route. In addition, consistent with the Commission’s routing criteria, the Project will be routed in a manner compatible with protecting the natural and socioeconomic environment.

### 10.1.4 Project will Comply with All Applicable Requirements

Dairyland has identified the other permits and approvals that may be required for the Project in **Chapter 2**. Dairyland has demonstrated that it will comply with all applicable requirements and obtain all necessary permits.

### 10.2 Route Permit Criteria

According to Minn. Stat. § 216E.02, subd. 1, it is the policy of the state of Minnesota to locate HVTLs in an orderly manner that minimizes adverse human and environmental impacts and ensures continuing electric power system reliability and integrity. The Commission must follow the established standards and criteria for issuing Route Permits (Minn. Stat. § 216E.04, subd. 8; Minn. Stat. § 216E.03, subd. 7; and Minn. R. 7850.4000). Following these standards and criteria, the Commission shall issue Route Permits for HVTLs that are consistent with state goals to conserve resources, minimize environmental impacts and impacts to human settlement, minimize land use conflicts, and ensure the state's electric energy security through efficient, cost-effective transmission infrastructure. The Project addresses these criteria:

- The Project is consistent with state goals to conserve resources because 71% of the Project is proposed to be routed along existing road and utility ROWs, thus avoiding, and minimizing potential additional impacts to the extent practicable.
- The Project will minimize environmental impacts because:
  - 71% of the Project is proposed to be routed along existing road ROWs, which will avoid and minimize potential impacts on vegetation and wildlife.
  - Dairyland will conduct geotechnical investigations prior to construction to avoid impacts to karst topography.
  - Dairyland will develop its final alignment based on the permitted route to further avoid and minimize impacts to environmental resources, in compliance with federal, state, and local regulations and in coordination with applicable federal, state, and local agencies.
  - Dairyland will design the final alignment to avoid or span as many wetlands as practicable and will span the MBS site between MPs 12.8 and 12.9.
- Dairyland will implement construction, restoration, and operation and maintenance procedures and BMPs to further avoid and minimize impacts to environmental resources. The Project will minimize impacts on human settlement and other land use conflicts because:
  - It is proposed to generally be routed along road ROWs and/or routed along property boundaries, thus avoiding impacts to new landowners and parcels.
  - Dairyland will develop its final alignment based on landowner and stakeholder input to avoid and minimize impacts to residents and business owners along the final route.

- Disturbed areas will be restored to their original condition to the maximum extent practicable and Dairyland will negotiate compensation with landowners for unavoidable impacts.
- The Project is consistent with state goals to ensure electric energy security because it will help ensure continued reliable and secure electrical service to the existing Wabaco Substation and will accommodate the installation of a new 345-kV circuit on the existing CapX2020 line.

### **10.3 Conclusion and Request for Commission Approval**

For all the reasons set forth in this Application and as supported by the Appendices hereto, Dairyland respectfully request that the Commission issue a Certificate of Need and Route Permit authorizing construction of the Wabasha Relocation Project.

## 11 GLOSSARY OF TERMS

Term	Definition
°F	degrees Fahrenheit
AC	Alternating-Current
ACSS	Horizontally Bundled Aluminum Conductor Steel Supported
ALJ	Administrative Law Judge
amsl	Above Mean Sea Level
APLIC	Avian Powerline Interaction Committee
ATV	All-Terrain Vehicle
ATWS	additional temporary workspace
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
BWSR	Minnesota Board of Water and Soil Resources
CAGR	Compound Annual Growth Rate
CapX2020 Project	CapX2020 Hampton-Rochester-La Crosse 345-kV Project
CFR	Code of Federal Regulations
CH <sub>4</sub>	Methane
CIP	Conservation Improvement Program
CO	carbon monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	carbon dioxide equivalent
Commission	Minnesota Public Utilities Commission
CWI	County Well Index
Dairyland, or the Applicant	Dairyland Power Cooperative
dBA	A-Weighted Decibel
DC	Direct-Current
DKey	USFWS Determination Key
DOC	Department of Commerce
DWSMA	Drinking Water Supply Management Area
EA	Environmental Assessment
ECO	Energy Conservation and Optimization Act
EERA	Department of Commerce, Energy Environmental Review and Analysis
EF	Electric fields
EIS	Environmental Impact Statement
EJ	Environment Justice
EJScreen	Environmental Justice Screening Tool
EMF	Electric and Magnetic Fields
EQB	Minnesota Environmental Quality Board
ESA	Endangered Species Act
Exemption Order	Commission Order dated February 13, 2024 approving the Applicant's request to be exempt from certain filing requirements under Minn. R. 7849.
FAA	Federal Aviation Administration

<b>Term</b>	<b>Definition</b>
Freeborn-Mower	Freeborn Mower Electric Cooperative
G	Gauss
GIQ	Generation Interconnection Queue
GLO	General Land Office
GW	Gigawatts
HVDC	High-voltage direct-current
HVTL	High voltage transmission line
IBA	Important Bird Area
IMDs	implantable medical devices
IPaC	USFWS Information, Planning, and Consultation
Joint Application	Joint Certificate of Need and Route Permit Application
kV	Kilovolt
kV/m	kV per meter
L <sub>10</sub>	Noise level exceeded 10 percent of the time
L <sub>50</sub>	Noise level exceeded 50 percent of the time.
LGU	Local Governmental Units
LRTP	Long-Range Transmission Plan
LRTP Tranche 1 Portfolio	A portfolio of regionally beneficial projects identified by MISO, the independent not-for-profit system operator for the Midwest, and approved by the MISO Board of Directors in July 2022 in MISO's MTEP21.
MASW	Multichannel Analysis of Surface Waves
MBS	MDNR Minnesota Biological Survey
MCE	Minnesota Conservation Explorer
MDA	Minnesota Department of Agriculture
MDH	Minnesota Department of Health
MDNR	Minnesota Department of Natural Resources
Merjent	Merjent, Inc.
MF	Magnetic fields
mG	milliGauss
MGS	Minnesota Geological Survey
MHz	Megahertz
MiEnergy	MiEnergy Cooperative
Minn. Stat. §	Minnesota Statutes Section
MISO	Midcontinent Independent System Operator, Inc.
MnDOT	Minnesota Department of Transportation
MP	Milepost
MPCA	Minnesota Pollution Control Agency
mph	mile per hour
MRO	Midwest Reliability Organization
MRPC	Minnesota Mississippi River Parkway Commission
MTEP	MISO Transmission Expansion Plan
MTEP21	MISO's 2021 Transmission Expansion Plan
MVA	Megavolt-Ampere

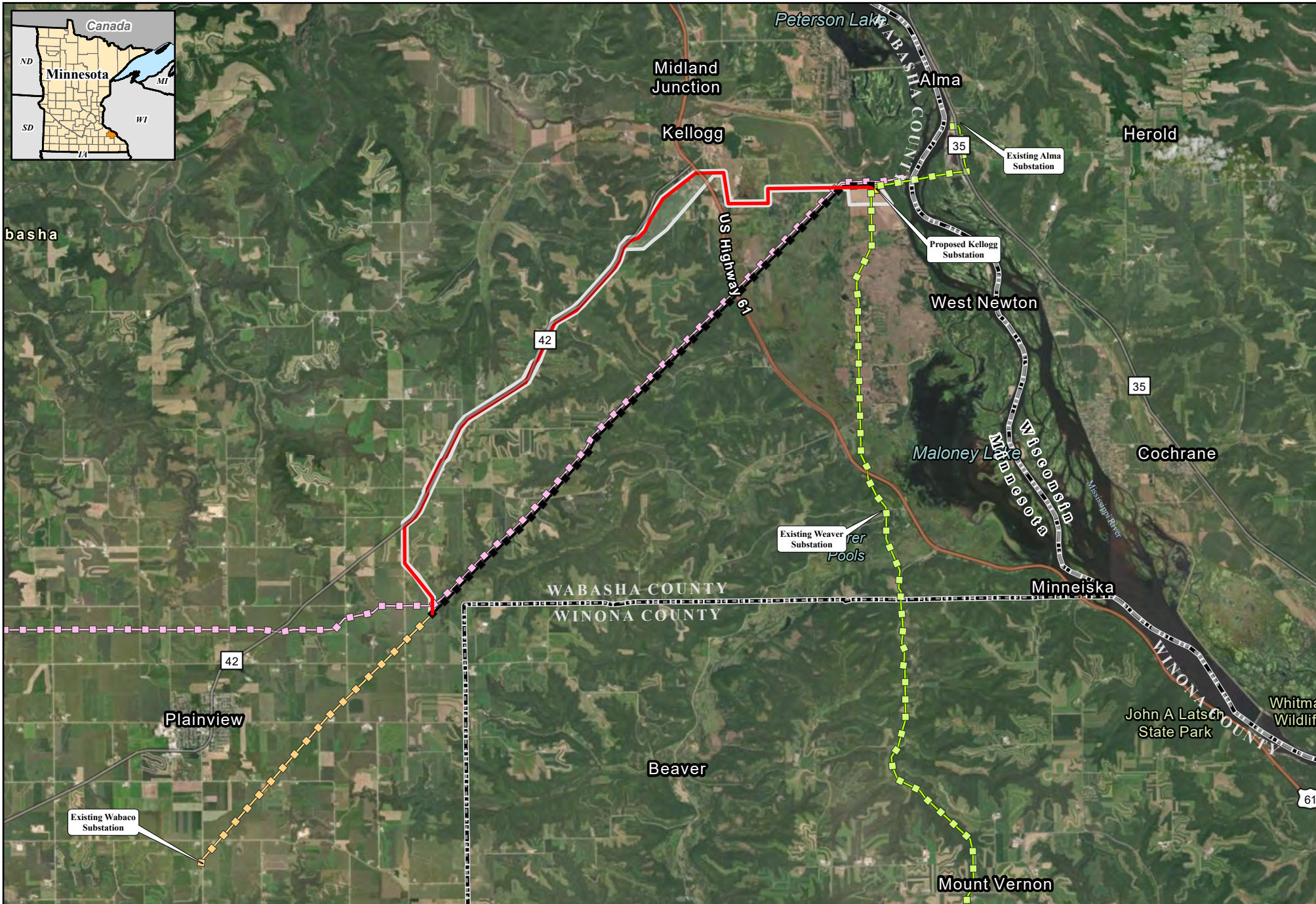
Term	Definition
MVP	MISO Multi-Value Project
MW	Megawatts
MWh	Megawatt-Hour
N <sub>2</sub> O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAC	Noise Area Classification
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NHIS	National Heritage Information System
NIEHS	National Institute of Environmental Health Sciences
NLEB	Northern Long-Eared Bat
NO <sub>2</sub>	Nitrogen Dioxide
Notice Area	The Notice Area is a 5-mile buffer zone surrounding the Project Alignment.
NO <sub>x</sub>	nitrogen oxides
NPC	Native Plant Community
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	Noise-sensitive receptor
NWI	National Wetlands Inventory
OSA	Office of the State Archeologist
PEM	Palustrine Emergent
Peoples	People's Energy Cooperative
PFO	Palustrine Forested
PM <sub>10</sub>	particulate matter equal to or less than 10 microns in diameter
PM <sub>2.5</sub>	fine particulate matter equal to or less than 2.5 microns in diameter
ppb	Parts Per Billion
Project	Wabasha Relocation Project
Promising Practices	Promising Practices for EJ Methodologies in NEPA Reviews
Proposed Alignment	Proposed Alignment is used to refer to the centerline location of the transmission line and structures. The Proposed Alignment follows an approximately 13.3-mile route starting in the vicinity of Structure X-Q3-75 on Dairyland's LQ34 161-kV transmission line northeast of the Town of Plainview, Minnesota in Wabasha County to the new 4-acre Kellogg Substation. See <b>Sections 1.4 and 3.1.1</b> .
Proposed Route or Project Route Width	The Proposed Route is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation. More information on the Proposed Route can be found in <b>Section 1.4 and 3.1.3</b> .
Rejected Route Alternative	A Rejected Route Alternative is a routing segment considered and rejected by the Applicant for the Project (see <b>Section 6.2</b> ).
RNCs	Rare Natural Communities

<b>Term</b>	<b>Definition</b>
Route Width	The Route Width is a standard 400 feet (200 feet on either side of the Proposed Alignment for most of the Project), increasing in some areas up to 2,300 feet wide to allow for additional route study and the potential need to make minor modifications to the Proposed Alignment in these areas (see <b>Section 1.4</b> ).
ROW	right-of-way
RUS	Rural Utilities Service
SCADA	Supervisory Data Control and Acquisition
SHPO	State Historic Preservation Office
SMEC	Southern Minnesota Energy Cooperative
SNA	Scientific and Natural Area
SO <sub>2</sub>	sulfur dioxide
SOBS	Sites of Biodiversity Significance
SWCD	Soil and Water Conservation District
THPO	Tribal Historic Preservation Officer
TNC	The Nature Conservancy
TWh	Terawatt-Hour
UDP	Unanticipated Discoveries Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds
WCA	Wetland Conservation Act
WHP	Wellhead Protection
WHPA	Wellhead Protection Area
WMA	Wildlife Management Area
Xcel Energy	Northern States Power Company, dba Xcel Energy



# Figures





**DAIRYLAND POWER COOPERATIVE**

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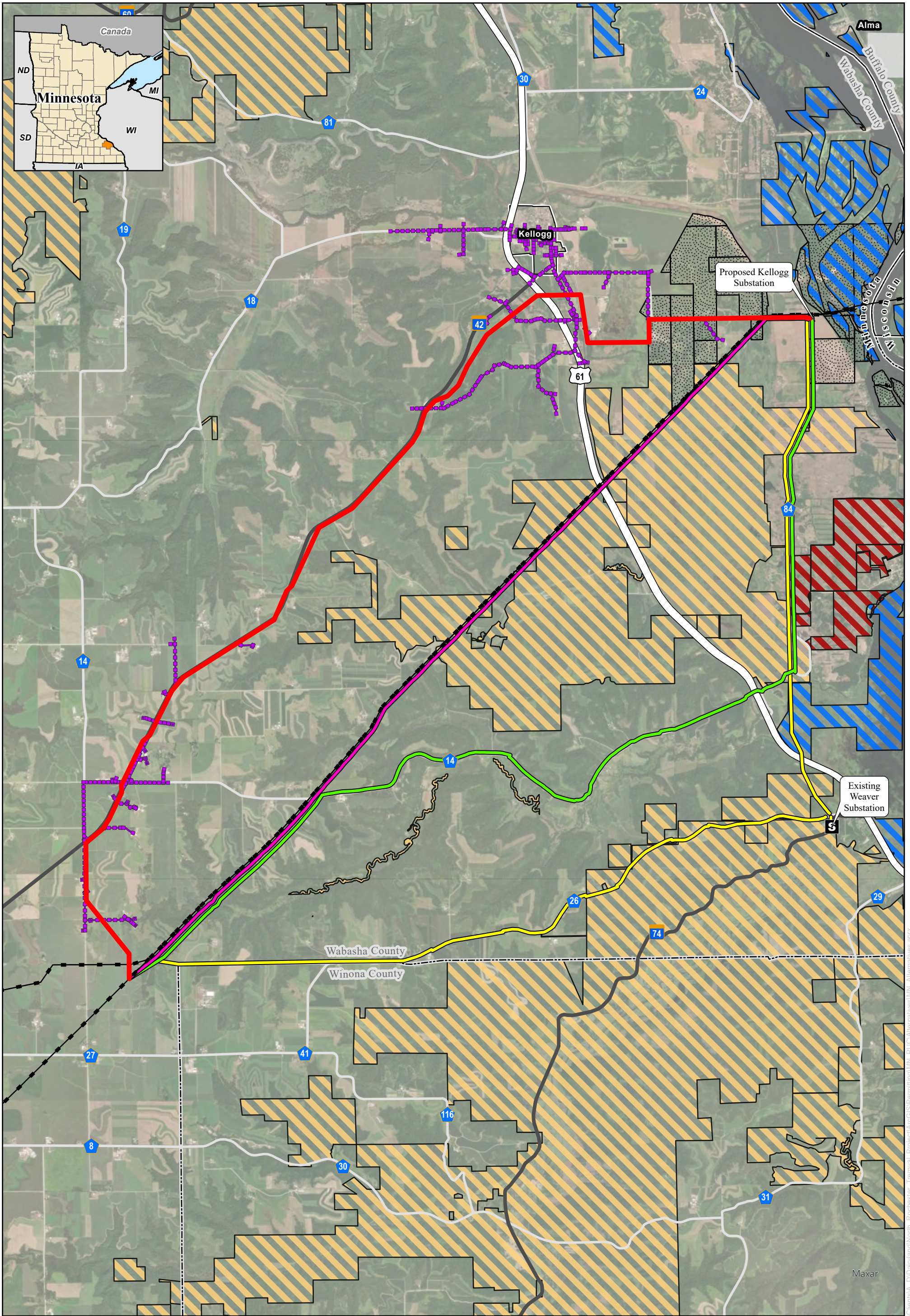
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**Figure 1-1**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

Proposed Alignment	Existing Dairyland LN340 69-kV Transmission Line	CapX2020 Hampton-Rochester-La Crosse 345-kV Project / Mankato to Mississippi River 345kV Transmission Project
Proposed Route Width	Existing Dairyland LQ34 161-kV Transmission Line	Existing Alma Substation
Proposed Kellogg Substation	County Boundary	Existing Weaver Substation
Existing Wabaco Substation		Existing Dairyland LQ34 161-kV transmission line (to be removed)

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**Figure 6-1**  
**Proposed Route and Route Alternatives**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

- |                                   |                                     |  |
|-----------------------------------|-------------------------------------|--|
| Existing Substation               | County Road 41/26 Route Alternative | Non-Government Organization (The Nature Conservancy) |
| Proposed 161-kV Transmission Line | Existing Dairyland Line             | State Land   |
| CapX2020 Route Alternative        | Existing Distribution Line          | US Fish & Wildlife Service                           |
| County Road 14 Alternative        | County Boundary                     | Private Land   |
|                                   | USACE Parcel                        |  |
|                                   | Bureau of Land Management           |  |



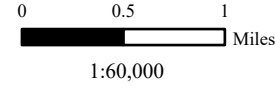
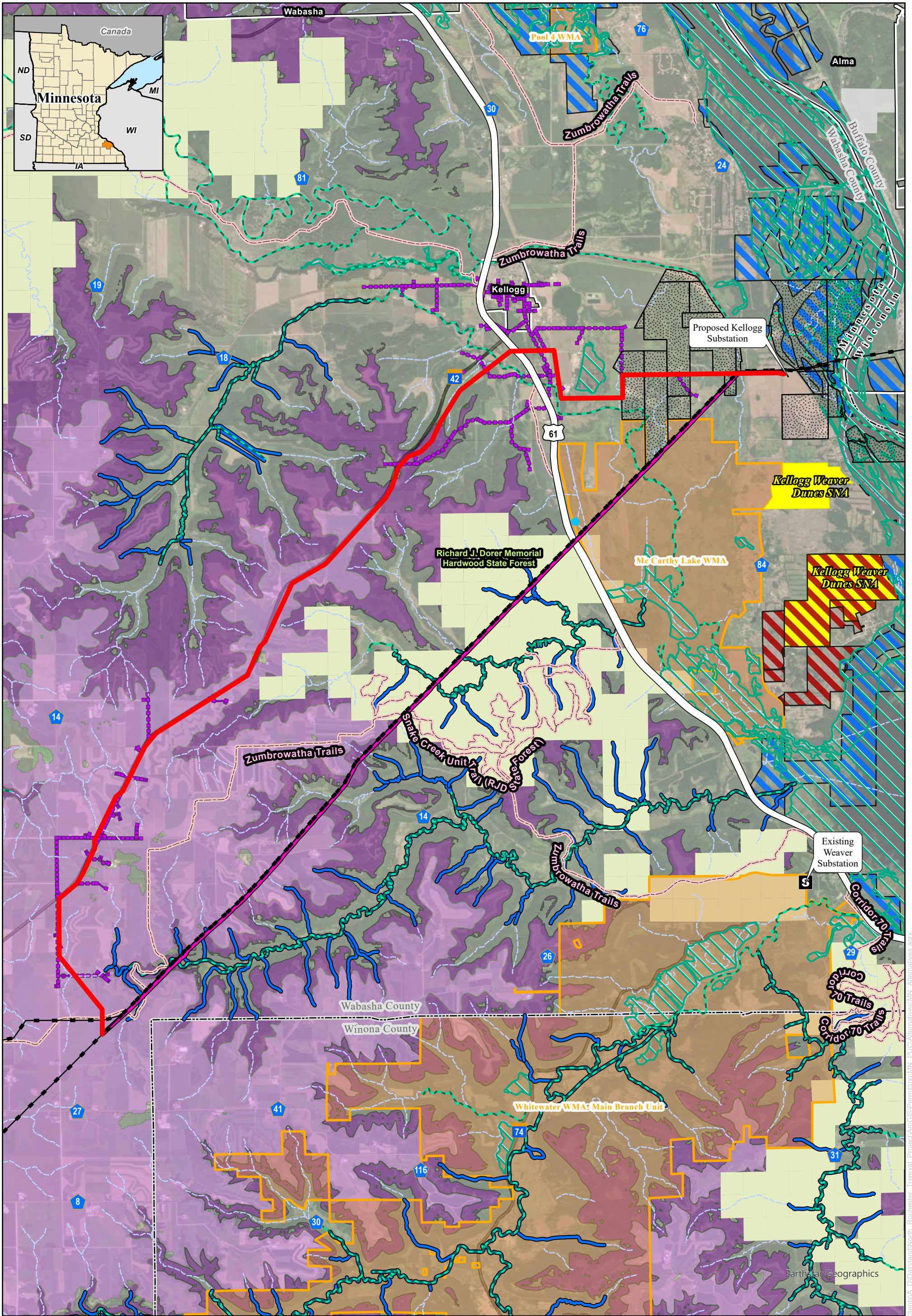
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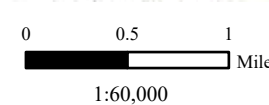
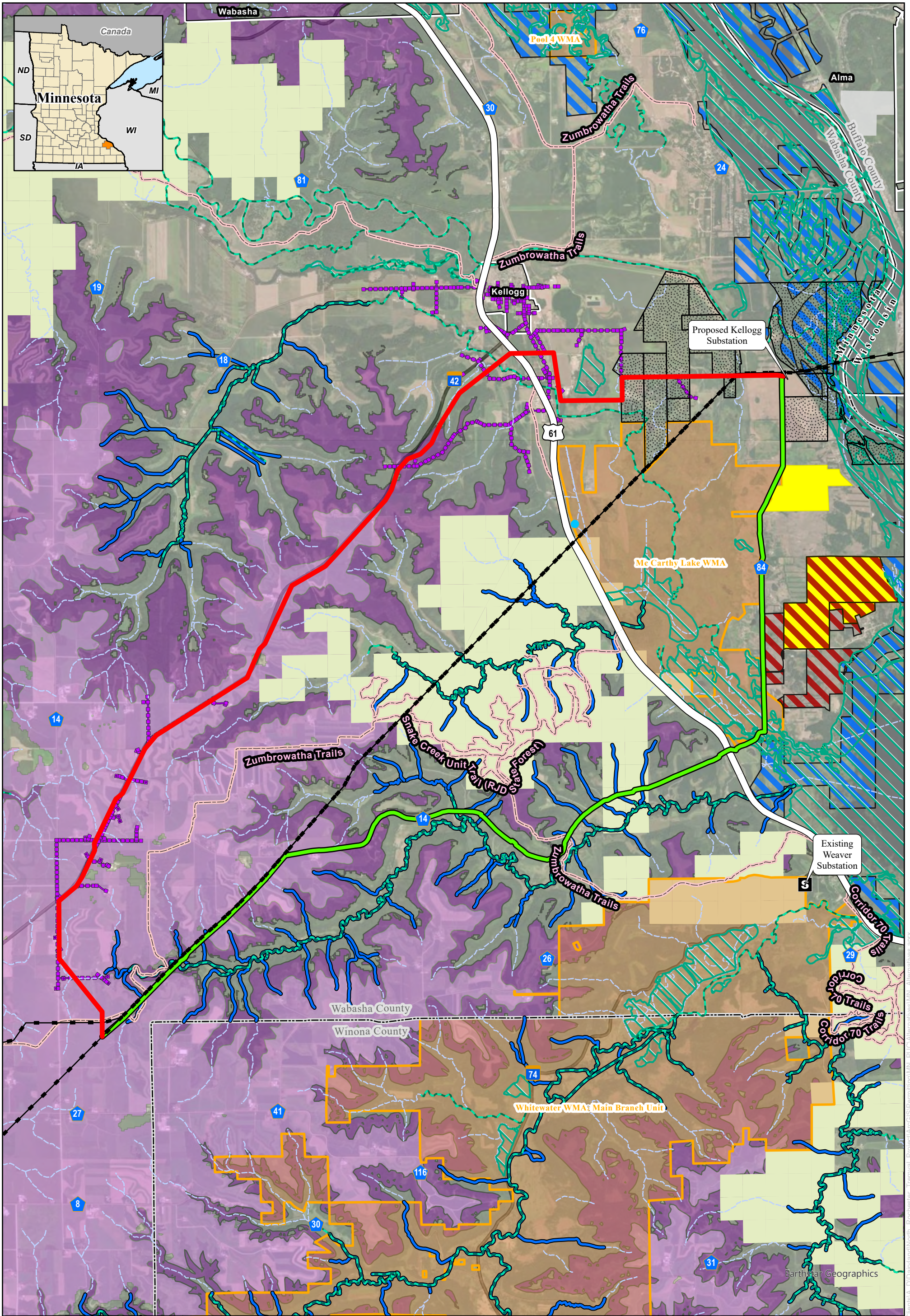
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**Figure 6-2**  
**CapX2020 Route Alternative**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

<b>S</b>	Existing Substation		State Forest		Highway 61 Scenic Byway		The Nature Conservancy
	Calcareous Fen		Wildlife Management Area		Public Waters Inventory Watercourse		US Fish & Wildlife Service
	Proposed 161-kV Transmission Line		MDNR River or Stream		Public Waters Inventory Watercourse Basin/Wetland		Private Land
	CapX2020 Route Alternative		Trout Stream		USACE Parcel		Regions Prone to Karst
	Existing Dairyland Line		Scientific and Natural Area		County Boundary		Prairie du Chien Group / Oncoota Dolomite
	Existing Distribution Line		Snowmobile Trail				Prairie du Chien Group / Shakopee Fm

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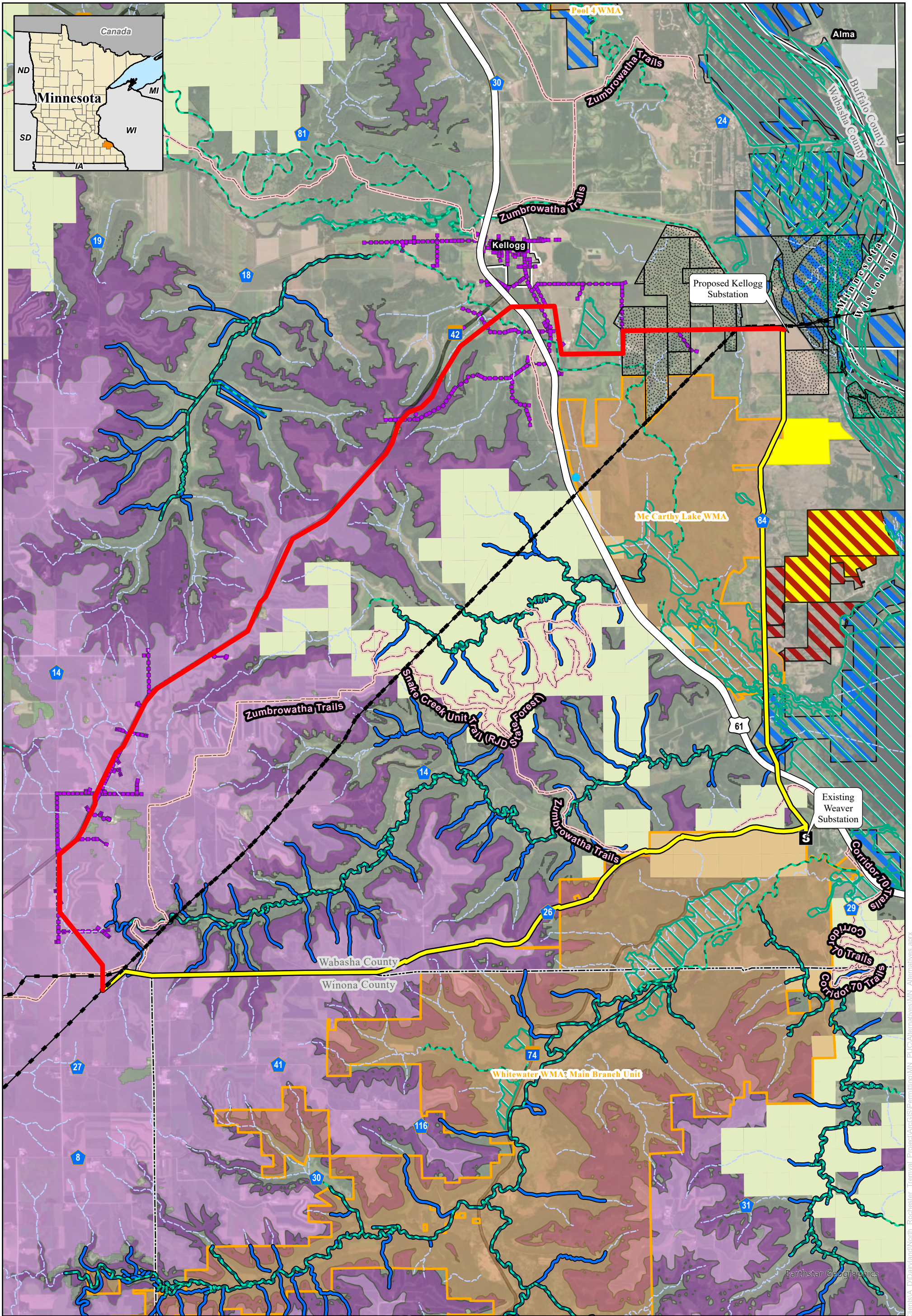
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**Figure 6-3**  
**County Road 14 Alternative**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

- |                                   |                             |   |   |
|-----------------------------------|-----------------------------|---|---|
| <b>S</b> Existing Substation      | State Forest                | Trout Stream                                      | US Fish & Wildlife Service                |
| Calcareous Fen                    | Wildlife Management Area    | Public Waters Inventory Watercourse               | Private Land                              |
| Proposed 161-kV Transmission Line | Scientific and Natural Area | Public Waters Inventory Watercourse Basin/Wetland | <b>Regions Prone to Karst</b>             |
| County Road 14 Alternative        | Snowmobile Trail            | USACE Parcel                                      | Prairie du Chien Group / Onocota Dolomite |
| Existing Dairyland Line           | Highway 61 Scenic Byway     | County Boundary                                   | Prairie du Chien Group / Shakopee Fm      |
| Existing Distribution Line        | MDNR River or Stream        | The Nature Conservancy                            |   |

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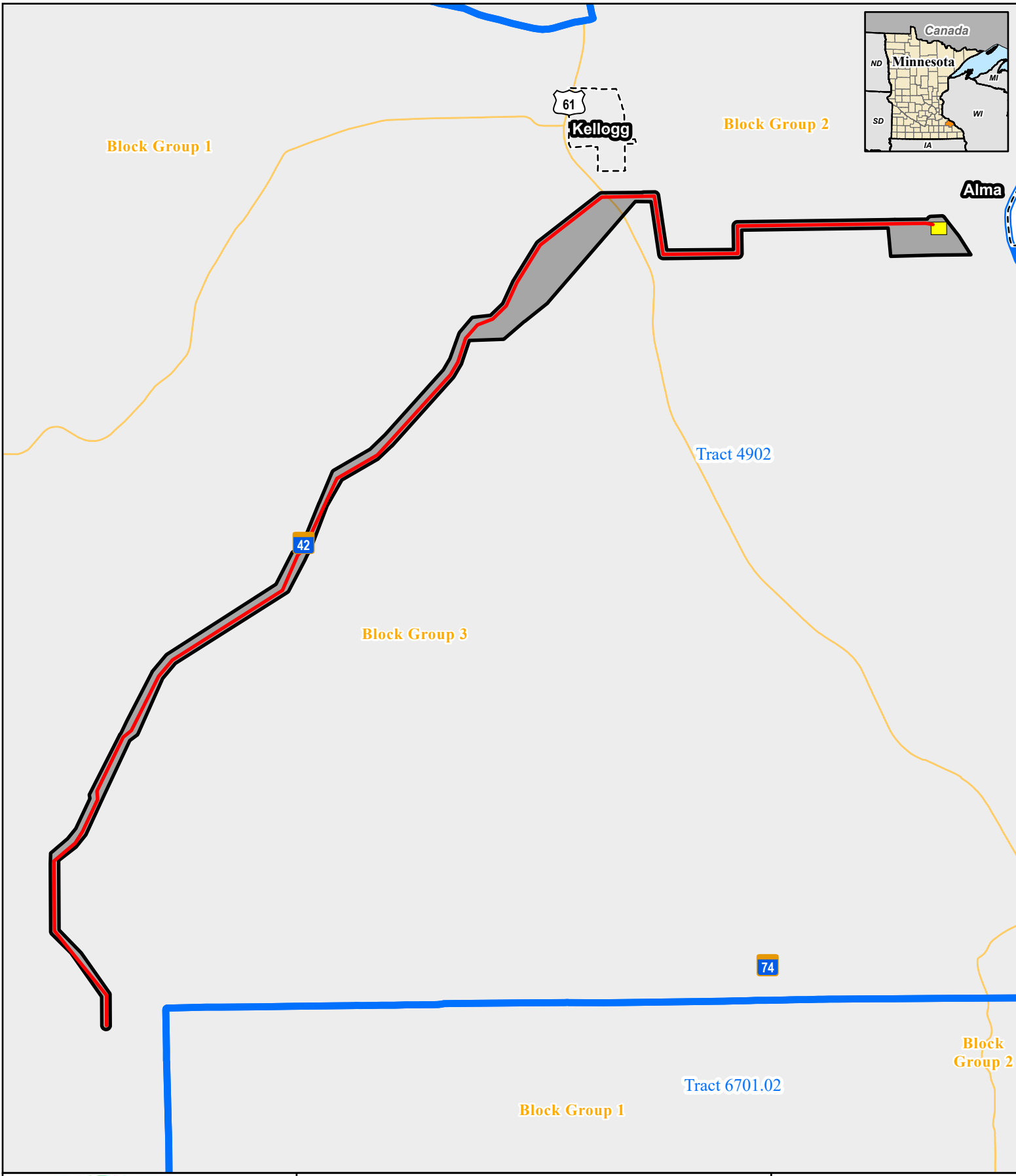
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**Figure 6-4**  
**County Road 41/26 Route Alternative**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

<b>S</b> Existing Substation	State Forest	Trout Stream	US Fish & Wildlife Service
● Calcareous Fen	Wildlife Management Area	Public Waters Inventory Watercourse	Private Land
— Proposed 161-kV Transmission Line	Scientific and Natural Area	Public Waters Inventory Watercourse Basin/Wetland	Regions Prone to Karst
— County Road 41/26 Route Alternative	Highway 61 Scenic Byway	USACE Parcel	Prairie du Chien Group / Onota Dolomite
— Existing Dairyland Line	Snowmobile Trail	County Boundary	Prairie du Chien Group / Shakopee Fm
— Existing Distribution Line	MDNR River or Stream	The Nature Conservancy	





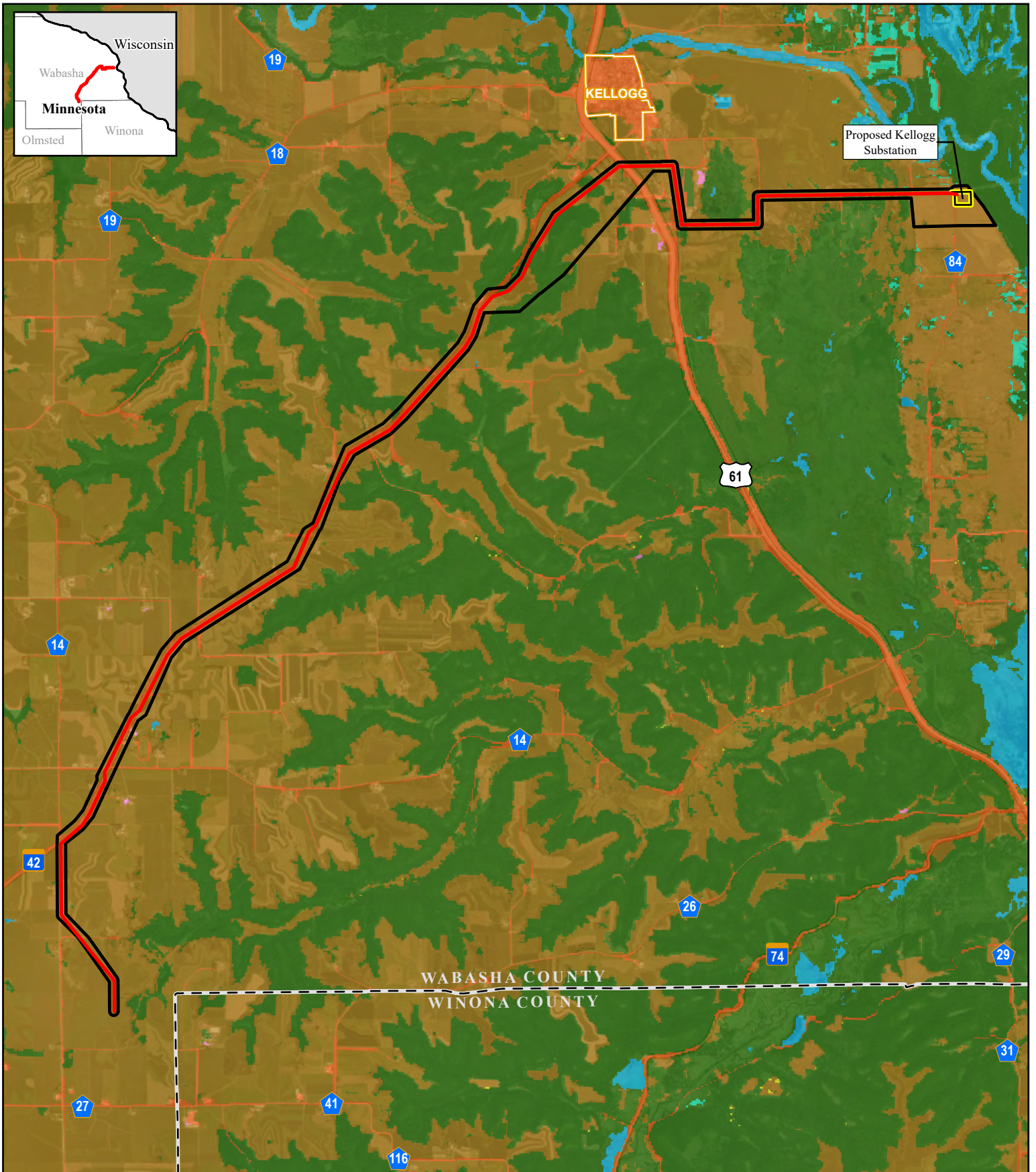
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**Figure 8-1: Census Block Groups**  
**Wabasha Relocation Project**  
**Dairyland Power Cooperative**  
**Wabasha County, Minnesota**

- Proposed Alignment
- Census Block Group
- Census Tract
- Proposed Kellogg Substation
- Proposed Route Width



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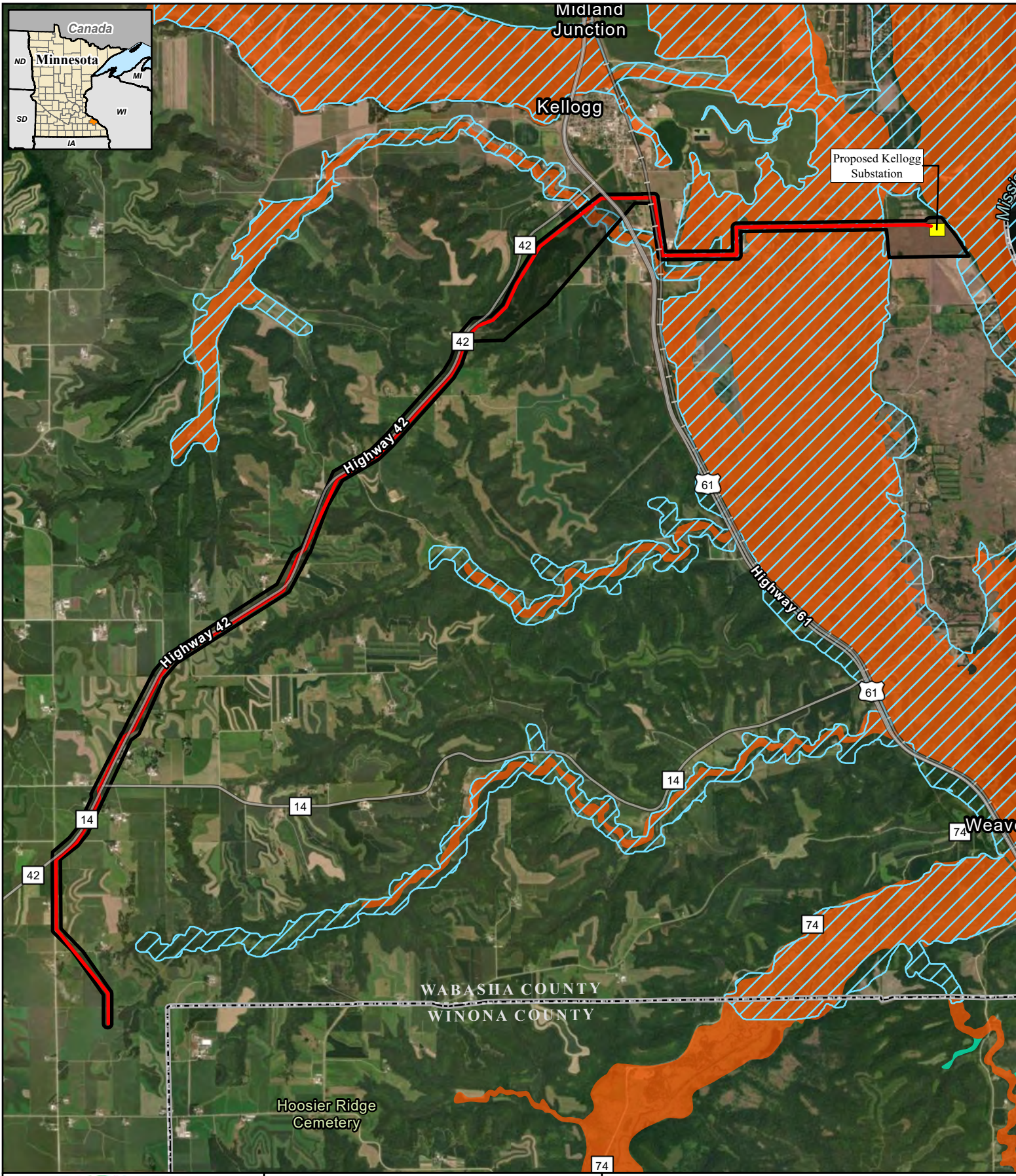
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**Figure 8-2: Land Use for the Project**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota

- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| Proposed Alignment                  | Developed & Other Human Use          |
| Proposed Kellogg Substation         | Forest & Woodland                    |
| Proposed Route Width                | Introduced & Semi Natural Vegetation |
| City Boundary                       | Open Water                           |
| County Boundary                     | Recently Disturbed or Modified       |
| GAP Land Classification             | Shrub & Herb Vegetation              |
| Agricultural & Developed Vegetation |                                      |





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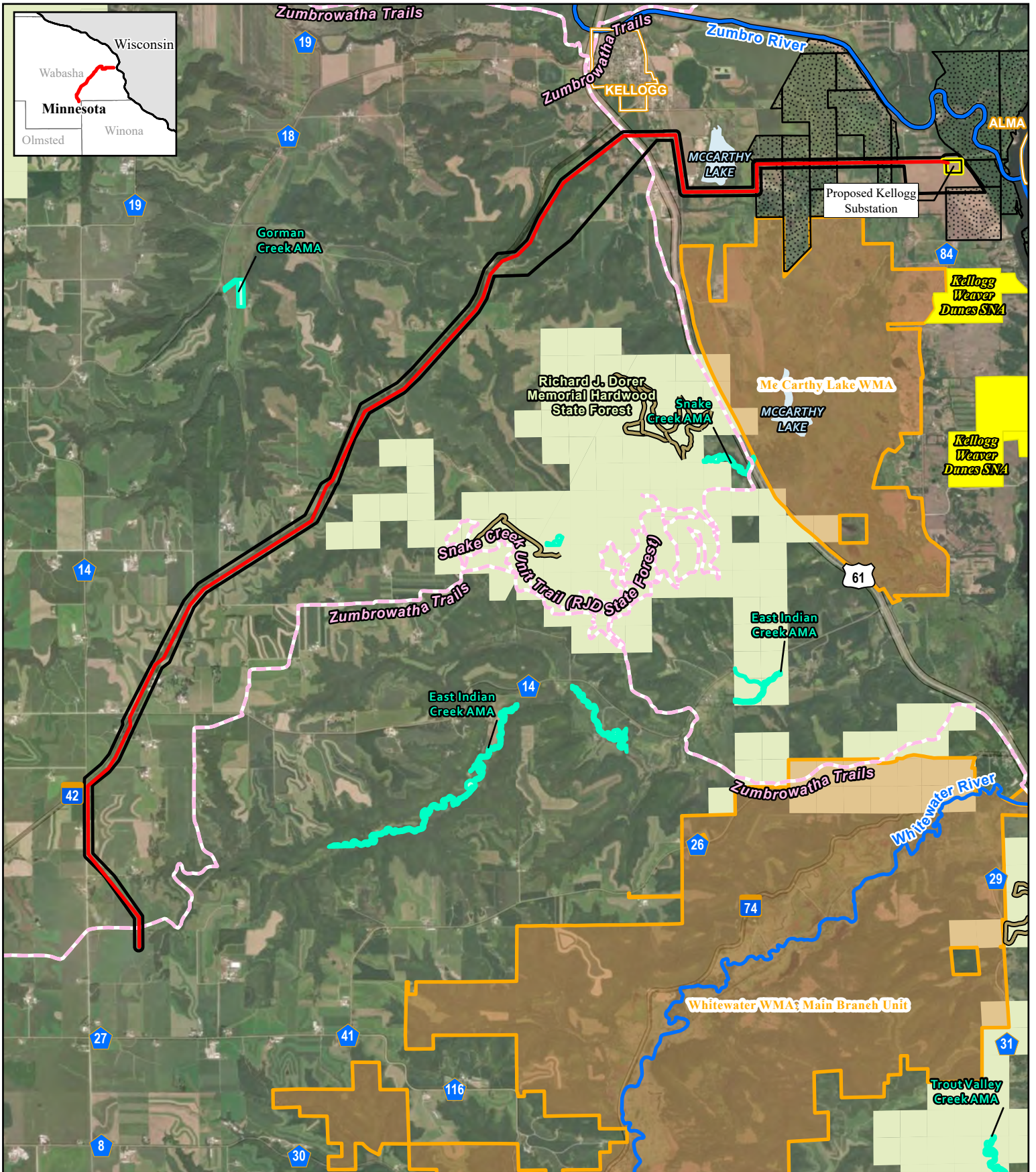
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**Figure 8-3: Wabasha County Floodplain and Shoreland Areas Wabasha Relocation Project Dairyland Power Cooperative Wabasha County, Minnesota**

Proposed Alignment	100-year floodplain
Proposed Kellogg Substation	500-year floodplain
Proposed Route Width	
Shoreland Overlay Zone	

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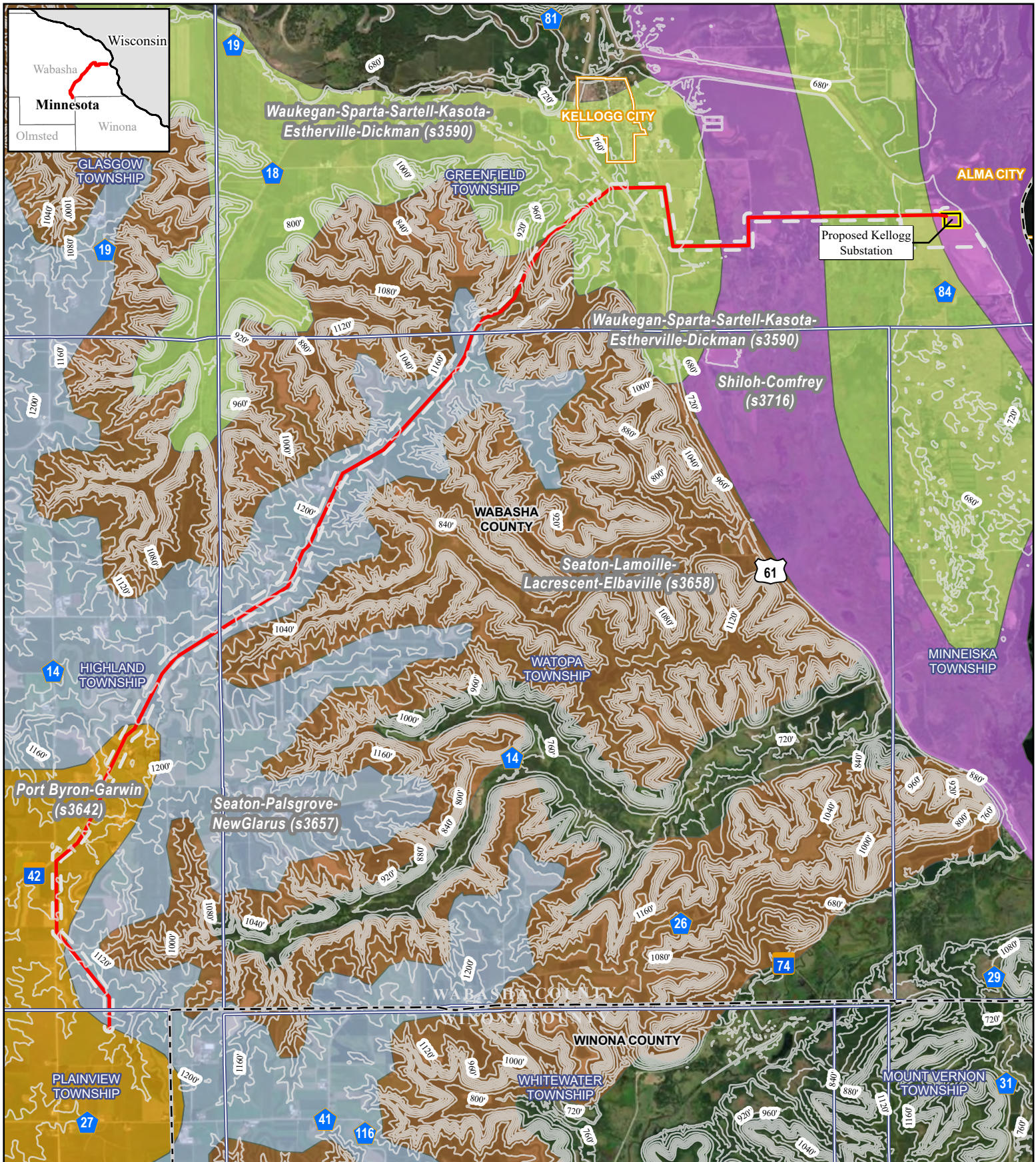
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**Figure 8-4: Recreational Resources**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

- |                             |                         |                             |
|-----------------------------|-------------------------|-----------------------------|
| Proposed Alignment          | Snowmobile Trail        | Wildlife Management Area    |
| Proposed Route Width        | Aquatic Management Area | Scientific and Natural Area |
| Proposed Kellogg Substation | City Boundary           | USACE Parcel                |
| State Water Trail           | State Forest            | Waterbody                   |





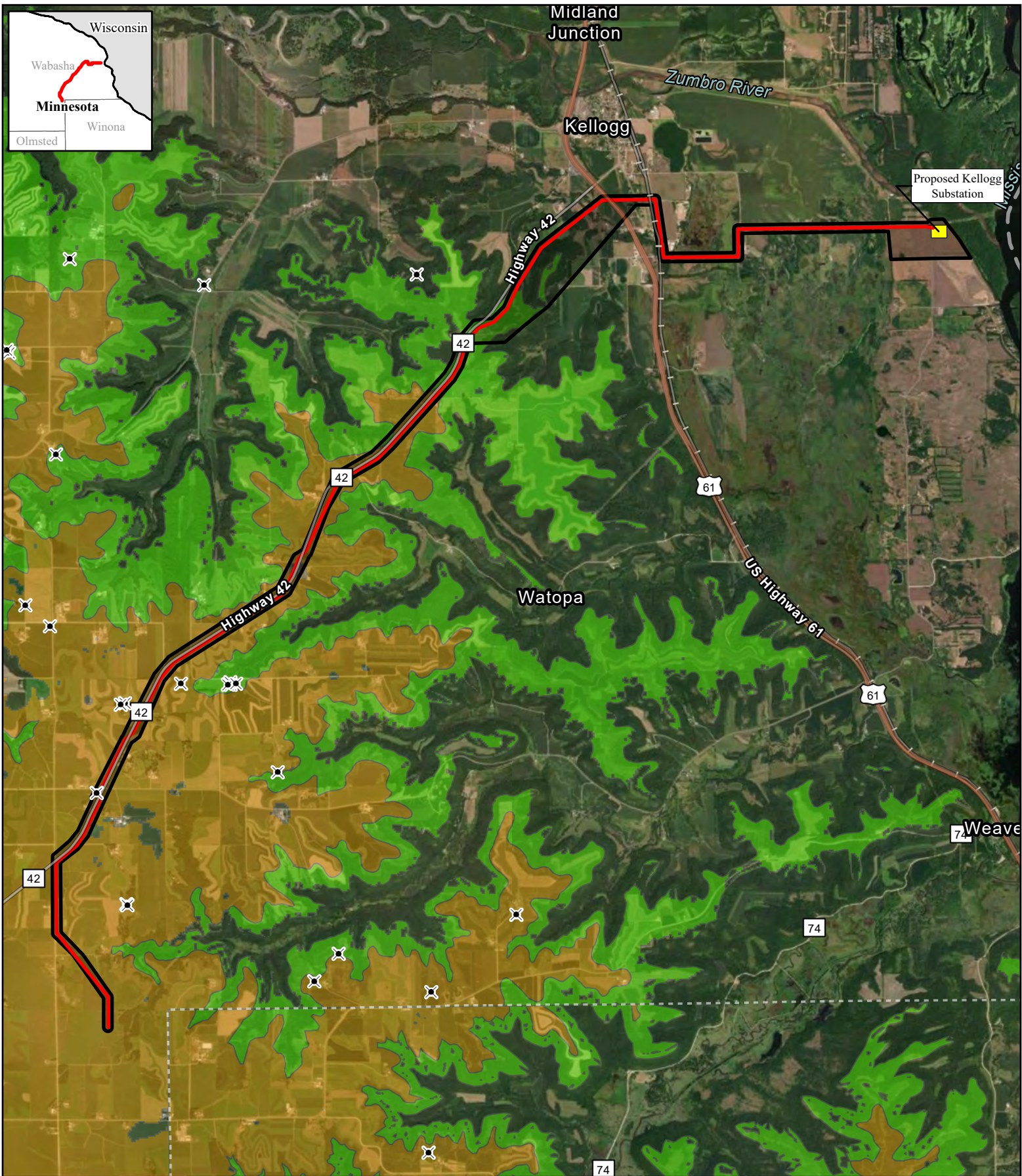
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**Figure 8-5: Soils and Topography**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota

- Proposed Alignment
- Proposed Route Width
- Proposed Kellogg Substation
- City Boundary
- Township Boundary
- 40ft Contour
- Soils (STATSGO)**
- Port Byron-Garwin (s3642)
- Seaton-Lamoille-Lacrescent-Elbaville (s3658)
- Seaton-Palsgrove-NewGlarus (s3657)
- Shiloh-Comfrey (s3716)
- Waukegan-Sparta-Sartell-Kasota-Estherville-Dickman (s3590)





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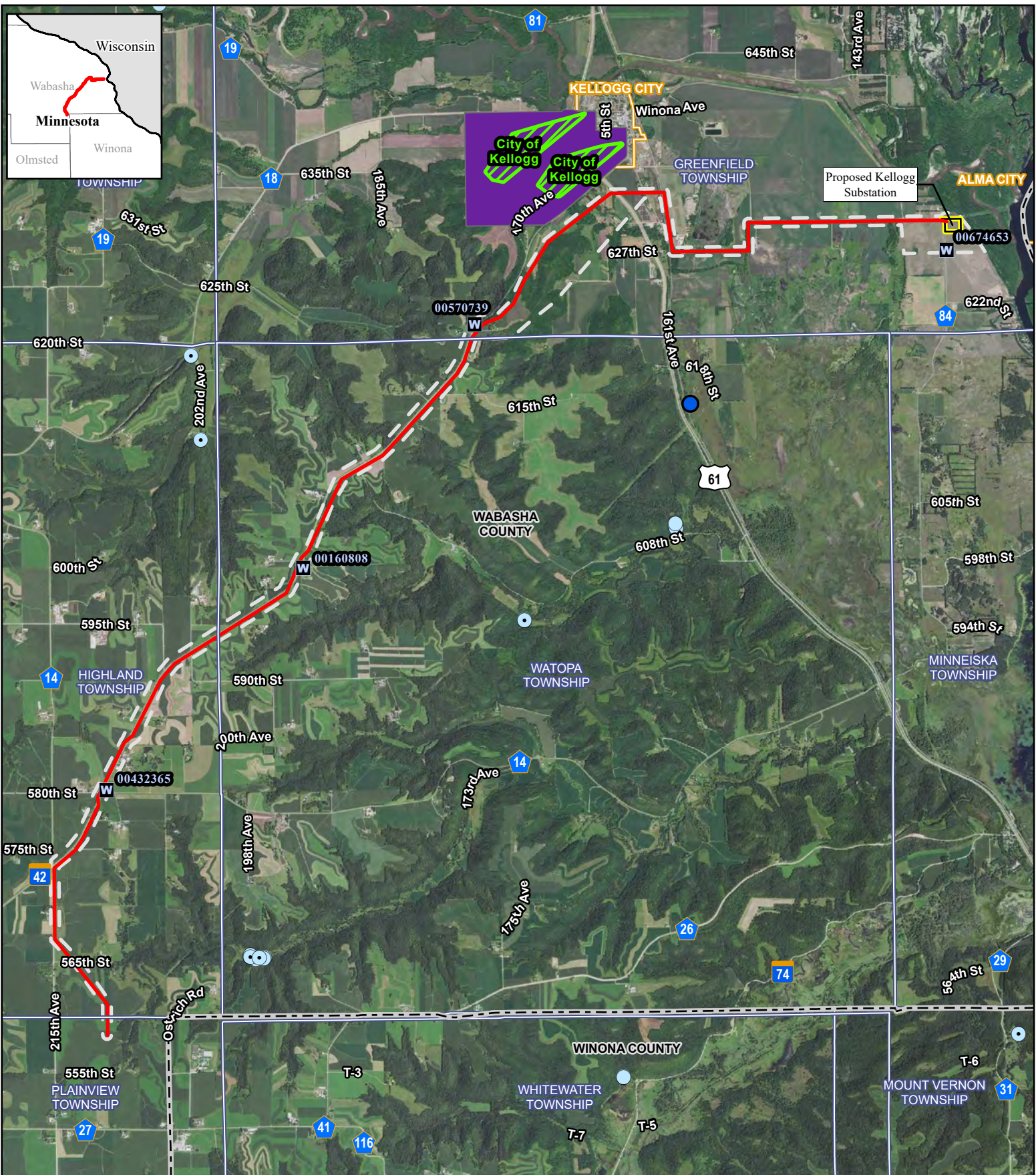
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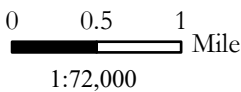
**Figure 8-6: Regions Prone to Karst**  
**Wabasha Relocation Project**  
**Dairyland Power Cooperative**  
**Wabasha County, Minnesota**

- Proposed Alignment
- Proposed Kellogg Substation
- Proposed Route Width
- ✕ Sinkhole
- Regions Prone to Surface Karst**
- Prairie du Chien Group / Oneota Dolomite
- Prairie du Chien Group / Shakopee Fm



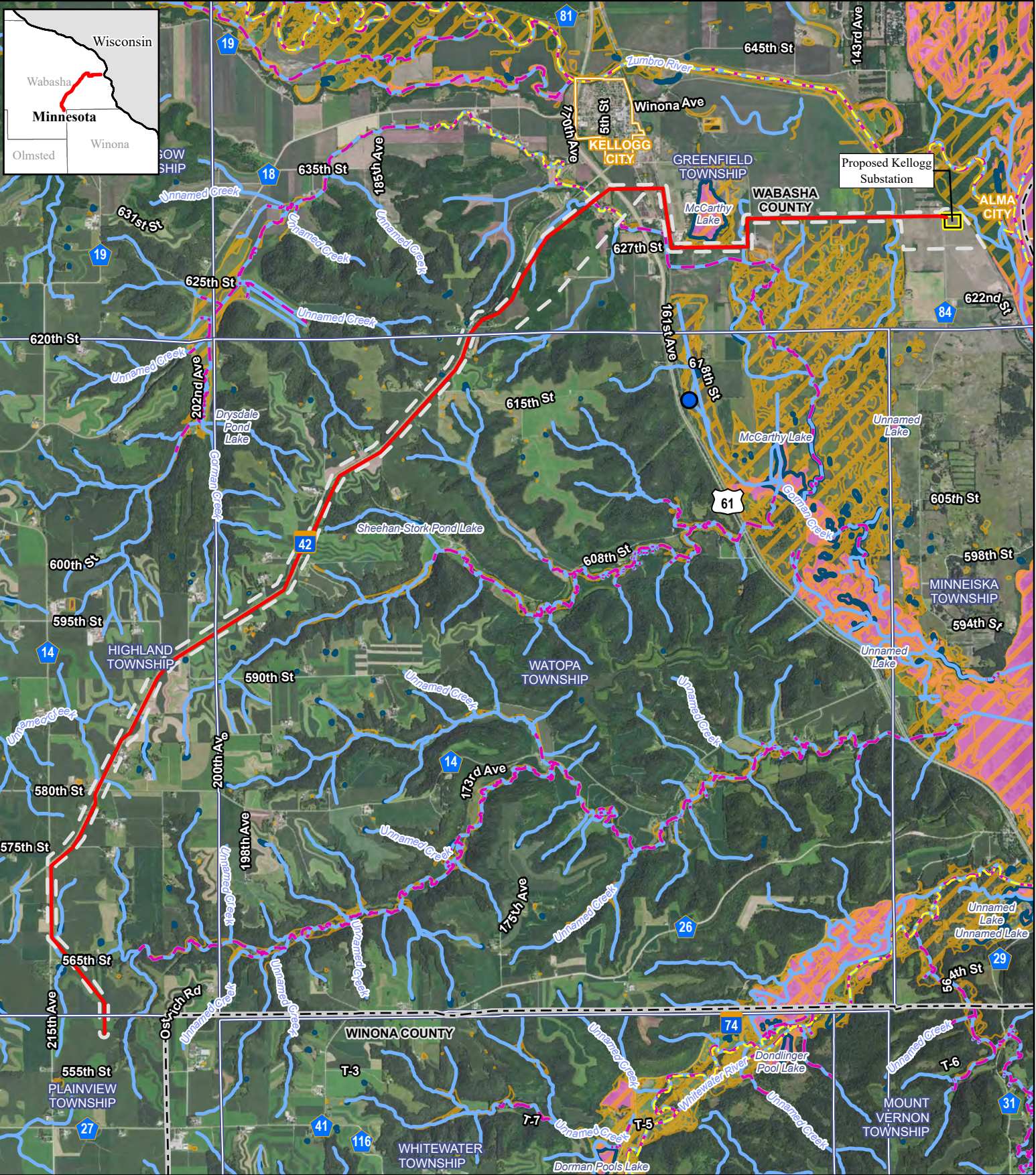


**Figure 8-7: Groundwater Features**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota



- Proposed Alignment
- Proposed Kellogg Substation
- Proposed Route Width
- City Boundary
- Township Boundary
- Calcareous Fen
- Water Well
- Spring
- Spring - not field verified
- DWSMA
- Wellhead Protection Area





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**Figure 8-8: Surface Waters**  
Wabasha Relocation Project Dairyland  
Power Cooperative  
Wabasha County, Minnesota

Proposed Alignment	PWI Watercourse
Proposed Kellogg Substation	PWI Basin
Proposed Route Width	MDNR Hydrography Dataset Watercourse
City Boundary	MDNR Hydrography Dataset Lake/Pond
Township Boundary	NWI Wetland
Impaired Stream (Draft 2024)	Calcareous Fens



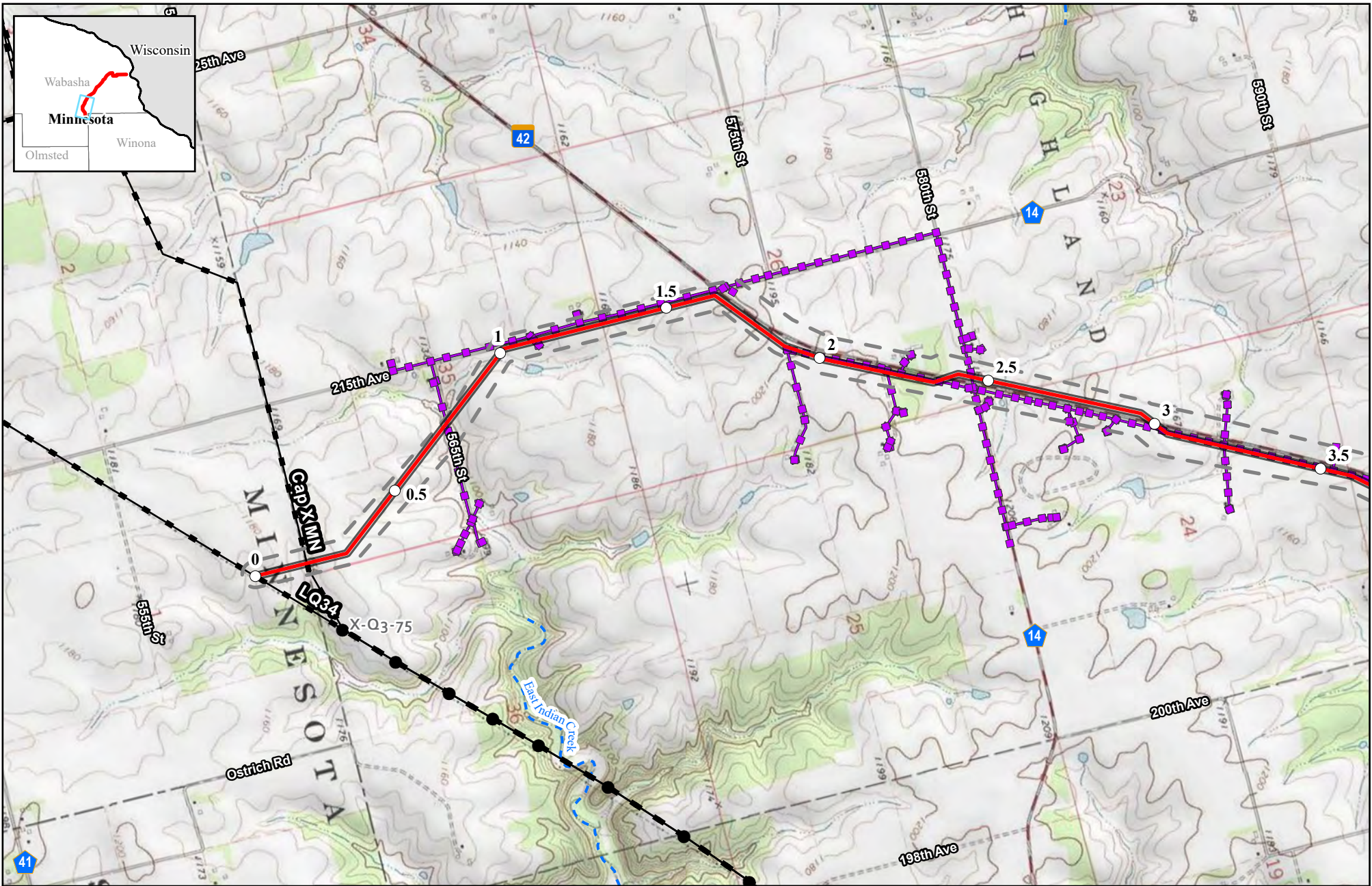


# Appendix A

## Project Maps

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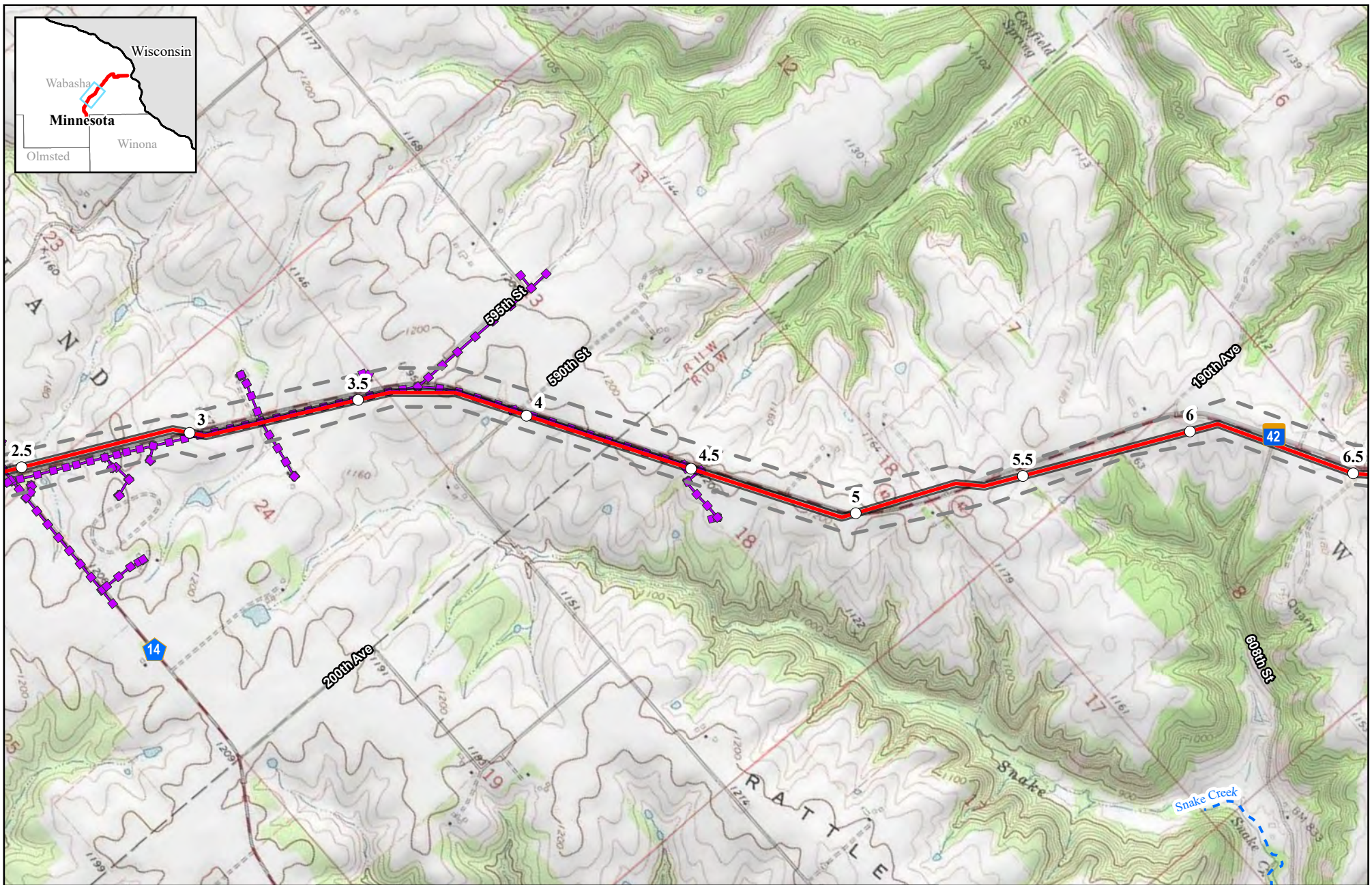
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Wabasha Relocation Project  
Appendix A.1  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Page 1 of 4

- Milepost
- Existing Structure
- Proposed Alignment
- ▭ Proposed Right-of-Way
- ▭ Proposed Kellogg Substation
- ▭ Proposed Route Width
- Existing Transmission Line
- Existing Distribution Line
- MDNR PWI Watercourse





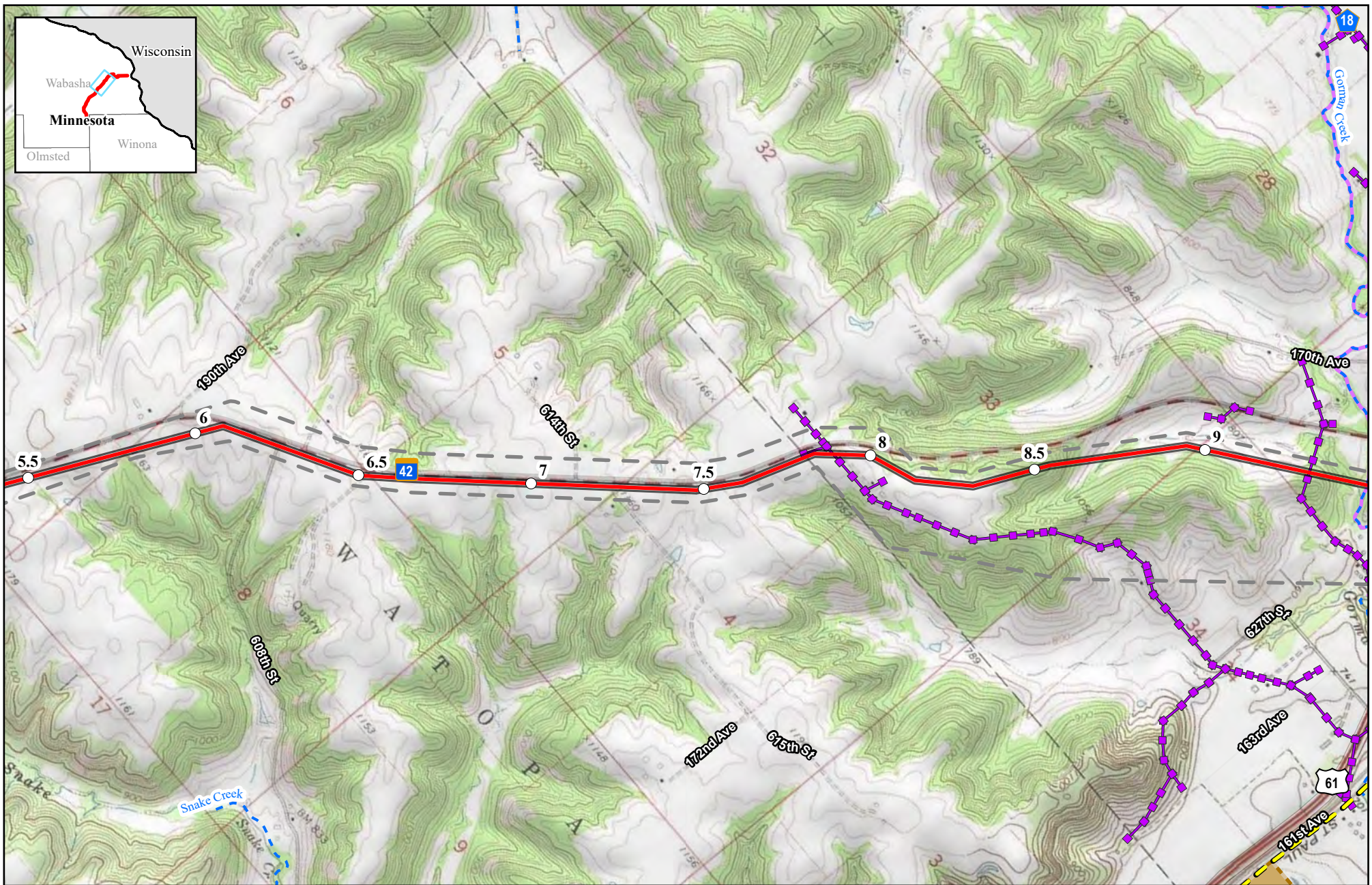
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**Wabasha Relocation Project**  
 Appendix A.1  
**Dairyland Power Cooperative**  
 Wabasha County, Minnesota  
 Page 2 of 4

- Milepost
- Existing Structure
- Proposed Alignment
- Proposed Right-of-Way
- ▭ Proposed Kellogg Substation
- ▭ Proposed Route Width
- Existing Transmission Line
- Existing Distribution Line
- MDNR PWI Watercourse



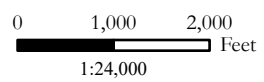
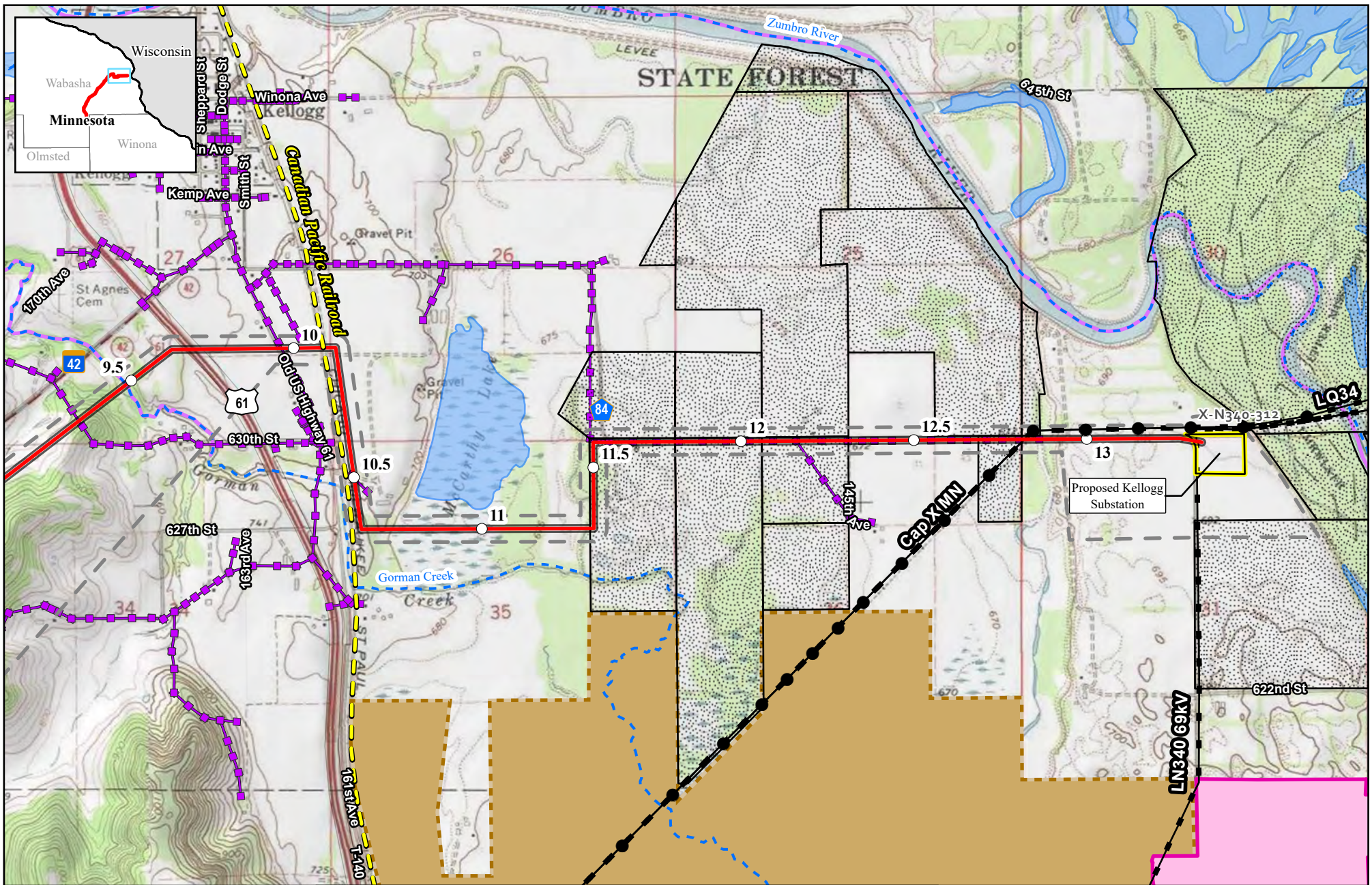


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Wabasha Relocation Project  
Appendix A.1  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Page 3 of 4

- Milepost
- Existing Structure
- Proposed Alignment
- - - Proposed Right-of-Way
- ▭ Proposed Kellogg Substation
- ▭ Proposed Route Width
- - - Existing Transmission Line
- - - Existing Distribution Line
- ▭ Canadian Pacific Railroad
- ~ Impaired Stream (Draft 2024)
- - - MDNR PWI Watercourse
- ▭ Wildlife Management Area

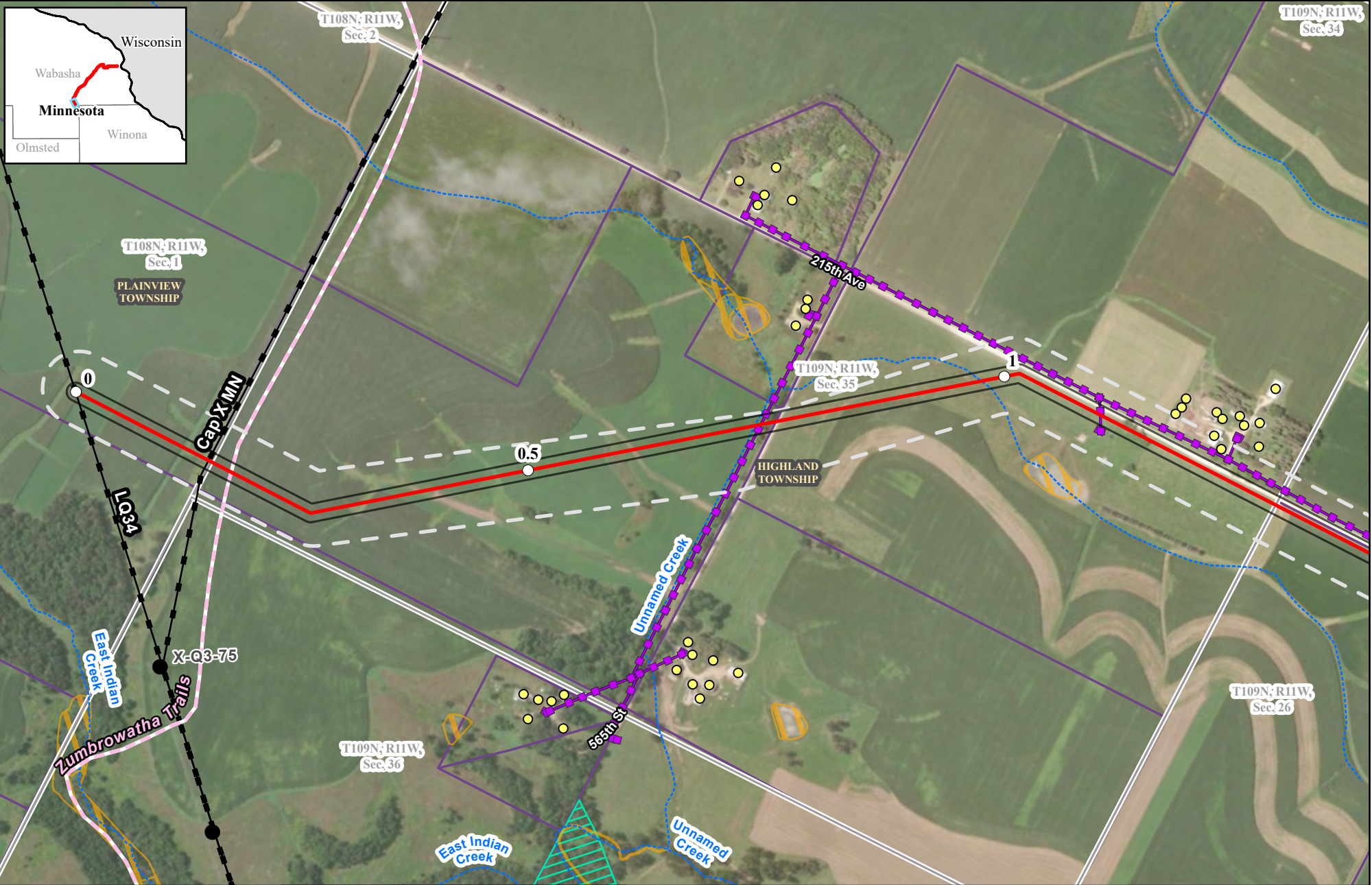




Wabasha Relocation Project  
 Appendix A.1  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Page 4 of 4

- Milepost
- Existing Structure
- Proposed Alignment
- ▭ Proposed Right-of-Way
- ▭ Proposed Kellogg Substation
- ▭ Proposed Route Width
- Existing Transmission Line
- Existing Distribution Line
- Canadian Pacific Railroad
- Impaired Stream (Draft 2024)
- MDNR PWI Watercourse
- MDNR PWI Basin/Wetland
- Scientific and Natural Area
- Wildlife Management Area
- USACE Parcel



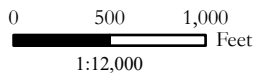
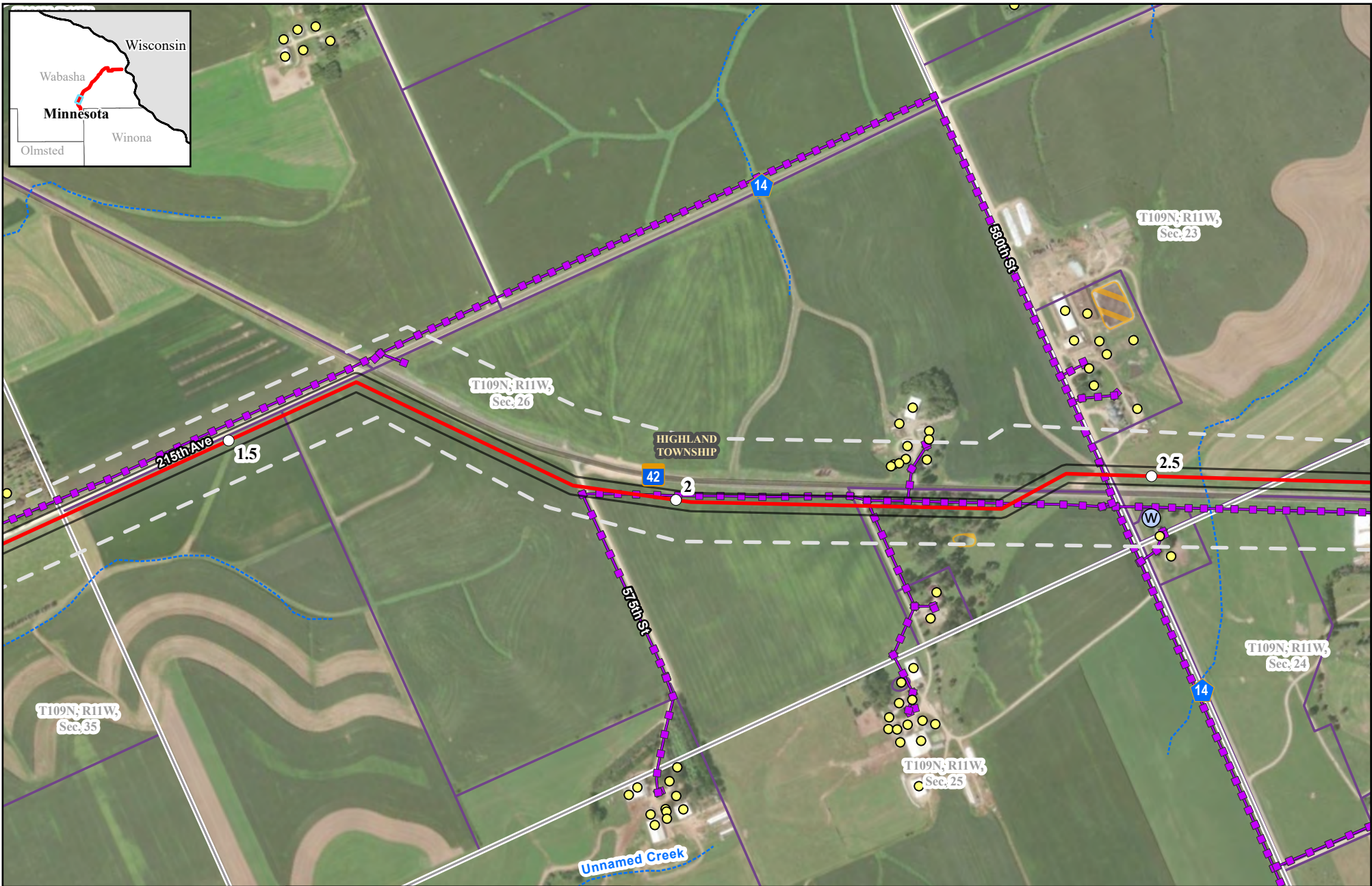


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Wabasha Relocation Project  
Appendix A.2  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Page 1 of 10

○ Milepost	● NSR Private	MDR Hydrography Dataset Stream (Intermittent)	Land Ownership Private Land
Proposed Alignment	Existing Distribution Line	Stream (Intermittent)	BWSR Conservation Easement
Proposed Right-of-Way	NWI Wetland		
Proposed Kellogg Substation	Snowmobile Trail		
Proposed Route Width			
Existing Transmission Line			
Existing Structure			
Section Boundary			

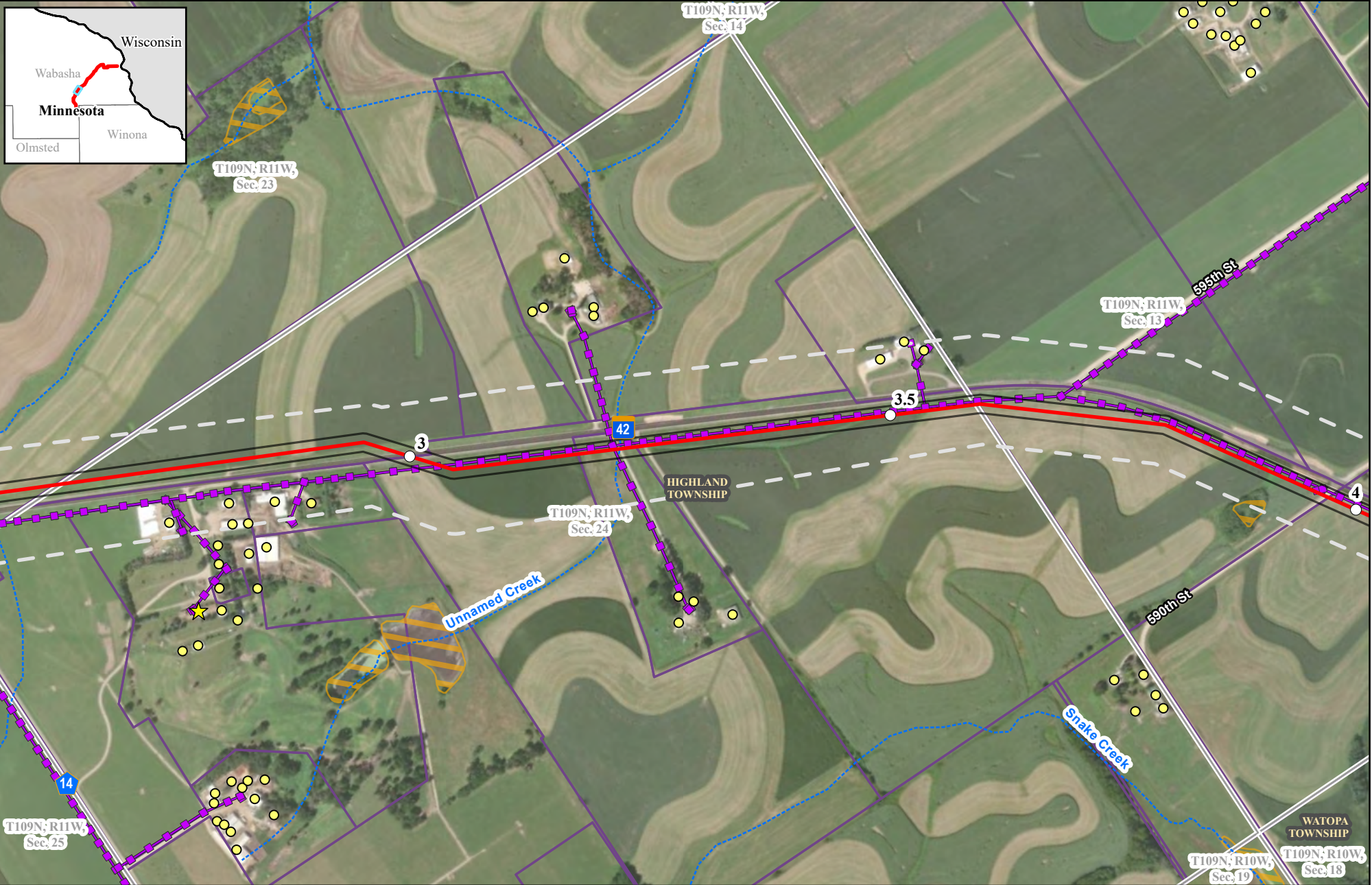




Wabasha Relocation Project  
 Appendix A.2  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Page 2 of 10

- Milepost
- Proposed Alignment
- - - Proposed Right-of-Way
- ▭ Proposed Kellogg Substation
- - - Proposed Route Width
- Existing Transmission Line
- Section Boundary
- NSR Private
- Existing Distribution Line
- NWI Wetland
- ⊙ CWI Water Well
- MDNR Hydrography Dataset Stream (Intermittent)
- ▭ Land Ownership Private Land





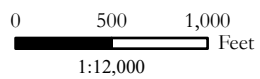
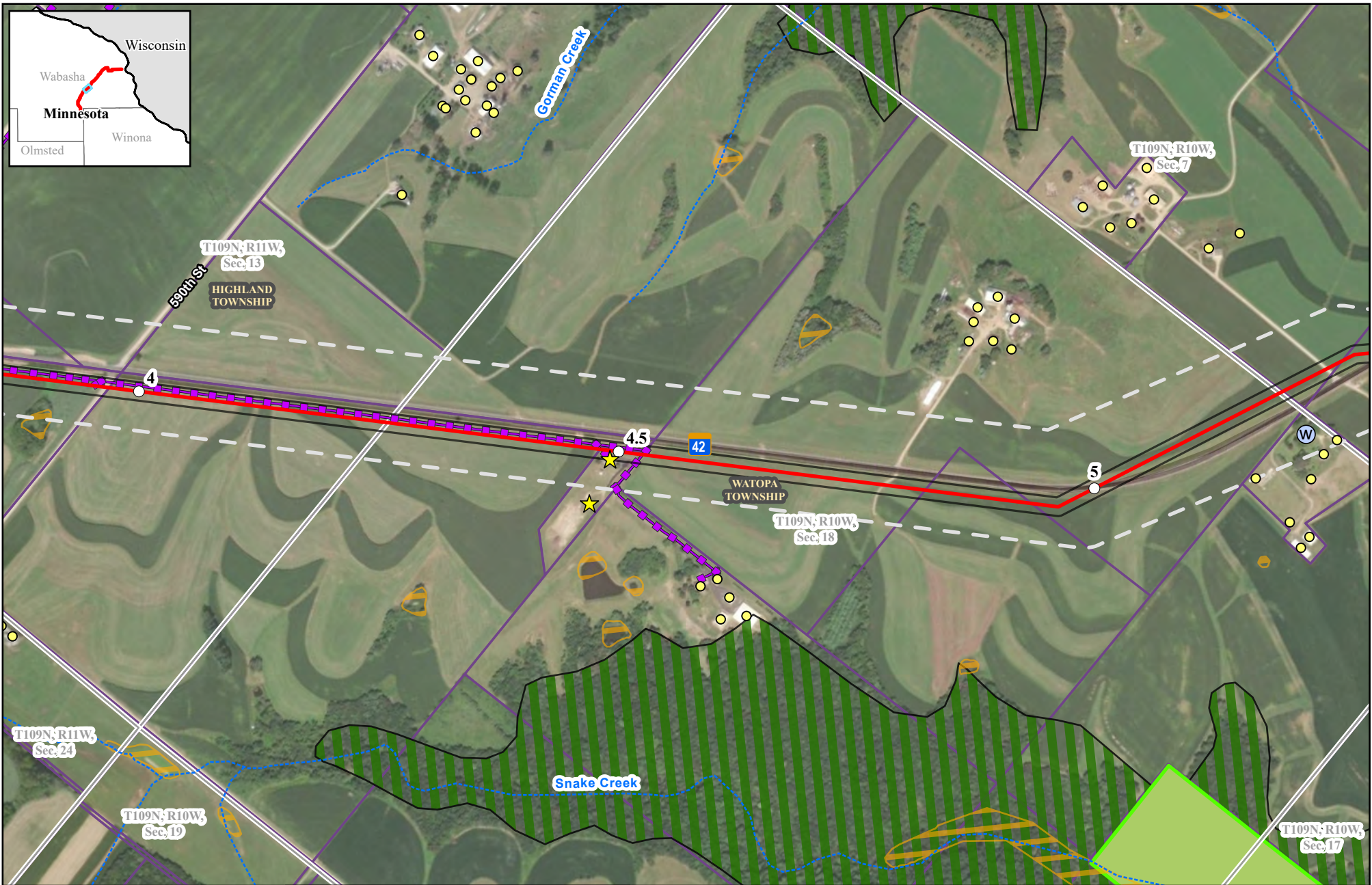
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**Wabasha Relocation Project**  
**Appendix A.2**  
**Dairyland Power Cooperative**  
 Wabasha County, Minnesota  
 Page 3 of 10

○ Milepost	★ NSR Commercial/Industrial	MDNR Hydrography Dataset	Land Ownership
Proposed Alignment	○ NSR Private	Stream (Intermittent)	Private Land
Proposed Right-of-Way	Existing Distribution Line	Proposed Kellogg Substation	
Proposed Route Width	NWI Wetland	Existing Transmission Line	
Proposed Section Boundary		Existing Transmission Line	
Existing Transmission Line		Section Boundary	
Section Boundary			

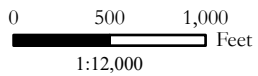




Wabasha Relocation Project  
 Appendix A.2  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
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- |                               |                              |                                 |                       |
|-------------------------------|------------------------------|---------------------------------|-----------------------|
| ○ Milepost                    | ★ NSR Commercial/Industrial  | ⊙ CWI Water Well                | <b>Land Ownership</b> |
| — Proposed Alignment          | ● NSR Private                | <b>MDNR Hydrography Dataset</b> | ▭ Private Land        |
| ▭ Proposed Right-of-Way       | — Existing Distribution Line | — Stream (Intermittent)         | ▭ State Land          |
| ▭ Proposed Kellogg Substation | ○ NWI Wetland                | ● MBS Sites                     |                       |
| ▭ Proposed Route Width        |                              | ○ Moderate                      |                       |
| — Existing Transmission Line  |                              |                                 |                       |
| ▭ Section Boundary            |                              |                                 |                       |

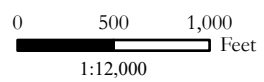




Wabasha Relocation Project  
 Appendix A.2  
 Dairyland Power Cooperative  
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|-------------------------------|---------------|---------------------------------|-----------------------|
| ○ Milepost                    | ● NSR Private | ⊙ CWI Water Well                | <b>Land Ownership</b> |
| — Proposed Alignment          | ● NWI Wetland | <b>MDNR Hydrography Dataset</b> | ▭ Private Land        |
| ▭ Proposed Right-of-Way       |               | — Stream (Intermittent)         | ▭ State Land          |
| ▭ Proposed Kellogg Substation |               | <b>MBS Sites</b>                |                       |
| ▭ Proposed Route Width        |               | ● Moderate                      |                       |
| — Existing Transmission Line  |               | ○ Below                         |                       |
| ▭ Section Boundary            |               |                                 |                       |

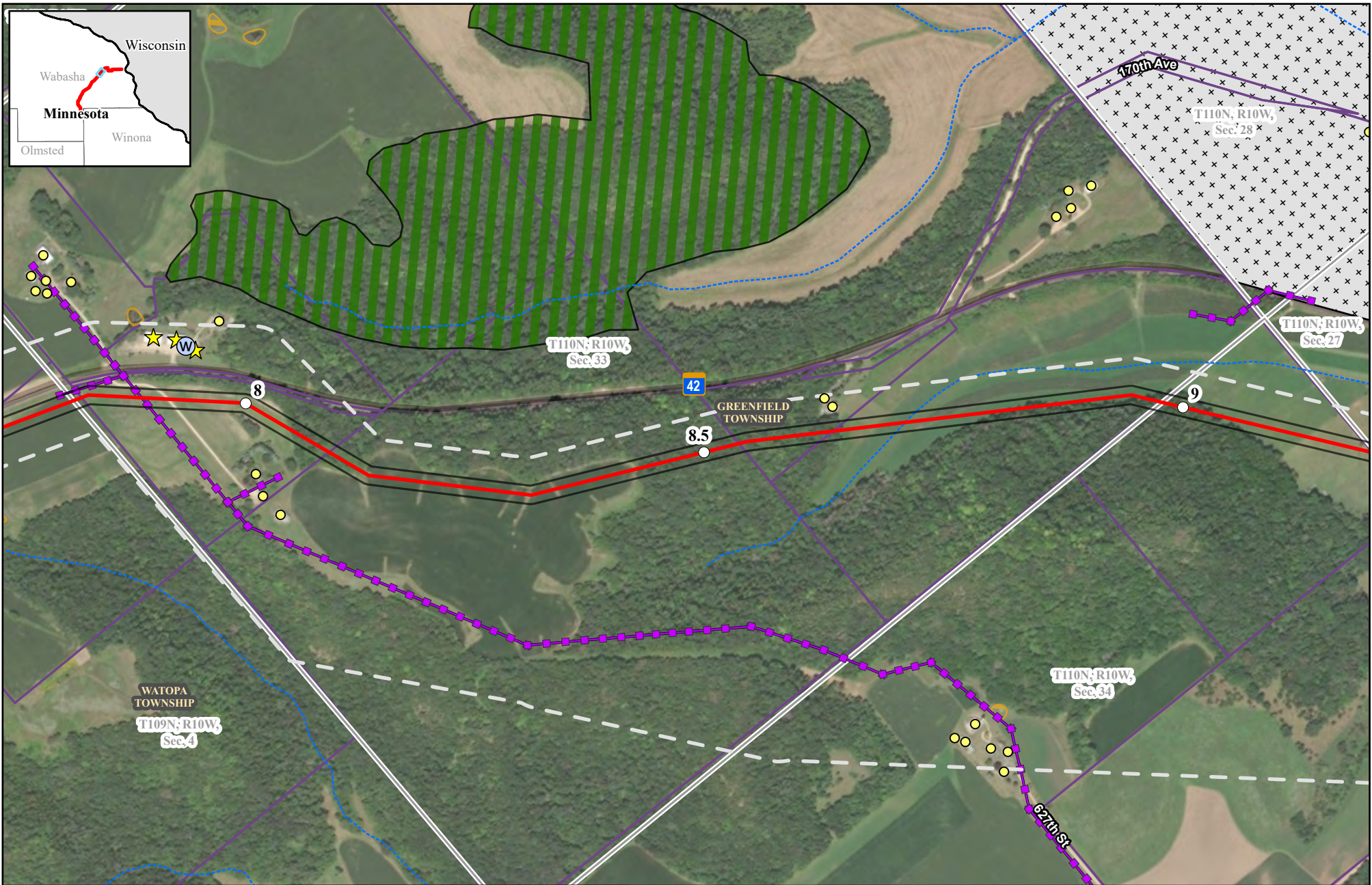




Wabasha Relocation Project  
 Appendix A.2  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
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|-------------------------------|-----------------------------|---------------------------------|-----------------------|
| ○ Milepost                    | ★ NSR Commercial/Industrial | <b>MDNR Hydrography Dataset</b> | <b>Land Ownership</b> |
| — Proposed Alignment          | ○ NSR Private               | — Stream (Intermittent)         | — Private Land        |
| — Proposed Right-of-Way       | ○ NWI Wetland               | ○ MBS Sites                     |                       |
| — Proposed Kellogg Substation |                             | ○ Moderate                      |                       |
| — Proposed Route Width        |                             | ○ Below                         |                       |
| — Existing Transmission Line  |                             |                                 |                       |
| — Section Boundary            |                             |                                 |                       |



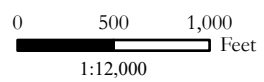
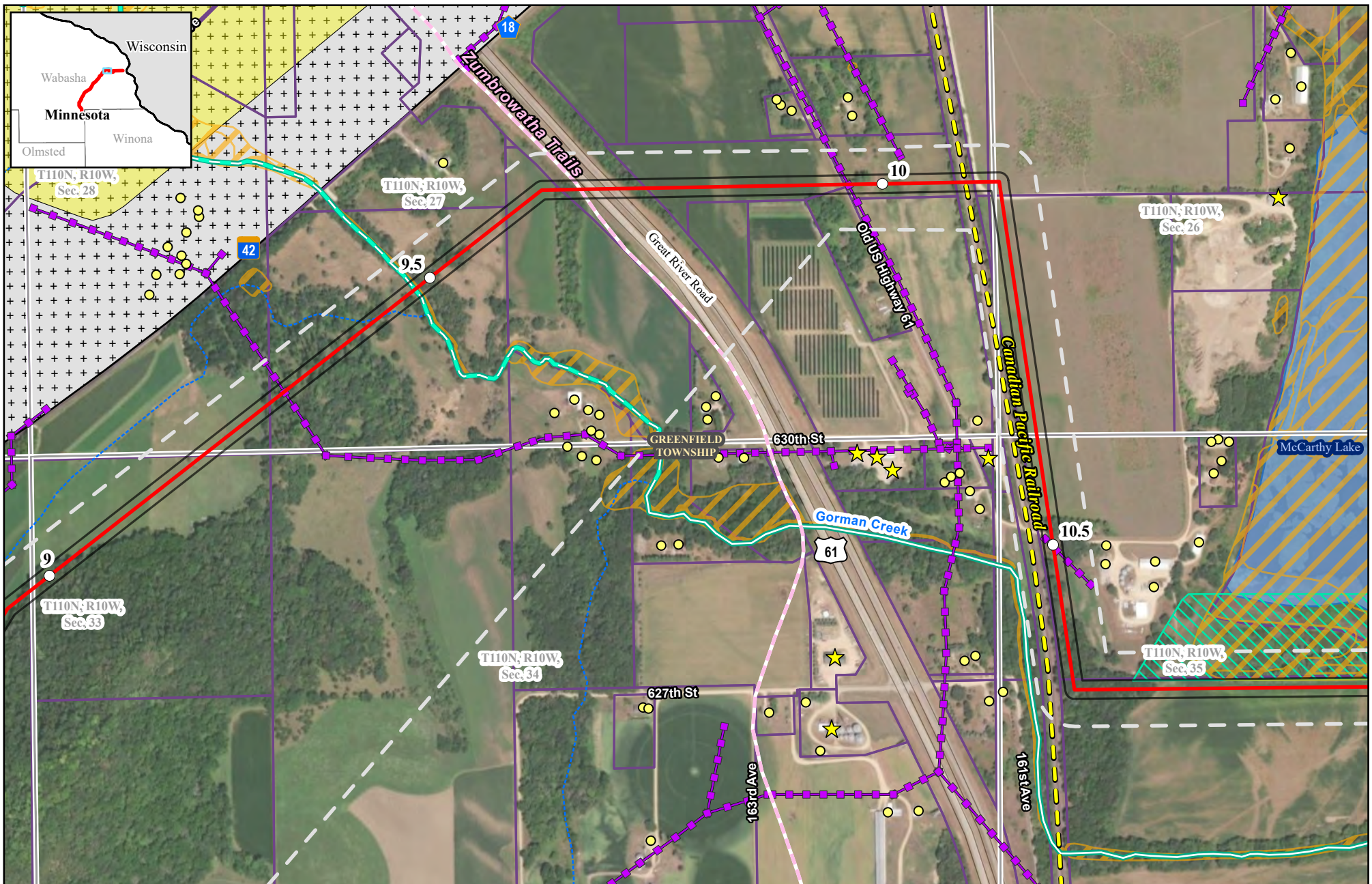


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Wabasha Relocation Project  
Appendix A.2  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
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○ Milepost	★ NSR Commercial/Industrial	▭ DWSMA	▭ Land Ownership
— Proposed Alignment	○ NSR Private	⊙ CWI Water Well	▭ Private Land
▭ Proposed Right-of-Way	○ NWI Wetland	— MDNR Hydrography Dataset	
▭ Proposed Kellogg Substation		— Stream (Intermittent)	
▭ Proposed Route Width		○ MBS Sites	
— Existing Transmission Line		○ Moderate	
▭ Section Boundary			

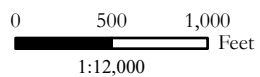
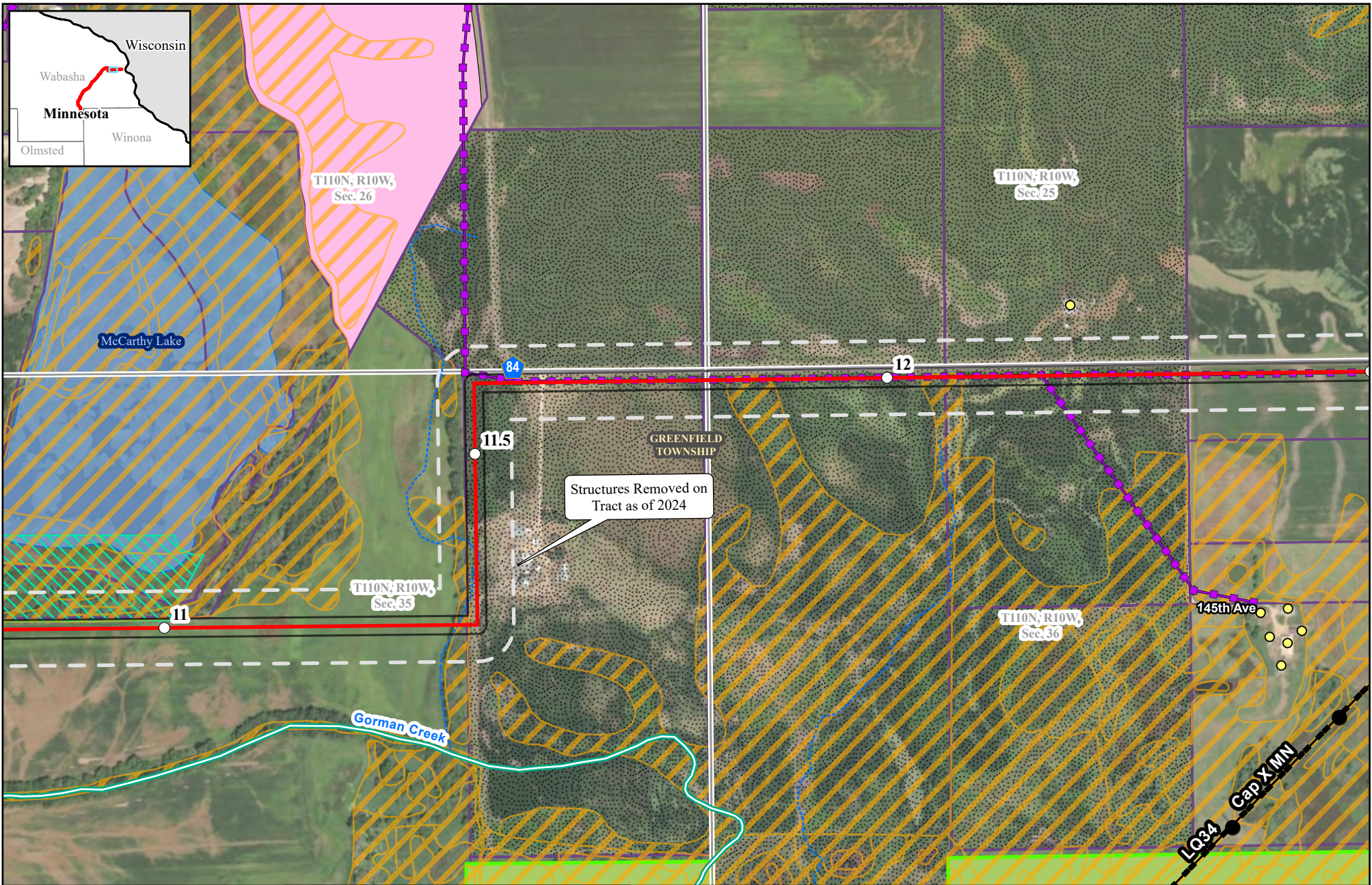




**Wabasha Relocation Project**  
**Appendix A.2**  
**Dairyland Power Cooperative**  
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|-------------------------------|--------------------------------|---------------------------------|----------------------------|
| ○ Milepost                    | ★ NSR Commercial/Industrial    | Wellhead Protection Area        | <b>Land Ownership</b>      |
| — Proposed Alignment          | ○ NSR Private                  | DWSMA                           | Private Land               |
| — Proposed Right-of-Way       | — MDNR PWI Watercourse         | <b>MDNR Hydrography Dataset</b> | BWSR Conservation Easement |
| — Proposed Kellogg Substation | — Impaired Stream (Draft 2024) | — Stream (Perennial)            |                            |
| — Proposed Route Width        | — MDNR PWI Basin/Wetland       | — Stream (Intermittent)         |                            |
| — Existing Transmission Line  | ○ NWI Wetland                  |                                 |                            |
| — Section Boundary            | — Canadian Pacific Railroad    |                                 |                            |
|                               | — Snowmobile Trail             |                                 |                            |

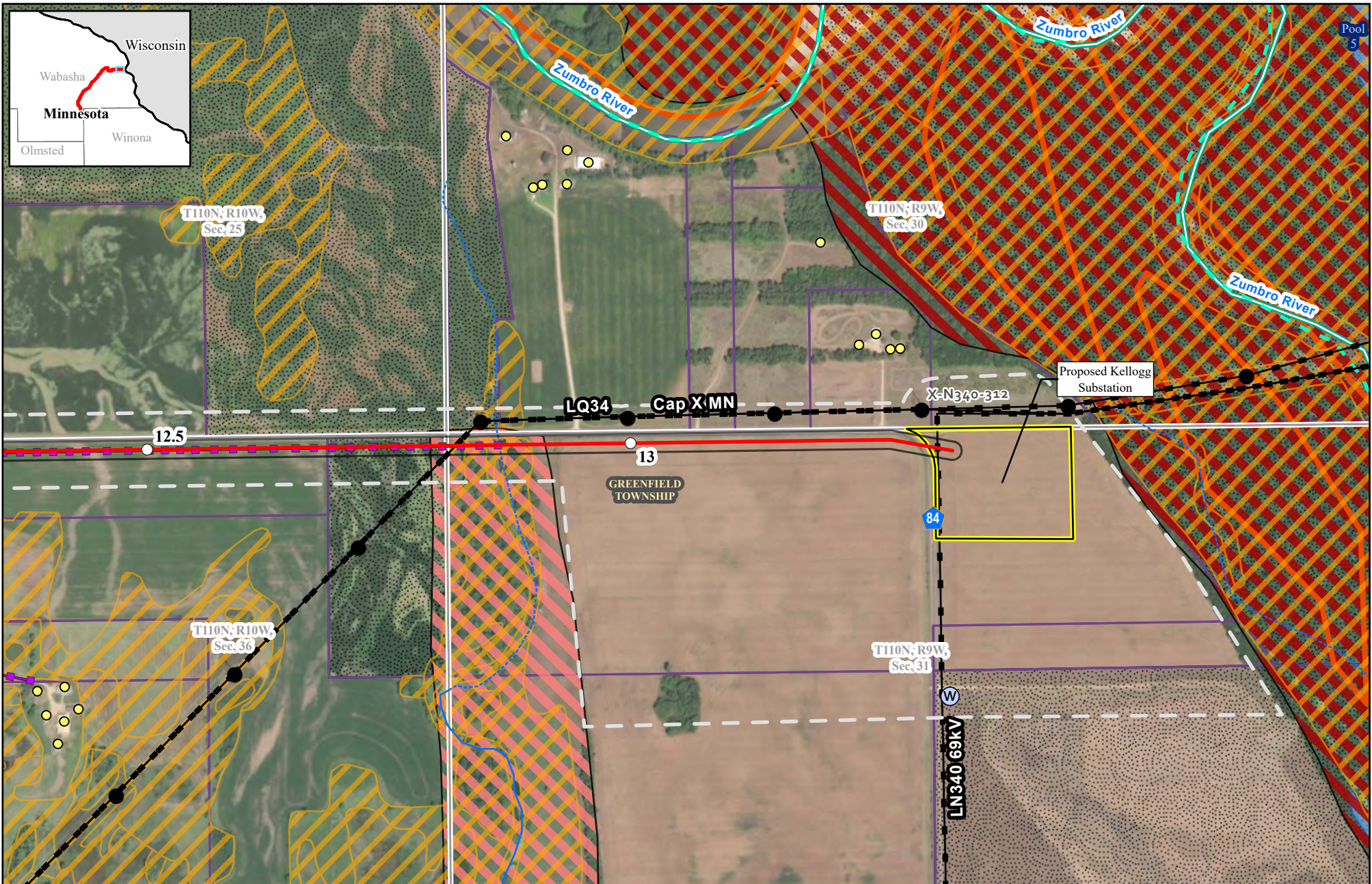




Wabasha Relocation Project  
 Appendix A.2  
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- |                               |                             |                                       |                              |
|-------------------------------|-----------------------------|---------------------------------------|------------------------------|
| ○ Milepost                    | ★ NSR Commercial/Industrial | ■ Wetland Mitigation Banking Easement | <b>Land Ownership</b>        |
| — Proposed Alignment          | ○ NSR Private               | ■ MDNR Hydrography Dataset            | □ Private Land               |
| — Proposed Right-of-Way       | — MDNR PWI Watercourse      | — Stream (Perennial)                  | ▨ BWSR Conservation Easement |
| ■ Proposed Kellogg Substation | — MDNR PWI Basin/Wetland    | — Stream (Intermittent)               | ■ State Land                 |
| — Proposed Route Width        | — NWI Wetland               |                                       | ■ USACE Parcel               |
| — Existing Transmission Line  |                             |                                       |                              |
| ● Existing Structure          |                             |                                       |                              |
| — Section Boundary            |                             |                                       |                              |





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Wabasha Relocation Project  
Appendix A.2  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
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- |                               |                                |                                 |                       |
|-------------------------------|--------------------------------|---------------------------------|-----------------------|
| ○ Milepost                    | ● NSR Private                  | Ⓜ CWI Water Well                | <b>Land Ownership</b> |
| — Proposed Alignment          | — MDNR PWI Watercourse         | <b>MDNR Hydrography Dataset</b> | □ Private Land        |
| □ Proposed Right-of-Way       | — Impaired Stream (Draft 2024) | — Stream (Perennial)            | ▨ Federal Land        |
| □ Proposed Kellogg Substation | — MDNR PWI Basin/Wetland       | — Stream (Intermittent)         | ▨ USACE Parcel        |
| □ Proposed Route Width        | — NWI Wetland                  | — River Centerline              |                       |
| — Existing Transmission Line  |                                | <b>MBS Sites</b>                |                       |
| ● Existing Structure          |                                | ○ Outstanding                   |                       |
| □ Section Boundary            |                                | ○ High                          |                       |



# Appendix B

## Project Correspondence

In accordance with Minnesota Rules, part 7829.0500, and Minnesota Statutes Chapter 13, Dairyland has designated portions of Appendix B as **NONPUBLIC DATA–NOT FOR PUBLIC DISCLOSURE** because it contains sensitive cultural resource and natural heritage information. The Minnesota State Historic Preservation Office Manual for Archaeological Projects in Minnesota provides for restricted access to sensitive cultural resource information. Similarly, the natural heritage information is nonpublic under Minnesota Statutes § 84.0872. Given the need to include nonpublic information, Dairyland has prepared and is electronically filing both **NONPUBLIC** and public versions of Appendix B.



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**PROJECT INTRODUCTION NOTIFICATION**



December 18, 2023

[Name]  
[Title]  
[Agency]  
[Address]  
[City, State, Zip Code]  
[Email Address]

**Re: In the Matter of the Application of Dairyland Power Cooperative to Relocate an Existing 161-kV Transmission Line in Wabasha County, Minnesota  
MPUC Docket Nos. ET3/CN-23-504 and ET3/TL23-388**

Dear [Name]:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line which is presently located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV transmission line must be removed from the existing CapX2020 structures and relocated to make room for the new 345-kV circuit on the CapX2020 structures.

The Project would involve installation of 70- to 110-foot-high steel monopoles placed 400 to 800 feet apart within a 100-foot-wide right-of-way, and construction of a new substation east of the City of Kellogg, Minnesota. The enclosed Project Fact Sheet provides additional information on the Project, including a map of the Project area and proposed route.

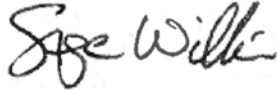
Dairyland plans to file a joint Certificate of Need and Route Permit application (Application) with the Minnesota Public Utilities Commission (Commission) in March 2024. Dairyland would appreciate any input you may have on the Project and the proposed route. This letter, and any responses received, will be submitted along with Dairyland's Application. There will also be numerous public input opportunities as part of the Commission's Certificate of Need and Route Permit process.



We would welcome the opportunity to meet with you regarding the proposed Project. If you would like to request a meeting, please contact me at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com).<sup>1</sup> We also welcome written comments, and I am available to answer any questions you have.

Sincerely,

DAIRYLAND POWER COOPERATIVE

A handwritten signature in black ink that reads "Sage Williams". The signature is written in a cursive, slightly slanted style.

Sage Williams  
Manager, Transmission Operations and Development

Cc: [Name]

Encl: Project Fact Sheet

---

<sup>1</sup> This letter is intended to serve as notice of the opportunity for a pre-application consultation meeting under Minn. Stat. § 216E.03, subd. 3a.



Dairyland Power Cooperative  
Manager, Transmission Operations and Development  
3200 East Avenue South  
P.O. Box 817  
La Crosse, WI 54602-0817

## **Wabasha Relocation Project**

### **Project Overview**

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) in Wabasha County (the Project). The Project will make room for a second 345-kV circuit to be attached to the existing CapX Hampton-Rochester-LaCrosse (CapX) structures, which extend diagonally northeast from the Town of Plainview to the City of Kellogg, Minnesota. The Project will allow Dairyland to maintain its transmission system, supply the Wabaco Substation, and provide power to the Town of Plainview and neighboring areas. Once the 161-kV transmission line has been relocated to the new right of way, the existing transmission circuit located on the CapX 2020 345-kV structures will be transferred to Xcel Energy. Structures would consist of 70- to 110-foot steel monopoles with spans of 400 to 800 feet apart. Dairyland will seek a 100-foot-wide right-of-way – 50 feet on each side of the centerline.

This Project also includes the construction of a new substation proposed near the City of Kellogg. This substation is required because the new CapX 345-kV circuit across the Mississippi River will eliminate Dairyland's existing 69-kV transmission line crossing and connection to the Alma Station in Wisconsin. The new Kellogg Substation will supply power to Dairyland's existing north-south 69-kV transmission line supplying the Weaver Substation, which provides power to communities within the southeast Minnesota area.

### **Permitting and Public Involvement**

Dairyland plans to submit a Certificate of Need and Route Permit Application to the Minnesota Public Utilities Commission (Commission) in March 2024. During this process, the public and regulatory agencies will have several opportunities to review and provide input on the Project, including public meetings hosted by the Commission and the Department of Commerce Energy Environmental Review and Analysis (DOC-EERA). DOC-EERA will also prepare an environmental assessment for the Project that will be available for public review. Once the Commission issues a decision, Dairyland will finalize the Project route and obtain any additional permits needed from federal, state, and local agencies.

### **Landowner Coordination and Easement Negotiation**

After Dairyland submits the Certificate of Need and Route Permit application to the Commission, a representative from Dairyland will contact property owners to discuss access to the Proposed Route and the process for acquisition of easements. Dairyland will continue to engage with landowners throughout the permitting process to answer any questions they may have regarding the easement process or the Project, including those with respect to construction or operation of the transmission line.

### **About Dairyland**

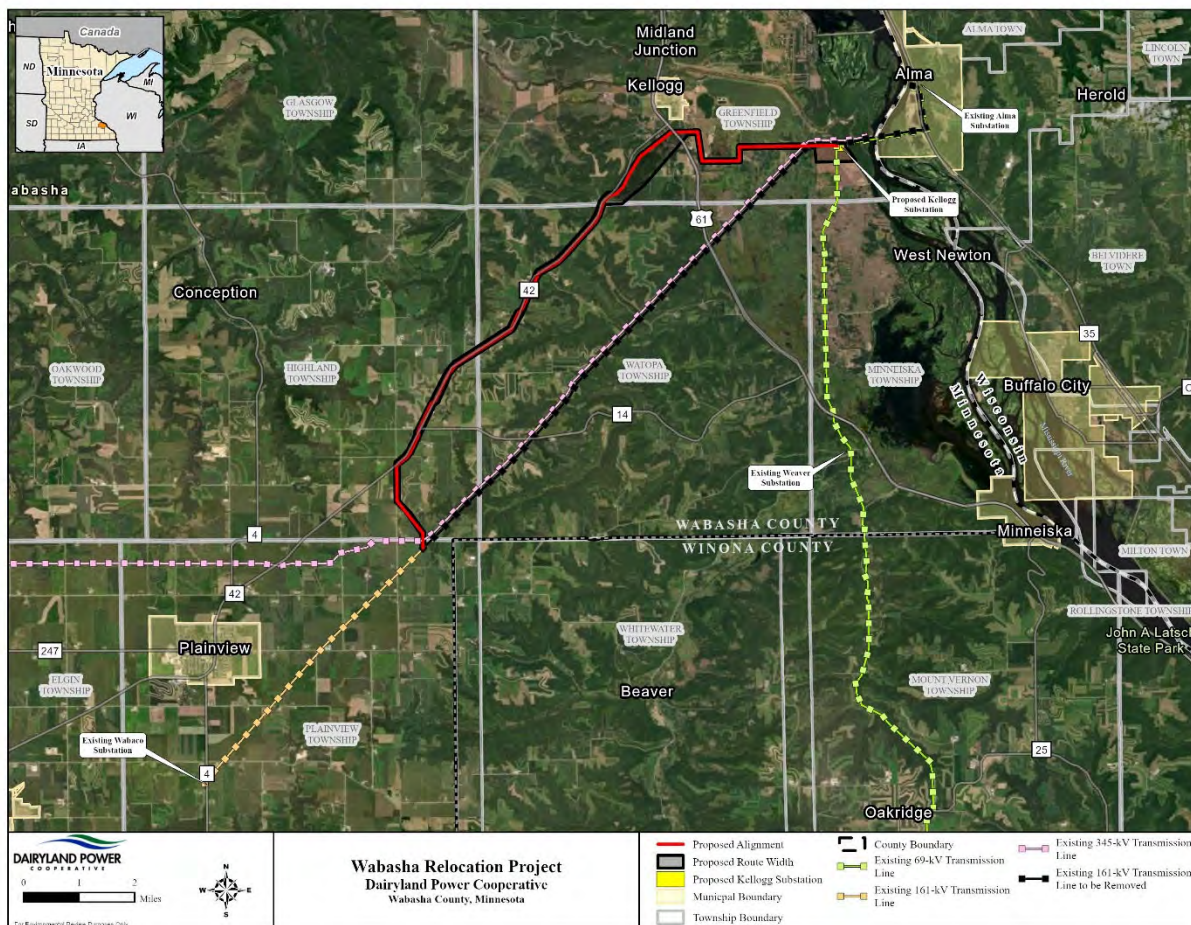
Dairyland is a Touchstone Energy Cooperative formed in December 1941 and based in La Crosse, Wisconsin. Dairyland provides wholesale electrical requirements to more than 700,000 people through its 24 distribution cooperatives and 27 municipals in a four-state area including Wisconsin, Minnesota, Iowa, and Illinois.





Dairyland Power Cooperative  
 Manager, Transmission Operations and Development  
 3200 East Avenue South  
 P.O. Box 817  
 La Crosse, WI 54602-0817

Project Schedule	
Timeframe	Project Phase/Activity
November 2023	Notifications and Open Houses
Winter 2024 – Summer 2025	Certificate of Need and Route Permit
Summer/Fall 2025	Survey/Design
Winter 2025 – Fall 2025	Easements/Additional Permits
Spring 2026 – Summer 2027	Construction
Summer 2028	Energization



Dairyland Representatives	
<b>Jessica Sandry</b>	<b>Sage Williams</b>
Jessica Sandry, Real Estate and Right-of-Way	Project Manager, Transmission Operations and Development
608-792-3359	608-791-2993
<a href="mailto:Jessica.Sandry@DairylandPower.com">Jessica.Sandry@DairylandPower.com</a>	<a href="mailto:Sage.Williams@DairylandPower.com">Sage.Williams@DairylandPower.com</a>

**Table B-1. Recipients Sent and Copied on the Project Introduction Notification Letter**

Agency	Department/District/Division	Contact Name	Address	Email	Intro Letter Sent
U.S. Army Corps of Engineers	St. Paul District - Regulatory and Permits	Raelene Hegge	332 Minnesota St., Ste. E1500, St. Paul, MN 55101	Raelene.Hegge@usace.army.mil	Primary addressee
U.S. Army Corps of Engineers	Upper Mississippi River Pool 5 Dredged Material Management Site (Rolling Prairie Site)	Paul Machajewski	332 Minnesota St., Ste. E1500, St. Paul, MN 55101	Paul.R.Machajewski@usace.army.mil	Copied on letter to R. Edstrom (U.S. Army Corps of Engineers)
U.S. Army Corps of Engineers	Upper Mississippi River Pool 5 Dredged Material Management Site (Rolling Prairie Site)	Robert Edstrom	332 Minnesota St., Ste. E1500, St. Paul, MN 55101	Robert.K.Edstrom@usace.army.mil	Primary addressee
U.S. Department of Agriculture	Natural Resources Conservation Service	Elizabeth Dawson	430 3rd Street, Suite 250 Farmington, MN 55024	elizabeth.dawson@usda.gov	Primary addressee
U.S. Fish and Wildlife Service	Minnesota Ecological Services Field Office	Betsy Gailbraith	2661 Scott Tower Drive New Franken, WI 54229	betsy_galbraith@fws.gov	Primary addressee
Federal Aviation Administration	Air Traffic, Specialist/Crane Specialist	Fred Souchet		fred.souchet@faa.gov	Copied on letter to R. Kiser (Federal Aviation Administration)
Federal Aviation Administration	Air Traffic, Technician	Robert Kiser	1701 Columbia Ave. College Park, GA 30337	Robert.K-CTR.Kiser@faa.gov	Primary addressee
Bois Forte Band of Chippewa	Tribal Historic Preservation Officer	Jaylen Strong	1500 Bois Forte Road, Tower, MN 55790	jaylen.strong@boisfortensn.gov	Primary addressee
Fond du Lac Band of Lake Superior Chippewa	Tribal Historic Preservation Officer	Evan Schroeder	28 University Rd., Cloquet, MN 55720	EvanSchroeder@FDLREZ.COM	Primary addressee
Grand Portage Band of Ojibwe	Tribal Historic Preservation Officer	Rob Hull	PO Box 428, Grand Portage, MN 55605	thpo@grandportage.com	Primary addressee
Leech Lake Band of Ojibwe	Tribal Historic Preservation Officer	Amy Burnette	15756 State 371 NW, Cass Lake, MN 56633	amy.burnette@llojibwe.net	Primary addressee
Lower Sioux Indian Community	Tribal Historic Preservation Officer	Cheyenne St. John	39527 Reservation Highway 1, Morton, MN 56270	cheyanne.stjohn@lowersioux.com	Primary addressee
Mille Lacs Band of Ojibwe	Tribal Historic Preservation Officer	Mike Wilson	43408 Oodena Drive, Onamia, MN 56359	mike.wilson@millelacsband.com	Primary addressee
Prairie Island Indian Community	Tribal Historic Preservation Officer	Noah White	5636 Sturgeon Lake Road, Welch, MN 55089	noah.white@piic.org	Primary addressee
Red Lake Nation	Tribal Historic Preservation Officer	Kade Ferris	15484 Migizi Drive, Red Lake, MN 56671	kade.ferris@redlakenation.org	Primary addressee

Agency	Department/District/Division	Contact Name	Address	Email	Intro Letter Sent
Shakopee Mdewakanton Sioux Community	Tribal Historic Preservation Officer	Leonard Wabasha	2330 Sioux Trail NW, Prior Lake, MN 55372	leonard.wabasha@shakope edakota.org	Primary addressee
Upper Sioux Community	Tribal Historic Preservation Officer	Samantha Odegard	PO Box 147, 5722 Travers Lane, Granite Falls, MN 56241	samanthao@uppersiouxco mmunity-nsn.gov	Primary addressee
White Earth Nation	Tribal Historic Preservation Officer	Jaime Arsenault	PO Box 418, White Earth, MN 56591-0418	Jaime.Arsenault@whiteear h-nsn.gov	Primary addressee
Minnesota Department of Natural Resources	Ecological and Water Resources - Environmental Review Program	Melissa Collins	1200 Warner Road, St. Paul, MN 55106	melissa.collins@state.mn.u s	Primary addressee, combined letter with C. Warzecha (Minnesota Department of Natural Resources)
Minnesota Department of Natural Resources	Environmental Review Coordinator	Cynthia Warzecha		Cynthia.Warzecha@state.m n.us	Primary addressee, combined letter with M. Collins (Minnesota Department of Natural Resources)
Minnesota Department of Natural Resources	Lands & Minerals	Martha Vickery	1200 Warner Road, St. Paul, MN 55106	martha.vickery@state.mn.u s	Copied on letter to C. Warzecha and M. Collins (Minnesota Department of Natural Resources)
Minnesota Department of Transportation	Land Management	Stacy Kotch Egstad	395 John Ireland Blvd, Mailstop 678, St. Paul, MN 55155	stacy.kotch@state.mn.us	Primary addressee
Minnesota Department of Agriculture	Ag Marketing & Development	Stephan Roos	625 Robert Street North, St. Paul, MN 55155-2538	stephan.roos@state.mn.us	Primary addressee
Minnesota Department of Health	Environmental Health Division - Southeast (Central), Hydrologist	Lauren Larkin		lauren.larkin@state.mn.us	Copied on letter to S. Hanson (Minnesota Department of Health)
Minnesota Department of Health	Environmental Health Division - Southeast (Central), Planner	Scott Hanson	625 Robert Street N, P.O. Box 64975, St. Paul, MN 55164-0975	scott.j.hanson@state.mn.us	Primary addressee
Minnesota Department of Health	Environmental Health Division - Surface Water Protection Program	Danielle Nielsen		danielle.nielsen@state.mn. us	Copied on letter to S. Hanson (Minnesota Department of Health)

Agency	Department/District/Division	Contact Name	Address	Email	Intro Letter Sent
Minnesota Department of Health	Environmental Health Division - Surface Water Protection Program	Dereck Richter		dereck.richter@state.mn.us	Copied on letter to S. Hanson (Minnesota Department of Health)
Minnesota Indian Affairs Council	Section 106 / MN Cultural Resources Review	Dylan Goetsch	161 St. Anthony Ave, Ste. 919, St. Paul, MN 55103	dylan.goetsch@state.mn.us	Copied on letter to M. Cerda (Minnesota Indian Affairs Council)
Minnesota Indian Affairs Council	Section 106 / MN Cultural Resources Review	Melissa Cerda	161 St. Anthony Ave, Ste. 919, St. Paul, MN 55103	melissa.cerda@state.mn.us	Primary addressee
Minnesota Board of Soil and Water Resources	Wetland Conservation Act	Jed Chesnut	500 Lafayette Rd., Box 25, St. Paul, MN 55155	jed.chesnut@state.mn.us	Copied on letter to M. Kempinger (Wabasha County Soil & Water Conservation District)
Mississippi River Parkway Commission	State Highway 61 Scenic Byway	Chris Miller	56 33rd Ave S, #283 St. Cloud, MN 56301	chris@togpartners.com	Primary addressee
Office of the State Archaeologist	Section 106 / MN Cultural Resources Review	Amanda Gronhovd	328 W. Kellogg Blvd., St. Paul, MN 55102	Amanda.Gronhovd@state.mn.us	Primary addressee
Wabasha County	Invasive Species Management (Terrestrial and Aquatic)	Kayla Haberkorn	625 Jefferson Avenue Wabasha, MN 55981	khaberkorn@co.wabasha.mn.us	Primary addressee
Wabasha County	Highway Department	Dietrich Flesch	821 Hiawatha Drive West Wabasha, MN 55981	dflesch@co.wabasha.mn.us	Primary addressee
Wabasha County	Planning & Zoning	Joseph Kaltenbach	625 Jefferson Avenue Wabasha, MN 55981	jkaltenbach@co.wabasha.mn.us	Primary addressee
Wabasha County Soil & Water Conservation District	Wetland Conservation Act	Matt Kempinger	611 Broadway Avenue, Ste. 10 Wabasha, MN 55981	Matthew.Kempinger@mn.nacdnet.net	Primary addressee



**ADDITIONAL AGENCY NOTIFICATIONS**

**U.S. Army Corps of Engineers, Section 404**

**From:** [Britta Bergland](#)  
**To:** [USACE\\_Requests\\_MN](#)  
**Cc:** [Sage Williams](#); [Matthew.Kempinger@mn.nacdnet.net](mailto:Matthew.Kempinger@mn.nacdnet.net); [Hegge, Raelene J CIV USARMY CEMVP \(USA\)](#); [Chesnut, Jed \(BWSR\)](#)  
**Subject:** RE: EXTERNAL: MVP-2023-01630-RMH (Wabasha Relocation Project Dairyland)  
**Date:** Friday, December 22, 2023 12:27:00 PM  
**Attachments:** [image.png](#)

---

Good afternoon,

Thank you - we appreciate the guidance and will contact Raelene with any questions or project updates.

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)

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**From:** USACE\_Requests\_MN <[USACE\\_Requests\\_MN@usace.army.mil](mailto:USACE_Requests_MN@usace.army.mil)>  
**Sent:** Thursday, December 21, 2023 11:45 AM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; [Matthew.Kempinger@mn.nacdnet.net](mailto:Matthew.Kempinger@mn.nacdnet.net); [Hegge, Raelene J CIV USARMY CEMVP \(USA\) <Raelene.Hegge@usace.army.mil>](mailto:Hegge, Raelene J CIV USARMY CEMVP (USA) <Raelene.Hegge@usace.army.mil>); [Chesnut, Jed \(BWSR\) <jed.chesnut@state.mn.us>](mailto:Chesnut, Jed (BWSR) <jed.chesnut@state.mn.us>)  
**Subject:** EXTERNAL: MVP-2023-01630-RMH (Wabasha Relocation Project Dairyland)

**CAUTION:** This email originated from outside of Merjent.

Hello,

Attached please find the subject document. A hard copy will not be sent. If you wish to receive a hard copy of this letter, please respond to this email. If you have any other questions, please contact the project manager indicated in the letter.

Sincerely,

Molly Stansberry  
(she/her/hers)  
Office Automation Assistant

Regulatory Division, St. Paul District  
U.S. Army Corps of Engineers  
332 Minnesota Street, Suite E1500  
St. Paul, Minnesota 55101

Information on Corps of Engineers Regulatory Program status during the COVID-19 pandemic can be found at: <https://www.mvp.usace.army.mil/missions/regulatory>

We are pleased to introduce our new paperless communication procedures in Minnesota & Wisconsin. Requests for action (pre-application consultations, permit applications, requests for delineation concurrences, requests for jurisdictional determinations, and mitigation bank proposals) should be sent directly to the following email: (in MN) [usace\\_requests\\_mn@usace.army.mil](mailto:usace_requests_mn@usace.army.mil) (in WI) [usace\\_requests\\_wi@usace.army.mil](mailto:usace_requests_wi@usace.army.mil). Please include the county name in the subject line of the email (e.g. Washington County). These changes will improve efficiency, reduce costs and reduce the environmental footprint. Additional information can be found in our public notice located here: <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>





**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT  
332 MINNESOTA STREET, SUITE E1500  
ST. PAUL, MN 55101-1323

12/21/2023

Regulatory File No. MVP-2023-01630-RMH

**THIS IS NOT A PERMIT**

Britta Bergland  
Merjent, Inc.  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414

To: Britta Bergland:

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

File Number: MVP-2023-01630-RMH

Applicant: Sage Williams

Project Name: Wabasha Relocation Project Dairyland

Project Location: Section 8 of Township 109 N, Range 10 W, Wabasha County, Minnesota (Latitude: 44.2598048624875; Longitude: -92.0111965703457)

Received Date: 12/18/2023

Project Manager: Raelene Hegge  
(651) 290-5355  
Raelene.Hegge@usace.army.mil

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

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

Thank you.

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

**Britta Bergland**

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**From:** Hegge, Raelene J CIV USARMY CEMVP (USA) <Raelene.Hegge@usace.army.mil>  
**Sent:** Monday, January 8, 2024 8:18 AM  
**To:** Sage Williams  
**Cc:** Britta Bergland; Matthew.Kempinger@mn.nacdnet.net  
**Subject:** EXTERNAL: 2023-01630-RMH 20240105 PREAPP.pdf  
**Attachments:** 2023-01630-RMH 20240105 PREAPP.pdf

**CAUTION:** This email originated from outside of Merjent.

Please find attached the signed letter with all attachments for CORPS 2023-01630-RMH for your records.

Should you have any questions, please contact me directly at Raelene.Hegge@usace.army.mil or 651-502-1226.

Thank you.

Raelene Hegge  
USACE Regulatory Specialist  
St. Paul District Office  
332 Minnesota Street, Suite E1500  
St. Paul, Minnesota 55101-1323  
(651) 502-1226  
Raelene.Hegge@usace.army.mil



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT  
332 MINNESOTA STREET, SUITE E1500  
ST. PAUL, MN 55101-1323

January 4, 2024

Regulatory File No. MVP-2023-01630-RMH

Dairyland Power Cooperative  
c/o: Sage Williams  
3200 East Avenue South  
PO Box 817  
La Crosse, WI 54602-0817  
[Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com)

Dear Sage Williams:

This letter is in response to correspondence we received from Britta Bergland of Merjent, Inc. regarding the Wabasha Relocation Project. The project site begins in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, all located in Wabasha County, Minnesota.

Without detailed plans, we cannot provide specific comments regarding the effects the proposed activity would have on jurisdictional waters of the United States or whether a Department of the Army Permit would be required. In lieu of a specific response, please consider the following general information concerning our regulatory program that may apply to the proposed project.

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

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

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

Regulatory Branch (File No. MVP-2023-01630-RMH)

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

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

If you have any questions, please contact Raelene Hegge in our St. Paul office at (651) 290-5355 or Raelene.Hegge@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

Raelene Hegge  
Regulatory Specialist

cc:

Matthew Kempinger, LGU (Matthew.Kempinger@mn.nacdnet.net)

Raymond Kirsch, Minnesota Department of Commerce (raymond.kirsch@state.mn.us)

Britta Bergland, Merjent, Inc. (britta.bergland@merjent.com)



**U.S. Army Corps of Engineers, Channels and Harbors**

**From:** [Kristin Lenz](#)  
**To:** [Edstrom, Robert K CIV USARMY CEMVP \(USA\)](#)  
**Cc:** [Machajewski, Paul R CIV USARMY CEMVP \(USA\)](#); [Sage Williams](#); [Flesch, Dietrich](#); [Oates, Travis M](#); [Britta Bergland](#); [Dupey, Stephanie T CIV USARMY CEMVP \(USA\)](#)  
**Subject:** RE: Dairyland Power Transmission Project  
**Date:** Thursday, October 19, 2023 8:48:00 AM  
**Attachments:** [image.png](#)  
[DPC Weber - \[REDACTED\] - USACE.pdf](#)  
[DPC - Proposed \[REDACTED\] - 20231017.zip](#)

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Good morning Robert,

Attached please find a map of the proposed Project's crossing of USACE properties along County Road 84.

I've also attached a shapefile of the Proposed Alignment.

Please let us know what dates/times may work for you to meet and further discuss.

Thank you,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Sent:** Monday, October 16, 2023 11:06 AM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>; Dupey, Stephanie T CIV USARMY CEMVP (USA) <[stephanie.t.dupey@usace.army.mil](mailto:stephanie.t.dupey@usace.army.mil)>  
**Subject:** RE: Dairyland Power Transmission Project

Thank you. Do you have a more detailed map by chance of the areas overlapping your proposed project and our properties? It's tough to determine impacts from the map provided.

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Sent:** Monday, October 16, 2023 11:14 AM  
**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>; Dupey, Stephanie T CIV USARMY CEMVP (USA) <[stephanie.t.dupey@usace.army.mil](mailto:stephanie.t.dupey@usace.army.mil)>

**Subject:** [Non-DoD Source] RE: Dairyland Power Transmission Project

Good morning Robert,

Attached please find a Project Fact Sheet and map with a few more details.

Regarding your question on possible renewable energy source – no, that is not proposed as part of this Project. There will be a substation associated with the Project, which we are proposing to site on the eastern end of County Road 84 as shown in the attached map.

Let us know what dates/times work best for you for a meeting.

Thanks again,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Sent:** Friday, October 6, 2023 8:44 AM

**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>; Dupey, Stephanie T CIV USARMY CEMVP (USA) <[stephanie.t.dupey@usace.army.mil](mailto:stephanie.t.dupey@usace.army.mil)>

**Subject:** RE: Dairyland Power Transmission Project

Kristin,

Thanks for reaching out. A map of where you might need to utilize our property would be critical. I cannot speak for my entire team and district, so I want to caveat this statement, but it might be a simple real estate agreement that foregoes a 408 in this case depending on impacts, needed

acreage, path chosen, etc. In the next couple weeks, I can generally be available and move things around if need be on my calendar. Please set something up and we will make it work.

Will we also be discussing other potential uses of our property? I believe there was some talk behind the scenes about a possible renewable energy source (solar/wind?) in conjunction with our site or nearby properties. Is that still being proposed? If so, I can make sure the right folks are on the call, and for that level of effort, it might be different/additional folks than the transmission line question. If that is now abandoned or not fleshed out enough to discuss, I understand that, too.

Thanks,

Bob

--

Robert Edstrom, PMP  
Project Manager  
United States Army Corps of Engineers, Saint Paul District  
332 Minnesota Street, Suite E1500  
Saint Paul, Minnesota 55101-1323  
Office: 651-290-5026  
Cell: 651-368-3973  
[robert.k.edstrom@usace.army.mil](mailto:robert.k.edstrom@usace.army.mil)

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**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Sent:** Thursday, October 5, 2023 3:21 PM

**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>

**Subject:** [Non-DoD Source] RE: Dairyland Power Transmission Project

Good afternoon Robert,

We have progressed the initial design of the Dairyland Power Cooperative's 161-kV Transmission Line Relocation and we have also followed up with Deitrich Flesch with the Wabasha County Highway Department regarding potential improvements along County Road 84.

As currently contemplated, the Proposed Alignment would be outside of the County Road ROW. We'd like to further discuss with the USACE what it would entail to obtain an authorization to cross the recently purchased properties for the dredge spoil beneficial reuse. I assume that this is a Section 408 civil works process and that the USACE review and authorization may be via that



process? We are still early in the planning process and we have not yet filed the Route Permit application with the Minnesota Public Utilities Commission – we are planning on filing an application this winter.

Would you and your team have availability in the next couple of weeks to discuss further? I can also provide a map of the route prior to the meeting. Let us know what dates/times may work for you.

Thank you!

Kristin

**Kristin Lenz**

*Senior Project Manager*

612.924.3962 direct

763.913.4740 mobile

[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



1 Main Street SE, Suite 300

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**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Sent:** Tuesday, August 22, 2023 9:48 AM

**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>

**Subject:** RE: Dairyland Power Transmission Project

Kristin,

Are you staying in the County Road 84 ROW? If so, this would be strictly a Wabasha County question for Mr. Dietrich Flesch (copied), their Highway Engineer. It should also be noted at some point in the future, there is a proposal to soften the "S" curve on CR84. If you need to extend outside of the County ROW, we would need to engage our Real Estate Office on next steps.

Thanks,

Bob

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Sent:** Friday, August 11, 2023 4:11 PM

**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>

**Subject:** [URL Verdict: Neutral][Non-DoD Source] RE: Dairyland Power Transmission Project

Good afternoon Robert,

Dairyland Power Cooperative (Dairyland) is in the planning process to reroute approximately 10.4 miles of their existing 161-kilovolt (kV) transmission line that is currently located on the CapX 2020 Hampton-Rochester-LaCrosse (CapX) structures that extend from the Plainview, Minnesota area northeast toward the Mississippi River east of Kellogg, Minnesota. This existing 161-kV circuit must be removed to make room for a new 345-kV circuit on the existing CapX 2020 structures. Dairyland must build a new transmission line to continue to provide power to their existing infrastructure and customers and therefore are in the process of evaluating feasible routes in this area. One of the routes that is in consideration would start at the existing CapX structures near Plainview, Minnesota and would parallel County Highway 42 northeast until crossing Highway 61 southwest of Kellogg. The route would then continue east following County Road 84 to tie-in with existing infrastructure on the west side of the Mississippi River. I've attached a snip of a preliminary potential route through this area where the U.S. Army Corps of Engineers may have made recent land purchases.

We are currently trying to identify environmental constraints and potential permitting needs in order to evaluate the feasibility of this route. Dairyland will be preparing a Route Permit application for the Minnesota Public Utilities Commission (MPUC) and these considerations would be discussed within that application. We would appreciate any information that you may on the USACE ownership and the permitting pathway that may be required for Dairyland to route the transmission line through these properties (e.g., Section 408 authorization?).

Thank you – and please don't hesitate to reach out if you have any questions.

Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>

**Sent:** Wednesday, August 9, 2023 3:26 PM

**To:** Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>

**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>

**Subject:** EXTERNAL: RE: Dairyland Power Transmission Project



**CAUTION:** This email originated from outside of Merjent.

Tom,

Can you send me a brief synopsis of your proposal/needs in the Kellogg area? I want to make sure I get it right when transferring these questions to our Real Estate group. I am working on getting a map of our properties now.

Thanks,

Bob

--

Robert Edstrom, PMP  
Project Manager  
United States Army Corps of Engineers, Saint Paul District  
332 Minnesota Street, Suite E1500  
Saint Paul, Minnesota 55101-1323  
Office: 651-290-5026  
Cell: 651-368-3973  
[robert.k.edstrom@usace.army.mil](mailto:robert.k.edstrom@usace.army.mil)

---

**From:** Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>  
**Sent:** Wednesday, August 9, 2023 2:34 PM  
**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] Dairyland Power Transmission Project

Hi Bob,

Thanks for talking to me today. I'll look forward to seeing whatever information you can send pertaining to the recent Corps land purchase.

We'll be in touch.

**Tom Hillstrom**  
612 584 8783 mobile  
[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)



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**Dairyland Wabasha Relocation Project**  
**U.S. Army Corps of Engineers – Channels & Harbors**  
**Project Introduction Meeting**  
**November 6, 2023**

**Participants:** Robert Edstrom (USACE, St. Paul District), Paul Machajewski (USACE – Channels & Harbors), Dan Devani (USACE – Channels & Harbors), Bob Stanick (USACE – Channels & Harbors), Sage Williams (Dairyland), Travis Oates (S&L), Matt Thompsen (S&L), Andrew Zorn (S&L), Kristin Lenz (Merjent)

Oates presented the Project’s Proposed Alignment crossing of the U.S. Army Corps of Engineers (USACE) properties on Google Earth. Oates explained that the new 161-kilovolt (kV) transmission line will parallel the CapX lines near the Mississippi River and a new substation will be installed on the east side of County Road 84. Dairyland met with Dakota County Highway Department and are aware that the County eventually plans to soften the curves on the road; however, no formal plans are in place at this time.

The USACE inquired on any work restrictions that may be in place under the transmission lines. USACE will be bringing in dredge spoils and will develop a “rolling prairie” habitat in this area. Want to understand type of clearances required under the transmission lines. Oates explained that the structures will either be direct bury or concrete foundations, so would not able to place fill over those foundations because it can cause corrosion. Dairyland would need to coordinate with the USACE on potential grade to build into the design planning. The homestead to the southeast has been removed and USACE has installed a public access area. The USACE plans on having a stockpile of sand near the road and driveway with berms to soften the look of the driveway. Want to make sure offsets/clearances are sufficient. Driveway will likely maintain same grade, but berms on both east and west side of driveway along County Road 84 will be at higher elevation (see general location of berms below).



The USACE shared maps from their Land Use Plan showing the “Beneficial Reuse” area where the public can come in and take sand for beneficial reuse on their own properties. The plan is a 100-year plan that shows how the USACE intends to manage the site as sand is brought in over time. The USACE will provide this plan over email. The plan is currently conceptual.

**Dairyland Wabasha Relocation Project**  
**U.S. Army Corps of Engineers – Channels & Harbors**  
**Project Introduction Meeting**  
**November 6, 2023**

Oates inquired on any set back requirements for the toe of berm; Dairyland planning to set structures right outside of the County Road 84 road ROW with overhang on the USACE property. USACE doesn't have details yet on the berm setbacks, but will work off the information provided by Dairyland. Oates also inquired if there is special equipment that will be used. USACE indicated typically excavators and loaders will be used.

Edstrom indicated that he thought this would not be a Section 408 permit process but rather a Real Estate agreement. Lenz indicated that the Project is in the early stages of Project planning and Dairyland is still working on refining the proposed route and route width, which may still be refined based on input from federal and state agencies and landowners. Dairyland plans to file a Route Permit application with the Minnesota Public Utilities Commission in February 2024 and will include a write-up on the USACE properties and dredge spoil project. Meeting notes will also be included. The USACE can also provide comments on the Project during this process. Edstrom wanted to ensure that Dairyland was aware of the USACE's Regulatory branch, which may have other permitting requirements. Lenz indicated that Dairyland will be sending an introduction letter to the USACE Section 404 permitting division for a Project number and PM assignment and will likely require some form of Section 404 permit (likely regional general permit).

Edstrom inquired if Dairyland had acquired the property for the substation; Dairyland has only initiated contacting landowners in this area at this time.

Edstrom also inquired if Dairyland may need material during the construction of the transmission line; Oates responded likely would not need sand, but the Project has not identified material needs at this point.

Dairyland will set up additional meetings in the future with the USACE to discuss final design to ensure sufficient clearances and to establish the real estate process.

**From:** [Kristin Lenz](#)  
**To:** [Machajewski, Paul R CIV USARMY CEMVP \(USA\)](#)  
**Cc:** [Edstrom, Robert K CIV USARMY CEMVP \(USA\)](#); [Sage Williams](#); [Oates, Travis M](#); [Britta Bergland](#)  
**Subject:** RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Intro Meeting with USACE  
**Date:** Wednesday, December 6, 2023 9:40:00 PM  
**Attachments:** [image002.png](#)

---

Hi Paul and Bob,

Following the open houses, we have made some adjustments to the Proposed Alignment and were hoping that we could meet again to review the revised route with you. We also have some follow-up on your questions below.

Would there be any good dates/times for your team before the holidays?

Thank you,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
kristin.lenz@merjent.com



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
www.merjent.com

---

**From:** Machajewski, Paul R CIV USARMY CEMVP (USA) <Paul.R.Machajewski@usace.army.mil>  
**Sent:** Tuesday, November 7, 2023 1:03 PM  
**To:** Kristin Lenz <kristin.lenz@merjent.com>  
**Cc:** Edstrom, Robert K CIV USARMY CEMVP (USA) <Robert.K.Edstrom@usace.army.mil>  
**Subject:** RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Intro Meeting with USACE

Hi Kristin,

Bob Edstrom asked a question yesterday about a potential pipeline route for moving our river sand but I misinterpreted what he was talking about. Per the attached Land Use Plan map (see area circled in red) we have plans 5+ years down the road to possibly bring our river sand on to our property via a 24" HDPE pipeline. We intend to work within the County Road 84 ROW but now see your line will also parallel CR 84.

Would it be possible to run our pipeline, on the surface of the earth, under your powerlines? Will there be safety concerns running under or paralleling your lines?

We've had preliminary talks with Xcel about following the powerline corridor though the trees down

to the Mississippi River shoreline.

Bob and I can be available for another call regarding this issue if needed.

Sorry again for not discussing this yesterday,

Paul Machajewski  
Dredged Material Manager, St. Paul District

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Sent:** Monday, November 6, 2023 4:56 PM  
**To:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>  
**Subject:** [Non-DoD Source] RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Intro Meeting with USACE

Thank you Paul, received!

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
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[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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---

**From:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>  
**Sent:** Monday, November 6, 2023 4:42 PM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Intro Meeting with USACE

**CAUTION:** This email originated from outside of Merjent.

Hi Kristin,

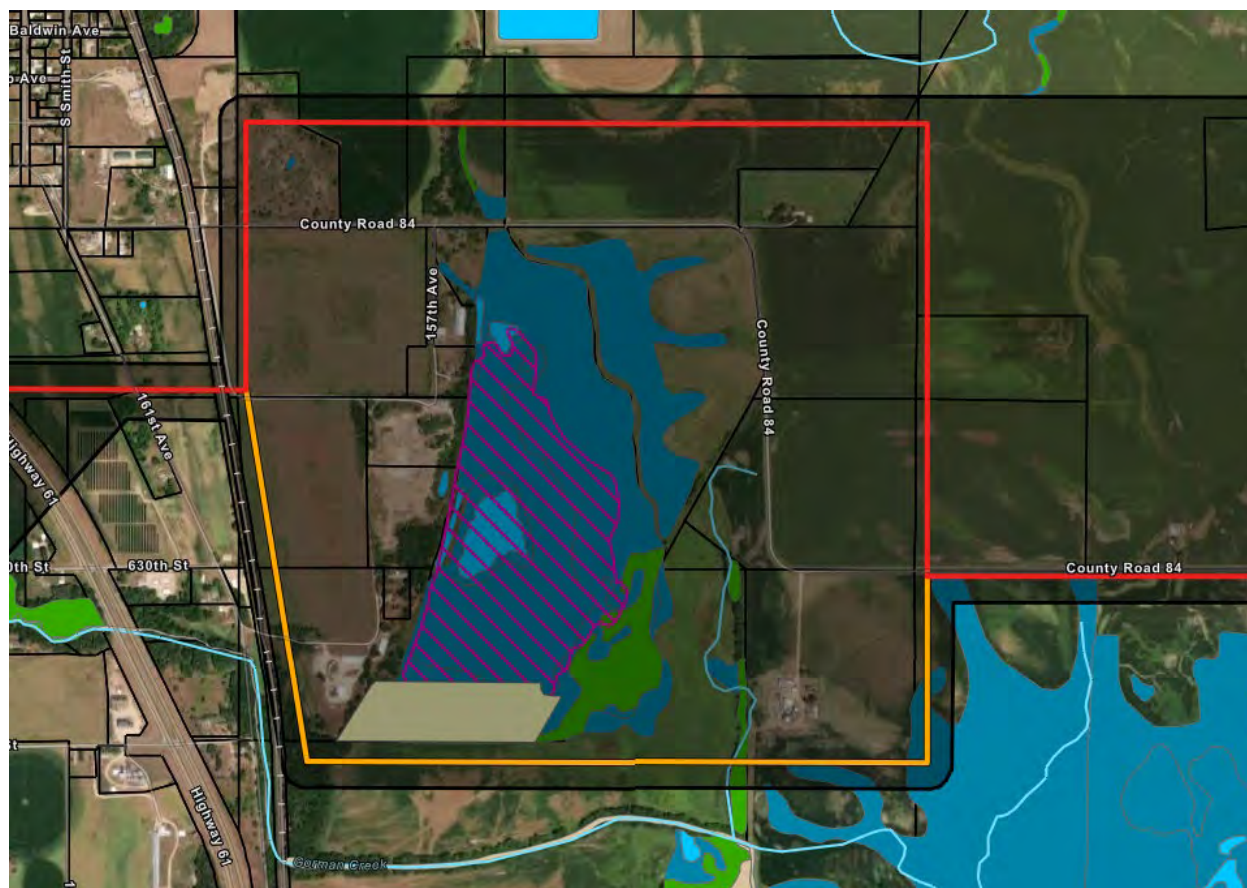
As discussed, here's our DRAFT Land Use Plan for your reference sorry it's 20MB



**Dairyland Wabasha Relocation Project**  
**U.S. Army Corps of Engineers – Channels & Harbors**  
**Project Introduction Meeting**  
**December 12, 2023**

**Participants:** Robert Edstrom (USACE, St. Paul District), Paul Machajewski (USACE – Channels & Harbors), Sage Williams (Dairyland), Travis Oates (S&L), Kristin Lenz (Merjent), Britta Bergland (Merjent)

Lenz presented the northern and southern route segment options that Dairyland has been reviewing after receiving feedback from landowners at the November open houses. The U.S. Army Corps of Engineers (USACE) expressed concern with the northern route segment option (red) because their long-term plan is to use the dredged sand to create rolling hills from 0 to 30 feet elevation. The northern route segment option would go directly through the heart of this area. USACE requested the clearance requirements to see if they can design the plan to accommodate. Oates indicated clearance requirements from ground to wire are standardized and Dairyland could modify the structures to allow for additional fill in the future. Oates indicated clearance needs to be 26 feet from the wires to the ground. Dairyland to provide email with the clearances and maps of the locations in question. Williams also indicated that Dairyland could increase the height on the structures if needed.



USACE indicated a preference for the southern route segment (yellow) as that route would not impact the rolling hill area. The USACE has removed the homestead from the property that was purchased at the southern corner of County Road 84, and this will be a parking lot for the public to visit this site. The area south of the old homestead will be restored as wetlands and the USACE will also be doing restoration work along the tributary to Gorman Creek. The USACE recommended that the route be moved to the west along the Gusa and USACE boundary, on the USACE property, which is higher

**Dairyland Wabasha Relocation Project**  
**U.S. Army Corps of Engineers – Channels & Harbors**  
**Project Introduction Meeting**  
**December 12, 2023**

elevation. There is an historic access road that also extends to the south to Gorman Creek. USACE indicated that Dairyland should also let them know if they will want permanent access to the line (perhaps along the existing road).

USACE inquired on the ability to temporarily install an HDPE sand pipeline from the Mississippi River west along the transmission line corridor. The pipe would be installed temporarily as needed directly on the ground to transport sand to the dredge disposal area. Williams and Oates indicated that this would not be an issue from an induction perspective because the pipes would be made from plastic; and would be unlikely to be a clearance concern either. Edstrom indicated others have indicated concern over the sand/water slurry causing a static electricity issue. Oates will follow-up on the clearance and static electricity issue as well.

USACE will be meeting January 18, 2024 to further discuss this area; requested that Dairyland provide any update prior to that meeting so they can further discuss.

**From:** [Kristin Lenz](#)  
**To:** [robert.k.edstrom@usace.army.mil](mailto:robert.k.edstrom@usace.army.mil); [Machajewski, Paul R CIV USARMY CEMVP \(USA\)](#)  
**Cc:** [Sage Williams](#); [Oates, Travis M](#); [Britta Bergland](#)  
**Subject:** RE: Dairyland Wabasha Relocation Project - Follow-up with USACE  
**Date:** Friday, December 15, 2023 11:22:00 AM  
**Attachments:** [DPC USACE Presentation Slides - 20231212.pdf](#)  
[image.png](#)

---

Hi Paul and Bob,

Attached are notes from our meeting on Tuesday – please let us know if you have any edits.

We are working to follow up on the questions on the HDPE pipeline.

As an aside, we have revised the Proposed Route to go along that southern segment with the revisions discussed during the meeting. You'll receive a formal project introductory email with a fact sheet that includes that revised route soon.

Thank you!

Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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[www.merjent.com](http://www.merjent.com)

**Britta Bergland**

---

**From:** Kristin Lenz  
**Sent:** Monday, January 22, 2024 8:41 AM  
**To:** Britta Bergland  
**Subject:** FW: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

**Kristin Lenz**

*Senior Project Manager*  
612.924.3962 direct  
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kristin.lenz@merjent.com



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---

**From:** Marinan, Raymond P CIV USARMY CEMVP (USA) <Raymond.P.Marinan@usace.army.mil>  
**Sent:** Monday, January 22, 2024 8:14 AM  
**To:** Kristin Lenz <kristin.lenz@merjent.com>  
**Cc:** Sage.Williams@DairylandPower.com  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

**CAUTION:** This email originated from outside of Merjent.

Folks,

I have been assigned to this project from our real estate point of view. I will be preparing the necessary paperwork i.e. lease documents as this moves forward. As I wasn't sure who my POC should be, I am reaching out to both of you. Please just let me know who that will be, and if there was a KMZ file of the proposed routes I would love to get it. More to come I'm sure. Thanks for the assistance.

Ray Marinan  
U.S. Army Corps of Engineers  
St. Paul District Realty Specialist  
Field located at:  
1114 South Oak St.  
La Crescent, MN 55947-1560  
651-290-5896

**Britta Bergland**

---

**From:** Kristin Lenz  
**Sent:** Monday, January 22, 2024 9:37 AM  
**To:** Marinan, Raymond P CIV USARMY CEMVP (USA)  
**Cc:** Sage.Williams@DairylandPower.com; Britta Bergland  
**Subject:** RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE  
**Attachments:** DPC Proposed Alignment\_20231213.kmz; 2023-01630-RMH-20231221-ACK.pdf


Good morning Ray,

Sage Williams is the Company Project Manager and decision maker, but Britta Bergland and I can help facilitate information needs during the process. I've attached the current proposed alignment. Dairyland will be filing a Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in early spring of this year. Through that process, there may be changes to the proposed alignment, and the Commission will ultimately select the final route. Based on our current schedule, we would not expect that the Commission issues the Order and Route Permit until summer/fall 2025.

We do anticipate requiring a Section 404 permit for this Project and we did reach out to that office – I've attached their response which assigns the File Number and Project Manager in case you need to coordinate.

Let us know if you need anything else and we look forward to working with you!  
Kristin

**Kristin Lenz**  
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**Sent:** Monday, January 22, 2024 8:14 AM  
**To:** Kristin Lenz <kristin.lenz@merjent.com>  
**Cc:** Sage.Williams@DairylandPower.com  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

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Ray Marinan



PUBLIC DOCUMENT - NONPUBLIC DATA HAS BEEN EXCISED

U.S. Army Corps of Engineers  
St. Paul District Realty Specialist  
Field located at:  
1114 South Oak St.  
La Crescent, MN 55947-1560  
651-290-5896



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT  
332 MINNESOTA STREET, SUITE E1500  
ST. PAUL, MN 55101-1323

12/21/2023

Regulatory File No. MVP-2023-01630-RMH

**THIS IS NOT A PERMIT**

Britta Bergland  
Merjent, Inc.  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414

To: Britta Bergland:

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

File Number: MVP-2023-01630-RMH

Applicant: Sage Williams

Project Name: Wabasha Relocation Project Dairyland

Project Location: Section 8 of Township 109 N, Range 10 W, Wabasha County, Minnesota (Latitude: 44.2598048624875; Longitude: -92.0111965703457)

Received Date: 12/18/2023

Project Manager: Raelene Hegge  
(651) 290-5355  
Raelene.Hegge@usace.army.mil

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

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

Thank you.

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

## Britta Bergland

---

**From:** Marinan, Raymond P CIV USARMY CEMVP (USA) <Raymond.P.Marinan@usace.army.mil>  
**Sent:** Tuesday, January 23, 2024 8:15 AM  
**To:** Kristin Lenz  
**Cc:** Sage.Williams@DairylandPower.com; Britta Bergland  
**Subject:** RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE  
**Attachments:** SF-299 OMB.pdf

Kristin,

Thanks very much for the info. I've attached a standard gov't form I'll need filled out for the project. Please return to me once it's filled out.

Ray

---

**From:** Kristin Lenz <kristin.lenz@merjent.com>  
**Sent:** Monday, January 22, 2024 9:37 AM  
**To:** Marinan, Raymond P CIV USARMY CEMVP (USA) <Raymond.P.Marinan@usace.army.mil>  
**Cc:** Sage.Williams@DairylandPower.com; Britta Bergland <britta.bergland@merjent.com>  
**Subject:** [Non-DoD Source] RE: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

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Kristin

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**From:** Marinan, Raymond P CIV USARMY CEMVP (USA) <[Raymond.P.Marinan@usace.army.mil](mailto:Raymond.P.Marinan@usace.army.mil)>  
**Sent:** Monday, January 22, 2024 8:14 AM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

Cc: [Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)

Subject: EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

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Ray Marinan  
U.S. Army Corps of Engineers  
St. Paul District Realty Specialist  
Field located at:  
1114 South Oak St.  
La Crescent, MN 55947-1560  
651-290-5896

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**STANDARD FORM 299**  
**APPLICATION FOR TRANSPORTATION, UTILITY SYSTEMS, TELECOMMUNICATIONS AND FACILITIES**  
**ON FEDERAL LANDS AND PROPERTY**

FORM APPROVED  
 OMB Control Number: 0596-0249  
 Expiration Date: 02/28/2023

**FOR AGENCY USE ONLY**

NOTE: Before completing and filing the application for an authorization (easement, right-of-way, lease, license or permit), the applicant should completely review this package, including instructions, and schedule a pre-application meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the pre-application meeting.

Application Number

Date Filed

1. Name and address of applicant

2. Name and address of authorized agent if different from item 1

3. Applicant telephone number and email:

Authorized agent telephone number and email:

4. As applicant are you? (check one)

- a.  Individual
- b.  Corporation\*
- c.  Partnership/Association\*
- d.  State Government/State Agency
- e.  Local Government
- f.  Federal Agency

\* If checked, complete supplemental page

5. Specify what application is for: (check one)

- a.  New authorization
- b.  Renewing existing authorization number
- c.  Amend existing authorization number
- d.  Assign existing authorization number
- e.  Existing use for which no authorization has been received \*
- f.  Other\*

\* If checked, provide details under item 7

6. If an individual, or partnership, are you a citizen(s) of the United States?  Yes  No

7. Project description (describe in detail): (a) Type of use or occupancy, (e.g., canal, pipeline, road, telecommunications); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of days/years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for activity/construction (Attach additional sheets, if additional space is needed.)

8. Attach a map covering area and show location of project proposal.

9. State or Local government approval:  Attached  Applied for  Not Required

10. Nonrefundable application fee:  Attached  Not required  To be determined by agency

11. Does project cross international boundary or affect international waterways?  Yes  No (if "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.



---

13a. Describe other alternative locations considered.

---

b. Why were these alternatives not selected?

---

c. Give explanation as to why it is necessary to use or occupy Federal assets (lands or buildings).

---

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (*Specify number, date, code, or name*)

---

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

---

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

---

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability; and, (g) historic or archaeological resources or properties.

---

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plant life, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

---

19. State whether any hazardous material, as defined in this paragraph, would be used, produced, transported or stored on or in a federal building or federal lands or would be used in connection with the proposed use or occupancy. "Hazardous material" shall mean (a) any hazardous substance under section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any petroleum product or its derivative, including fuel oil, and waste oils; and (d) any hazardous substance, extremely hazardous substance, toxic substance, hazardous waste, ignitable, reactive or corrosive materials, pollutant, contaminant, element, compound, mixture, solution or substance that may pose a present or potential hazard to human health or the environment under any applicable environmental laws. The holder shall not store any hazardous materials at the site without prior written approval from the authorized officer. This approval shall not be unreasonably withheld. If the authorized officer provides approval, this permit shall include (or in the case of approval provided after this permit is issued, shall be amended to include) specific terms addressing the storage of hazardous materials, including the specific type of materials to be stored, the volume, the type of storage, and a spill plan. Such terms shall be proposed by the holder and are subject to approval by the authorized officer.

---

20. Name all the Federal Department(s)/Agency(ies) where this application is being filed.

---

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

---

Signature of Applicant

---

Date

---

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

---

GENERAL INFORMATION  
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation utility systems telecommunication installations facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Wired and wireless systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved right-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture  
Regional Forester, Forest Service (USFS)  
P.O. Box 21628  
Juneau, Alaska 99802-1628  
Telephone: (907) 586-7847 (or a local Forest Service Office)

Department of the Interior  
Bureau of Indian Affairs (BIA)  
Alaska Regional Office  
709 West 9th Street  
Juneau, Alaska 99802  
Telephone: (907) 586-7177

Department of the Interior  
Alaska State Office  
Bureau of Land Management  
222 West 7th Avenue #13  
Anchorage, Alaska 99513  
Public Room: 907-271-5960  
FAX: 907-271-3684  
(or a local BLM Office)

U.S. Fish & Wildlife Service (FWS)  
Office of the Regional Director 1011  
East Tudor Road Anchorage, Alaska  
99503 Telephone: (907) 786-3440

National Park Service (NPS)  
Alaska Regional Office  
240 West 5th Avenue  
Anchorage, Alaska 99501  
Telephone: (907) 644-3510

Note - Filings with any Interior agency may be filed with any office noted above or with the Office of the Secretary of the Interior, Regional Environmental Officer, P.O. Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation  
Federal Aviation Administration  
Alaska Region AAL-4, 222 West 7th Ave., Box 14  
Anchorage, Alaska 99513-7587  
Telephone: (907) 271-5285

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual department/agencies may authorize the use of this form by applicants for transportation, utility systems, telecommunication installations and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS  
(Items not listed are self-explanatory)

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
- 8 Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
- 9, 10, and 12 The responsible agency will provide additional instructions.
- 13 Providing information on alternate locations in as much detail as possible, discussing why certain locations were rejected and why it is necessary to use Federal assets will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate locations as related to current technology and economics.
- 14 The responsible agency will provide instructions.
- 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
- 16 through 19 Providing this information with as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

**EFFECT OF NOT PROVIDING INFORMATION**

Disclosure of the information is voluntary. If all the information is not provided, the proposal or application may be rejected.

**DATA COLLECTION STATEMENT**

The Federal agencies collect this information from proponents and applicants requesting a right-of-way, permit, license, lease, or certification for use of Federal assets. The Federal agencies use this information to evaluate a proponent's or applicant's proposal to use Federal assets.

**BURDEN STATEMENT**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0249. The time required to complete this information collection is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The authority to collect this information is derived from 47 U.S.C. 1455(c)(3) and 16 U.S.C. 3210.

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**SUPPLEMENTAL**

NOTE: The responsible agency(ies) will provide instructions	CHECK APPROPRIATE BLOCK	
<b>I - PRIVATE CORPORATIONS</b>	ATTACHED	FILED*
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
<b>II - PUBLIC CORPORATIONS</b>		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	<input type="checkbox"/>	<input type="checkbox"/>
<b>III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY</b>		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	<input type="checkbox"/>	<input type="checkbox"/>

\*If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

**Britta Bergland**

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**From:** Machajewski, Paul R CIV USARMY CEMVP (USA) <Paul.R.Machajewski@usace.army.mil>  
**Sent:** Monday, January 29, 2024 4:28 PM  
**To:** Kristin Lenz; Edstrom, Robert K CIV USARMY CEMVP (USA)  
**Cc:** Sage Williams; Oates, Travis M; Britta Bergland  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

**CAUTION:** This email originated from outside of Merjent.

Excellent, thanks for following up, Kristin!

Paul

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**From:** Kristin Lenz <kristin.lenz@merjent.com>  
**Sent:** Friday, January 26, 2024 4:38 PM  
**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <Robert.K.Edstrom@usace.army.mil>; Machajewski, Paul R CIV USARMY CEMVP (USA) <Paul.R.Machajewski@usace.army.mil>  
**Cc:** Sage Williams <Sage.Williams@DairylandPower.com>; Oates, Travis M <travis.m.oates@sargentlundy.com>; Britta Bergland <britta.bergland@merjent.com>  
**Subject:** [Non-DoD Source] RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

Hi Rob and Paul,


Travis followed up regarding induction of the HDPE pipe and staff have indicated it is possible for an HDPE pipeline to have induction due to the transmission lines; however, the induction can be mitigated. The level of induction and mitigation measures would depend on many factors like: presence of metallic tracer wire, metallic supports, the distance it runs parallel to the transmission line, the size of the pipe, the distance from the transmission line wires, etc.

As we know more regarding both the transmission line and pipeline design, we will continue to work with you to better understand the amount of potential induction, and if safe limits are exceeded, will work with you to identify the appropriate, mitigation such as grounding.

Let us know if you have any questions or concerns on the above – otherwise, we'll continue to reach out!

Thanks,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)

  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)



**From:** Kristin Lenz

**Sent:** Friday, December 15, 2023 11:22 AM

**To:** [robert.k.edstrom@usace.army.mil](mailto:robert.k.edstrom@usace.army.mil); Machajewski, Paul R CIV USARMY CEMVP (USA)

<[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>

**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>

**Subject:** RE: Dairyland Wabasha Relocation Project - Follow-up with USACE

Hi Paul and Bob,

Attached are notes from our meeting on Tuesday – please let us know if you have any edits.

We are working to follow up on the questions on the HDPE pipeline.

As an aside, we have revised the Proposed Route to go along that southern segment with the revisions discussed during the meeting. You'll receive a formal project introductory email with a fact sheet that includes that revised route soon.

Thank you!

Kristin

**Kristin Lenz**

*Senior Project Manager*

612.924.3962 direct

763.913.4740 mobile

[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**U.S. Fish and Wildlife Service**

**From:** [Galbraith, Betsy M](#)  
**To:** [Sage Williams](#)  
**Cc:** [Britta Bergland](#)  
**Subject:** EXTERNAL: Re: [EXTERNAL] RE: Request for additional information  
**Date:** Wednesday, December 20, 2023 8:40:43 AM  
**Attachments:** [image.png](#)  
[Outline - Dairyland](#)

**CAUTION:** This email originated from outside of Merjent.

Thank you!

[Betsy Galbraith she/her](#)

Acting Project Leader - Nov & Dec  
U.S. Fish & Wildlife Service  
MN-WI Ecological Services Field Office  
(920) 866-1753 (preferred)



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**From:** Sage Williams <Sage.Williams@DairylandPower.com>  
**Sent:** Wednesday, December 20, 2023 8:18 AM  
**To:** Galbraith, Betsy M <betsy\_galbraith@fws.gov>  
**Cc:** Britta Bergland <britta.bergland@merjent.com>  
**Subject:** [EXTERNAL] RE: Request for additional information

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Good morning Betsy,  
We will not be using any federal funding for this project.  
Thanks,

SAGE WILLIAMS  
DAIRYLAND POWER COOPERATIVE

---

**From:** Galbraith, Betsy M <betsy\_galbraith@fws.gov>  
**Sent:** Tuesday, December 19, 2023 2:57 PM  
**To:** Sage Williams <Sage.Williams@DairylandPower.com>  
**Subject:** [EXT] Request for additional information

Hi Sage,

Please identify the federal funding source for this project.

Thanks,

Betsy

*Betsy Galbraith* [she/her](#)

Acting Project Leader - Nov & Dec  
U.S. Fish & Wildlife Service  
MN-WI Ecological Services Field Office  
(920) 866-1753 (preferred)



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**From:** [Britta Bergland](#)  
**To:** [Galbraith, Betsy M](#)  
**Cc:** [Sage Williams](#); [Kristin Lenz](#)  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Date:** Friday, December 22, 2023 12:41:00 PM  
**Attachments:** [image.png](#)  
[image.png](#)  
[image.png](#)

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Hi Betsy –

Thank you for the prompt response to Dairyland’s December 18, 2023 letter. We will utilize the IPaC system and Determination Keys to obtain USFWS’ initial technical assistance. Should we need additional information we will be sure to contact your office.

Take care,

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)

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**From:** Galbraith, Betsy M <[betsy\\_galbraith@fws.gov](mailto:betsy_galbraith@fws.gov)>  
**Sent:** Wednesday, December 20, 2023 3:20 PM  
**To:** [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com); Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** EXTERNAL: Re: [EXTERNAL] Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Because of current workload management, we are not able to provide the level of initial technical assistance you are requesting. We now rely on available web-based tools to provide initial technical assistance.

You can obtain information on federally listed species that could occur in your project area through our [Information for Planning and Consultation \(IPaC\) system](#). Through IPaC, you will be able to enter geographic and activity details for your project to generate an Official Species List, a list of federally listed species and designated critical habitat that may be impacted by your project. The species list will also include any species proposed for listing and any areas proposed as critical habitat that overlap with the project area. The Official Species List provided through IPaC is considered a technical assistance tool intended to be used by the project proponent to determine whether project activities could impact federal trust resources and, therefore, require further consultation with the Service.



The species list includes links to species-specific project-design guidelines and survey recommendations to help you determine whether your project may affect the species and, if so, how to avoid or minimize those effects. After reviewing the species list and applicable links, if you determine that further consultation is required with the Service, please contact me for further assistance.

[Betsy Galbraith she/her](#)

Acting Project Leader - Nov & Dec

U.S. Fish & Wildlife Service

MN-WI Ecological Services Field Office

(920) 866-1753 (preferred)



---

**From:** Marquardt, Shauna R <[Shauna\\_Marquardt@fws.gov](mailto:Shauna_Marquardt@fws.gov)>

**Sent:** Monday, December 18, 2023 3:31 PM

**To:** Galbraith, Betsy M <[betsy\\_galbraith@fws.gov](mailto:betsy_galbraith@fws.gov)>

**Subject:** Fw: [EXTERNAL] Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

---

Shauna Marquardt ([she/her](#))

Acting Assistant Regional Director, National Wildlife Refuge System, Midwest Region

U.S. Fish and Wildlife Service

Field Office Supervisor

Minnesota-Wisconsin Ecological Services Field Office

mobile: 573-239-3293

The Vision of the Minnesota-Wisconsin Field Office is to *foster a sustainable and just environment for future generations through science, collaboration, and stewardship.*



**From:** Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>  
**Sent:** Monday, December 18, 2023 3:28 PM  
**To:** Marquardt, Shauna R <[Shauna\\_Marquardt@fws.gov](mailto:Shauna_Marquardt@fws.gov)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** [EXTERNAL] Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

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Dear Shauna Marquardt:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

612.746.3673 direct

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[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)



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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873



In Reply Refer To:

January 02, 2024

Project Code: 2024-0027345

Project Name: Dairyland Wabasha Relocation Project - Federal

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

### **Threatened and Endangered Species**

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

### **Consultation Technical Assistance**

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect.” In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

**Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review.** If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
  2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
-



3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### **Northern Long-Eared Bats**

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

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**Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys help to determine if prohibited take might occur and, if not, will generate an automated verification letter.

*Please note:* On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's [northern long-eared bat website](#).

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

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mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

##### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

##### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

#### Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Bald & Golden Eagles
  - Migratory Birds
  - Wetlands
-

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East

Bloomington, MN 55425-1659

(952) 858-0793

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## PROJECT SUMMARY

Project Code: 2024-0027345  
Project Name: Dairyland Wabasha Relocation Project - Federal  
Project Type: Transmission Line - New Constr - Above Ground  
Project Description: Transmission Line  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.24308155,-92.06752581909959,14z>



Counties: Wabasha County, Minnesota



## ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

### BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

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**CLAMS**

NAME	STATUS
Higgins Eye (pearlymussel) <i>Lampsilis higginsii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5428">https://ecos.fws.gov/ecp/species/5428</a>	Endangered
Sheepnose Mussel <i>Plethobasus cyphus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6903">https://ecos.fws.gov/ecp/species/6903</a>	Endangered
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7867">https://ecos.fws.gov/ecp/species/7867</a>	Endangered

**INSECTS**

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate
Rusty Patched Bumble Bee <i>Bombus affinis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9383">https://ecos.fws.gov/ecp/species/9383</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/3QJIPMEFBFG6RIWHVKILYFLAPI/documents/generated/5967.pdf">https://ipac.ecosphere.fws.gov/project/3QJIPMEFBFG6RIWHVKILYFLAPI/documents/generated/5967.pdf</a>	Endangered

**CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

**USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

**BALD & GOLDEN EAGLES**

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

### There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds elsewhere

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

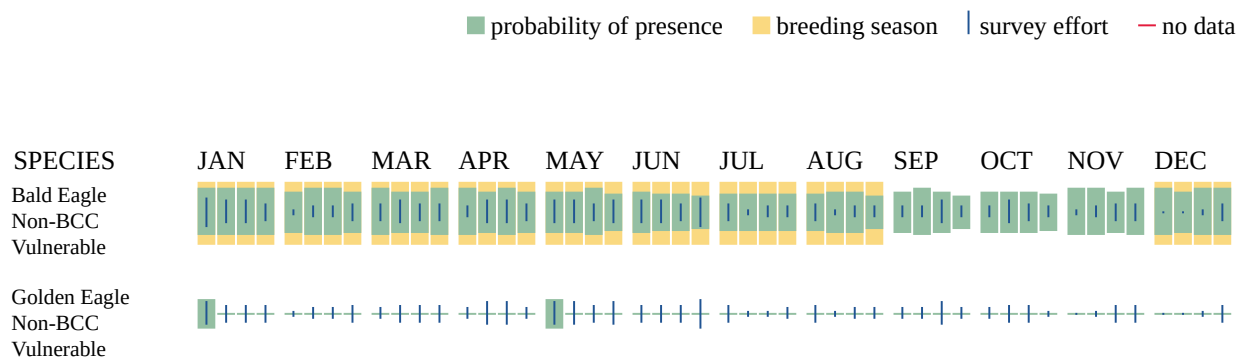
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

**Survey Effort (|)**

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

**No Data (-)**

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p><b>Bald Eagle <i>Haliaeetus leucocephalus</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	Breeds Dec 1 to Aug 31
<p><b>Black Tern <i>Chlidonias niger</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a></p>	Breeds May 15 to Aug 20
<p><b>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a></p>	Breeds May 15 to Oct 10
<p><b>Bobolink <i>Dolichonyx oryzivorus</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9454">https://ecos.fws.gov/ecp/species/9454</a></p>	Breeds May 20 to Jul 31
<p><b>Canada Warbler <i>Cardellina canadensis</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9643">https://ecos.fws.gov/ecp/species/9643</a></p>	Breeds May 20 to Aug 10
<p><b>Chimney Swift <i>Chaetura pelagica</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a></p>	Breeds Mar 15 to Aug 25
<p><b>Eastern Whip-poor-will <i>Antrostomus vociferus</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10678">https://ecos.fws.gov/ecp/species/10678</a></p>	Breeds May 1 to Aug 20
<p><b>Golden Eagle <i>Aquila chrysaetos</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds elsewhere
<p><b>Henslow's Sparrow <i>Ammodramus henslowii</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3941">https://ecos.fws.gov/ecp/species/3941</a></p>	Breeds May 1 to Aug 31



NAME	BREEDING SEASON
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds elsewhere
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9561">https://ecos.fws.gov/ecp/species/9561</a></p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a></p>	Breeds May 10 to Sep 10
<p>Ruddy Turnstone <i>Arenaria interpres morinella</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/10633">https://ecos.fws.gov/ecp/species/10633</a></p>	Breeds elsewhere
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/9478">https://ecos.fws.gov/ecp/species/9478</a></p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a></p>	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

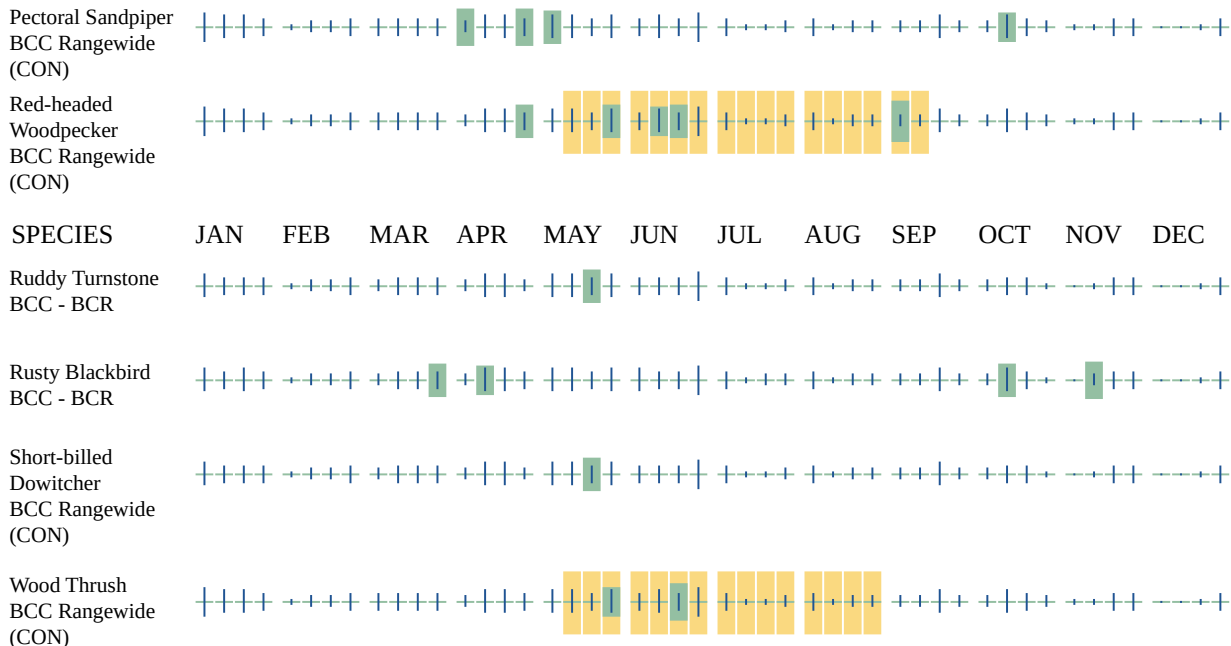
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER EMERGENT WETLAND

- PEM1F
- PEM1C

- PEM1A
- PEM1Ch
- PEM1Af

RIVERINE

- R2UBG
- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1Ah

FRESHWATER POND

- PUBFh
-

## **IPAC USER CONTACT INFORMATION**

Agency: Merjent Inc.  
Name: Mandy Bohnenblust  
Address: 1 Main St SE, Suite 300  
City: Minneapolis  
State: MN  
Zip: 55414  
Email: mandy.bohnenblust@merjent.com  
Phone: 6127463677

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers

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## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Minnesota-Wisconsin Ecological Services Field Office

3815 American Blvd East

Bloomington, MN 55425-1659

Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:

January 04, 2024

Project code: 2024-0027345

Project Name: Dairyland Wabasha Relocation Project - Federal

Federal Nexus: yes

Federal Action Agency (if applicable): Army Corps of Engineers

**Subject:** Technical assistance for 'Dairyland Wabasha Relocation Project - Federal'

Dear Mandy Bohnenblust:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on January 04, 2024, for 'Dairyland Wabasha Relocation Project - Federal' (here forward, Project). This project has been assigned Project Code 2024-0027345 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

#### **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangelwide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

#### **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Higgins Eye (pearlymussel) *Lampsilis higginsii* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Sheepnose Mussel *Plethobasus cyphus* Endangered
- Spectaclecase (mussel) *Cumberlandia monodonta* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

## Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **806-136451650**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the

Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Minnesota-Wisconsin Ecological Services Field Office and reference Project Code 2024-0027345 associated with this Project.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

Dairyland Wabasha Relocation Project - Federal

**2. Description**

The following description was provided for the project 'Dairyland Wabasha Relocation Project - Federal':

Transmission Line

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.24308155,-92.06752581909959,14z>



## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

*No*

3. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

*No*

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

*Yes*

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

*No*



6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*No*

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*

11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

*Yes*

12. Have you conducted, or will you conduct, a voluntary Phase 1 habitat assessment for potentially suitable hibernacula in accordance with the guidance in Appendix H of the USFWS' current Range-wide Indiana bat and Northern long-eared bat Survey Guidelines?

**Note:** The survey guidelines can be found at: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

*No*

13. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

*Yes*

## PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

14.4

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

14.4

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

14.4

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

10

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

Yes

Will all project activities be completed by April 1, 2024?

No

## **IPAC USER CONTACT INFORMATION**

Agency: Merjent Inc.  
Name: Mandy Bohnenblust  
Address: 1 Main St SE, Suite 300  
City: Minneapolis  
State: MN  
Zip: 55414  
Email: mandy.bohnenblust@merjent.com  
Phone: 6127463677

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers

**Federal Aviation Administration**



**From:** [Britta Bergland](#)  
**To:** [Kiser, Robert K-CTR \(FAA\)](#); [Souchet, Fred \(FAA\)](#)  
**Cc:** [Sage Williams](#); [Kristin Lenz](#)  
**Subject:** RE: EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Date:** Friday, December 22, 2023 1:56:00 PM  
**Attachments:** [image.png](#)  
[image.png](#)

---

Hi Robby and Fred –

Thank you for your prompt response. We appreciate the guidance on the future permitting needs for the Project and would be happy to meet with you in the new year. We have availability on January 4, 5, or 12, is there a time that would work best for you?

Take care –

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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---

**From:** Kiser, Robert K-CTR (FAA) <[Robert.K-CTR.Kiser@faa.gov](mailto:Robert.K-CTR.Kiser@faa.gov)>  
**Sent:** Monday, December 18, 2023 2:19 PM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Cc:** Souchet, Fred (FAA) <[Fred.Souchet@faa.gov](mailto:Fred.Souchet@faa.gov)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Good afternoon,

The FAA would look forward to discussing this with you further should you like. I know the meeting will most likely need to be scheduled after the Christmas and New Year holiday season. I know that many of us are going to be on leave and not back until after the New Year. One thing to begin thinking about, is that when you go from township to township, you will need to indicate that on the 7460-2. You should be able to file for them all at once thus keeping sequential order and easier to review. Additionally, if you will be replacing existing structures that have aeronautical study numbers (ASN's) on them, please list those as prior studies to the new filings. I have also included my Specialist, Fred Souchet, so that he may add input to this as well, especially if any public comments are needed/warranted.

I look forward to working with you on this project going forward.

With Kind Regards, I Am,

*Robby Kiser*

Federal Aviation Administration  
AJV-A51/Obstruction Evaluation Group  
Air Traffic Specialist III / FAA OEG – NAVTAC Support  
1701 Columbia Ave. College Park, GA 30337  
Telephone: Work: 404-305-6616  
Email: [robert.k-CTR.kiser@faa.gov](mailto:robert.k-CTR.kiser@faa.gov)

**Level III Technician for the states of Michigan, Minnesota, South Carolina and Rhode Island**

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- 1) To see if your structure is required to file with FAA, please go to:  
<https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm>
- 2) OEAAA.faa.gov Filing Instructions:  
<https://oeaaa.faa.gov/oeaaa/external/content/instructions.jsp>
- 3) General FAQs: <https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp?action=generalFAQs>
- 4) DOT/FAA Obstruction Marking & Lighting Advisory Circular (AC 70/7460-1M):  
[https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/1030047](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1030047)
- 5) Light Outage Reporting: <https://oeaaa.faa.gov/oeaaa/external/content/lightOutageReporting.jsp>
- 6) Helpdesk (System Issues/Support): 202-580-7500/Email: [oeaaa\\_helpdesk@cghtech.com](mailto:oeaaa_helpdesk@cghtech.com)

---

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Sent:** Monday, December 18, 2023 1:29 PM  
**To:** Kiser, Robert K-CTR (FAA) <[Robert.K-CTR.Kiser@faa.gov](mailto:Robert.K-CTR.Kiser@faa.gov)>  
**Cc:** Souchet, Fred (FAA) <[Fred.Souchet@faa.gov](mailto:Fred.Souchet@faa.gov)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Dear Robert Kiser:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

612.746.3673 direct

612.220.9692 mobile

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**Shakopee Mdewakanton Sioux Community**

**From:** [Britta Bergland](#)  
**To:** [Leonard Wabasha \(TO\)](#)  
**Cc:** [Sage Williams](#); [Kristin Lenz](#)  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Date:** Friday, December 22, 2023 12:53:00 PM  
**Attachments:** [image.png](#)  
[image.png](#)

---

Good afternoon –

Thank you for your prompt response to Dairyland’s December 18, 2023 letter. We are in the process of completing a file search and Phase IA Cultural Resources Assessment in support of the Project to provide to the MN SHPO. Once this is complete, we would be happy to provide you with a copy.

Please let me know if you we can provide any additional information.

Take care –

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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---

**From:** Leonard Wabasha (TO) <[leonard.wabasha@shakopeedakota.org](mailto:leonard.wabasha@shakopeedakota.org)>  
**Sent:** Tuesday, December 19, 2023 6:32 AM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Good Morning All

Has there been any archaeological work/investigation performed for the project as yet? If so can you please share information from the desktop literature study, Thanks...



**LEONARD WABASHA**  
Director of Cultural Resources • Cultural Resources  
Shakopee Mdwakanton Sioux Community  
d: 952.496.6120  
[shakopeedakota.org](http://shakopeedakota.org)  
[Leonard.Wabasha@shakopeedakota.org](mailto:Leonard.Wabasha@shakopeedakota.org)

The Shakopee Mdwakanton Sioux Community is a federally recognized, sovereign Indian tribe located southwest of Minneapolis/St. Paul. With a



focus on being a good neighbor, good steward of the earth, and good employer, the SMSC is committed to charitable donations, community partnerships, a healthy environment, and a strong economy.

---

**From:** Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>  
**Sent:** Monday, December 18, 2023 2:19 PM  
**To:** Leonard Wabasha (TO) <[leonard.wabasha@shakopeedakota.org](mailto:leonard.wabasha@shakopeedakota.org)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

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Dear Leonard Wabasha:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

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**Britta Bergland**

---

**From:** Britta Bergland  
**Sent:** Wednesday, February 7, 2024 10:26 AM  
**To:** Leonard Wabasha (TO)  
**Cc:** Sage Williams; Kristin Lenz  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Attachments:** DPC\_Wabasha\_Phase IA\_Letter Report\_20240206.pdf

Good morning!

Merjent recently submitted the results of our file search and Phase IA Cultural Resources Assessment in support of Dairyland's Wabasha Relocation Project. Please see attached for a copy and let us know if you have any questions regarding the project.

Take care –

Britta

**Britta Bergland**  
612.746.3673 direct  
612.220.9692 mobile  
britta.bergland@merjent.com



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Minneapolis, MN 55414  
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---

**From:** Britta Bergland  
**Sent:** Friday, December 22, 2023 12:53 PM  
**To:** Leonard Wabasha (TO) <leonard.wabasha@shakopeedakota.org>  
**Cc:** Sage Williams <Sage.Williams@DairylandPower.com>; Kristin Lenz <kristin.lenz@merjent.com>  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Good afternoon –

Thank you for your prompt response to Dairyland's December 18, 2023 letter. We are in the process of completing a file search and Phase IA Cultural Resources Assessment in support of the Project to provide to the MN SHPO. Once this is complete, we would be happy to provide you with a copy.

Please let me know if you we can provide any additional information.

Take care –

Britta

**Britta Bergland**  
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612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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**From:** Leonard Wabasha (TO) <[leonard.wabasha@shakopeedakota.org](mailto:leonard.wabasha@shakopeedakota.org)>  
**Sent:** Tuesday, December 19, 2023 6:32 AM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Good Morning All

Has there been any archaeological work/investigation performed for the project as yet? If so can you please share information from the desktop literature study, Thanks...



**LEONARD WABASHA**  
Director of Cultural Resources • Cultural Resources  
Shakopee Mdewakanton Sioux Community  
d: 952.496.6120  
[shakopeedakota.org](http://shakopeedakota.org)  
[Leonard.Wabasha@shakopeedakota.org](mailto:Leonard.Wabasha@shakopeedakota.org)

The Shakopee Mdewakanton Sioux Community is a federally recognized, sovereign Indian tribe located southwest of Minneapolis/St. Paul. With a focus on being a good neighbor, good steward of the earth, and good employer, the SMSC is committed to charitable donations, community partnerships, a healthy environment, and a strong economy.

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Sent:** Monday, December 18, 2023 2:19 PM  
**To:** Leonard Wabasha (TO) <[leonard.wabasha@shakopeedakota.org](mailto:leonard.wabasha@shakopeedakota.org)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

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Dear Leonard Wabasha:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

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Note: The attached Phase 1A Cultural Resources Assessment report has been removed as non-public information.

**Minnesota Department of Natural Resources**

**From:** [Britta Bergland](#)  
**To:** [melissa.collins@state.mn.us](mailto:melissa.collins@state.mn.us)  
**Cc:** [Kristin Lenz](#); [Sage Williams](#); [travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)  
**Subject:** Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting  
**Date:** Tuesday, October 24, 2023 3:58:28 PM  
**Attachments:** [image.png](#)  
[DPC MN - Rochester - LQ34 2020.pdf](#)  
[Dairyland MN - Rochester - LQ34 20231019.pdf](#)

---

Good afternoon, Melissa -

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 14 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. The Proposed Route would primarily follow State Highway 42 and would also involve a crossing of State Highway 61 (Great River Road, Designated Scenic Byway) southwest of Kellogg.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV circuit must be removed and relocated to make room for a new, second 345-kV circuit on the existing CapX2020 structures.

Dairyland is currently gathering information in preparation for filing its route permit application with the Minnesota Public Utilities Commission, which it plans to submit in early 2024.

I have attached a Project fact sheet along with a map that shows the current location of the transmission line and the initial Proposed Route. I have also included a map of route alternatives considered by Dairyland. We would appreciate any input the MDNR may have on the Project and the proposed route and would like to propose a pre-application meeting to introduce the Project and review the initial route with interested MDNR staff. Would there be a good time in the next few weeks?

Let us know what works best for you.

Thank you,

Britta

**Britta Bergland**

612.746.3673 direct

612.220.9692 mobile

[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)



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**From:** [Britta Bergland](#)  
**To:** [melissa.collins@state.mn.us](mailto:melissa.collins@state.mn.us); [Warzecha, Cynthia \(DNR\)](#)  
**Cc:** [Kristin Lenz](#); [Sage Williams](#); [travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)  
**Subject:** Dairyland Power Wabasha Relocation Project - Request for Pre-Application Meeting  
**Date:** Thursday, November 16, 2023 11:16:07 AM  
**Attachments:** [image.png](#)  
[Dairyland MN - 20231019.pdf](#)  
[DPC MN - 20231020.pdf](#)

---

Good morning, Melissa and Cynthia -

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 14 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota as part of the Wabasha Relocation Project. The Project starts northeast of Plainview, MN and ends east of Kellogg, MN near the Mississippi River. The Proposed Route would primarily follow State Highway 42 and would also involve a crossing of State Highway 61 (Great River Road, Designated Scenic Byway) southwest of Kellogg.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV circuit must be removed and relocated to make room for a new, second 345-kV circuit on the existing CapX2020 structures.

Dairyland is currently gathering information in preparation for filing its route permit application with the Minnesota Public Utilities Commission, which it plans to submit in early 2024.

I have attached a Project fact sheet along with a map that shows the current location of the transmission line and the initial Proposed Route. I have also included a map of route alternatives considered by Dairyland. The Project website also contains additional information:  
<https://dairylandtransmissionproject.com/>

We would appreciate any input that the Minnesota DNR may have on the Project and would like to propose a pre-application meeting to introduce the Project and review the initial route with interested MDNR staff. Would there be a good time in the next few weeks? Thank you!

Britta

**Britta Bergland**  
612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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## Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

**Project Name:** Dairyland Wabasha Relocation Project

**Project Proposer:** Dairyland

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project Type Activities:** Tree Removal; Waterbody or watercourse impacts (e.g., dewatering, discharge, excavation, fill, runoff, sedimentation, changes in hydrology); Wetland impacts (e.g., dewatering, tiling, drainage, discharge, excavation, fill, runoff, sedimentation, changes in hydrology)

**TRS:** T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7, T109 R10 S8, T109 R11 S13, T109 R11 S23, T109 R11 S24, T109 R11 S25, T109 R11 S26, T109 R11 S35 +

**County(s):** Wabasha

**DNR Admin Region(s):** Central

**Reason Requested:** PUC Site or Route Application

**Project Description:** Transmission line rebuild. Wetlands and waterbodies will be spanned; other construction methods and timing TBD.

**Existing Land Uses:** Ag, road right-of-way, forested patches, some wetlands/waterbodies.

**Landcover / Habitat Impacted:** Ag, road right-of-way, forested patches

**Waterbodies Affected:** waterbodies will be spanned.

**Groundwater Resources Affected:** TBD

**Previous Natural Heritage Review:** No

**Previous Habitat Assessments / Surveys:** No

### SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
<b>Project Details</b>	Comments	Tree Removal - Recommendations
<b>Ecologically Significant Area</b>	Comments	Potential RNC - Will Require Consultation MBS Sites - Recommendations Protected Wetlands: Calcareous Fens
<b>State-Listed Endangered or Threatened Species</b>	Needs Further Review	State-protected Species in Vicinity
<b>State-Listed Species of Special Concern</b>	Comments	Recommendations
<b>Federally Listed Species</b>	Comments	Visit IPaC for Federal Review RPBB High Potential Zone

Dairyland Wabasha Relocation Project

MCE #: 2023-00935

Page 2 of 5



December 13, 2023

**Project Name:** Dairyland Wabasha Relocation Project

**Project Proposer:** Dairyland

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project ID:** MCE #2023-00935

**AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED**

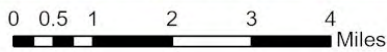
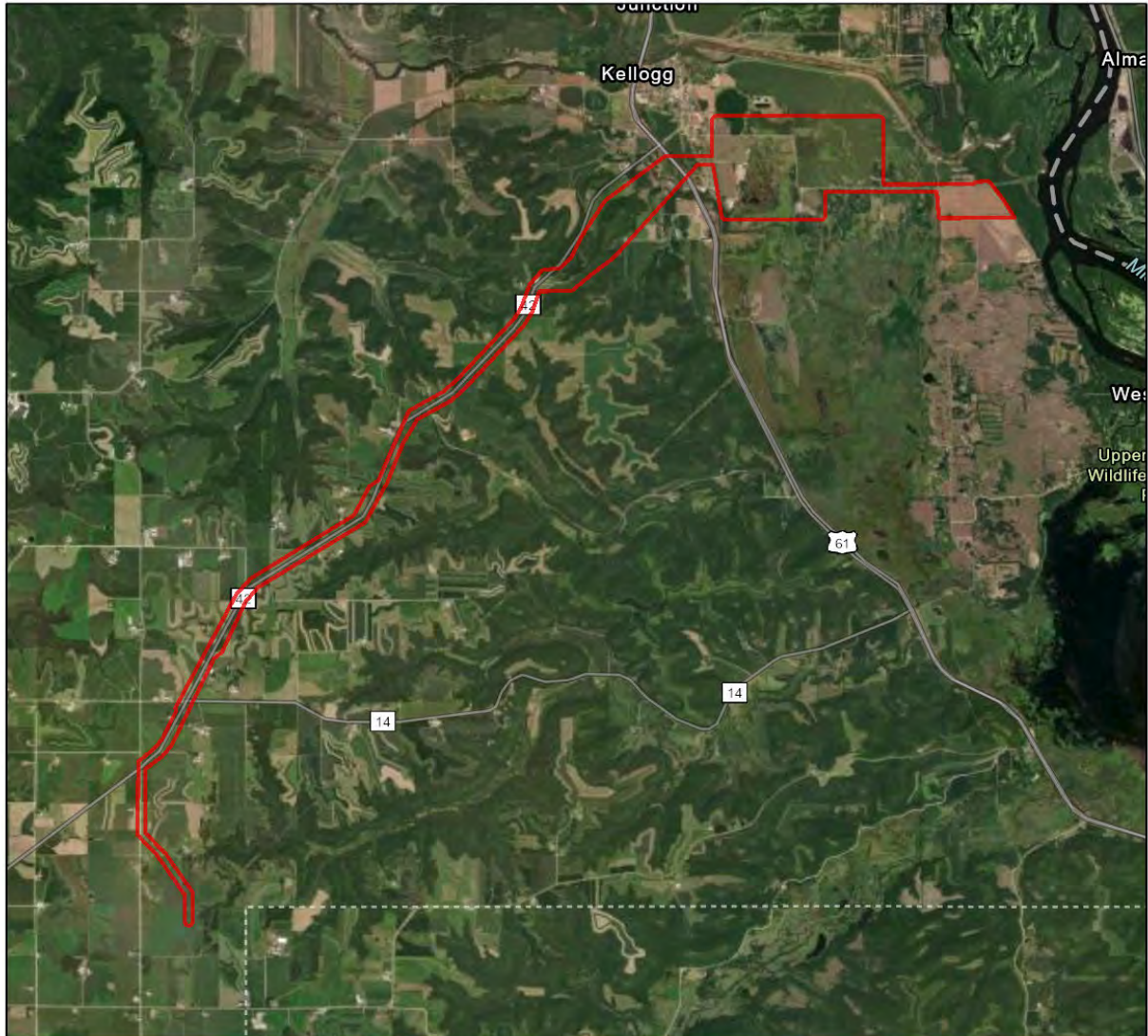
As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

# Dairyland Wabasha Relocation Project

Aerial Imagery With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 2,015.39

County(s): Wabasha

TRS: T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7 +

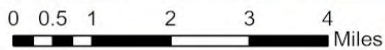
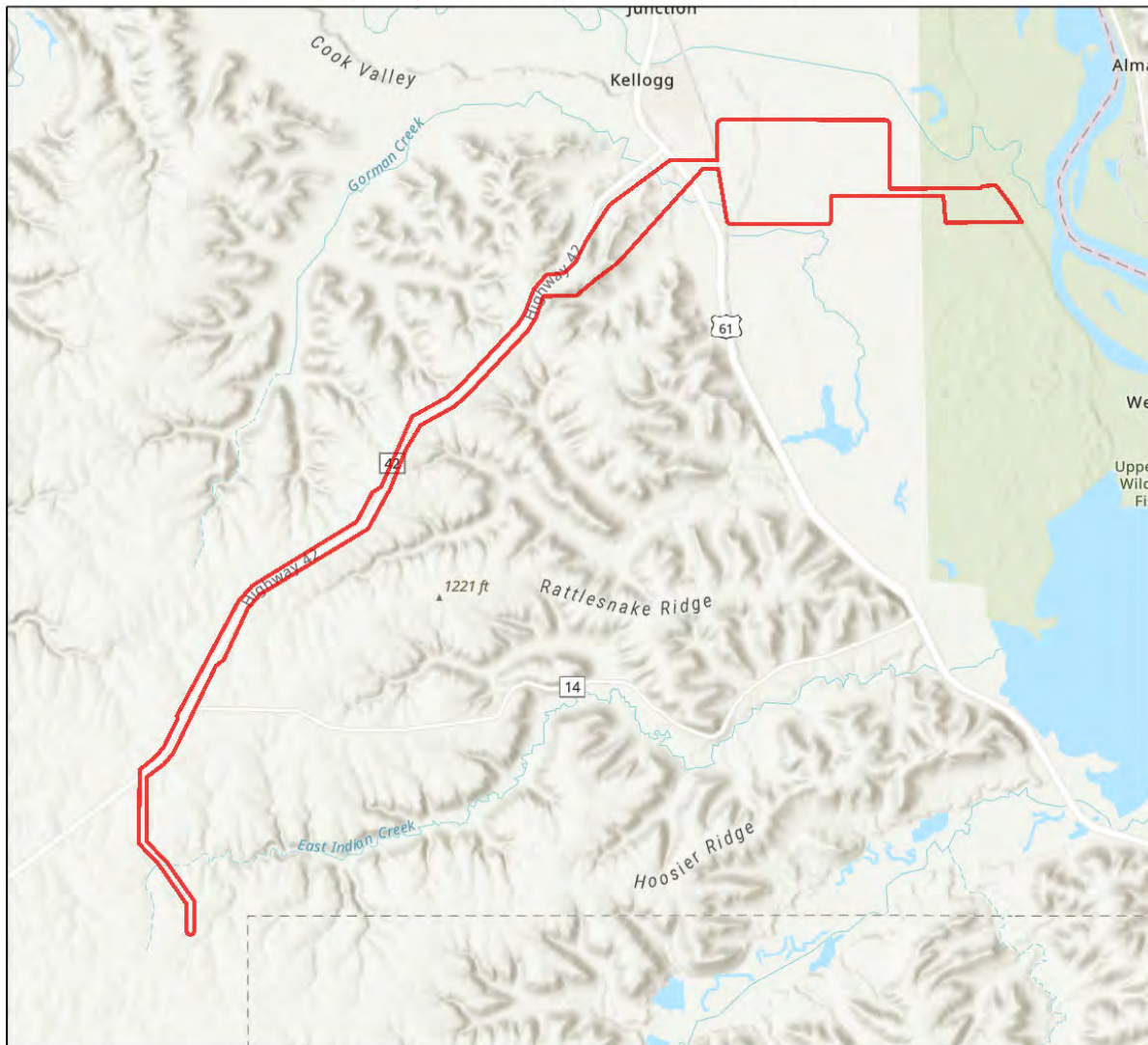
Earthstar Geographics  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA





# Dairyland Wabasha Relocation Project

USA Topo Basemap With Locator Map



Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 2,015.39

County(s): Wabasha

TRS: T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7 +

Esri, NASA, NGA, USGS  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA



**From:** [Britta Bergland](#)  
**To:** [Collins, Melissa \(DNR\)](#); [Warzecha, Cynthia \(DNR\)](#)  
**Cc:** [Sage Williams](#); [Kristin Lenz](#); [Vickery, Martha L \(DNR\)](#)  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Date:** Friday, December 22, 2023 1:43:00 PM  
**Attachments:** [image.png](#)  
[image.png](#)  
[image.png](#)  
[image.png](#)  
[image.png](#)

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Hi Melissa –

Thank you for your prompt response and for providing clarification on points of contact. We appreciate these early coordination comments. We have initiated review of all of these items and will reflect this information in the Certificate of Need/Route Permit application.

Please let us know if we can provide any additional information.

Take care!

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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---

**From:** Collins, Melissa (DNR) <[Melissa.Collins@state.mn.us](mailto:Melissa.Collins@state.mn.us)>  
**Sent:** Monday, December 18, 2023 4:52 PM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>; Warzecha, Cynthia (DNR) <[cynthia.warzecha@state.mn.us](mailto:cynthia.warzecha@state.mn.us)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; Vickery, Martha L (DNR) <[martha.vickery@state.mn.us](mailto:martha.vickery@state.mn.us)>  
**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Hi Britta,  
Thank you for reaching out for early coordination on the Dairyland Power Wabasha Relocation Project in Wabasha County, MN. I was able to review the information that you provided, and have the following comments for your consideration as you move forward in the route permit application process:

- During early coordination, I would be your DNR point of contact. Once the route

application is submitted to the PUC, Cynthia Warzecha will become your DNR point of contact. Please continue to include her on all communication.

- It appears that the proposed route will cross DNR public water watercourse, Gorman Creek (M-033), which would require a DNR license to cross.
- The project was submitted to Minnesota Conservation Explorer on 12/13/2023, and a manual review is required due to the presence of rare features and state-listed species within the vicinity of the project area. Please reference MCE #: 2023-00935 in further correspondence regarding rare features. Natural Heritage Review staff will contact you when the final Natural Heritage Review letter is complete, and provide all recommendations and requirements for state-listed species.
- I recommend initiating coordination with the U.S. Fish and Wildlife Service regarding federally-listed species using the [Information for Planning and Consultation tool](#), if you have not done so already.
- We appreciate that the majority of the route will follow an existing road in order to limit impacts to habitat.
- It appears that most of the project area is located within a region prone to surface karst feature development, with several karst features documented within 1,000 feet of the project area. It will be important to fully understand the geology of the project area when placing and designing pole structures. Geotechnical studies may be necessary to better understand the karst conditions within the project area in order to protect groundwater and ensure structure stability. An emergency response plan may be needed for in the event that surface karst features are encountered during construction.

Please let me know if you have any questions.

Thank you,

**Melissa Collins**

Regional Environmental Assessment Ecologist | Ecological and Water Resources

Pronouns: She/her/hers

**Minnesota Department of Natural Resources**

1200 Warner Road

St. Paul, MN 55106

Phone: 651-259-5755

Email: [melissa.collins@state.mn.us](mailto:melissa.collins@state.mn.us)

[mndnr.gov](http://mndnr.gov)





---

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Sent:** Monday, December 18, 2023 12:40 PM  
**To:** Warzecha, Cynthia (DNR) <[cynthia.warzecha@state.mn.us](mailto:cynthia.warzecha@state.mn.us)>; Collins, Melissa (DNR) <[Melissa.Collins@state.mn.us](mailto:Melissa.Collins@state.mn.us)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; Vickery, Martha L (DNR) <[martha.vickery@state.mn.us](mailto:martha.vickery@state.mn.us)>  
**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

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Dear Cynthia Warzecha and Melissa Collins:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

612.746.3673 direct

612.220.9692 mobile

[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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**Minnesota Department of Transportation**



**From:** [Kotch Egstad, Stacy \(DOT\)](#)  
**To:** [Sage Williams](#)  
**Cc:** [Kristin Lenz](#); [Oates, Travis M](#)  
**Subject:** EXTERNAL: RE: Dairyland MN Wabasha County Relocation Project info  
**Date:** Wednesday, October 25, 2023 12:50:25 PM  
**Attachments:** [image.png](#)  
[image.png](#)  
[image.png](#)  
[image.png](#)  
[image.png](#)

**CAUTION:** This email originated from outside of Merjent.

Thank you for this, Sage.

It has been forwarded to the team.

**Stacy Kotch Egstad**

Utility Routing & Siting Coordinator | Office of Land Management

**Minnesota Department of Transportation**

395 John Ireland Blvd Mailstop 678

St. Paul, MN. 55155

O: 651-366-4635 (Thur)

[mndot.gov/](http://mndot.gov/)



---

**From:** Sage Williams <Sage.Williams@DairylandPower.com>  
**Sent:** Wednesday, October 25, 2023 11:00 AM  
**To:** Kotch Egstad, Stacy (DOT) <stacy.kotch@state.mn.us>  
**Cc:** Kristin Lenz <kristin.lenz@merjent.com>; Oates, Travis M <travis.m.oates@sargentlundy.com>  
**Subject:** Dairyland MN Wabasha County Relocation Project info

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Hi Stacy,

Please share this information with the rest of your team on the call today.

We will be running this in the Wabasha Herald twice ahead of our open house meeting, scheduled for November 9, 2023.

Thanks again for your time.

Sage Williams  
Manager – Transmission Operations and Development  
Dairyland Power Cooperative  
Phone: 608-791-2993  
Mobile: 608-304-7416  
[Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com)

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**Dairyland Power Cooperative**  
**Minnesota Department of Transportation**  
**Wabasha County Relocation Project Introduction Meeting**  
**October 25, 2023**

**Participants:** Stacy Kotch Egstad (MnDOT), Sage Williams (Dairyland), Travis Oates (S&L), Britta Bergland (Merjent), David Evans (MnDOT), Paul Hartzheim (MnDOT), Tracy Schnell (MnDOT), Kristin Lenz (Merjent)

Lenz provided a brief intro for the Project. The Project is a relocation of Dairyland Power Cooperatives' (Dairyland's) existing 161-kV transmission line that is currently located on the CapX structures that runs roughly from the Town of Plainville northeast toward the City of Kellogg and the Mississippi River. Xcel Energy and CapX owners are moving forward with the 2<sup>nd</sup> circuit on the CapX structures, which necessitates that Dairyland vacate the 161-kV line. Xcel Energy (Ellen Heine) has previously communicated with the MnDOT on the Xcel Energy Project. Dairyland has reviewed other potential route alternatives through the area. There is a quite a bit of state-managed and federally-managed lands to the east along the Mississippi River; based on Dairyland's initial review of potential routes, the proposed route along Highway 42 appears to be the most environmentally preferable because of the avoidance of these areas and the ability to be near a road right-of-way.

Oates provided a view of the Project alignment starting in the northeast near City of Kellogg, starting with the crossing of Highway 61, a State Scenic Byway and also part of the Great River Road. Kotch Egstad recommended contacting the Mississippi River Parkway Commission for the Highway 61 crossing sooner rather than later. Hartzheim also indicated that the MnDOT will likely request additional information for the Highway 61 crossing location, such as photo and/or video simulation of the crossing to understand visual impacts – this is more information than historically has been required. Members of the MnDOT and some state legislators are on the Mississippi River Parkway Commission.

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33rd Ave S, #283  
St. Cloud, MN 56301  
651-341-4196  
[chris@togpartners.com](mailto:chris@togpartners.com)  
[Welcome to MRPC Members - MRPC Members](#)

Schnell inquired on construction timing – Williams indicated tentatively spring 2026. Schnell indicated that the Highway 61 repaving project is not currently forecasted until 2029; however, this is fluid – can change by years. No expansion projects are currently forecasted. Work was done in the last year or two at the intersection at Highway 42 and Highway 61; repaving was done in this area recently as well. No projects are currently forecasted for Highway 42 at this time; however, this could also change if issues arise.

Kotch Egstad inquired if poles would be within the road ROW at Highway 61; Oates indicated that the intent is to keep the poles outside of the ROW in this location.

MnDOT has been working on revising the Utility Early Notification Memo (ENM) form and has made some changes over the last several weeks; they are now asking for more information with tables, maps and shapefiles to better inform the review process.

**Dairyland Power Cooperative  
Minnesota Department of Transportation  
Wabasha County Relocation Project Introduction Meeting  
October 25, 2023**

Hartzheim inquired on the route width/study area, in particular around the city of Kellogg and the Highway 61 crossing. Lenz indicated that the study area toward the eastern end of the Project is almost 1-mile wide due to potential County Road 84 improvements per discussions with the Wabasha County Highway Department. The U.S. Army Corps of Engineers (USACE) has also purchased several properties along County Road 84 as a disposal area for dredge from the Upper Mississippi River Pool 5. Dairyland has reached out to the USACE to schedule a meeting to further discuss. On the west side of Highway 61, there are very steep slopes on the northeast side of Highway 42. Dairyland is therefore looking to route the alignment to the southwest side of the Highway 42 in the valley. There is an existing distribution line that runs through this area farther to the south; however, the line is very close to houses and there may be some issues collocating with this smaller distribution line. Dairyland is hosting a public open house in this area on November 9, 2023 and hopes that landowners will provide additional feedback on the alignment through this area.

Lenz inquired on whether there would be a better crossing location for Highway 61; Hartzheim indicated that there is a Scenic Byway group within MnDOT Office of Environmental Stewardship that would review and comment on the crossing in response to submittal of the Utility ENM. After his cursory review of Scenic Areas polygons in the MnDOT's Environmental Landscape Mapper (ELM, <http://www.dot.state.mn.us/project-development/subject-guidance/environmental-landscape-mapper/index.html>), there appears to be a gap in the Scenic Area in the area where the Project is currently crossing. They recommend following existing utility crossings where feasible, and also inquiring with the Mississippi River Parkway Commission. MnDOT will be able to provide further information during their Environmental Review. MnDOT prefers that the information is provided prior to them to filing of the Minnesota Public Utilities Commission (MPUC) Route Permit application so that the info can be included in the Route Permit application. The Mississippi River Parkway Commission has periodic meetings to present information; but applicants can request individual meetings as well to understand their process.

Oates reviewed the portion of the alignment along Highway 42 which was designed to underbuild with existing distribution, maximize distances from residences, avoid placement in road ROW and to reduce the number of cross-overs. MnDOT prefers perpendicular crossings, but understands that that is not always feasible. Will request justification/rational for long angular crossings. MnDOT also prefers underbuild. Dairyland is still working through pole heights and span length details; span lengths likely be around 400-800 feet. The Project will cross over the highway to northwest side to avoid tree farm area and access.

Along Highway 42, Kotch Egstad inquired on the foundations and whether the aerial arm would be toward the highway; Oates indicated that the foundation would be outside the highway ROW with the arm and conductor blowout would likely be over road ROW. Oates inquired if that process is with the Environmental Review (Utility Review). MnDOT indicated that the long-form application would be needed for such aerial encroachments. Kotch Egstad will provide an example of the forms. Those permits would be done after the MPUC Route Permit is issued. The ENM process is to inform the MnDOT of potential routing and environmental issues to participate and comment on the MPUC process. Kotch Egstad recommended additional meetings with Dairyland throughout the regulatory and permitting process to further refine the details, permit requirements and final routing.

**Dairyland Power Cooperative**  
**Minnesota Department of Transportation**  
**Wabasha County Relocation Project Introduction Meeting**  
**October 25, 2023**

Kotch Egstad inquired on the crossing at State Highway 42 and County Road 14; MnDOT generally prefers perpendicular at the intersections. Need to stay out of the sight corners; as long as the poles are outside of the ROW the proposed crossing should be okay. PDF maps with sight corners are here: [Right of Way Mapping and Monitoring - MnDOT \(state.mn.us\)](#)

Hartzheim inquired on collocating with the CapX corridor and why that is not an option. Oates indicated that the terrain is an issue along this line – the 161-kV would need to be off-set from the CapX corridor which would almost double the ROW width. There would need to be separation between the 161-kV and the two 345-kV lines for safety reasons as well. Hartzheim also inquired regarding the City of Kellogg – it appears that the line is outside of the city limits but curious if Dairyland has had any conversations with officials to understand if there are any planned expansions. Lenz indicated that letters went out to local government officials this week and Dairyland anticipates starting these conversations soon.

Hartzheim also indicated that a portion on the eastern side of the Project falls within the rusty patched bumble bee high potential zone (U.S. Fish and Wildlife Service [USFWS] federally endangered species) and inquired if Dairyland had initiated coordination with the USFWS. Lenz indicated that Dairyland hopes to further refine the study area after the open houses; once the study areas has been finalized, Dairyland will initiate the USFWS online consultation with Information for Planning and Consultation (IPaC) and the Determination Key (DKey), in addition to the Minnesota Department of Natural Resources (MDNR) state-listed Minnesota Conservation Online (MCE) review. Dairyland has reviewed the Natural Heritage Information System (NHIS) database; therefore, we have an understanding of potential occurrences. Hartzheim also pointed out that there is a designated calcareous fen about 1.5 miles from the Project area. Lenz responded this did come up in the initial sensitive resources review and Dairyland will further coordinate with the MDNR on this feature. Designated fens are protected by state law; because these fens are fed by upwelling groundwater, the MDNR are generally concerned with excavations that have the potential to affect groundwater that feeds the fen (e.g., deep foundations).

Hartzheim inquired on a project website: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project).



**From:** [Kristin Lenz](#)  
**To:** [Kotch Egstad, Stacy \(DOT\)](#)  
**Cc:** [Sage Williams](#); [Oates, Travis M](#); [Britta Bergland](#)  
**Subject:** RE: EXTERNAL: RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting  
**Date:** Thursday, October 26, 2023 10:00:00 AM  
**Attachments:** [DPC MnDOT Projecting in \[REDACTED\] notes here 2023 10 25.pdf](#)  
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[image.png](#)  
[image.png](#)  
[image.png](#)

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Thanks Stacy and Paul,

Finalized notes are attached!

Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)

---

**From:** Kotch Egstad, Stacy (DOT) <[stacy.kotch@state.mn.us](mailto:stacy.kotch@state.mn.us)>  
**Sent:** Thursday, October 26, 2023 8:50 AM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** RE: EXTERNAL: RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

Offering up some additions/clarifications to the meeting notes you supplied. Please see attached.

Thank you.

---

**From:** Kotch Egstad, Stacy (DOT)  
**Sent:** Wednesday, October 25, 2023 3:19 PM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** RE: EXTERNAL: RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

Sounds great, thank you!

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Sent:** Wednesday, October 25, 2023 3:00 PM  
**To:** Kotch Egstad, Stacy (DOT) <[stacy.kotch@state.mn.us](mailto:stacy.kotch@state.mn.us)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** RE: EXTERNAL: RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

Thank you Stacy, we will save this version to our files and will work to get this filled out and over to your team as soon as possible.

I've also attached the meeting notes from today.

Thanks!  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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[www.merjent.com](http://www.merjent.com)

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**From:** Kotch Egstad, Stacy (DOT) <[stacy.kotch@state.mn.us](mailto:stacy.kotch@state.mn.us)>  
**Sent:** Wednesday, October 25, 2023 12:45 PM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

**CAUTION:** This email originated from outside of Merjent.

Thank you all for the meeting today. Very helpful to know the details you've provided thus far.

I'm taking the liberty of sending you the latest and greatest version of our ENM and Supplemental Checklist to utilize for MnDOT's review of the project. Because you'd mentioned that it wouldn't be returned until late November, using this updated version (hopefully) wouldn't throw you/team off

too much.

Please reach out with any questions you may have on the documents.

Thank you,

**Stacy Kotch Egstad**

Utility Routing & Siting Coordinator | Office of Land Management

**Minnesota Department of Transportation**

395 John Ireland Blvd Mailstop 678

St. Paul, MN. 55155

O: 651-366-4635 (Thur)

[mndot.gov/](http://mndot.gov/)



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**From:** Kotch Egstad, Stacy (DOT)

**Sent:** Monday, October 2, 2023 7:40 AM

**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>

**Subject:** RE: Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

Good Morning Kristin,

We very much welcome an introduction meeting on this project. From the description, it seems that besides permitting and environmental Central Office staff, only MnDOT District 6 staff would need to be added to the invite. If you'd like to propose 2-3 dates/times, I will work to make one possible on my end.

As you may know, MnDOT has begun implementing the attached Early Notification Memo (ENM) process to be utilized for agency review of MPUC projects. Please note that it is understood that all requested information may not be available at this time, but please provide what you can. This does not have to be completed before our meeting, but to be respectful of your PUC submittal timeline, please allow MnDOT 30 days for a complete agency review of the information you provide. However, it would be appreciated if you could provide some form of mapping/sketches, for reference, before our meeting.

This ENM document/process is a work in progress and therefore, future ENM requests may look different than what you see today.

Please contact me with any questions on the document.

Thank you for your early coordination outreach on this project,

*Stacy Kotch Egstad*

Utility Routing & Siting Coordinator | Office of Land Management

**Minnesota Department of Transportation**

395 John Ireland Blvd Mailstop 678

St. Paul, MN. 55155

O: 651-366-4635

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**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Sent:** Thursday, September 28, 2023 1:49 PM

**To:** Kotch Egstad, Stacy (DOT) <[stacy.kotch@state.mn.us](mailto:stacy.kotch@state.mn.us)>

**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>

**Subject:** Dairyland Power 161-kV Transmission Line Relocation Project, Wabasha County, MN - Request for Pre-Application Meeting

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Good afternoon Stacy,

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 14 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. The Proposed Route would primarily follow State Highway 42 and would also involve a crossing of State Highway 61 (Great River Road, Designated Scenic Byway) southwest of Kellogg.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV circuit must be removed and relocated to make room for a new, second 345-kV circuit on the existing CapX2020 structures.

Dairyland is currently gathering information in preparation for filing its route permit application with the Minnesota Public Utilities Commission (Commission), which it plans to submit in early Winter

2024.

Dairyland would appreciate any input the MnDOT may have on the Project and the proposed route and would like to propose a pre-application meeting to introduce the Project and review the initial route with your team. Would there be a good time for your team in the next few weeks?

Let us know what works best for you.

Thank you,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Britta Bergland  
**Sent:** Thursday, March 14, 2024 12:24 PM  
**To:** stacy.kotch@state.mn.us  
**Cc:** Sage Williams; Kristin Lenz; Angie Ronayne  
**Subject:** DPC - Wabasha Relocation Project Utility ENM Submittal  
**Attachments:** 1\_DPC\_Wabasha Relocation Project\_MnDOT\_ENM\_20240314.pdf;  
DPC\_Wabasha\_Relocation\_Project\_Data\_20231213.zip; Att B\_DPC\_GIS Data Tables\_2040314.zip

Hello Stacy,

On behalf of Dairyland Power Cooperative, please find the completed Utility Early Notification Memo form and supplemental information for the Wabasha Relocation Project in Wabasha County, Minnesota. The submittal materials include four parts:

- Cover Letter and ENM Form (attached)
- Supplemental Information package with attachments A, C, D, and E, available to download from Adobe Cloud due to file size: <https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:5a001ca9-826a-483c-99d3-4fff01252d91>
  - Attachment B – Project shapefiles and kmzs (attached)
  - Attachment B – GIS data tables (attached)

Please reach out if you have any questions as you complete your review. Dairyland intends to file its joint Certificate of Need/Route Permit application to the Minnesota Public Utilities Commission at the end of March 2024.

Thank you!

Britta

**Britta Bergland**  
612.746.3673 direct  
612.472.0329 mobile  
britta.bergland@merjent.com



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
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March 14, 2024

Stacy Kotch Egstad  
Utility Routing & Siting Coordinator  
Minnesota Department of Transportation  
395 John Ireland Blvd.  
Mailstop 678  
St. Paul, MN 55155  
stacy.kotch@state.mn.us

Re: **In the Matter of the Application of Dairyland Power Cooperative to Relocate an Existing 161-kV Transmission Line in Wabasha County, Minnesota  
MPUC Docket Nos. ET3/CN-23-504 and ET3/TL23-388**

Dear Stacy Kotch Egstad:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River.

Dairyland plans to file a joint Certificate of Need and Route Permit application (Application) with the Minnesota Public Utilities Commission (Commission) in March 2024. As requested by Minnesota Department of Transportation (MnDOT) staff, Dairyland is submitting the enclosed Utility Early Notification Memo form and supplemental information prior to submitting its Application to the Commission so that MnDOT staff may conduct an initial review of the Project.

Please contact me at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) if you have any questions or require additional information.

Sincerely,

DAIRYLAND POWER COOPERATIVE

A handwritten signature in black ink that reads "Sage Williams".

Sage Williams  
Manager, Transmission Operations and Development

Encl: Early Notification Memo Form and Supplemental Information

Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project  
 Early Notification Memo



## Minnesota Department of Transportation

**APPLICANTS: PLEASE RETURN A COMPLETED COPY OF THIS FORM, APPLICANT CHECKLIST, AND SUPPLEMENTAL INFORMATION TO THE MnDOT OFFICE OF LAND MANAGEMENT (OLM) MANAGER.**

Click the checkboxes in left column if your project meets thresholds (click heading link for thresholds). By default, MnDOT’s Cultural Resources Unit, Environmental Assessment Unit, Protected Species Review Team, Blowing Snow Control, and District staff will be notified of all Utility ENMs.

Resource/Area of Concern	
<input checked="" type="checkbox"/>	<a href="#">Contaminated Materials Management</a>
<input checked="" type="checkbox"/>	<a href="#">Regulated Waste and Storage Tanks</a>
<input checked="" type="checkbox"/>	<a href="#">Vegetation Review and Survey</a>
<input checked="" type="checkbox"/>	<a href="#">Wetlands Coordination</a>
<input checked="" type="checkbox"/>	<a href="#">Water Permits—Federal Agencies, Floodplains</a>
<input type="checkbox"/>	<a href="#">Historic Roadside Properties Program</a>
<input checked="" type="checkbox"/>	<a href="#">Construction Stormwater and Erosion/Sediment Control</a>
<input type="checkbox"/>	<a href="#">Safety Rest Area Program</a>
<input checked="" type="checkbox"/>	<a href="#">Scenic Byways</a>
<input checked="" type="checkbox"/>	<a href="#">Railroad</a>
<input type="checkbox"/>	<a href="mailto:aviationplanning.dot@state.mn.us">Airport Influence Area</a> <a href="mailto:aviationplanning.dot@state.mn.us">mailto:aviationplanning.dot@state.mn.us</a>
<input type="checkbox"/>	Operations
<input type="checkbox"/>	Design Support
<input type="checkbox"/>	Safety and Operations Management
X	Blowing Snow Control / Snow Fencing
X	<a href="#">Cultural Resources</a> <a href="mailto:CulturalResources.dot@state.mn.us">CulturalResources.dot@state.mn.us</a>
X	OES Environmental Assessment Unit / Environmental Review
X	<a href="#">Protected Species</a> Program
X	District Planners To be completed by MnDOT

Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project  
Early Notification Memo

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## Request for information and early coordination from MnDOT functional groups

The OLM is providing early notification of the proposed utility project described in the subject line of this ENM and is requesting your review of the project. Project information available at this time may be limited, therefore, we recognize that responses are preliminary and may change after reviewing other documents and/or if project details change. However, your early input will help assure that all environmental concerns and interests considered in the development of this project.

## Project Description

Utility applicants/ENM Writer: Provide a plain language narrative description of the utility project location and the nature of the proposed work. Include the following project information below, if known:

- Type of utility
  - High voltage transmission lines
    - pole height: **See Section 2.1 of Supplement**
    - spacing: **See Section 2.1 of Supplement**
    - voltage: **161-kV**
- Mileage (total and collocated) **See Section 2 of Supplement**
- Typical temporary workspace dimensions and depth of excavations **See Section 2 of Supplement and Figure 2-2**
- Typical permanent easement dimensions **See Section 2 of Supplement and Figure 2-2**
- Number and locations of state Trunk Highways crossed and/or miles of proposed collocation **See Section 2.3 of Supplement**
  - Identify any Scenic Byways within 7 miles of the project **See Section 2.4 and Appendix C5 of Supplement**
- General project schedule (if known) **See Section 2.2 of Supplement**

*Powerlines* – is there a potential to locate poles/infrastructure within MnDOT ROW? **Yes, See Sections 2.3, 3, and 3.1 of Supplement**

Provide shapefiles, corresponding maps/datasets, and all other information identified in the enclosed *Utility ENM – Supplemental Information Checklist* form. Please return this completed checklist along with this Utility ENM form. Note that you may need to provide some of the Supplement in a stand-alone document. **See Section 1.1 of Supplement**

**Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project**

Early Notification Memo

**General Project Information:**

District(s): <b>6</b>	
County(ies): <b>Wabasha</b>	City(ies): <b>Near Kellogg</b>
Planned Construction Dates: <b>See Section 2.1 of the Supplement</b>	
Location and Reference Points: Refer to enclosed maps/shapefiles for location of MnDOT Trunk Highway crossings/paralleling. <b>See Section 2.3 and Appendices B and C of the Supplement</b>	
Project Phase: <input checked="" type="checkbox"/> Pre-Filing (PUC) <input type="checkbox"/> Post-Filing (PUC) <input type="checkbox"/> MnDOT Permitting Phase <input type="checkbox"/> Post-Construction Monitoring and Maintenance Additional Comments (Docket number, public comment/notice number/date, etc.): <b>ET3/CN-23-504 and ET3/TL-23-388</b>	
Tribal Lands: Is any part of project within a reservation or tribal trust land outside of reservation boundaries? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, list name of reservation: _____ Has the tribe(s) been made aware of the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>See Sections 4 and 13 of the Supplement</b>	

Current Land Use(s):	
Recreational Resources:	
<input checked="" type="checkbox"/>	There are parks, trails, wildlife refuges, state water trails, and/or recreation areas in the project vicinity.
	If checked above, will this project have impacts on these parks, trails, refuges, and/or recreation area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, provide additional details: <b>See Section 5 of the Supplement</b>
Environmental Justice	
<input checked="" type="checkbox"/>	There are manufactured home parks, apartment buildings, or other identifiable minority or low-income populations in the project vicinity.
	If checked above, will this project have any impacts [direct or indirect (e.g., noise)] on any manufactured home parks, apartment buildings, and/or other identifiable minority or low-income populations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <b>See Section 6 of the Supplement</b>
	If checked, please describe what measures are proposed to mitigate impacts to environmental justice communities: <b>No mitigation required as no environmental justice communities were identified; see Section 6 of the Supplement</b>



Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project  
 Early Notification Memo

**Additional information, by subject area:**

<b>Contaminated Material</b>	
<input checked="" type="checkbox"/>	Project includes grading, excavation within MnDOT ROW. Details: <b>See Sections 3 and 7 of the Supplement</b>
<input checked="" type="checkbox"/>	Project includes access and/or travel across MnDOT ROW Details: <b>See Sections 3 and 7 of the Supplement</b>
<input checked="" type="checkbox"/>	Project is in or near a commercial/industrial area. <b>See Section 7.1 of the Supplement</b>
<input checked="" type="checkbox"/>	Project may require groundwater dewatering. Details: <b>See Section 7.2 of the Supplement</b>
<input checked="" type="checkbox"/>	Applicant has information that indicates potentially contaminated sites are located along the corridor (e.g., filling stations, dumps, manufacturing, scrap yards, dry cleaners, etc.) <b>See Section 7.3 and Appendix C3 of the Supplement</b>
Other pertinent information regarding contaminated material:	

<b>Regulated Waste and Storage Tanks</b>	
<input type="checkbox"/>	Project will include building demolition or relocation. <b>See Section 8 of the Supplement</b>
<input type="checkbox"/>	Project will include acquisition of property with above ground discarded regulated materials or waste.
<input type="checkbox"/>	Project will produce waste that cannot be turned over to construction contractor as excess material (examples: hazardous waste, sandblasting waste, asbestos containing material)
Other pertinent information regarding regulated waste and storage tanks:	

<b>Vegetation (<a href="#">Map<sup>1</sup></a> vegetation of interest along roadsides)</b>	
<input type="checkbox"/>	Project may occur along Trunk Highways in the specific locations below: <ul style="list-style-type: none"> <li>• Highway 2 (Reference post 35-37 and 42-48)</li> <li>• Highway 32 (Reference post 35-37, 49-52, 55-58, and 70-74)</li> <li>• Highway 71 (Reference post 81-83)</li> <li>• Highway 56 (Reference post 8-16)</li> <li>• Highway 102 (Reference post 2-6)</li> <li>• Highway 218 (Reference post 20-44)</li> </ul>
<input checked="" type="checkbox"/>	Project may include soil disturbance within MnDOT right-of-way <b>See Sections 2.3, 3, and 9.1 and Appendix C4 of the Supplement</b>
<input checked="" type="checkbox"/>	Project may include soil disturbance under canopy of existing woody vegetation within or near MnDOT right-of-way <b>See Sections 2.3, 3, and 9.1 of the Supplement</b>
<input checked="" type="checkbox"/>	Project is located within an area of known sensitive or protected vegetation identified through the <a href="#">Minnesota Conservation Explorer Planning Tool</a> (within one or more of the following data sets): <b>See Section 9.2 of the Supplement</b> <ul style="list-style-type: none"> <li>• Minnesota DNR Native Plant Community</li> <li>• Minnesota Biological Survey (MBS) Railroad Rights-of-Way Prairies</li> <li>• MBS Site of Biodiversity Significance</li> </ul>
<input checked="" type="checkbox"/>	Project is located within an area of known high priority weed infestation (data available through <a href="#">EDDMapS.org</a> ) <b>See Section 9.3 of the Supplement</b>
<input checked="" type="checkbox"/>	Project may require staging or access within MnDOT right-of-way <b>See Sections 2.3, 3, and 9.4 of the Supplement</b>
Other pertinent information regarding vegetation: <b>Dairyland's Vegetation Management Plan is included as Appendix E of the Supplement</b>	

<sup>1</sup> Google Earth .kmz; only available to MnDOT staff.

Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project

Early Notification Memo

<b>Wetlands and Waterbodies</b>	
<input checked="" type="checkbox"/>	A level 1 wetland/aquatic resource delineation (i.e., mapping exercise using NWI, aerial photography and other off-site methods) has been conducted within the project limits. <b>See Section 10 and Appendix C2 of the Supplement</b>
<input checked="" type="checkbox"/>	Based on the level 1 wetland delineation, there are wetlands within the project limits. Details: <b>See Section 10 and Appendix C2 of the Supplement</b>
	Does the project have the potential to temporarily impact wetlands? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Does the project have the potential to permanently impact wetlands (e.g., fill or type conversion)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown  Details: <b>See Sections 3 and 10, and Appendix C2 of the Supplement</b>
Other pertinent information regarding wetlands and waterbodies:	

<b>Wetland and Waterbody Permits—Federal Agencies</b>	
<input checked="" type="checkbox"/>	US Army Corps of Engineers Section 404 permit may be needed. <b>See Section 10.1 of the Supplement</b> If checked, the project may qualify for: <input checked="" type="checkbox"/> Regional General Permit <input type="checkbox"/> Individual Permit <input type="checkbox"/> Unknown
<input type="checkbox"/>	US Army Corps of Engineers Section 10 (navigable waters) permit may be needed.
<input type="checkbox"/>	US Coast Guard coordination and/or permit may be needed (navigable waters).
Other pertinent information regarding wetland and waterbody permitting: <b>USACE interests; see Section 10.1 of the Supplement</b>	

<b>Floodplains</b>	
<input checked="" type="checkbox"/>	The project may impact 100-year floodplains. (see <a href="#">FEMA Maps</a> ) Details: <b>See Section 11</b>
<input checked="" type="checkbox"/>	If yes, will the project involve any work below or immediately adjacent to the 100-year floodplain elevation? <b>See Section 11</b>
<input type="checkbox"/>	If yes, will any aboveground structures or impervious surfaces be located within the floodplain? <b>No</b>
Other pertinent information regarding floodplains:	

<b>Historic Roadside Properties Program</b>	
<input type="checkbox"/>	Project is near or adjacent to known historic roadside properties on MnDOT right of way. Known properties are listed by District, Trunk Highway, Reference Point and Historic Name (of property) in the <a href="#">Historic Roadside Properties on Minnesota Trunk Highways</a> .
<input type="checkbox"/>	Project is near or adjacent to structures/elements in the MnDOT right of way older than fifty years but is not included on list above. Structures/elements include historic walls, historic markers, objects, overlooks, buildings, etc.
Other pertinent information regarding Historic Roadside Properties Program:	

<b>Construction Stormwater and Erosion/Sediment Control</b>	
<input checked="" type="checkbox"/>	Will the project disturb greater than 1 acre of land and require coverage under MCPA General Permit MNR100001? <b>Yes</b>
<input type="checkbox"/>	Will the project disturb (excavation, grading, stockpiling, equipment traffic, compaction) at least 5 acres of MnDOT ROW? <b>See Sections 2.3 and 12 of the Supplement</b>
<input type="checkbox"/>	Will the project result in discharges to special or impaired waters (refer to <a href="#">MNR100001</a> for examples)? <b>No; see Section 12 of the Supplement</b>
<input checked="" type="checkbox"/>	Will the project disturb slopes steeper than 2.5:1 and ditch gradients greater than 5%? <b>See Sections 9.1 and 12 of the Supplement</b>
Other pertinent information regarding Construction Stormwater and Erosion/Sediment Control:	

Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project

Early Notification Memo

<b>Safety Rest Area Program</b>	
<input type="checkbox"/>	Project may directly or indirectly impact an existing rest area ( <a href="#">rest area locations</a> ), travel information center, wayside, or scenic overlook. This includes temporary closures and disruptions in access to rest area of more than 48 hours.
Other pertinent information regarding Safety Rest Areas:	

<b>Scenic Byways</b>	
<input type="checkbox"/>	Project is within 7 miles of a Scenic Byway (maps: Enterprise MnDOT Mapping Application [ <a href="#">EMMA</a> ], Right of Way Mapping and Monitoring [ <a href="#">ROWMM</a> ]).
<input checked="" type="checkbox"/>	If yes, list the Scenic Byway(s) and provide the nearest distance: <b>U.S. Highway 61; see Section 2.4 of the Supplement and Appendix C5</b>
	Height of tallest project structure: <b>Transmission pole; see Section 2.1 of the Supplement</b>
Other pertinent information regarding Scenic Byways:	

<b>Railroad Coordination and Railroad Agreement</b>	
See <a href="#">map</a> for Rail Safety and Coordination Project Managers	
<input checked="" type="checkbox"/>	Construction activity is expected within 50 feet of the centerline of an individual pair of railroad (RR) tracks
<input checked="" type="checkbox"/>	Project limits are estimated to be within 600 feet of any RR tracks
<input type="checkbox"/>	Project involves a detour that directs traffic across a RR grade crossing
Other pertinent information regarding Railroads: <b>Section 2 and Appendix C1 of the Supplement</b>	

<b>Airport Influence Area</b>	
<input type="checkbox"/>	Project is within five (5) miles of an airport. (For Airport locations see <a href="#">Airport Influence Maps</a> , but use the 5-mile criterion, not the influence area). If yes, provide name of airport, and distance/direction from project:
Other pertinent information regarding Airports:	

<b>Cultural Resources (Historic Properties and Tribal Consultation) Review</b>	
Provide narrative summary of relevant information regarding cultural resources, surveys, and agency consultation (e.g., summary of archaeology, architecture/historic properties surveys to date, status of consultation with the State Historic Preservation Office (SHPO), Minnesota Indian Affairs Council (MIAC), Office of the State Archaeologist (OSA), Tribal partners, etc.): See Section X of the Supplement. <b>See Section 13 of the Supplement</b>	

Utility Company: Dairyland Power Cooperative Project Name: Wabasha Relocation Project

Early Notification Memo

<b>Protected Species Program Review -- All Actions</b> – Send ENM to OES protected species program.	
<input checked="" type="checkbox"/>	Project has a federal nexus (e.g., federal permitting, funding, or crosses federal property). If so, list federal agencies: <b>USACE; see Section 10.1 of the Supplement</b>
<input type="checkbox"/>	The project bisects or borders federally-designated critical habitat for threatened and/or endangered species. For more info. see, <a href="https://gis-fws.opendata.arcgis.com/maps/794de45b9d774d21aed3bf9b5313ee24/about">https://gis-fws.opendata.arcgis.com/maps/794de45b9d774d21aed3bf9b5313ee24/about</a> <b>No federally designated critical habitat is present within the Proposed Route.</b>
<input checked="" type="checkbox"/>	Project occurs within or adjacent (within 0.5 miles) to a bumble bee High Potential Zone. See: <a href="https://www.arcgis.com/home/item.html?id=2716d871f88042a2a56b8001a1f1acae">https://www.arcgis.com/home/item.html?id=2716d871f88042a2a56b8001a1f1acae</a> <b>See Section 14.2 of the Supplement</b>
<input checked="" type="checkbox"/>	The project may involve tree clearing on or near MnDOT ROW. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Estimated quantity of tree clearing: <b>0.75 acres</b> For tree clearing timing requirements, please see <a href="#">Technical Memorandum No. 22-05-ENV-01 May 11, 2022</a> . <sup>2</sup> <b>See Sections 2.3, 3 and 14.3 of the Supplement</b>
Please provide other pertinent information regarding protected species (e.g., summary of agency consultations with USFWS/DNR, natural resource site assessments, endangered species survey reports, NHIS or IPaC reviews, etc.): <b>See Sections 9.2 and 14, and Appendix D of the Supplement</b>	

**NOTE TO MnDOT REVIEWERS: SEE SUPPLEMENTAL MAPS AND INFORMATION REFERENCED IN THESE RESPONSES**

<sup>2</sup> Technical Memo is in the process of being amended and link to be updated.


# **DAIRYLAND POWER COOPERATIVE**

SUPPLEMENTAL INFORMATION FOR A UTILITY ENM  
MINNESOTA DEPARTMENT OF TRANSPORTATION

## **WABASHA RELOCATION PROJECT**

**March 14, 2024**



A Touchstone Energy® Cooperative 





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## 1 INTRODUCTION

Dairyland Power Cooperative (Dairyland) will apply to the Minnesota Public Utilities Commission (Commission) for a Certificate of Need and Route Permit to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation (the Wabasha Relocation Project, or the Project).

Dairyland met with Minnesota Department of Transportation (MnDOT) staff in October 2023 to present the Project. MnDOT staff requested that Dairyland complete its Utility Early Notification Memo (ENM) form and submit it prior to submitting its application for a Certificate of Need and Route Permit so that MnDOT staff may conduct an initial review of the Project.

### 1.1 MnDOT ENM Review Requirements

The Utility ENM and Utility ENM Supplemental Information Checklist present the ENM review requirements. If a box is checked on either the form or checklist, additional information is included in this supplemental information package (Supplement). The Utility ENM Supplemental Information Checklist is presented as **Appendix A. Table 1-1** summarizes Utility ENM Supplemental Information Checklist requirements that are Applicable to the Project and where they are covered in this submittal.

**Table 1-1. Utility ENM Supplemental Information Checklist Requirements Applicable to the Project**

Supplemental Information Checklist	Location in Supplement
Shapefiles and .kml/.kmz's displaying the following Project features (include associated metadata and date of last project/route revision).	<b>Appendix B1</b>
Overview map (.pdf format) displaying Project centerline and alternatives (if applicable) with MnDOT Trunk Highways and major features identified. Display full project on one page.	<b>Figure 2-1 and Appendix C1</b>
Detailed (zoomed in maps, aerial background, .pdf format) displaying Project details with MnDOT's Trunk Highways identified. Provide a separate map for each Trunk Highway crossing location /collocated segment	Water Resources and Hydrology – <b>Appendix C2</b> Potential Contaminated Sites – <b>Appendix C3</b> SSURGO Soils Data – <b>Appendix C4</b> Scenic Byways – <b>Appendix C5</b>
Summary table(s) (Excel format) of publicly available GIS data displayed on the detailed maps	Water Resources and Hydrology – <b>Table 10-1 and Appendix B1</b> Potential Contaminated Sites – <b>Table 7-1 and Appendix B1</b> SSURGO Soils Data – <b>Table 9-1 and Appendix B1</b> Scenic Byways – <b>Section 2.4</b>
Reference list of sources of desktop GIS data displayed on maps. Include URL and date of last download.	<b>Appendix B2</b>
Temporary workspace and permanent easement typical drawings (greenfield and collocated segments, as applicable). Include typical workspace configurations for road crossings, as applicable	<b>Section 2</b>
Known occurrences of state- or county-listed noxious weeds (see EDDMapS) in the vicinity of the project.	<b>Section 9.3</b>

<b>Supplemental Information Checklist</b>	<b>Location in Supplement</b>
Narrative summary of environmental field surveys done to date: Geotechnical, Geophysical, and Karst	<b>Section 3.1</b>
Summary of agency consultations/ communications/ public engagement done to date.	<b>Section 4</b>
Is permanent infrastructure expected to be installed within MnDOT's ROW? If so, provide details.	<b>Pending; Sections 3 and 3.1</b>
Is travel across/along MnDOT's ROW anticipated? If so, provide details and anticipated Best Management Practices to be used (e.g., timber matting, erosion/sediment controls, etc.). Describe if any proposed access locations will be permanent or temporary.	<b>Yes; Sections 3 and 3.1</b>
Project Schedule/Major Milestones (Minnesota Public Utilities Commission filing, construction/ restoration, in-service date, etc.)	<b>Sections 2 and 2.1</b>
Vegetation Management Plans	<b>Appendix E</b>
Powerlines: Utility pole typical drawings (if collocated, include drawings of proposed poles in relation to existing)	<b>Section 2.1; Figures 2-3 and 2-4</b>

## 2 PROJECT DESCRIPTION

The Project will begin in the vicinity of Structure X-Q3-75 on the existing Dairyland LQ34 161-kV transmission line (the Wabaco-Alma transmission line or LQ34 line) near the Town of Plainview, Minnesota in Wabasha County. This structure will be removed as part of the Project and will be replaced with the starting structure for the new 161-kV line. After travelling 13.3 miles northeast and then east, it will tie directly into a new 4-acre 161-/69-kV substation located within a larger 10.8-acre site, which is proposed to be located off County Road 84, west of the Mississippi River and southeast of the City of Kellogg (Kellogg Substation). The Project is a relocation of approximately 10.4 miles of Dairyland's existing LQ34 line, which presently connects to the Wabaco Substation (located approximately 2 miles south of the Town of Plainview) and to the Alma Substation (located on the east side of the Mississippi River in Wisconsin). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg in Wabasha County, Minnesota near the Mississippi River. The Project is shown on **Figure 2-1** and on the MnDOT Overview Map (see **Appendix C1**).

Dairyland will use single-pole steel structures. Special horizontally configured structures (H-frame or 3 pole structures) may be required to cross under any higher voltage circuits in the corridor. All structures will be self-supporting; therefore, no guying will be required. Typical pole heights will range from 75 to 140 feet above ground and spans between poles will range from 300 to 1,000 feet (see **Section 2.1**).

Construction will occur within a 100-foot-wide right-of-way (ROW) easement that Dairyland will obtain to operate the transmission line. The 100-foot-wide ROW easement is centered on the Proposed Alignment (or 50 feet on either side of the transmission line). The term Proposed Alignment is used to refer to the location of the transmission line and structures. A typical Proposed Alignment ROW is presented as **Figure 2-2**.

Additional temporary workspace (ATWS) beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings, along steep slopes, and at stringing locations. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation.

The Project Route Width (or, Proposed Route) is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation. Dairyland intends to request a standard Route Width of 400 feet (200 feet on either side of the Proposed Alignment for most of the Project). Dairyland is requesting a wider Route Width in some areas, up to 2,300 feet wide, to allow for additional route study and the potential need to make minor modifications to the Proposed Alignment in these areas. The Proposed Alignment, Route Width, and Kellogg Substation are shown on **Figure 2-1** and **Appendix C1**.

The Project will not be constructed within existing utility ROW; however, it will be collocated with existing utility, road, and railroad ROW for approximately 9.5 miles, or 71% of the Proposed Alignment.

**Railroad Coordination**

The Proposed Alignment will cross Highway 61/the Great River Road and the Canadian Pacific Railroad, and then turn south on the east side of the railroad at milepost (MP) 10.1. It will parallel the railroad for approximately 0.5 mile before turning east, then north and east again, to follow the south side of County Road 84 (see **Figure 2-1** and **Appendix C1**). Dairyland will coordinate closely with Chris Rice (Rail Safety and Coordination Project Manager for District 6) on this railroad crossing and collocation.

**2.1 Structure and Design Considerations**

Potential transmission structure designs and photographs are provided in **Figures 2-3** and **2-4**. Structure dimensions are provided in **Table 2-1**.

**Table 2-1. Typical 161-kV Structure Dimensions**

Structure Type	Material	Approximate Height Above Ground (feet)	Structure Base Diameter (inches)	Span Between Distances (feet)
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Monopole with davit arms and suspension insulators	Steel	80 - 140	31 - 51	300 - 1,000
Monopole with strain attachments directly to pole	Steel	75 - 110	35 - 55	300 - 1,000

## 2.2 Project Schedule

Dairyland anticipates conducting site preparation activities at the Kellogg Substation site between June and July 2026. Then, Dairyland would build the Kellogg Substation and 161-kV transmission line between June 2027 – July 2028.

## 2.3 MnDOT Highways within the Project Area

The Proposed Route will parallel and/or intersect State Highway 42 and U.S. Highway 61 / Great River Road (Scenic Byway) as presented in **Table 2-2**. The Proposed Route is collocated with MnDOT trunk highways for approximately 8.1 miles (this conservative estimate extends the collocation along Highway 42 near Kellogg to U.S. Highway 61).

**Table 2-2. MnDOT Trunk Highways within the Project Area**

Highway / Road Name	Jurisdiction	Parallel / Intersects	Traffic Volumes (AADT / 2023) <sup>1</sup>
State Highway 42	State	Parallel/Intersect	Not Available
U.S. Highway 61 / Great River Road (Scenic Byway)	State/U.S.	Intersect	4,241 (Seq. 5984)

Dairyland met with MnDOT in October 2023 to present the Project. The MnDOT indicated that the agency plans to repave U.S. Highway 61 in 2029; otherwise, no highway expansion projects are currently planned in the Project area. MnDOT recently completed work at the intersection of State Highway 42 and U.S. Highway 61; repaving was done in this area recently as well. No projects are currently forecasted for State Highway 42 at this time. Dairyland and MnDOT staff also discussed crossing angles, footings, sight corners, and other technical issues.

Temporary access for construction of the transmission line would be along the transmission line ROW. Temporary and infrequent traffic impacts associated with equipment/material delivery and worker transportation will occur. Stringing the conductors and shield wire across roads can be accomplished with minimal traffic impacts. Typically, a pulling rope is simply carried across the road, which is then pulled overhead. Temporary structures may be installed inside or outside of road ROW to ensure pulling lines, shield wire, or conductors to have sufficient clearance over roads. Dairyland will work with the MnDOT through its application process for a Utility Accommodation Permit in MnDOT ROW and comply with all permit conditions.

When appropriate, pilot vehicles will accompany the movement of heavy equipment. Traffic control barriers and warning devices will be used when appropriate. All necessary provisions will be made to conform to safety requirements for maintaining the flow of public traffic. Construction

<sup>1</sup> Traffic Mapping Application (arcgis.com)

operations will be conducted to offer the least possible obstruction and inconvenience to the traveling public. Dairyland will plan and execute delivery of heavy equipment in coordination with the appropriate road authorities and in a manner that would avoid traffic congestion and reduce likelihood of dangerous situations along local roadways.

## 2.4 Scenic Byway

The Project Crosses U.S. Highway 61 at MP 9.7 (see **Appendices C1 and C5**), which is part of the Great River Road, a National Scenic Byway. The Great River Road is a network of roads that follow the Mississippi River through ten states that promote exploration and interpretation of the Mississippi River. The Great River Road in Minnesota is overseen by the Minnesota Mississippi River Parkway Commission (MRPC), whose mission is to “preserve, promote and enhance the scenic, historic and recreational resources of the Mississippi River, to foster economic growth in the corridor and to develop the national, scenic and historic byway known as the Great River Road.”<sup>2</sup> The MRPC’s work is organized and guided under Minnesota Statute 161.1419 and managed under the umbrella of the Legislative Coordinating Commission, and is guided by a Corridor Management Plan<sup>3</sup> with support from MnDOT under Minnesota Statute 161.142. National Scenic Byway designation does not confer land use regulation or permitting authority, but through the Corridor Management Plan, there is encouragement to safeguard the road’s scenic qualities.

It would not be possible to construct the Project without crossing the Great River Road in some location. The existing CapX2020 system which presently carries the Dairyland 161-kV line crosses the Great River Road about 1.9 miles south of the proposed Project crossing. Therefore, Dairyland met with the MRPC, as well as MnDOT, early in Project planning to discuss the Proposed crossing location.

Dairyland presented the Project to the MRPC in November 2023 and held a meeting in December 2023 where Dairyland reviewed the proposed crossing of U.S. Highway 61. Dairyland selected this crossing location as to avoid the steep topography on the west side along State Highway 42, and to consider properties owned by the U.S. Army Corps of Engineers (USACE) (see **Section 10.1**) as well as in consideration of the Wabasha County Highway Department’s future improvement plans for County Road 84.

The MRPC offered several suggestions on the crossing, including the following:

- minimize the tree clearing on both sides and/or try to site the poles behind the treed areas to screen the structures as much as possible;
- use a perpendicular crossing rather than paralleling the roadway;
- set back the poles as far as possible, to the extent practicable;
- choose a color of poles that blends into the landscape; and
- provide visual simulations of before and after the crossing.

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<sup>2</sup> <https://www.mnmississippiriver.com/about-us/>

<sup>3</sup> <https://www.mnmississippiriver.com/about-us/management-plan/>

Later in December 2023, Dairyland reached out to MRPC to advise of a change in the Project alignment approximately 0.4 mile east of the U.S. Highway 61 crossing. This change was driven by subsequent meetings with the USACE regarding their interests along County Road 84. The new Project Alignment, presented in this Application, now parallels the Canadian Pacific Railroad on the eastern side, away from U.S. Highway 61. In between the Proposed Alignment and U.S. Highway 61 are numerous wooded areas, a tree line, the railroad, and various buildings and structures, including a solar field.

Dairyland has also met with MnDOT regarding the U.S. Highway 61 crossing. MnDOT advised that Dairyland coordinate with MRPC; in addition, MnDOT noted that there is a scenic byway group within MnDOT that will review and advise on the U.S. Highway 61 crossing. After MnDOT's initial review of the crossing location in MnDOT's Environmental Landscape Mapper<sup>4</sup>, there is a gap in the Scenic Area in the area where the Project is currently crossing. Additionally, this property was determined Not Eligible for listing on the National Register of Historic Places (NRHP) in 2018. U.S. Highway 61 is a designated Scenic Byway. Dairyland has prepared a visualization of the U.S. Highway 61 crossing. Visualization images are presented in **Figures 2-5 through 2-7**.

Because the Project will replace existing Northern States Power Company (dba Xcel Energy) and People's Energy Cooperative distribution lines for 5.1 miles and will otherwise largely be collocated with existing road and railroad ROW, aesthetic impacts in most areas along the Project Alignment are anticipated to be minimal. The existing distribution lines have been in place for decades, as the area has developed. Visual impacts might be perceived by a viewer as less because the existing distribution lines will be buried by the owner of those facilities and there will be fewer structures. The new transmission line structures will be 20 to 30 feet taller with larger insulators, which might increase the visual impacts perceived by a viewer.

Where trees need to be cleared, this change to the landscape is typically a noticeable visual impact to receptors. The Proposed Alignment south of County Road 84 was designed in part to minimize the amount of tree clearing, which helps to minimize visual impacts. No trees will be cleared as part of the Kellogg Substation and the substation will not be visible from the Zumbro or Mississippi Rivers. Substation structure heights will range from 45 to 75 feet above ground. Dairyland will work with landowners to identify concerns related to the transmission line and aesthetics. In general, mitigation includes enhancing positive effects as well as minimizing or eliminating negative effects. Potential mitigation measures include:

- Location of structures, ROW, and other disturbed areas will be determined by considering input from landowners to minimize visual impacts.
- Care shall be used to preserve the natural landscape. Construction and operation shall be conducted to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work.
- Landowners may be compensated for the removal of trees and vegetation based on easement negotiations.

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<sup>4</sup> <http://www.dot.state.mn.us/project-development/subject-guidance/environmental-landscapemapper/index.html>

- Structures will be placed at the maximum feasible distance from water crossings, within limits of structure design and applicable regulations.

Regarding the U.S. Highway 61 crossing, there will be a new visual impact as a result of the Project. Distribution and transmission line crossings exist elsewhere along U.S. Highway 61. Dairyland has worked with the MRPC to understand concerns related to the new crossing location. On the west side of U.S. Highway 61, although some trees will be cleared within the 100-foot-wide ROW, Dairyland placed the Proposed Alignment to minimize tree clearing, the westerly pole will be shielded to some extent from the remaining forested area which partially shields it from view (see **Figure 2-5**). Regarding the east side of U.S. Highway 61, Dairyland has placed the easterly alignment in an area where minimal large tree removal will occur on the north side of the Proposed Alignment (see **Figure 2-6 and 2-7**). The south side of the alignment is presently sparsely vegetated. The span length between the two poles is approximately 800 feet, which is near the maximum span length of 1,000 feet. The poles will be red-brown (weathered steel), which will allow them to blend with existing colors in the area. The crossing will also occur perpendicular to the road, which was the preference of the MRPC. Dairyland will continue to coordinate with the MRPC and MnDOT as the Project progresses.

### 3 CONSTRUCTION PROCEDURES

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During construction of an overhead transmission line, several different work functions happen concurrently at any given location. As illustrated in **Diagram 3-1**, construction will follow Dairyland's standard construction and mitigation best practices:

- Collection of geotechnical data (soil borings) required for final design of the transmission line;
- Surveying and staking will be used conducted during multiple phases of the Project;
- Installation of erosion and sediment control best management practices (BMPs) prior to anticipated ground disturbance activities;
- Mobilization and preparation of staging / laydown yards;
- Road improvements or development to provide access to the ROW;
- Clearing activities of the ROW;
- Installation of construction mats in wetlands or other unstable soil areas, and installation of temporary bridges across waterways prior to construction along the ROW;
- Temporary material staging along the ROW prior to construction installation;
- Grading, excavation, and foundation installation;
- Structure setting;
- Wire stringing and clipping once there are enough structures set consecutively in a row to support a wire pull;
- Removal of existing transmission circuits;
- Cleanup and restoration of ROW; and
- Demobilization and laydown yard cleanup.

Permanent structure locations are unknown at this time. As described in Section 3.1, collection of geotechnical data will be necessary for final design of the transmission line and will be performed prior to construction activities.

The following information provides additional detail on the major construction activities, their approximate sequence, typical construction machinery used, and the anticipated impacts associated with each activity:

**Surveying and Staking** – Surveying and staking will be conducted during multiple phases of the Project and will include locating and marking the ROW and authorized off-ROW access roads, sensitive environmental resource boundaries, foundations or structure locations, property or section lines, underground and aboveground utilities, etc. Surveying and staking will be performed prior to and sometimes after construction activities such as during constructability reviews, soil borings (geotechnical investigations), staging / laydown yards, clearing, installation of foundations and hole excavations. These activities have limited impact on the environment or landowners and are generally completed by a two-person crew travelling by foot, ATV, or pick-up truck.

**Erosion and Sediment Control** – Installation of erosion and sediment control BMPs will be implemented prior to anticipated ground disturbance and in accordance with the Minnesota Pollution Control Agency (MPCA) National Pollutant Discharge Elimination System (NPDES)

Construction Stormwater General Permit. Erosion and sediment control equipment includes ATVs and trucks for crew transportation, as well as skid loaders, tractors, backhoes, hydro-seeders, and other light-duty equipment. BMPs will be inspected, maintained, repaired, and replaced in accordance with the MPCA Construction Stormwater General Permit.

**Mobilization and Preparation of Staging / Laydown Yards** – Initially, labor and equipment will be mobilized to prepare laydown yards for temporary trailer(s) and security measures to receive materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment, etc. Activities involved to prepare the staging / laydown yards include installation of erosion and sediment control BMPs, any leveling of uneven surfaces, stripping and stockpiling of topsoil (if necessary), and installation of gravel, tracking pads near entry/exit, if needed, installation of culvert(s), power, and fencing. This work is generally completed using equipment such as a bulldozer and dump trucks. The disturbance from the laydown yard is dependent on soil type and topography. Depending on landowner preferences, laydown yards may be left in place or returned to prior conditions following construction activities.

**Road Improvements and Development** – In order to access the ROW, Dairyland may need to improve existing access roads, or develop new access roads. Road improvements may include tree trimming, tree clearing, road grading, widening and fill placement. Only construction mats will be used in wetland features; construction mats will be removed after completion of construction activities (see Construction Matting and Bridge Installation below). This work is generally completed using equipment such as a bulldozer, track-hoe, skid-loader, and dump trucks. The travel surface of the access road is generally 20 to 25 feet wide. The total amount of disturbance of the road (cut slope to base of the spoils slope) is dependent on soil type and topography. Depending on landowner preferences and permit requirements, access roads may be left in place or returned to prior conditions following construction.

**Clearing of ROW** – To facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line, all vegetation will be cleared for the full width of the ROW. Vegetation will be cut at or slightly above the ground surface using mechanized mowers, sky trims, processors, harvesters, or by hand. Rootstocks will generally be left in place, except in areas where stump removal is necessary to facilitate the movement of construction vehicles, or when reasonably requested by the landowner. Side trimming the ROW would happen shortly after the clearing is completed. Following the side trimming, a final mowing of debris and stump cleanup will be completed. Where permission of the landowner has been obtained, stumps of tall-growing species will be treated with an herbicide to discourage re-growth.

**Construction Matting and Bridge Installation** – Matting will be used as a protective measure that minimizes ground impacts and will be installed to provide access through wetlands or other unstable soil areas prior to construction. Mats are also used to support and stabilize large equipment required for construction. Construction mat travel lanes will generally be 16 to 20 feet wide. Construction matting may consist of composite timber, or laminate mats and will be installed with rubber-tired grapple trucks, forwarders, forklifts, or skid loaders. The line will be constructed in segments with mats being moved and used in other segments as construction progresses.

In addition, permitted temporary bridges will be installed over waterways. Equipment bridges will be designed to meet the requirements of the applicable agencies and local authorities. Bridges will



be installed during clearing and will be removed as soon as possible during final restoration once the bridge is no longer required to complete and monitor restoration activities. Fording of waterbodies is prohibited (i.e., civil survey, potholing, or other equipment are not permitted to ford waterbodies prior to bridge placement).

**Additional Temporary Workspace** – ATWS beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings and along steep slopes. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation. This work involves such equipment as semi-trucks, loaders, and cranes to unload structures and other materials near each work location. Dairyland will avoid the placement of ATWS in wetlands and near waterbodies as practicable.

**Grading, Excavation, and Foundation Installation** – Prior to foundation installation, Dairyland will install a construction mat platform generally 40 feet by 40 feet around the structure location to ensure a level and safe working area. In some cases, Dairyland may grade an area approximately 40 feet by 40 feet around the structure location.

Excavation is required for all structures whether they are direct-embedded or use reinforced concrete foundations. In general, the excavated holes for each type of foundation will range from five to 10 feet in diameter and 20 to 50 feet in depth, or greater, depending on soil conditions. The method of installation, diameter and depth of the foundation will vary depending on the soil capability and structure loadings. For direct-embedded poles, a hole will be excavated to the appropriate depth. The base of the structure will be placed into the excavated hole or, if soils are unstable, into a culvert, the area around the pole will be backfilled with clean granular fill or concrete. For structures requiring a reinforced concrete foundation, the required hole will be excavated, and a rebar cage and anchor bolts will be placed into the excavation. The excavation will then be filled with concrete to a point where the rebar cage and anchor bolts are covered leaving a typical one to two-foot reveal of the foundation above grade with exposed threaded anchor bolts. The complete caisson will then be allowed to cure. Typical equipment for this phase of construction would include dump trucks, drill rigs, cranes, vacuum trucks, concrete mixers, and tanker trucks.

In areas with high water tables, or where water is needed to stabilize the hole during drilling, it may be necessary to dewater the excavation. Depending on site conditions, the water may be filtered through a geotextile filter bag or similar method and discharged to an upland area where it can re-infiltrate or be removed from the site via a tank truck. Appropriation and discharging activities will follow applicable regulations and permit requirements to ensure compliance with Minnesota water quality standards.

**Structure Setting** – For base plate structures (mounted on concrete foundation), the above-grade structure would be placed on the anchor bolt pattern, leveled, and tightened down. For direct-embedded structures, the base section would be installed, leveled, and backfilled with granular or flow-able fill. After that, the top section or sections will be installed. At each section, hydraulic jacking systems are typically used to slide the joints together to the engineered and fabricated tolerances. Equipment used for this phase of construction would include cranes and bucket trucks at each structure location.

**Wire Stringing and Clipping** – Once there are a sufficient number of structures set consecutively in a row to support a wire pull, the equipment for the wire pull is mobilized to the pull area and is set up. The conductor and static wires are then pulled and clipped into place. This stringing and clipping activity requires access to each structure with a bucket truck, crane, or helicopter. Other handling equipment used for this phase of construction includes reel trailers, wirepullers, and related stringing equipment.

Wire stringing areas or wire pulling areas are approximately 40 feet by 300 feet. At a minimum, at each wire pulling area, matting will be placed under wire equipment for construction grounding purposes. Incidental matting will also be required at most road crossings. Matting will be removed by similar equipment used for installation as each wire pull or construction segment is completed. During mat placement, use, and removal, standard procedures will be implemented to prevent or minimize the spread of invasive species.

**Removal of Existing Facilities** – Where replacing or overbuilding existing transmission circuits, the existing structures and wire will be removed. The removed materials will be evaluated to determine their appropriate disposal. Typical equipment used includes cranes, bucket trucks, reel trailers, wirepullers, and related stringing equipment. Where existing transmission structures are to be removed, it is common practice to remove the structure to a depth of at least 4 feet below grade; however, in some cases the structure may be cut off at grade. The determination will be site specific and will be based on the type of structure, land use at the site, and construction vehicle access constraints.

**Cleanup and Restoration of ROW** – Upon completion of construction, cleanup and site restoration occurs. This includes removing construction mats, TCSBs, and other material or debris from the ROW. Any necessary seedbed preparation and seeding is performed along with BMPs. Typical equipment used for these activities include mat trucks, bobcats, pickup trucks, and other light-duty vehicles.

**Demobilization and Laydown Yard Cleanup** – The last step in the construction process is final cleanup of the laydown yards by removing all items such as trailers, security fence, left over materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment from the Project site. Once the final laydown restoration is complete per contractual agreement with the applicable landowner, the construction phase is complete.

### **3.1 Geotechnical Borings**

Collection of geotechnical data will be necessary for final design of the transmission line and will be performed prior to construction activities. Soil borings are generally completed using rubber tired or tracked drill rigs, depending on site and access conditions. A pick-up truck or ATV transports the crew and drilling supplies to the work area. Construction mats may be installed as needed based on site conditions and where access is required in wetland areas. Sites will be restored to pre-construction conditions upon completion of geotechnical investigations. Dairyland will obtain the applicable permits and approvals prior to conducting this work.

The Project is located in a region of Minnesota known to have karst features. The Minnesota Department of Natural Resources (MDNR), in its early coordination comments, noted the presence

of karst in the Project area, noting that several karst features have been documented within 1,000 feet of the Project area (see **Appendix D**). Karst landscapes can develop where the dissolution of soluble bedrock can result in voids, sinkholes, springs, caves, or other such features at or near the surface.<sup>5</sup> This necessitates planning to identify karst features prior to construction, as well as development of a contingency plan should karst features be encountered during construction.

Dairyland will develop a Karst Survey Plan that will identify the locations of the proposed geotechnical investigations in relation to proposed structure locations, in addition to geophysical studies. Dairyland will coordinate with the MDNR regarding the Karst Survey Plan prior to execution of the geotechnical investigations.

Two geophysical methods will be performed due to different limitations associated with each method. The first geophysical method to be prescribed will be resistivity. This will involve using a multi-channel resistivity measurement array to create a ground resistivity image from the ground surface to the desired depth. Two resistivity measurements will be taken at each structure location, perpendicular to the other. Resistivity imaging is particularly useful with karst voids filled with clay. Clay is highly conductive and shows up clearly in resistivity images. When voids are filled with air or water, resistivity imaging is not as informative.

The second geophysical method that Dairyland will use is Multichannel Analysis of Surface Waves (MASW), which is a type of seismic survey that images the ground beneath the survey by measuring the propagation velocities of surface waves generated by a seismic source, such as a sledgehammer striking a metal plate. MASW can be better at imaging karst voids when they are air or water filled.

Combining the resistivity and MASW imaging is a proven method for increasing confidence in karst void detection. Ideally, no unexpected voids will be encountered during construction. However, following completion of the studies noted above, Dairyland will develop a Karst Contingency Plan prior to construction that includes actions to take to mitigate any unexpected voids encountered during construction. Dairyland will work with the MDNR to develop the Karst Contingency Plan prior to construction.

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<sup>5</sup> <https://www.nps.gov/subjects/caves/karst-landscapes.htm>

#### **4 AGENCY AND TRIBAL OUTREACH**

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Dairyland began contacting agencies with potential interest in the Project in mid-2023. Then, once the Proposed Alignment was developed after the open houses were held, Dairyland sent initial notification letters to eleven Tribal Nations and well as federal, state, and local agencies with potential interest in the Project on December 18, 2023. Dairyland has incorporated information received during agency consultations into the relevant sections of the Joint Application which will be submitted in March 2024. Where additional coordination has occurred, Dairyland will summarize that outreach with references to the section of the Joint Application which will provide additional detail.

## 5 RECREATIONAL RESOURCES

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Recreational resources crossed by and near the Proposed Route are shown on **Figure 5-1**. The Zumbro River and the Mississippi River are located near the Project but will not be impacted. Several MDNR interests are also in the Project area but will not be crossed or otherwise impacted by the Project.

The Project Alignment crosses two sections of the Zumbrowatha Grant-In-Aid snowmobile trail system at MPs 0.2 and 9.7. The trail system is managed by the Elba Snowbirds. The Project Alignment also crosses USACE interests associated with the Rolling Prairie Property (see **Section 10.1**) as well as the U.S. Highway 61 Scenic Byway (see **Section 2.3**).

Dairyland has designed the Project to avoid impacts to the recreational opportunities in the Project area. Regarding the snowmobile trail crossings, transmission lines are not incompatible with snowmobile trails. The Zumbrowatha trail system presently crosses the CapX2020 system in the area of the first crossing, and the second crossing is near U.S. Highway 61. Dairyland currently plans to construct the transmission line from June 2027 – July 2028, which will likely not conflict with the winter use of the trail system. If construction activities will impact any of the snowmobile trails, Dairyland will coordinate with the trail associations regarding notifications and possible temporary trail closures and/or re-routes. Dairyland is minimizing impacts to the U.S. Highway 61 Scenic Byway (see **Section 2.4**) and has coordinated the route across USACE interests in the Rolling Prairie Property, which may be used for future recreational opportunities (see **Section 10.1**). Therefore, no additional mitigation measures are proposed.

## 6 ENVIRONMENTAL JUSTICE

Dairyland evaluated the socioeconomic setting of the Project area on a regional basis, comparing data for Wabasha County and the State of Minnesota. Additional detail will be provided in the Joint Application; however, results are presented here.

Data compiled from the U.S. Census Bureau are summarized in **Table 6-1**.

**Table 6-1. Socioeconomic Characteristics within the Project Area<sup>6</sup>**

Location	2022 Population	White Alone Population	Median Income (2018-2022)	Percent Below Poverty Level	Language Other than English Spoken at Home (2018-2022)
State of Minnesota	5,714,300	82.6%	\$84,313	9.6%	12.0%
Wabasha County	21,658	96.8%	\$75,063	7.5%	3.1%

An environmental justice analysis for the Project was completed using the methodology in Minnesota Statutes (Minn. Stat.) 216B.1691, subd. 1(e) (rev. 2023). Census tracts that intersect with the Project were analyzed for environment justice areas, consistent with this statute. The Project Route Width intersects one census tract identified in **Table 6-2**. Wabasha County was used as a reference population for the census tracts.

**Table 6-2. Environmental Justice Communities per Minn. Stat. 216B.1691, subd. 1(e) Criteria<sup>7</sup>**

Census Tract	Percent People of Color	Percent Below 200 Percent of Poverty Level	Percent Limited-English Speaking Population (2017-2021)
Census Tract 4902	2.9	16.2	0.3

Dairyland utilized MPCA’s “Understanding Environmental Justice in Minnesota” web-based mapping tool by drawing the Project Route Width into the mapping tool to determine whether the Project intersects any census tracts with environmental justice populations based on the definition above. Based on the data provided in MPCA’s web-based mapping tool, the census tract intersected by the Project is not considered an environmental justice community under the Definition provided in Minn, Stat. 216B.1691, subd. 1(e). Additionally, the Project does not cross any areas located within “Indian country,” as defined in 18 United States Code 1151.

Dairyland also conducted its environmental justice analysis in accordance with the U.S. Environmental Protection Agency (USEPA) Federal Interagency Working Group on Environment Justice (EJ) and National Environmental Policy Act (NEPA) Committee’s publication, Promising

<sup>6</sup> U.S. Census QuickFacts, downloaded January 2024: <https://data.census.gov/>.

<sup>7</sup> MPCA, 2024. Understanding environmental justice in Minnesota. Available at: <https://mpca.maps.arcgis.com/apps/MapSeries/index.html?appid=f5bf57c8dac24404b7f8ef1717f57d00>



Practices for EJ Methodologies in NEPA Reviews (Promising Practices). Using this methodology, the USEPA’s Environmental Justice Screening Tool (EJScreen) was used as an initial step to gather information regarding minority and/or low-income populations; potential environmental quality issues; environmental and demographic indicators; and other important factors. Wabasha County was used as the comparable reference community to ensure that all affected environmental justice communities are properly identified.

**Table 6-3** identifies the minority populations by race and ethnicity and low-income populations within the State of Minnesota, Wabasha County, and the two U.S. Census block groups within the Census Tract crossed by the Project. No block groups crossed by the Project are considered environmental justice communities using the USEPA methodology.

**Table 6-3. Minority and Low-Income Populations within the Project area (USEPA methodology)<sup>8</sup>**

State/County/Census Block Group	% Total Minority <sup>a</sup>	% Below Poverty Level
State of Minnesota	21.7	9.3
Wabasha County	6.0	8.4
Census Tract 4902, Block Group 2	3.4	8.1
Census Tract 4902, Block Group 3	1.9	6.7
a “Minority” refers to people who reported their ethnicity and race as something other than non-Hispanic White		

There are no environmental justice communities impacted by the Project, so no environmental justice impacts are anticipated. Because impacts to socioeconomics will be generally short-term and beneficial, no mitigation is proposed.

<sup>8</sup> Data Source: US Census 2022 ACS 5-Year Estimates Detailed Tables File# B03002 and File #B17017, downloaded January 2024: <https://data.census.gov/>

## 7 CONTAMINATED MATERIAL

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The Applicant is not aware of any potentially contaminated materials along the Project corridor. Should potentially contaminated materials be identified on MnDOT ROW during surveys or construction, the Applicant will stop work and consult with MnDOT.

As described in **Section 3**, construction of an overhead transmission line requires several different activities at any given location. Grading, excavation, access, and travel across the MnDOT ROW may occur during construction of the Project.

### 7.1 Commercial/Industrial Areas

The landscape in the Project area east of U.S. Highway 61 includes commercial/industrial areas. Utility infrastructure is common across the Project, including near the site of the Kellogg Substation where multiple transmission and distribution lines meet. The Applicant is not aware of any contaminated materials resulting from commercial/industrial activity along the Project corridor.

### 7.2 Dewatering

The Applicant is not aware of any contaminated groundwater along the Project corridor. In areas with high water tables, or where water is needed to stabilize the hole during drilling, it may be necessary to dewater the excavation. Depending on site conditions, the water may be filtered through a geotextile filter bag or similar method and discharged to an upland area where it can re-infiltrate or be removed from the site via a tank truck. Appropriation and discharging activities will follow applicable regulations and permit requirements to ensure compliance with Minnesota water quality standards.

### 7.3 Potentially Contaminated Sites

The Applicant reviewed the Proposed Alignment where collocated and/or where it intersects MnDOT Trunk Highways for sites included in the MDA's and MPCA's What's in My Neighborhood (WIMN) databases. Three MPCA WIMN sites are located within 500 feet of the Proposed Alignment where collocated and/or where it intersects MnDOT trunk highways (see **Table 7-1** and **Appendix C3**). An excel attribute table is also included in **Appendix B1**. Two sites are registered feedlots, and the other site is a Hazardous Waste Generator; therefore, no impacts are anticipated.

**Table 7-1. MPCA's WIMN Sites Near the Project and MnDOT ROW**

Nearest Milepost	MPCA WIMN Site Name	Site ID	Activity	Appendix C3
2.8	Jack Stamschor Farm	84713	Feedlots	Extent 1
4.9	Countryside Sales	49863	Hazardous Waste Generator	Extent 2
5.8	Myron Meyer Farm	72745	Feedlots	Extent 2

## **8 REGULATED WASTE AND STORAGE TANKS**

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As described in **Section 2**, the Project requires the relocation of transmission line infrastructure to a new ROW. Some existing structures will be removed or modified; however, these activities will be limited. Any demolition material will be removed from the Project ROW and properly disposed of. The Applicant is not aware of any other storage tanks, regulated materials, excess materials, or waste concerns along the Project corridor.

## 9 VEGETATION

### 9.1 Soils Considerations

As described below and in more detail in Section 6.1, soils disturbance within the MnDOT ROW will occur. Additionally, the Project may result in soil disturbance under canopy of existing woody vegetation within or near MnDOT ROW. Although the Project crosses areas with steep slopes<sup>9</sup> associated with the Mississippi River Bluffs, the Proposed Alignment does not cross steep slopes on MnDOT ROW. However, the Proposed Alignment does cross areas with highly erodible soils on MnDOT ROW as presented on **Table 9-1** and **Appendix C4**. An excel attribute table is also included in **Appendix B1**.

**Table 9-1. Highly Erodible Soils Crossed by the Project on MnDOT ROW**

Name	Area Symbol/MUSYM	Water Erodible	Wind Erodible	Representative Slope (and Range)	Appendix C4
Downs-Hersey complex, 6 to 12 percent slopes, moderately eroded	MN157/N574C2	Yes	No	9 (>8-15)	Extent 1
Downs silt loam, 12 to 18 percent slopes, moderately eroded	MN157/N501D2	Yes	No	15 (>8-15)	Extent 2
Downs silt loam, 6 to 12 percent slopes, moderately eroded	MN157/N501C2	Yes	No	9 (>8-15)	Extents 2 and 3

Disturbed areas will be restored to their original condition to the maximum extent practicable, or as negotiated with MnDOT.

Post-construction reclamation activities will include removing and disposing of debris, removing all temporary facilities (including staging and laydown areas), installing appropriate erosion and sediment control BMPs, reseeding areas disturbed by construction activities with vegetation similar to that which was removed with a seed mixture certified as free of noxious or invasive weeds, and restoring the areas to their original condition to the extent possible. In cases where soil compaction has occurred, the construction crew or a restoration contractor uses various methods to alleviate the compaction, or as negotiated with landowners. Further details are provided in Dairyland's Vegetation Management Plan provided in **Appendix E**.

For the Kellogg Substation site, a detailed restoration plan will be developed after the Commission's routing decision is made, and the plan will be prepared as part of Dairyland's Stormwater Pollution and Prevention Plan in accordance with the MPCA Construction Stormwater General Permit. This plan will include the overall site design, including graveled areas, vegetated areas, and a stormwater pond.

<sup>9</sup> Steep slopes defined by MnDOT as 2.5:1.

## 9.2 Sensitive or Protected Vegetation

The Proposed Alignment crosses one Minnesota Biological Survey (MBS) site known as “McCarthy Lake” (ranked as High) for approximately 630 feet near MP 12.8. The Proposed Alignment would be collocated with County Road 84 at the McCarthy Lake MBS crossing. Temporary impacts to the MBS site will occur during construction activities and forested vegetation within the 100-foot-wide ROW will be cleared and maintained as an herbaceous community during the life of the Project. Dairyland will avoid placement of pole structures within the MBS site by spanning this area, and will minimize forested vegetation clearance by collocating with the road ROW (refer to the Vegetation Management Plan in **Appendix E** for additional commitments). There are no other MBS sites within the Project area, and there are no Native Plant Communities within the Project area.

There are no other designated areas within the Project area which are associated with rare flora communities, such as MDNR SNAs, Native Prairies, or Railroad ROW Prairies. Calcareous fens are discussed in **Section 10**.

## 9.3 Invasive Species

The movement of construction equipment to, from, and between various work sites may introduce and/or spread invasive species. Terrestrial plant invasive and noxious species in Minnesota are regulated by the Minnesota Department of Agriculture (MDA),<sup>10</sup> and aquatic invasive and noxious species are regulated by the MDNR.<sup>11</sup> The MDNR also manages terrestrial plant invasive and noxious species on public lands and at public waters. The MDNR maintains a geospatial dataset of terrestrial invasive and noxious species observations;<sup>12</sup> according to this dataset, wild parsnip (*Pastinaca sativa*), an MDA control species, has been documented at several locations along State Highway 42 and also along County Road 84.

Dairyland will manage documented occurrences of terrestrial plant invasive and noxious species that are listed as “eradicate”<sup>13</sup> or “control”<sup>14</sup> under the “Prohibited Noxious Weed” category by the MDA. Further, Dairyland will adhere to the requirements set forth by the MDNR Utility License to Cross Public Waters and Natural Heritage Review consultation process. Dairyland proposes to implement the following BMPs during Project construction to minimize the potential for the introduction or spread of terrestrial plant invasive and noxious species:

- Limiting grading and excavation to areas surrounding pole structure foundations, and only as needed along access roads and workspace areas for a level and safe working area.
- Installing construction mats for travel lanes in wetlands and other specific locations.

<sup>10</sup> Minn. Stat. § 18.75-18.913

<sup>11</sup> <https://www.dnr.state.mn.us/invasives/index.html>

<sup>12</sup> <https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs>

<sup>13</sup> Prohibited noxious weeds placed on the noxious weed eradicate list are plants that are not currently known to be present in Minnesota or are not widely established. These species must be eradicated (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

<sup>14</sup> Prohibited noxious weeds placed on the noxious weed control list are plants that are already established throughout Minnesota or regions of the state. Species on this list must be controlled (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

- All disturbed areas will be revegetated using “Noxious Weeds; None Found” seed mixes.
- All disturbed areas will be revegetated using seed mixes labelled “Noxious Weeds; None Found” in accordance with regulations and will utilize yellow tag seed when available.
- Compliance with MPCA Construction Stormwater General Permit, including stabilization requirements, and inspection, maintenance and repair of erosion and sediment control BMPs. Certified weed-free straw or weed-free hay will be used for erosion and sediment control BMPs.
- All construction equipment must be clean prior to entering and before leaving the work site.
- Manual, mechanical, or chemical management of invasive and noxious weed infestations.
- The Construction Field Representative will oversee BMP installation and effectiveness.

Dairyland has also developed a VMP for this Project that will incorporate these BMPs (**Appendix E**). Dairyland will not conduct activities within waterbodies; therefore, no mitigation to manage aquatic invasive and noxious species are proposed.

#### **9.4 Staging or Access**

As described in **Section 6** above, construction of an overhead transmission line requires several different activities at any given location. Staging and access with MnDOT ROW may occur; however, that location information is not available at this time. Refer to **Section 6.1** for a detailed description of construction procedures.



## 10 WETLANDS AND WATERBODIES

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Surface waters in the Project area and along the Proposed Route are shown on **Figure 10-1**. The McCarthy Fen is located 1.4 miles south of the Proposed Alignment. This feature is located adjacent to U.S. Highway 61, the Canadian Pacific Railway and within 750 feet of the CapX2020 transmission line. Residences and agricultural buildings and structures are also located within 0.5 mile of the fen feature. Once a final route has been selected, Dairyland will further coordinate with the MDNR to ensure that ground disturbance activities, such as pole placement, do not disrupt potential groundwater hydrology associated with the calcareous fens.

There are no lakes crossed by the Proposed Alignment and associated 100-foot-wide ROW. Waterbodies crossed by the Proposed Alignment and associated ROW, including the Gorman Creek Public Water, are spaced such that construction activities related to pole placement will avoid impacts to those water resources and work will occur outside of the Ordinary High Water Level. Dairyland may elect to install temporary bridges across waterways prior to construction along the ROW as described in **Section 6.1**. In addition, Dairyland will utilize erosion and sediment control BMPs (e.g., silt fencing) to mitigate the potential for sediment to reach any streams or ponds adjacent construction activities. The Project will not contribute to Gorman Creek's impaired listing for Aquatic Macroinvertebrate Bioassessments as no work will occur in the waterbody.

Temporary impacts to wetlands within the 100-foot-wide ROW will occur during construction of the transmission line. No wetland impacts will occur during construction of the Kellogg Substation. As discussed in **Section 3**, construction mats will be installed in wetlands to minimize compaction and impacts to vegetation. Staging or stringing setup areas will not be placed within or adjacent to water resources to the extent practicable. Wetlands will be restored to pre-construction conditions following completion of construction activities.

The majority of the wetlands crossed by the Proposed Alignment centerline are less than 300 feet long. Span distances between pole structures will vary between 300 and 1,000 feet, which would allow Dairyland to place most poles outside of the wetland footprints and avoid permanent fill. If, however, the final transmission line design cannot enable the Project to span discrete wetland segments, permanent impacts to wetlands will occur where a structure is located in the wetland.

Vegetation maintenance procedures under transmission lines prohibit trees from establishing. Existing trees will be removed throughout the entire ROW, including forested wetlands. The ROW will cross approximately 1,700 feet of forested wetlands; these forested wetlands will undergo permanent vegetative changes within the ROW. Dairyland has also developed a Vegetation Management Plan for this Project (**Appendix E**).

The National Hydrography Dataset (NHD) has mapped 2 waterbodies that intersect the Proposed Alignment on MnDOT ROW (see **Table 10-1** and **Appendix C2**). An excel attribute table is also included in **Appendix B1**.

**Table 10-1. NHD Waterbodies Crossed by the Project on MnDOT ROW**

Milepost	Name	Reach Code	Kittle Number	Flow Regime	Appendix C2
2.6	Unnamed	07040004002430	MAJ-070413040	Intermittent	Extent 1
3.2	Unnamed	07040004000473	M-034-017-003	Intermittent	Extent 1

Dairyland, in consultation with the USACE, St. Paul District, anticipates seeking coverage under the Utility Regional General Permit (RGP) once design of the Project is complete. Dairyland has been assigned a Regulatory File No. (MVP-2023-01630-RMH) and a USACE Project Manager for this Project.

### 10.1 Federal Agency Permits

The Project Alignment crosses USACE interests associated with the Rolling Prairie Property along County Road 84. Dairyland has coordinated with USACE to select a route that is compatible with the Rolling Prairie Property. The USACE will issue Dairyland an easement (Lease for Utility System Facilities on Federal Lands and Property) following Dairyland's completion of the necessary federal forms once a route is issued by the Commission. Issuance of this easement will not require a separate formal federal environmental review process.

Temporary impacts to wetlands that are hydrologically connected to the nation's navigable rivers are protected federally under Section 404 of the Clean Water Act. As described in Section 9 above, Dairyland, in consultation with the USACE, St. Paul District, anticipates seeking coverage under the Utility RGP for authorization to temporarily impact wetlands once design of the Project is complete.

## 11 FLOODPLAINS

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The Project corridor crosses through both shoreland (“Shoreland Overlay Zone”) and floodplain (“General Floodplain District”) overlay areas for 2.1 and 1.6 miles, respectively. The Kellogg Substation is located outside of shoreland and floodplain areas. The Project, including the planned substation, has been sited to avoid bluffs. Shoreland and floodplain areas are shown on **Figure 11-1**. The Zoning Ordinance recognizes utilities as an important service within the County, but does not specifically identify utility infrastructure, like transmission lines, as either a permitted or conditional use within any of its districts.

Minn. Stat. § 103F.121 requires each county to develop floodplain zoning ordinances in order to preserve the capacity of floodplains to carry and discharge floods and minimize flood hazards. Similarly, Minn. Stat. §§ 103F.201 *et seq.* requires municipalities to develop shoreland ordinances to preserve the economic and environmental values of shorelands and protect and enhance surface waters. Unlike floodplains and shorelands, bluffs do not have mandated state protection. They are, however, ubiquitous in the County and important for their scenic, historic, and ecological value. The County has therefore elected to enact special restrictions on development in these areas. The County’s floodplain and shoreland regulations are contained within the Wabasha County Zoning Ordinance.<sup>15</sup> Despite the presence of these zoning regulations, the Project will not need to obtain any special zoning permits to construct the Project, as such local permits are preempted under state law with issuance of a Route Permit (see Minn. Stat. s. 216E.10.1).

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<sup>15</sup> [https://cms9.revize.com/revize/wabasha/departments/planning\\_and\\_zoning/permit\\_applications\\_and\\_forms.php#outer-121sub-147](https://cms9.revize.com/revize/wabasha/departments/planning_and_zoning/permit_applications_and_forms.php#outer-121sub-147)

**12 CONSTRUCTION  
STORMWATER AND  
EROSION/SEDIMENT  
CONTROL**

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The Project will require authorization under the MPCA Construction Stormwater General Permit MNR100001. Approximately 15.4 acres of the Proposed Alignment intersects the MnDOT ROW.

The Project will not result in discharges to special waters nor will the Project contribute to Gorman Creek's impaired listing for Aquatic Macroinvertebrate Bioassessments as no work will occur in the waterbody (see **Section 10**). As discussed in Section 9.1, the Project does cross areas with steep slopes associated with the Mississippi River Bluffs. On MnDOT ROW, as presented in **Section 9.1** and on **Appendix C4**, the Proposed Alignment crosses areas with highly erodible soils.

As described in **Section 6.1**, installation of erosion and sediment control BMPs will be implemented prior to anticipated ground disturbance and in accordance with the MPCA Construction Stormwater General Permit. Erosion and sediment control equipment includes ATVs and trucks for crew transportation, as well as skid loaders, tractors, backhoes, hydro-seeders, and other light-duty equipment. BMPs will be inspected, maintained, repaired, and replaced in accordance with the MPCA Construction Stormwater General Permit.

### 13 ARCHAEOLOGICAL AND HISTORIC RESOURCES

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A cultural resource literature review of the Proposed Alignment and a 0.5-mile buffer on either side was conducted by Merjent, Inc. (Merjent). This literature review and Merjent's evaluation of the possible effects of the proposed Project on historic properties in the Project area was provided to the Minnesota State Historic Preservation Office (SHPO) in a letter dated February 6, 2024; SHPO response to this letter is pending. The following summarizes the results of the literature review.

On December 22, 2023, Merjent retrieved cultural resources site files (archaeological sites and historic structures) and on Tuesday January 16, 2024, retrieved previous survey files from the SHPO. Merjent Cultural Resource Specialists reviewed archaeological site files on the Office of the State Archeologist (OSA) online portal, as well as the General Land Office maps and available historical aerial photography accessed online through the OSA Portal.<sup>16</sup>

One previous past archaeological survey was identified in the area studied by Merjent. The survey overlaps the current Project at the eastern terminus and includes the area that is proposed for the Kellogg Substation. This survey identified and evaluated some sites and determined that they are not eligible for listing on the NRHP.

Based on OSA and SHPO files, no archaeological sites intersect the Project Alignment. There are seven archaeological sites within 0.5-mile of the Project. All of these sites range from 430 to 2,580 feet from any Project elements and will not be directly impacted due to distance.

- One site is located north of, but does not intersect, the Project Alignment. This site is characterized as a historic artifact scatter and includes some structural ruins. It has been recommended as Not Eligible for inclusion in the NRHP. According to the site form, this site has been heavily disturbed by plowing and the removal of buildings. The USACE recently purchased this property as part of the Rolling Prairie Area (see **Section 10.1**).
- Two sites are precontact lithic scatters that are located in close proximity to each other. Both have been determined Not Eligible for listing on the NRHP. Nearby is another site which is a precontact artifact scatter that is unevaluated for the NRHP.
- The remaining sites consist of two historic artifact scatters which have been determined Not Eligible for inclusion in the NRHP, and one burial mound which is unevaluated for the NRHP.

Fourteen historic buildings and structures are located within the Study Area, four of which intersect the Project Area.

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<sup>16</sup> <https://osa.gisdata.mn.gov/OSAportal>

- State Highway 42 has the most significant overlap with the Project Route, as the Project follows parallel to State Highway 42 for a large portion of the route. State Highway 42 was determined Not Eligible for listing on the NRHP in 2022.
- U.S. Highway 61 intersects perpendicularly with the Project. U.S. Highway 61 is a designated Scenic Byway. This property was determined Not Eligible for listing on the NRHP in 2018. Dairyland has met with the MRPC and MnDOT regarding this crossing (see **Section 2.4**) and has included photo simulations of the crossing as **Figures 2-5 through 2-7**.
- A previously-used portion of U.S. Highway 61 (Old Highway 61) intersects perpendicularly with the Project. It was constructed in 1927 and was later superseded when the present-day U.S. Highway 61 was constructed; it is currently designated 161<sup>st</sup> Avenue and is a paved, crowned-and-ditched road. There is an existing overhead distribution line along this road. This site has not been evaluated for listing on the NRHP. Due to collocation with the existing distribution line, this Project will not result in an appreciable change in viewshed.
- The St. Paul and Chicago Railway Company/Chicago Milwaukee and St. Paul Railway Company/Chicago Milwaukee St. Paul and Pacific Railroad Company River Division Railroad Corridor Historic District is a linear railroad-related property that extends from St. Paul to La Crescent, Minnesota. Various sections of this railroad were constructed between 1869 and 1876. This linear district is considered eligible for listing on the NRHP. It intersects perpendicularly with the Project. At the point of intersection, multiple overhead distribution lines are visible 0.2 mile or less from the railroad. Due to extant lines near this property, the Project will not result in an appreciable change in viewshed. It is also actively used by the Canadian Pacific Railroad.

The remaining historic buildings and structures include nine farmsteads, one bridge, and one culvert and do not intersect Project components. Some buildings have since been removed for the Upper Mississippi River Pool 5 Dredged Material Management Plan Rolling Prairie Site.

Dairyland requested feedback on the Project from the 11 federally recognized Tribes with geography within Minnesota and the Minnesota Indian Affairs Council in its Project notification letters sent in December 2023. To date, no Tribe has conveyed concerns regarding the Project. A copy of the literature review was requested and provided to the Tribal Historic Preservation Officer of the Shakopee Mdewakanton Sioux Community on February 7, 2024.

Seven archaeological sites and fourteen historic buildings and structures were identified during the literature review. There is potential for Historic-era sites within the Project area because the area has been inhabited at least since the 1930s; however, given that the Project is an overhead transmission line project proposed mostly within already disturbed ROWs, there is a low potential for intact historic sites. The Project area could contain pre-contact sites given its location among several water sources. Given that the Project is located in an area with several existing overhead distribution and transmission lines and will be constructed along and within areas of previous disturbance such as existing ROWs, Dairyland is not presently planning to conduct archaeological



surveys ahead of construction. Dairyland will continue to communicate with SHPO regarding the Project.

Dairyland has developed an Unanticipated Discoveries Plan (UDP) that outlines the procedures to follow, in accordance with state and federal laws, should archaeological materials or human remains be discovered during construction of the Project. If any such discovery occurs, construction work will be stopped and the UDP will be consulted as to how to proceed. If human remains are encountered during construction activities, all ground disturbing activity will cease, and local law enforcement will be notified per Minn. Stat. § 307.08.

## 14 PROTECTED SPECIES PROGRAM REVIEW

Dairyland’s consultant, Merjent, submitted a formal Minnesota Natural Heritage Review Request (2023-00935) on December 13, 2023, through the MDNR’s Minnesota Conservation Explorer (MCE), and provided an updated route on December 14, 2023. The MDNR’s December 18, 2023 early coordination letter (**Appendix D**) confirmed this submittal and noted that a manual Natural Heritage review was required by the MDNR due to the presence of rare features and state-listed species within the vicinity of the Project area, and that Natural Heritage Review staff would contact Dairyland when the final Natural Heritage Review letter is complete and provide all recommendations and requirements for state-listed species. MDNR’s Natural Heritage Review response is still pending as of the date of this submittal.

In addition, Dairyland reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website<sup>17</sup> to obtain a list of federally threatened and endangered species, candidate species, and designated critical habitat that have been previously documented within the vicinity of the Proposed Route (**Appendix D**).

### 14.1 State-Listed Species

In addition to the MCE request, above, Merjent, consulted the MDNR Natural Heritage Inventory System (NHIS) data through License Agreement LA 1066 on December 14, 2023. MDNR recommends that Project proposers evaluate NHIS records for state-listed species within one mile of Project impacts. Species within one mile of the Project Alignment that are listed as special concern, threatened, or endangered are provided in **Table 14-1**. Species and suitable habitat descriptions for the listed threatened or endangered species are provided below, as well as a conclusion whether there is suitable habitat present within the Proposed Route. Species of special concern are considered state-listed but are not legally protected.

**Table 14-1. State-Listed Species within One Mile of the Project Alignment**

Common Name	Scientific Name	State Status
A Jumping Spider	<i>Pelegrina arizonensis</i>	Special Concern
A Jumping Spider	<i>Phidippus apacheanus</i>	Special Concern
A Jumping Spider	<i>Habronattus viridipes</i>	Special Concern
A Jumping Spider	<i>Sassacus papenhoei</i>	Special Concern
American Eel	<i>Anguilla rostrata</i>	Special Concern
Bell's Vireo	<i>Vireo bellii</i>	Special Concern
Black Sandshell (mussel)	<i>Ligumia recta</i>	Special Concern
Blue Sucker	<i>Cycleptus elongatus</i>	Special Concern
Cattail Sedge	<i>Carex typhina</i>	Special Concern
Creeping Juniper	<i>Juniperus horizontalis</i>	Special Concern
Goat's Rue	<i>Tephrosia virginiana</i>	Special Concern

<sup>17</sup> Information for Planning and Conservation (IPaC) Website. Available online at: <https://ecos.fws.gov/ipac/>. Accessed December 2023.

Common Name	Scientific Name	State Status
Gophersnake	<i>Pituophis catenifer</i>	Special Concern
Gray's Sedge	<i>Carex grayi</i>	Special Concern
Green Dragon	<i>Arisaema dracontium</i>	Special Concern
Kentucky Coffee Tree	<i>Gymnocladus dioica</i>	Special Concern
Lake Sturgeon	<i>Acipenser fulvescens</i>	Special Concern
Lark Sparrow	<i>Chondestes grammacus</i>	Special Concern
Leonard's Skipper	<i>Hesperia leonardus</i>	Special Concern
Mississippi Silvery Minnow	<i>Hybognathus nuchalis</i>	Special Concern
Muskingum Sedge	<i>Carex muskingumensis</i>	Special Concern
North American Racer	<i>Coluber constrictor</i>	Special Concern
Old Field Toadflax	<i>Nuttallanthus canadensis</i>	Special Concern
Plains Hog-nosed Snake	<i>Heterodon nasicus</i>	Special Concern
Plains Wild Indigo	<i>Baptisia bracteata var. glabrescens</i>	Special Concern
Red-shouldered Hawk	<i>Buteo lineatus</i>	Special Concern
Regal Fritillary	<i>Argynnis idalia</i>	Special Concern
Rhombic Evening Primrose	<i>Oenothera rhombipetala</i>	Special Concern
Round Pigtoe (mussel)	<i>Pleurobema sintoxia</i>	Special Concern
Swamp White Oak	<i>Quercus bicolor</i>	Special Concern
Yellow Pimpernel	<i>Taenidia integerrima</i>	Special Concern
Yellow-fruit Sedge	<i>Carex annectens</i>	Special Concern
Beach Heather	<i>Hudsonia tomentosa</i>	Threatened
Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened
Butterfly (mussel)	<i>Ellipsaria lineolate</i>	Threatened
Clasping Milkweed	<i>Asclepias amplexicaulis</i>	Threatened
Davis' Sedge	<i>Carex davisii</i>	Threatened
Fawnsfoot (mussel)	<i>Truncilla donaciformis</i>	Threatened
Monkeyface (mussel)	<i>Theliderma metanevra</i>	Threatened
Mucket (mussel)	<i>Actinonaias ligamentina</i>	Threatened
Spike (mussel)	<i>Eurynia dilatate</i>	Threatened
Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened
Wood Turtle	<i>Glyptemys insculpta</i>	Threatened
Crystal Darter	<i>Crystallaria asprella</i>	Endangered
Ebonyshell (mussel)	<i>Reginaia ebenus</i>	Endangered
Pallid Shiner	<i>Hybopsis ammis</i>	Endangered
Pistolgrip (mussel)	<i>Tritogonia verrucosa</i>	Endangered

Suitable habitat for the following state-listed threatened and endangered species is not present within the Proposed Route; therefore, impacts are not anticipated and no mitigation measures are needed:

- Beach Heather;

- Butterfly mussel;
- Clasping Milkweed;
- Davis' Sedge;
- Fawnsfoot mussel;
- Monkeyface mussel;
- Mucket mussel;
- Spike mussel;
- Crystal Darter;
- Ebonyshell mussel;
- Pallid Shiner; and
- Pistolgrip mussel.

Suitable habitat for the following state-listed threatened and endangered species is present within the Proposed Route:

- Suitable habitat for the Blanding's turtle;
- Suitable feeding grounds for the timber rattlesnake; and
- Suitable basking and foraging habitat for the wood turtle.

MDNR's Natural Heritage Review response is still pending as of the date of this submittal. Dairyland anticipates that the MDNR's MCE letter will provide requirements and recommendations to avoid and minimize impacts to these species. Once a final route has been selected, Dairyland will work with the MDNR to implement avoidance and conservation measures necessary to minimize impacts to these species.

## 14.2 Federally Listed Species

Based on the official species list provided by the USFWS (**Appendix D**), five species federally listed under Endangered Species Act, one species proposed for listing, and one candidate species has been previously documented within the vicinity of the Proposed Route (**Table 14-2**). Species and suitable habitat descriptions for the species in **Table 14-2** are provided below, as well as a conclusion whether there is suitable habitat present within the Proposed Route. No federally designated critical habitat is present within the Proposed Route.

**Table 14-2. Federally Protected Species within the Proposed Route**

Common Name	Scientific Name	Federal Status
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered
Rusty Patched Bumble Bee	<i>Bombus affinis</i>	Endangered
Higgins Eye Pearlymussel	<i>Lampsilis higginsii</i>	Endangered
Sheepnose Mussel	<i>Plethobasus cyphus</i>	Endangered
Spectaclecase (mussel)	<i>Cumberlandia monodonta</i>	Endangered
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered
Monarch butterfly	<i>Danaus plexippus</i>	Candidate

Suitable habitat for the following federally endangered mussel species is not present within the Proposed Route; therefore, impacts are not anticipated, and mitigation is not needed:

- Higgin’s Eye (Pearlymussel);
- Sheepnose mussel; and
- Spectaclecase mussel.

Suitable habitat for the following federally listed, candidate, and species proposed for listing is present within the Proposed Route.

### **Northern Long-eared Bat**

Based on the USFWS Determination Key (DKey) for the northern long-eared bat, in areas with a federal nexus, the Project “may affect, but is not likely to adversely affect” the species. With that determination of effect, a “Consistency Letter” (**Appendix D**) was generated. For areas that do not have a federal nexus, the Project is unlikely to result in “unauthorized take” of northern long-eared bats. Dairyland will commit to the minimization and avoidance measures outlined in the DKey; therefore, no impacts are anticipated.

### **Rusty Patched Bumble Bee**

A portion of the Proposed Route between MPs 12.0 and 13.3, including the Kellogg Substation is within a high potential zone for rusty-patched bumble bees; however, based on a desktop assessment, the majority of the Proposed Route within this segment is in agricultural production, which does not provide suitable habitat for the rusty patched bumblebee. The Proposed Route does cross a non-agricultural area within the high potential zone between MPs 12.8 and 12.9. This area corresponds with the McCarthy Lake MBS site discussed in **Section 9.2** . , Dairyland will avoid placing structures in the MBS site by spanning this area; however, the forested components within the ROW will be permanently converted to herbaceous vegetation. Further, temporary impacts will occur during construction including clearing activities, installation of construction mats, and equipment travel down the ROW. Dairyland has committed to a number of BMPs as outlined in the Vegetation Management Plan (**Appendix E**). Therefore, impacts to the rusty patched bumble bee are not anticipated.

### **Tricolored Bat**

Potential impacts to individual tricolored bats may occur if clearing or construction takes place when the species is roosting in its summer habitat, in trees outside of hibernacula. Bats may be injured or killed if occupied trees are cleared during this active window. Tree clearing activities conducted when the species is in hibernation and not present on the landscape will not result in direct impacts to individual bats but could result in indirect impacts due to removal of suitable roosting habitat.<sup>18</sup>

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<sup>18</sup> USFWS. Species Status Assessment Report for the Tricolored Bat (*Perimyotis subflavus*). Available online at: <https://ecos.fws.gov/ServCat/DownloadFile/221212>.

### **Monarch Butterfly**

If the USFWS determines the Monarch Butterfly should be listed and protections for the species coincide with Project planning, permitting, and/or construction, Dairyland will review Project activities for potential impacts to the species and develop appropriate avoidance and mitigation measures.

Constructing within and/or adjacent to an existing utility ROW minimizes impacts to suitable habitat for the Monarch Butterfly.

### **Bald Eagle**

If bald eagle nests are identified within 660 feet of construction activities, during the eagle's active season, the Applicant will coordinate with the USFWS and MDNR regarding potential impacts and to obtain the necessary permits.

Dairyland will continue to coordinate with the MDNR and USFWS to avoid and minimize Project impacts on sensitive species.

The following general measures will be used to help avoid or minimize impacts to rare and unique natural resources during and after the completion of the proposed transmission line:

- BMPs will be used to prevent erosion of the soils in the areas of impact.
- Sound water and soil conservation practices will be implemented during construction and operation of the Project to protect topsoil and adjacent water resources and minimize soil erosion. Practices may include containing excavated material, protecting exposed soil, and stabilizing restored soil.
- Disturbed areas will be re-vegetated with native species and wildlife conservation species, where applicable if the landowner agrees.
- Raptor protection measures will be implemented, including following APLIC Avian Safe Design recommendations and placement of bird flight diverters on the line after consultation with the MDNR and/or USFWS.

### **14.3 Tree Clearing**

The Applicant estimates that approximately 0.75 acre of tree removal may be required along the Proposed Alignment where collocated and/or where it intersects MnDOT trunk highways. As described above, Dairyland utilized the USFWS IPaC system for the northern long-eared bat DKey and to generate a species list (refer to **Appendix D**). Dairyland has also completed the MDNR NHIS review via the MCE (refer to **Appendix D**). Dairyland will continue to consult with both agencies as the Project gets closer to tree clearing and construction activities.



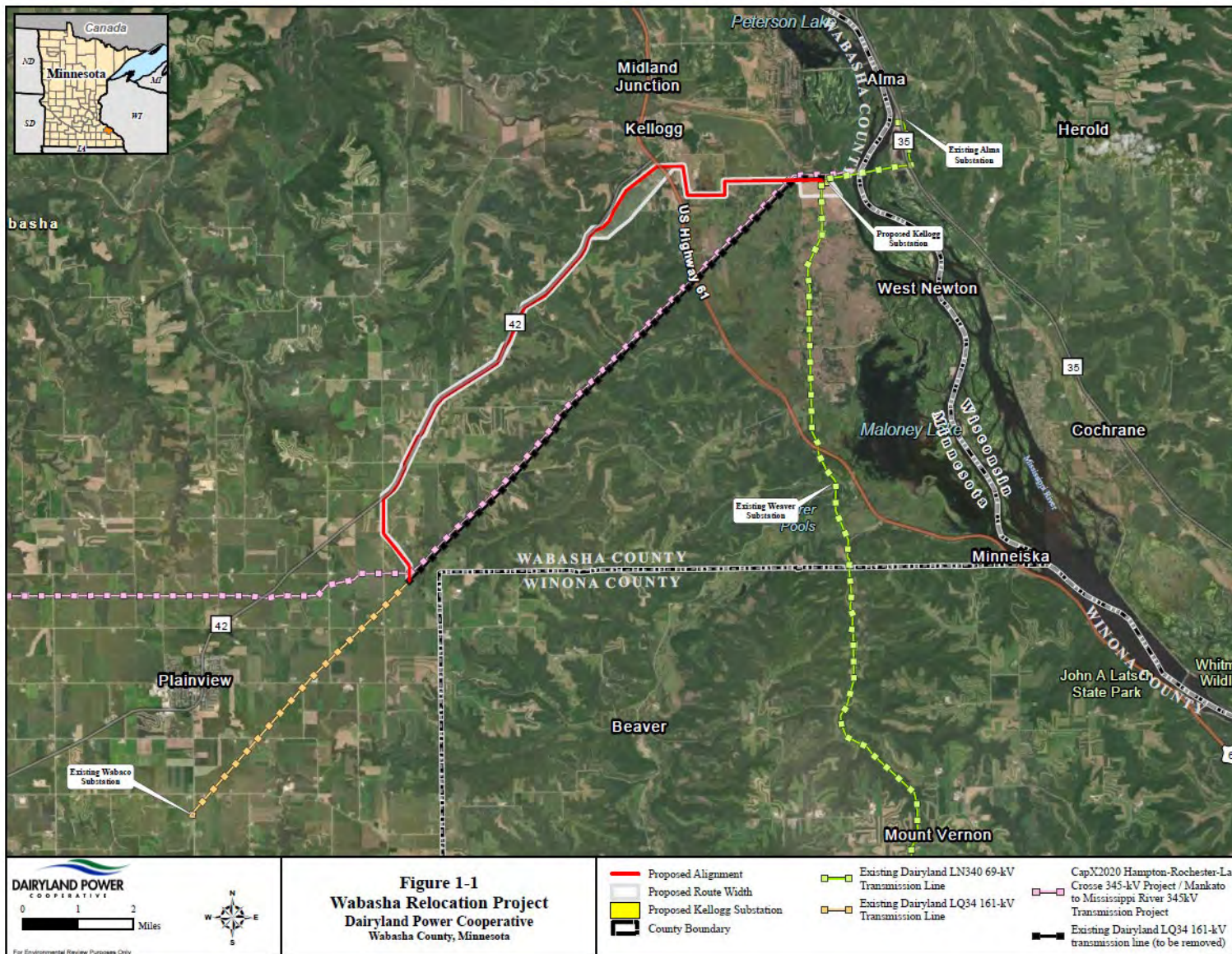
**15 GLOSSARY OF TERMS**

<b>Term</b>	<b>Definition</b>
ATV	all-terrain vehicle
BMPs	best management practices
Commission	Minnesota Public Utilities Commission
Dairyland, or the Applicant	Dairyland Power Cooperative
Dkey	USFWS Determination Key
EJ	Environment Justice
EJScreen	Environmental Justice Screening Tool
ENM	Early Notification Memo
HVTL	high voltage transmission line
IPaC	Information for Planning and Consultation
kV	kilovolt
MASW	Multichannel Analysis of Surface Waves
MBS	Minnesota Biological Survey
MCE	Minnesota Conservation Explorer
MDNR	Minnesota Department of Natural Resources
Merjent	Merjent, Inc.
Minn. Stat.	Minnesota Statutes
MnDOT	Minnesota Department of Transportation
MP	milepost
MPCA	Minnesota Pollution Control Agency
MRPC	Minnesota Mississippi River Parkway Commission
NEPA	National Environmental Policy Act
NHIS	Natural Heritage Inventory System
NRHP	National Register of Historic Places
OSA	Office of the State Archeologist
Project	Wabasha Relocation Project
Promising Practices	Promising Practices for EJ Methodologies in NEPA Reviews
RGP	Regional General Permit
RNC	Rare and Natural Community
ROW	right-of-way
SHPO	State Historic Preservation Office
SNA	Scientific and Natural Area
TCSB	temporary clear span bridge
UDP	Unanticipated Discoveries Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WMA	Wildlife Management Area

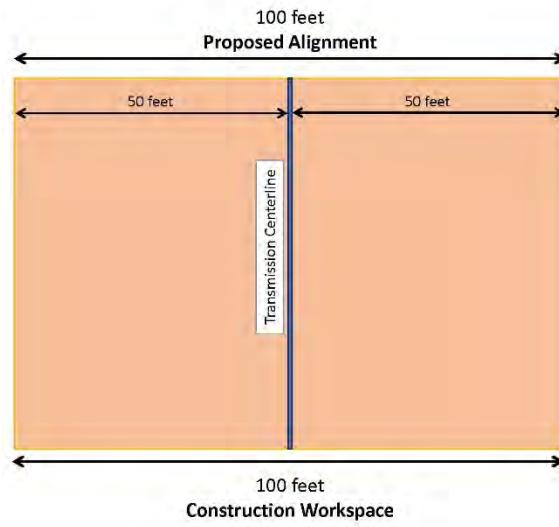
**16 FIGURES AND  
DIAGRAMS**

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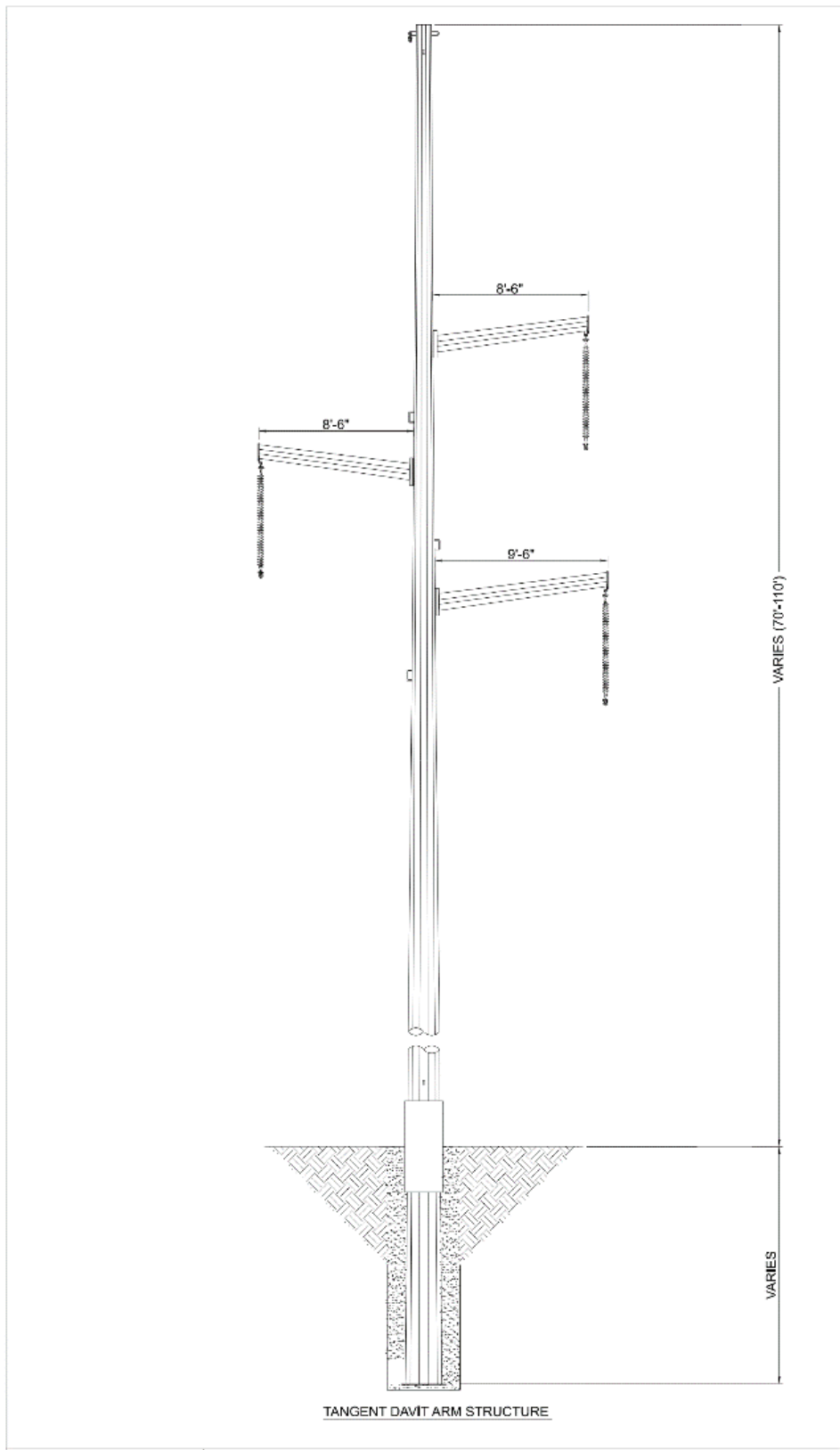
Figure 2-1. Wabasha Relocation Project



**Figure 2-2. Typical Proposed Alignment Right-of-Way**



**Figure 2-3. Typical 161-kV Transmission Structure Design**



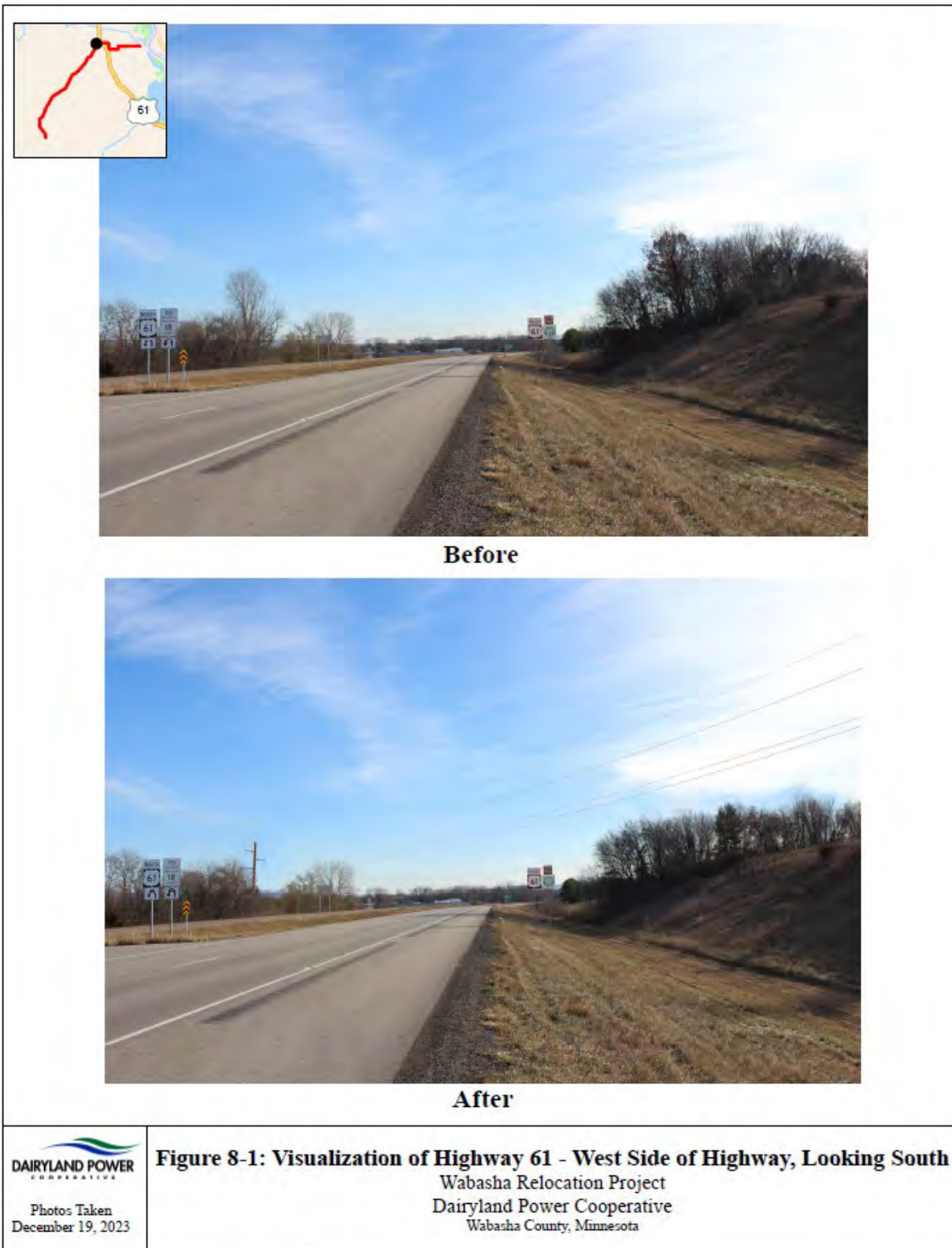


**Figure 2-4. Photo of Typical 161-kV Transmission Structure**





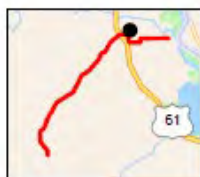
**Figure 2-5. Visualization of Highway 61 – West Side of Highway, Looking South**



**Figure 2-6. Visualization of Highway 61 – West Side of Highway, Looking Southwest**



**Figure 2-7. Visualization of Highway 61 – East Side of Highway, Looking North**



**Before**



**After**



Photos Taken  
December 19, 2023

**Figure 8-3: Visualization of Highway 61 - East Side of Highway, Looking North**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota



**Diagram 3-1. Transmission Line Construction Sequence**

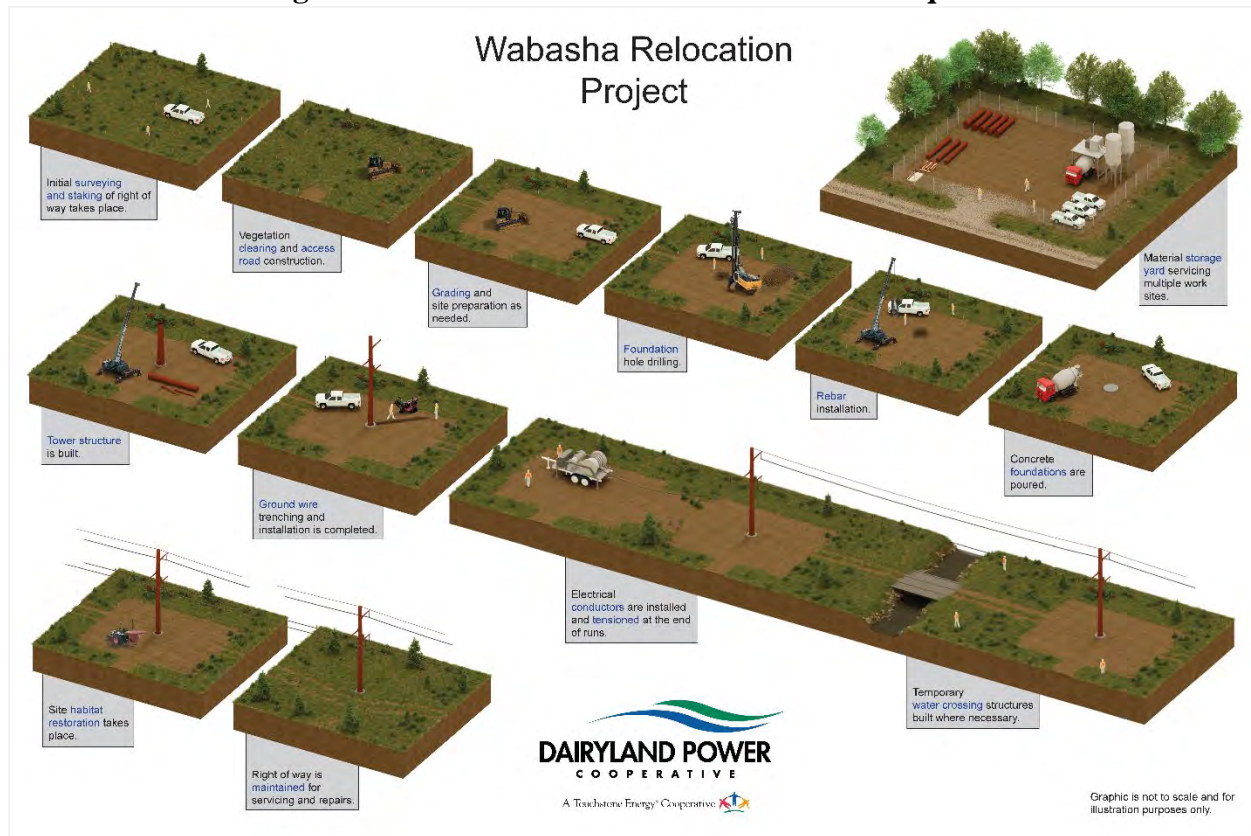


Figure 5-1. Recreational Resources

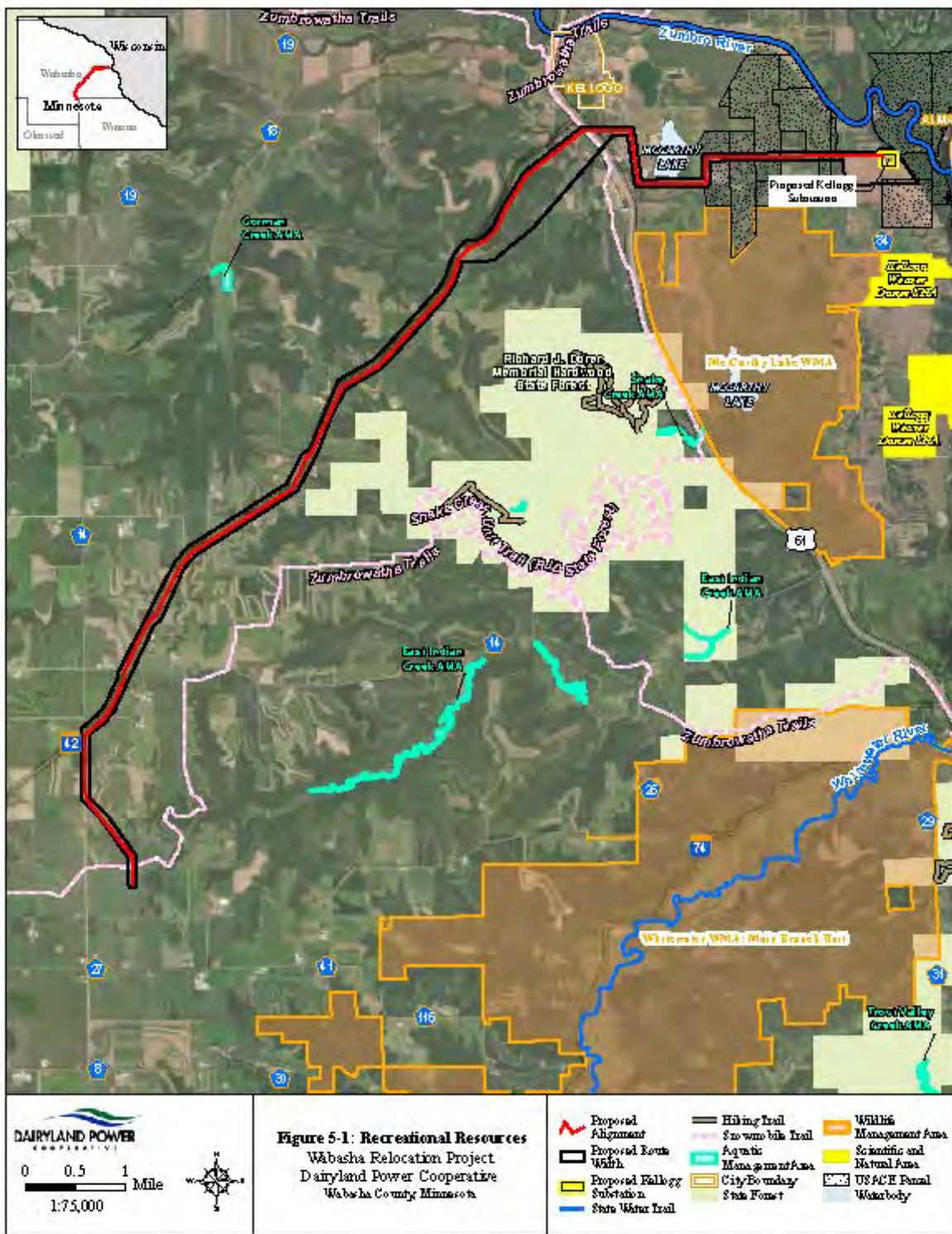
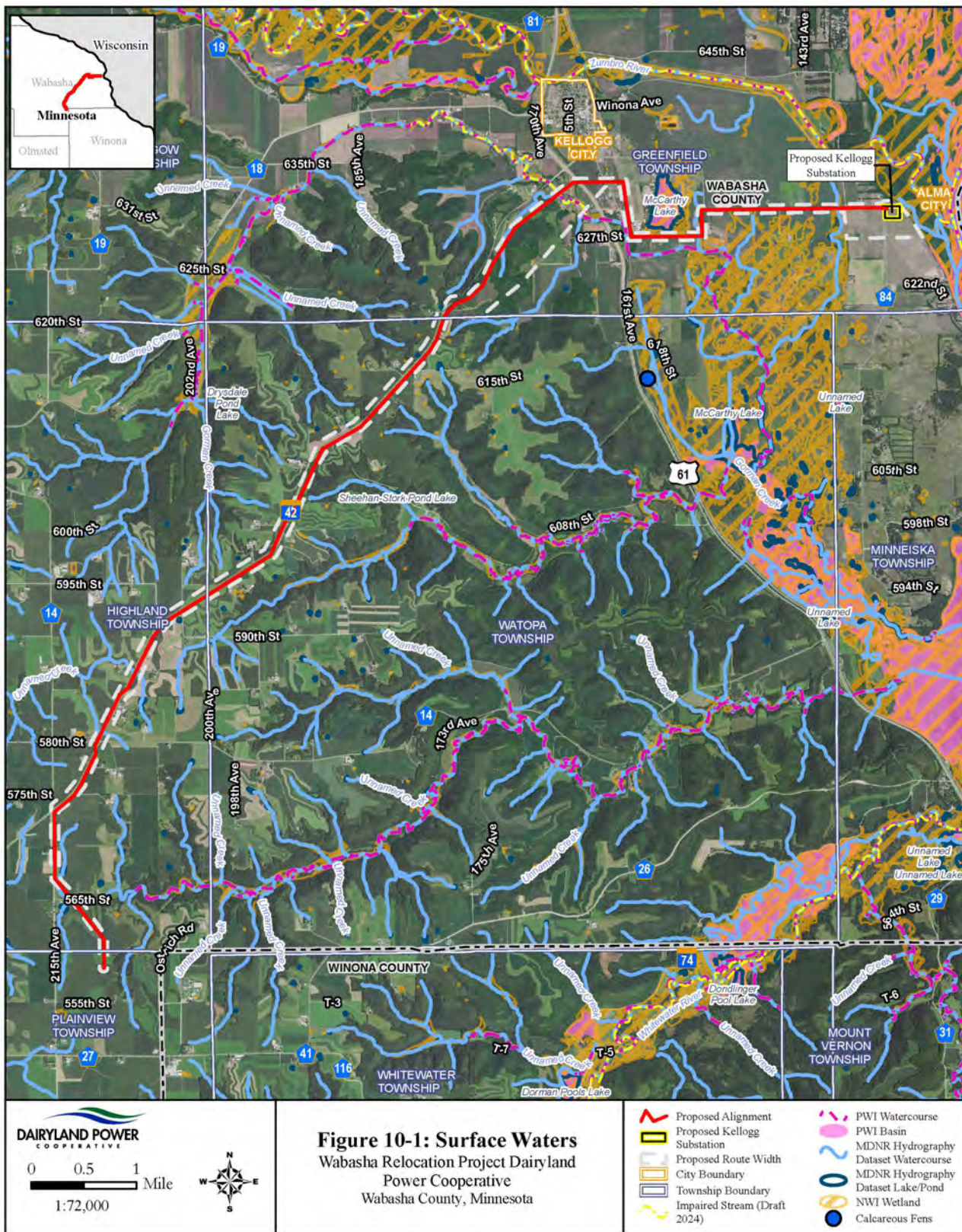






Figure 10-1. Surface Waters













**17 APPENDICES**



**Appendix A      Early Notification Memo Applicant Checklist**

## Utility ENM – Supplemental Information Checklist

<b>Applicant(s):</b>	<b>Dairyland Power Cooperative</b>
<b>Type of Project:</b>	<b><u>High Voltage Transmission Line</u></b>
<b>Number of Miles (total project):</b>	<b>13.3 miles</b>
<b>Number of Miles (collocated with MnDOT ROW):</b>	<b>8.1 miles</b>
<b>MnDOT Trunk Highways Potentially Impacted</b>	<b>TH 42, US 61</b>

**\*\*NOTE to Project Proposers: Please provide the following supplemental information, which is required for MnDOT staff to initiate review of utility projects.\*\***

### GIS Details

- Shapefiles and .kml/.kmz's displaying the following Project features (include associated metadata and date of last project/route revision):
  - Project Centerline<sup>1</sup>
  - Alternative Route(s)<sup>1</sup>
  - Route/Corridor Width (Construction), if known<sup>2</sup>
  - Study Area, if applicable<sup>2</sup>
  - Additional non-corridor Project details (e.g., substations, compressor stations, valves, staging areas, pipeyards, proposed and/or existing access roads, etc. (if known at time of submittal))
- Overview map (.pdf format) displaying Project centerline and alternatives (if applicable) with MnDOT Trunk Highways and major features identified. Display full project on one page. Locations of MnDOT Trunk Highways can be accessed [here](#).
  - Identify locations of detailed maps (see below) on the overview map, and label sequentially for easy identification (e.g., 1, 2, 3 / A, B, C, etc.)
  - Base layers to include:
    - Cities
    - Counties
    - MnDOT Trunk Highways
    - [Scenic Byways](#) (within 7-mile buffer)<sup>3</sup>
    - Major rivers and waterbodies
    - National and state-owned or managed lands

<sup>1</sup> Include as a polyline.

<sup>2</sup> Includes as polygon. May be a buffered corridor based off of the project centerline.

<sup>3</sup> Note that not all scenic byways are MnDOT Trunk Highways. Some are county highways.

- Detailed (zoomed in maps, aerial background, .pdf format) displaying Project details with MnDOT's Trunk Highways identified. Provide a separate map for each Trunk Highway crossing location /collocated segment. Display proposed and existing access locations on state Trunk Highways, if applicable. Indicate if proposed access locations are intended to be permanent or temporary.

*NOTE: Detailed maps are only needed for portions of Project that intersect and/or are collocated with MnDOT Trunk Highways. Map extents should show a minimum of 0.5 mile surrounding the MnDOT Trunk Highway.*

Please provide a separate map for each detailed map area for each of the following six major topics:

- Public Land Ownership (federal/state/county/tribal)
- Protected Biological Resources
- Designated Critical Habitat
  - Rusty Patch Bumble Bee High Potential Zones
  - Minnesota Department of Natural Resources Native Plant Communities
  - Minnesota Biological Survey (MBS) Railroad Rights-of-Way Prairies
  - MBS Sites of Biodiversity Significance
- Water Resources and Hydrology
- National Wetland Inventory (or field-delineated) wetlands
  - National Hydrography Dataset (NHD) waterbodies
  - Floodplains
  - Drinking Water Supply Management Areas
  - Minnesota Pollution Control Agency (MPCA)-designated [special waters and impaired waters](#) (with a construction related impairment, e.g., turbidity)
- Potential Contaminated Sites: What's In My Neighborhood (WIMN) sites within 500-feet of MnDOT Trunk Highway at crossings or collocated areas.
- MPCA WIMN sites: Multiple Programs, Investigation and Cleanup, and Tanks.
  - Minnesota Department of Agriculture WIMN sites: Small Spills and Investigations, Old Emergencies, Contingency Areas, and Incident Investigations.
- SSURGO Soils Data (display all soils on map; highlight the following)
- Highly erodible soils (water/wind)
  - Steep slopes (water/wind)
- Scenic Byways
- Corresponding data tables for desktop GIS data.
- Summary table(s) (Excel format) of publicly available GIS data displayed on the detailed maps (see above). Include easy-to-interpret geographic data (e.g., label IDs, latitudinal/longitudinal coordinates [DD]) and metadata for each feature so MnDOT staff can easily cross-reference to the feature on the map.
  - Reference list of sources of desktop GIS data displayed on maps. Include URL and date of last download.

### **Non-GIS Information**

- Temporary workspace and permanent easement typical drawings (greenfield and collocated segments, as applicable). Include typical workspace configurations for road crossings, as applicable.
- Known occurrences of state- or county-listed noxious weeds (see [EDDMapS](#)) in the vicinity of the project. A current state list is available [here](#) and county lists are [here](#). We recommend consulting with the counties directly to verify their list is current.
- Narrative summary of environmental field surveys done to date. Provide an anticipated schedule for completion, if applicable.
  - Cultural Resources
  - Tribal Resources
  - Wetlands and Waterbodies
  - Protected Species / Habitat Assessments
  - Contaminated Materials (Phase I Environmental Site Assessments/Phase II)
  - Noxious/Invasive Weeds
  - Other (specify:)
- Summary of agency consultations/communications/public engagement done to date. If none, provide an anticipated schedule.
- Is permanent infrastructure expected to be installed within MnDOT's ROW? If so, provide details.
- Is travel across/along MnDOT's ROW anticipated? If so, provide details and anticipated Best Management Practices to be used (e.g., timber matting, erosion/sediment controls, etc.). Describe if any proposed access locations will be permanent or temporary.
- Project Schedule/Major Milestones (Minnesota Public Utilities Commission filing, construction/restoration, in-service date, etc.)
- Vegetation Management Plans
  - Provide existing vegetation management plans, or anticipated vegetation management strategies associated with the long-term maintenance of the corridor. Plans should describe methods, seasonality, frequency of maintenance activities (e.g., annual growing season broadcast herbicide treatments, brushing every five years during dormant season).

### **Other**

- Powerlines:* Utility pole typical drawings (if collocated, include drawings of proposed poles in relation to existing)
  - Typical pole spacing lengths, typical pole type (e.g., H-frame, T-frame, etc.) and material
  - Typical pole footprint and depth
- Pipelines:*
  - Plan and profile typical drawings of workspace configurations showing depth of cover, width of workspaces, topsoil stripping, etc.
  - Pipe diameter and material

**Appendix B      GIS Shapefiles, Tables, and Reference List**

- Appendix B1 – Shapefiles and excel attribute tables have been provided under separate cover

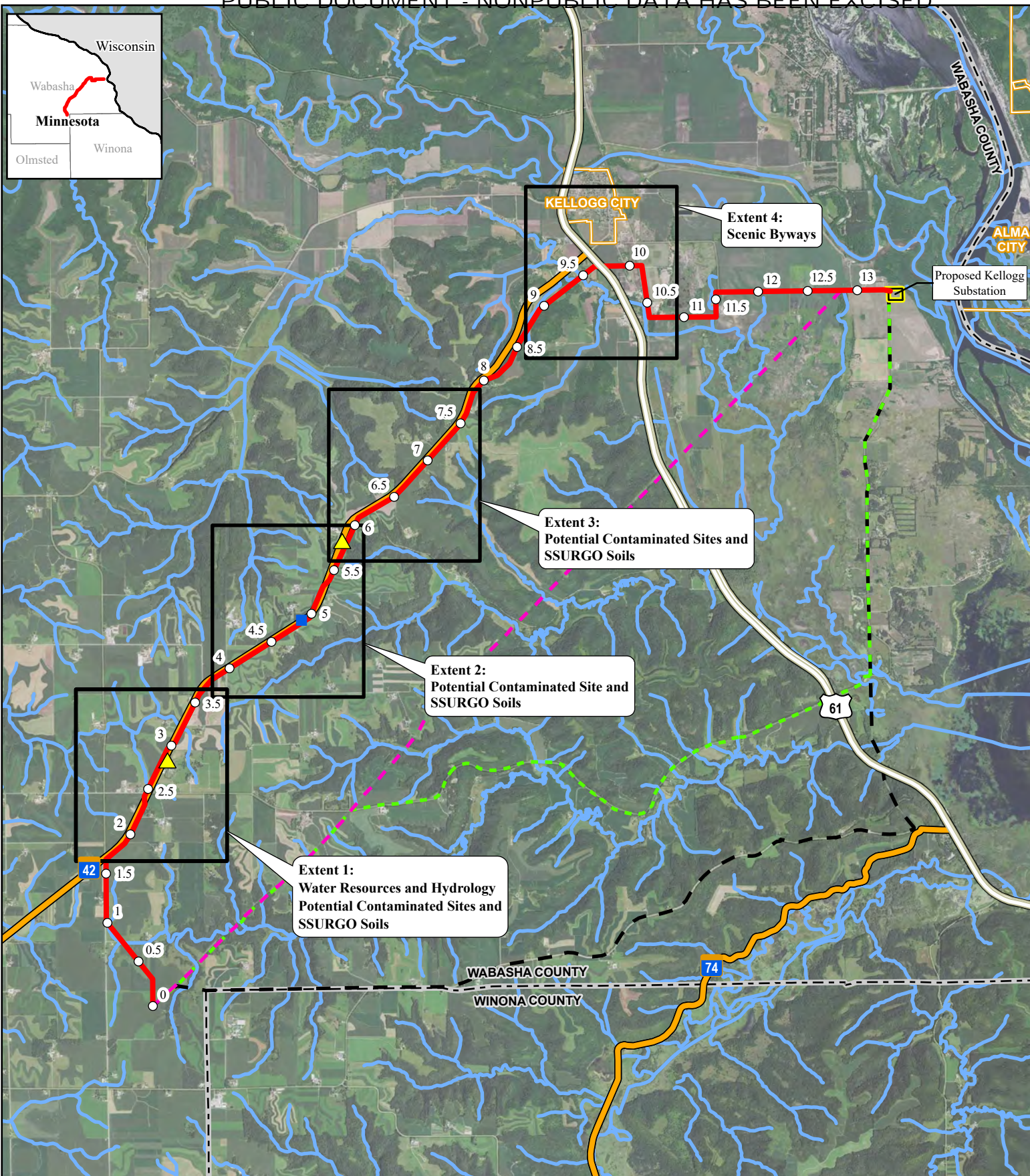
## Appendix B2- GIS Reference List

The following data were used in developing the Detailed Maps:

- USGS NHD Hydrographic Dataset: Accessed February 2024;  
<https://apps.nationalmap.gov/downloader/#/>
- MPCA What's in my Neighborhood Sites: Accessed February 2024;  
<https://gisdata.mn.gov/dataset/env-my-neighborhood>
- MDOT Scenic Byways: Accessed February 2024; <https://gisdata.mn.gov/dataset/trans-routes-tour>
- NRCS SSURGO Data: Access February 2024;  
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
  - Highly Erodible Land (HEL) is defined in 7 CFR 12.2(a) “Highly erodible land” ([https://www.ecfr.gov/current/title-7/part-12#p-12.2\(a\)\(Highly%20erodible%20land\)](https://www.ecfr.gov/current/title-7/part-12#p-12.2(a)(Highly%20erodible%20land))) and was assessed based on a published list of HEL soil map units for Wabasha County: [https://efotg.sc.egov.usda.gov/references/public/MN/HEL\\_wabasha.pdf](https://efotg.sc.egov.usda.gov/references/public/MN/HEL_wabasha.pdf). For additional information on NRCS HEL determinations, refer to <https://www.nrcs.usda.gov/resources/guides-and-instructions/highly-erodible-land-determinations>



**Appendix C      Overview and Detailed Maps**



**DAIRYLAND POWER COOPERATIVE**

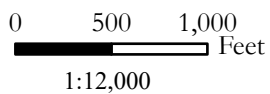
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**Overview Map**  
**Wabasha Relocation Project**  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota

- Milepost
- Proposed Alignment
- CapX Collocation Route Alternative
- County Road 14 Alternative
- County Road 41/26 Route Alternative
- Proposed Kellogg Substation
- City Boundary
- County Boundary
- Detailed Map Page
- NHD Flowline
- MDOT Trunk Highway
- Scenic Byway
- ▲ MPCA WIMN Feedlot
- Hazardous Waste





### Detailed Map - Water Resources and Hydrology

Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Extent 1

- Milepost
- ▭ Proposed Right-of-Way
- ▨ TH 42 ROW
- ~ NHD Flowline (Intermittent)





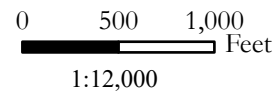
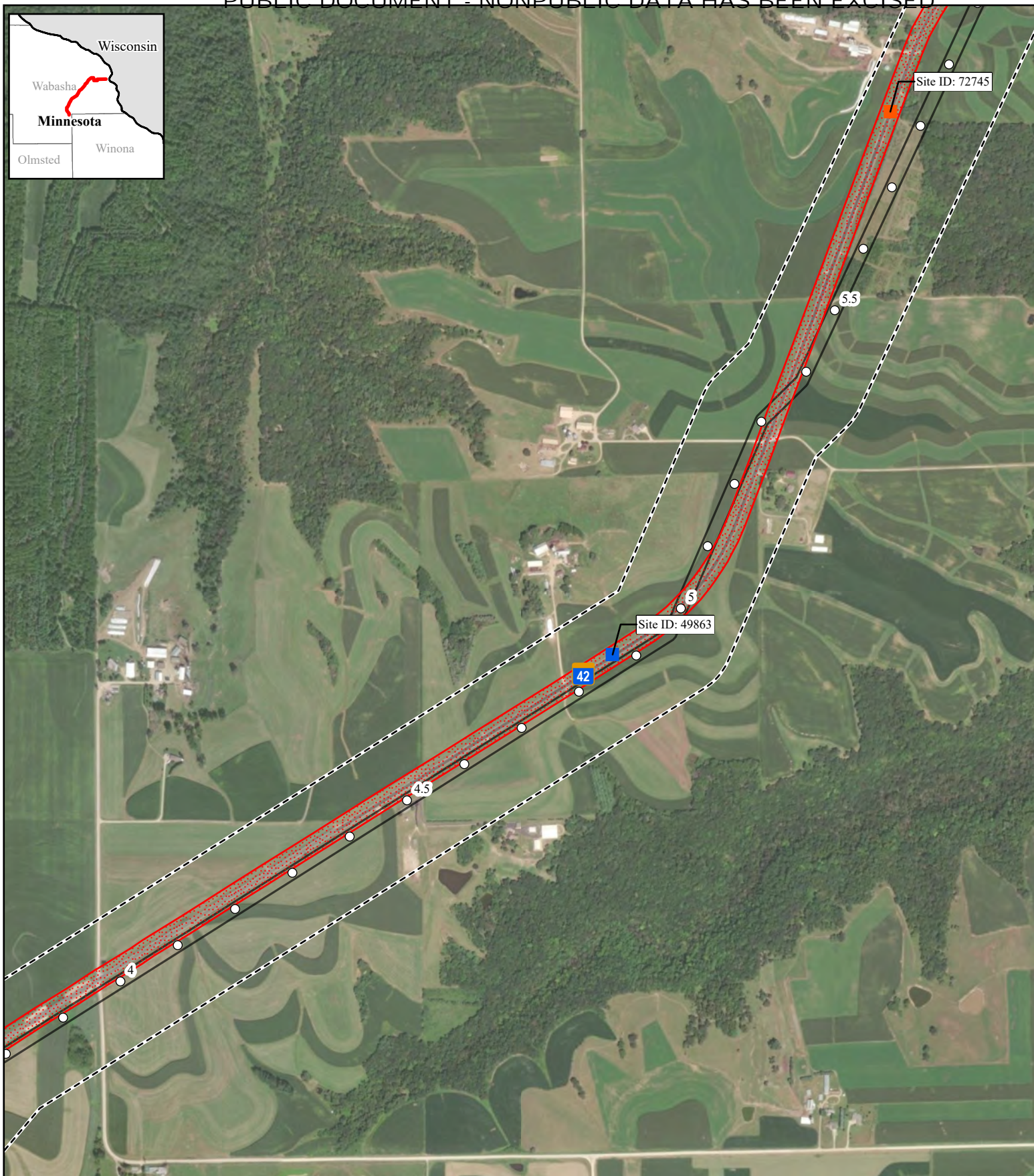
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1:12,000

**Detailed Map - Potential Contaminated Sites**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Extent 1

- Milepost
- ▭ Proposed Right-of-Way
- - - 500ft Proposed Alignment Buffer
- ▨ TH 42 ROW
- Potential Contaminated Site**
- Feedlots
- Hazardous Waste

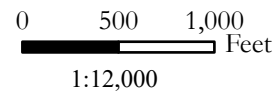
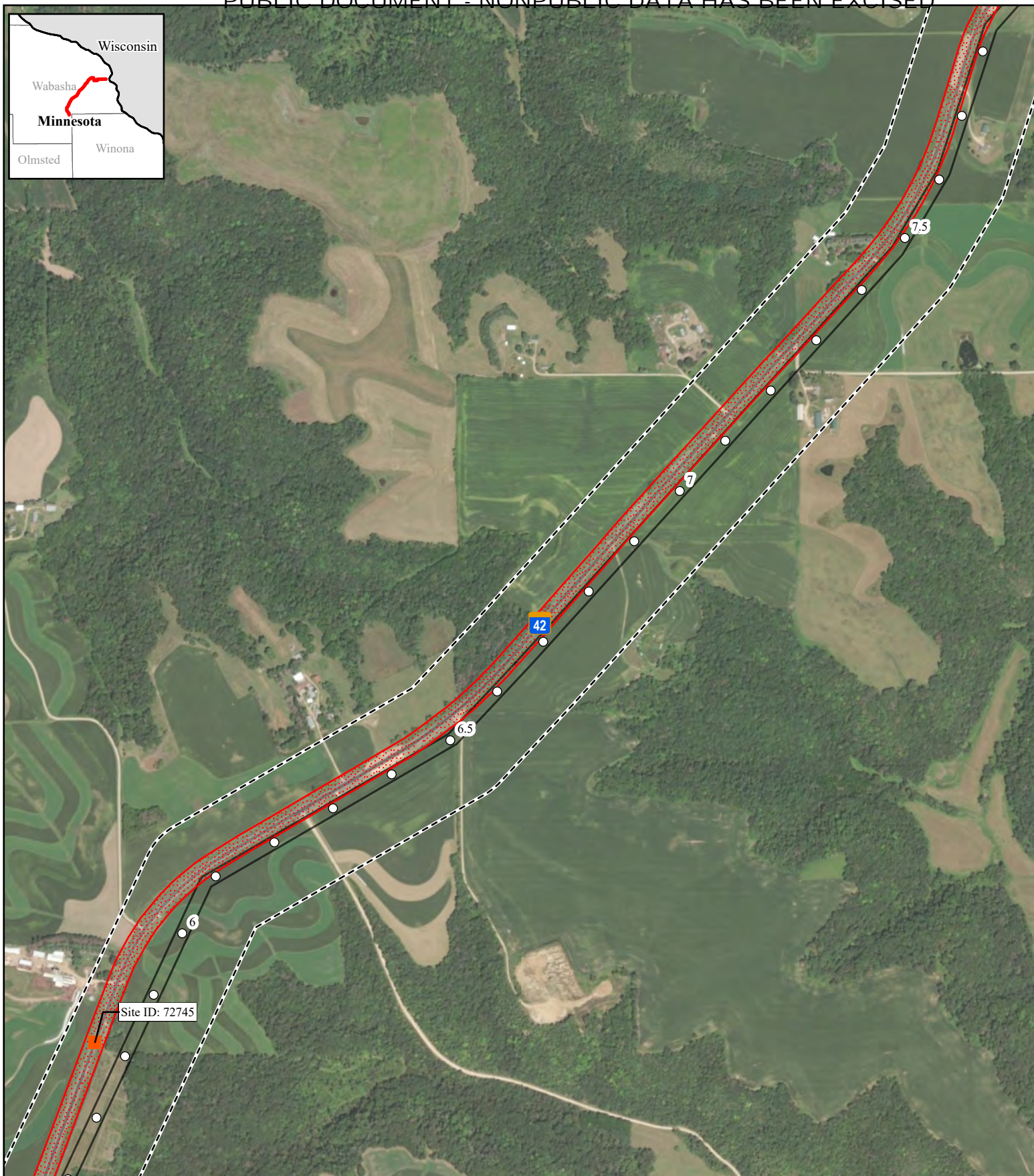




**Detailed Map - Potential Contaminated Sites**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Extent 2

- Milepost
- ▭ Proposed Right-of-Way
- - - 500ft Proposed Alignment Buffer
- ▨ TH 42 ROW
- Potential Contaminated Site**
- Feedlots
- Hazardous Waste

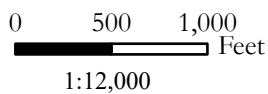
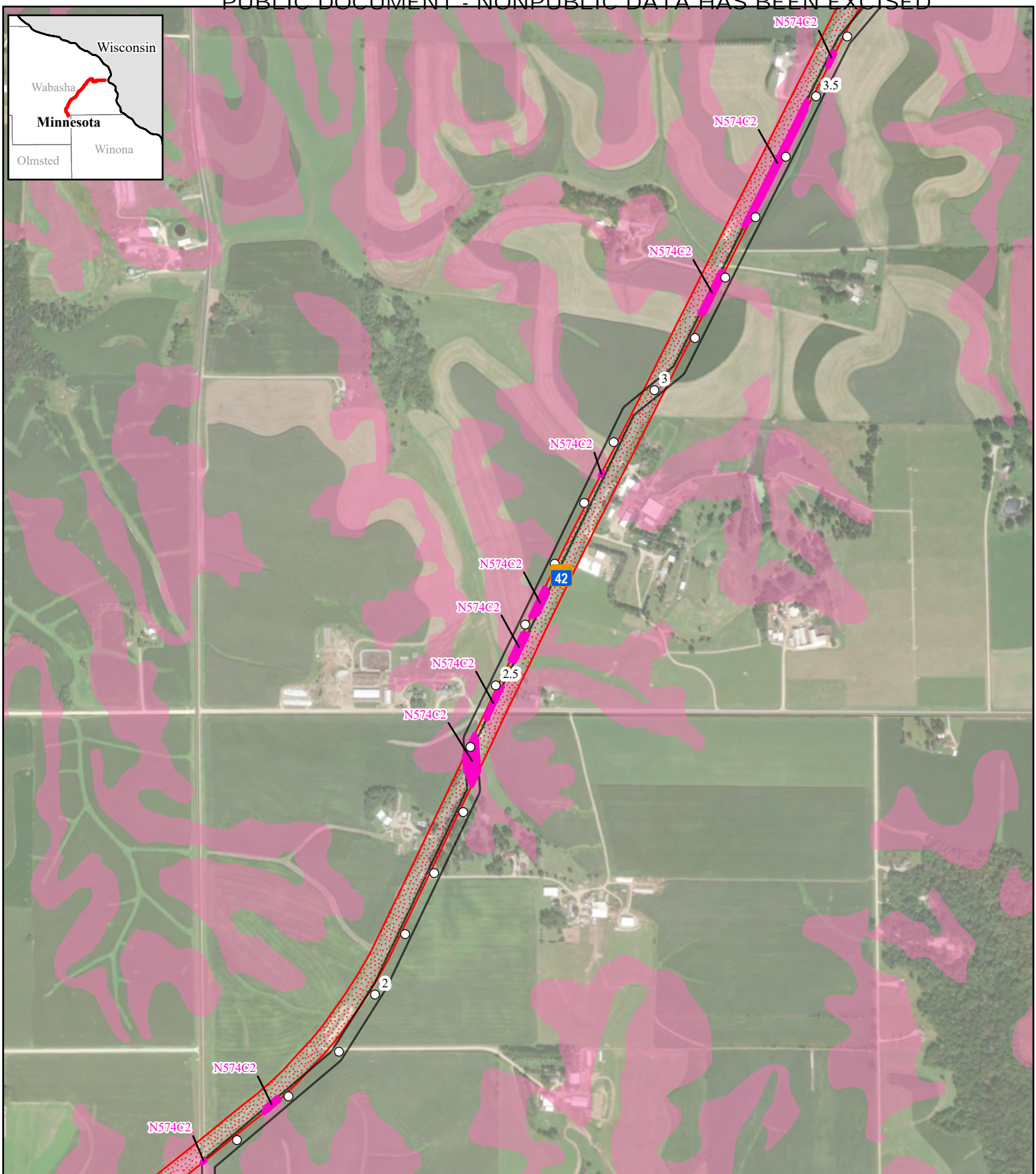




**Detailed Map - Potential Contaminated Sites**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Extent 3

- Milepost
- ▭ Proposed Right-of-Way
- - - 500ft Proposed Alignment Buffer
- ▨ TH 42 ROW
- Potential Contaminated Site**
- Feedlots
- Hazardous Waste

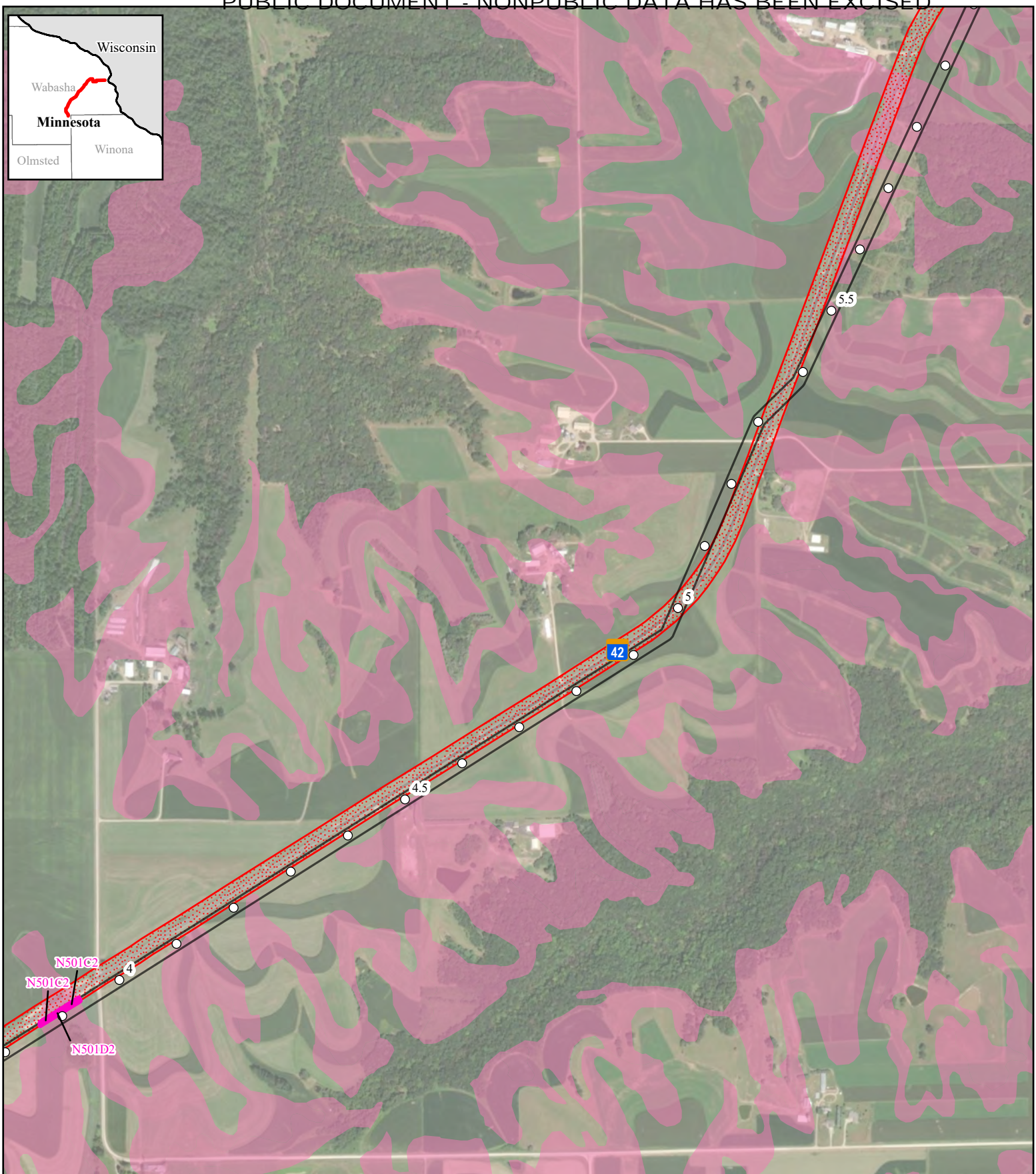




**Detailed Map - SSURGO Soils**  
 Wabasha Relocation Project  
 Dairyland Power Cooperative  
 Wabasha County, Minnesota  
 Extent 1

- Milepost
- ▭ Proposed Right-of-Way
- ▨ TH 42 ROW
- ▭ Highly Erodible Soil
- ▭ Highly Erodible Soil (Area of Impact)





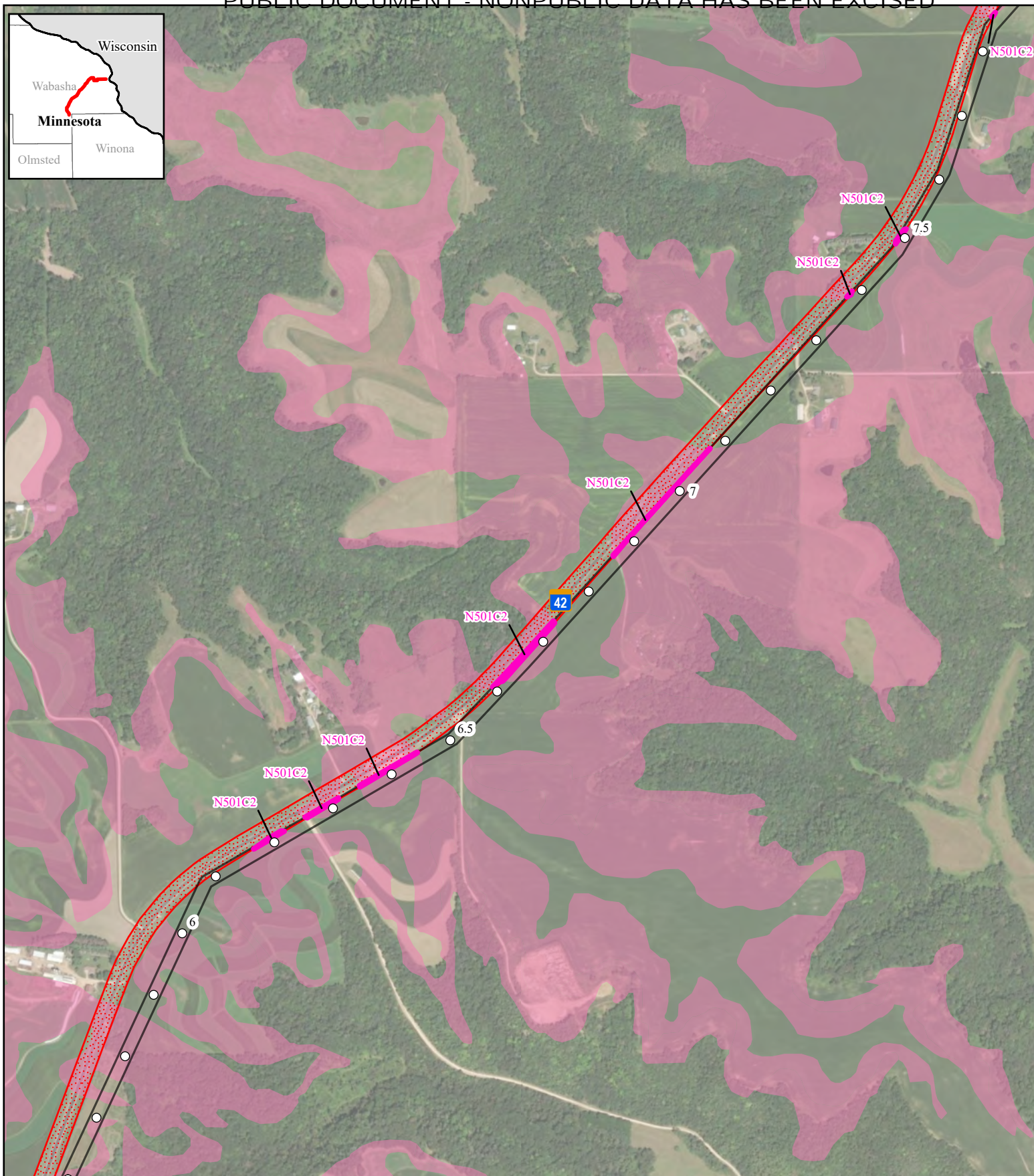
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1:12,000



**Detailed Map - SSURGO Soils**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Extent 2

- Milepost
- ▭ Proposed Right-of-Way
- ▭ TH 42 ROW
- ▭ Highly Erodible Soil
- ▭ Highly Erodible Soil (Area of Impact)





0 500 1,000 Feet  
1:12,000

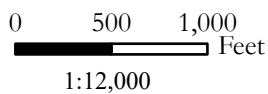


### Detailed Map - SSURGO Soils

Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Extent 3

- Milepost
- ▭ Proposed Right-of-Way
- ▭ TH 42 ROW
- ▭ Highly Erodible Soil
- ▭ Highly Erodible Soil (Area of Impact)





### Detailed Map - Scenic Byways

Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota  
Extent 4

- Milepost
- ▭ Proposed Right-of-Way
- ▭ TH 42 ROW
- ▭ Scenic Byway

**Appendix D      Agency Correspondence**

- MDNR Formal Natural Heritage Review
- USFWS IPaC Species List
- USFWS NLEB DKey



# Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

**Project Name:** Dairyland Wabasha Relocation Project

**Project Proposer:** Dairyland

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project Type Activities:** Tree Removal; Waterbody or watercourse impacts (e.g., dewatering, discharge, excavation, fill, runoff, sedimentation, changes in hydrology); Wetland impacts (e.g., dewatering, tiling, drainage, discharge, excavation, fill, runoff, sedimentation, changes in hydrology)

**TRS:** T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7, T109 R10 S8, T109 R11 S13, T109 R11 S23, T109 R11 S24, T109 R11 S25, T109 R11 S26, T109 R11 S35 +

**County(s):** Wabasha

**DNR Admin Region(s):** Central

**Reason Requested:** PUC Site or Route Application

**Project Description:** Transmission line rebuild. Wetlands and waterbodies will be spanned; other construction methods and timing TBD.

**Existing Land Uses:** Ag, road right-of-way, forested patches, some wetlands/waterbodies.

**Landcover / Habitat Impacted:** Ag, road right-of-way, forested patches

**Waterbodies Affected:** waterbodies will be spanned.

**Groundwater Resources Affected:** TBD

**Previous Natural Heritage Review:** No

**Previous Habitat Assessments / Surveys:** No

## SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
<b>Project Details</b>	Comments	Tree Removal - Recommendations
<b>Ecologically Significant Area</b>	Comments	Potential RNC - Will Require Consultation MBS Sites - Recommendations Protected Wetlands: Calcareous Fens
<b>State-Listed Endangered or Threatened Species</b>	Needs Further Review	State-protected Species in Vicinity
<b>State-Listed Species of Special Concern</b>	Comments	Recommendations
<b>Federally Listed Species</b>	Comments	Visit IPaC for Federal Review RPBB High Potential Zone







December 13, 2023

**Project Name:** Dairyland Wabasha Relocation Project

**Project Proposer:** Dairyland

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project ID:** MCE #2023-00935

**AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED**

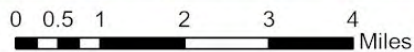
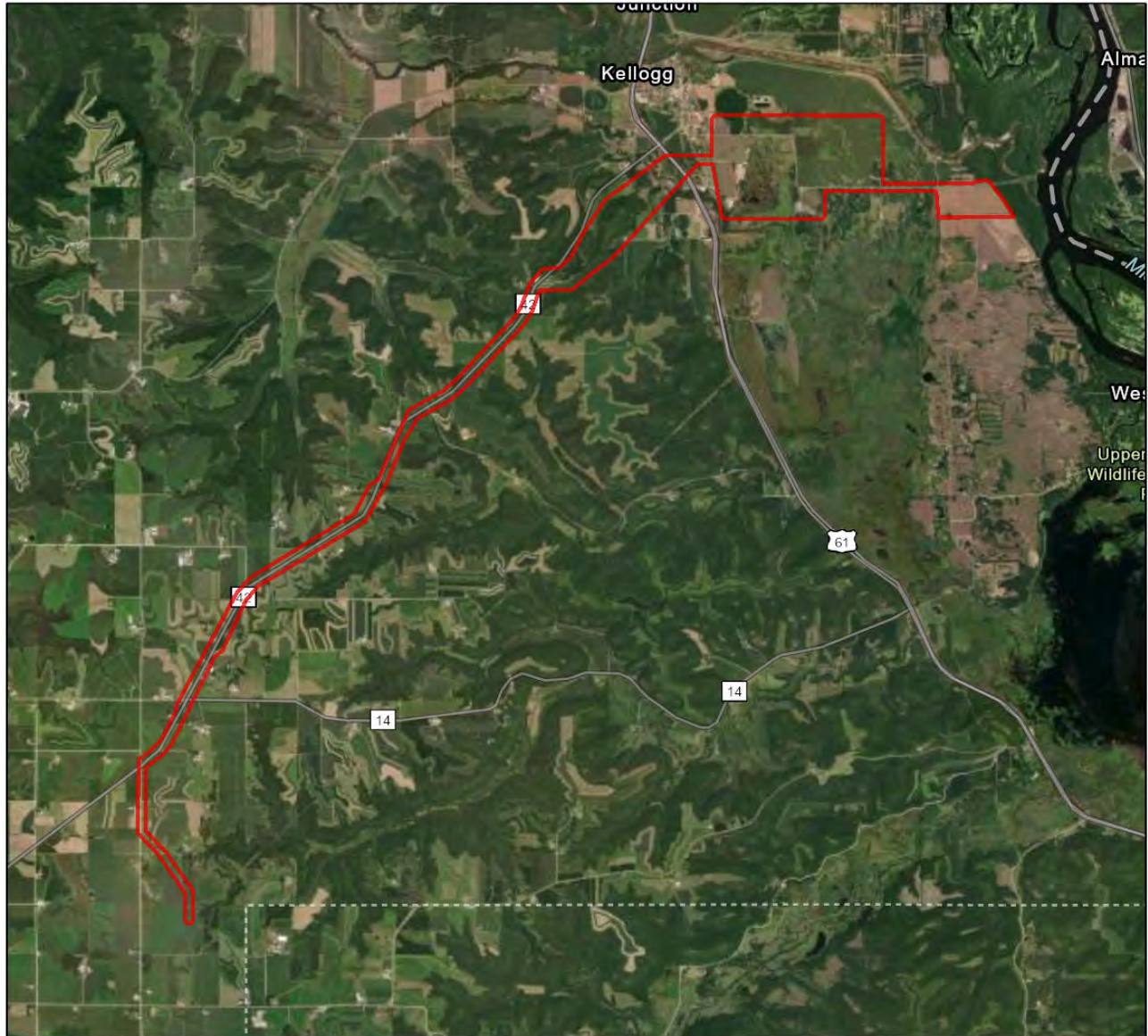
As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

# Dairyland Wabasha Relocation Project

Aerial Imagery With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 2,015.39

County(s): Wabasha

TRS: T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7 +

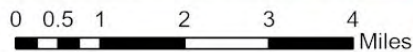
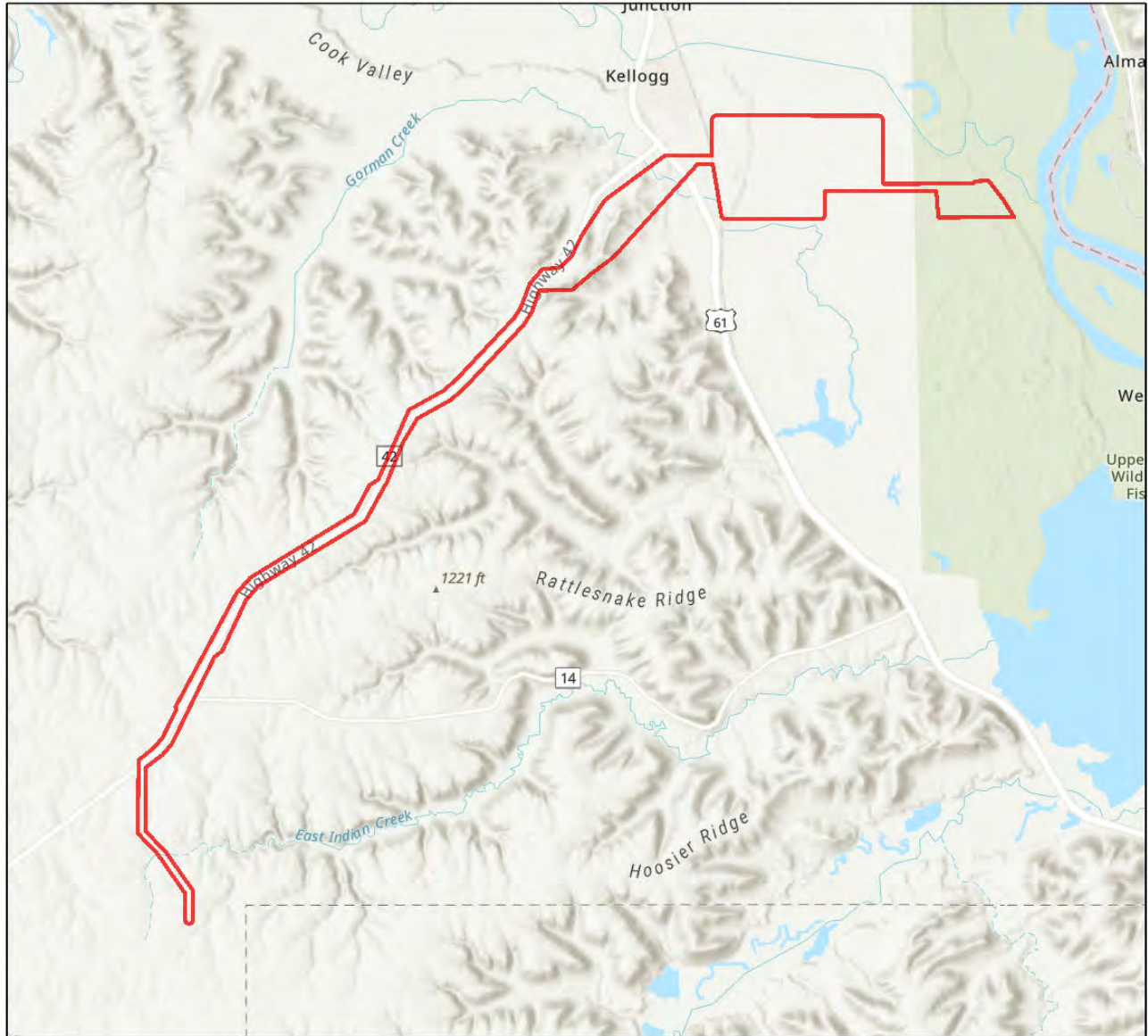
Earthstar Geographics  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA





# Dairyland Wabasha Relocation Project

USA Topo Basemap With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 2,015.39

County(s): Wabasha

TRS: T108 R11 S1, T109 R10 S18, T109 R10 S4, T109 R10 S5, T109 R10 S7 +

Esri, NASA, NGA, USGS  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA





## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Minnesota-Wisconsin Ecological Services Field Office

3815 American Blvd East

Bloomington, MN 55425-1659

Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:

January 02, 2024

Project Code: 2024-0027345

Project Name: Dairyland Wabasha Relocation Project - Federal

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

#### **Threatened and Endangered Species**

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

#### **Consultation Technical Assistance**

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.



We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of "no effect" or "may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species' biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a "Not Likely to Adversely Affect" (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a "May Affect" determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for "May Affect" determinations unless otherwise indicated in your output letter.

**Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review.** If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
  2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
-

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### **Northern Long-Eared Bats**

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

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**Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

*Please note:* On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's [northern long-eared bat website](#).

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

##### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

##### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

#### Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Bald & Golden Eagles
  - Migratory Birds
  - Wetlands
-

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East

Bloomington, MN 55425-1659

(952) 858-0793

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## PROJECT SUMMARY

Project Code: 2024-0027345  
Project Name: Dairyland Wabasha Relocation Project - Federal  
Project Type: Transmission Line - New Constr - Above Ground  
Project Description: Transmission Line  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.24308155,-92.06752581909959,14z>



Counties: Wabasha County, Minnesota

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

### BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

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**CLAMS**

NAME	STATUS
Higgins Eye (pearlymussel) <i>Lampsilis higginsii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5428">https://ecos.fws.gov/ecp/species/5428</a>	Endangered
Sheepnose Mussel <i>Plethobasus cyphus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6903">https://ecos.fws.gov/ecp/species/6903</a>	Endangered
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7867">https://ecos.fws.gov/ecp/species/7867</a>	Endangered

**INSECTS**

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate
Rusty Patched Bumble Bee <i>Bombus affinis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9383">https://ecos.fws.gov/ecp/species/9383</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/3QJIPMEFBFG6RIWHVKILYFLAPI/documents/generated/5967.pdf">https://ipac.ecosphere.fws.gov/project/3QJIPMEFBFG6RIWHVKILYFLAPI/documents/generated/5967.pdf</a>	Endangered

**CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

**USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

**BALD & GOLDEN EAGLES**

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

### **There are bald and/or golden eagles in your project area.**

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	<p>Breeds Dec 1 to Aug 31</p>
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	<p>Breeds elsewhere</p>

## **PROBABILITY OF PRESENCE SUMMARY**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### **Probability of Presence (■)**

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### **Breeding Season (■)**

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.





For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	Breeds Dec 1 to Aug 31
<p><b>Black Tern</b> <i>Chlidonias niger</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a></p>	Breeds May 15 to Aug 20
<p><b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a></p>	Breeds May 15 to Oct 10
<p><b>Bobolink</b> <i>Dolichonyx oryzivorus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9454">https://ecos.fws.gov/ecp/species/9454</a></p>	Breeds May 20 to Jul 31
<p><b>Canada Warbler</b> <i>Cardellina canadensis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9643">https://ecos.fws.gov/ecp/species/9643</a></p>	Breeds May 20 to Aug 10
<p><b>Chimney Swift</b> <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a></p>	Breeds Mar 15 to Aug 25
<p><b>Eastern Whip-poor-will</b> <i>Antrostomus vociferus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/10678">https://ecos.fws.gov/ecp/species/10678</a></p>	Breeds May 1 to Aug 20
<p><b>Golden Eagle</b> <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds elsewhere
<p><b>Henslow's Sparrow</b> <i>Ammodramus henslowii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/3941">https://ecos.fws.gov/ecp/species/3941</a></p>	Breeds May 1 to Aug 31

NAME	BREEDING SEASON
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds elsewhere
<p>Pectoral Sandpiper <i>Calidris melanotos</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9561">https://ecos.fws.gov/ecp/species/9561</a></p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a></p>	Breeds May 10 to Sep 10
<p>Ruddy Turnstone <i>Arenaria interpres morinella</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/10633">https://ecos.fws.gov/ecp/species/10633</a></p>	Breeds elsewhere
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/9478">https://ecos.fws.gov/ecp/species/9478</a></p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a></p>	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

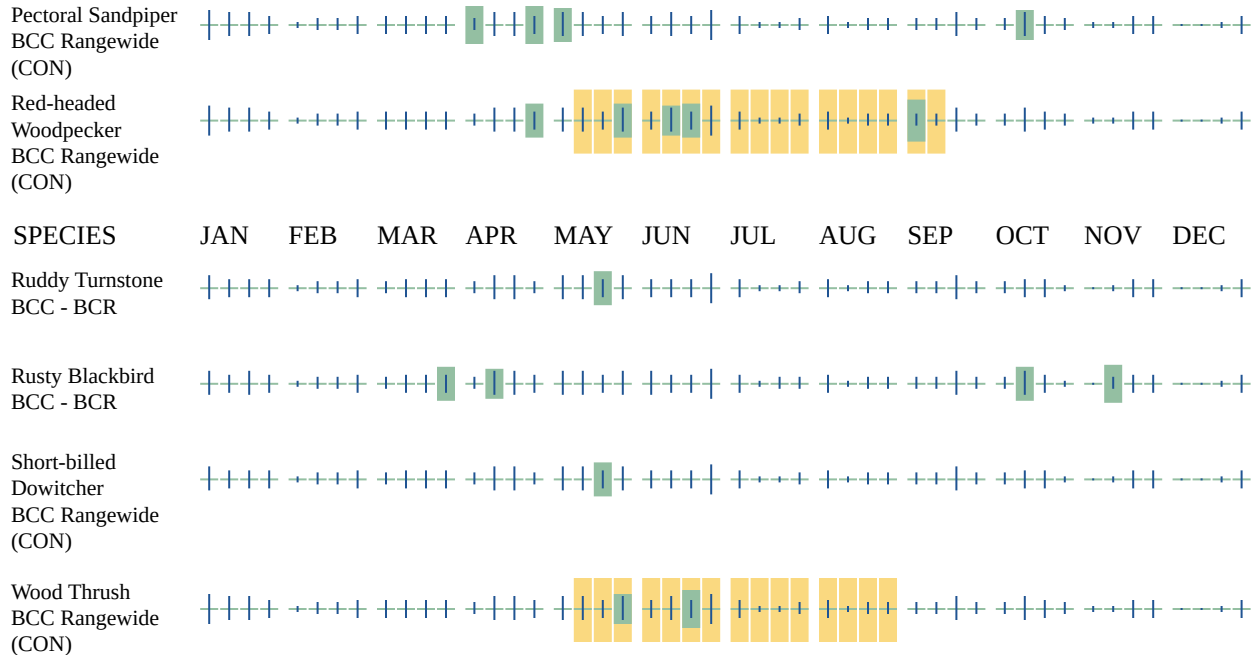
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER EMERGENT WETLAND

- PEM1F
- PEM1C

- PEM1A
- PEM1Ch
- PEM1Af

RIVERINE

- R2UBG
- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1Ah

FRESHWATER POND

- PUBFh
-



## **IPAC USER CONTACT INFORMATION**

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## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers

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## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Minnesota-Wisconsin Ecological Services Field Office

3815 American Blvd East

Bloomington, MN 55425-1659

Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:

January 04, 2024

Project code: 2024-0027345

Project Name: Dairyland Wabasha Relocation Project - Federal

Federal Nexus: yes

Federal Action Agency (if applicable): Army Corps of Engineers

**Subject:** Technical assistance for 'Dairyland Wabasha Relocation Project - Federal'

Dear Mandy Bohnenblust:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on January 04, 2024, for 'Dairyland Wabasha Relocation Project - Federal' (here forward, Project). This project has been assigned Project Code 2024-0027345 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

#### **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

#### **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Higgins Eye (pearlymussel) *Lampsilis higginsii* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Sheepnose Mussel *Plethobasus cyphyus* Endangered
- Spectaclecase (mussel) *Cumberlandia monodonta* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

## Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **806-136451650**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the

Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Minnesota-Wisconsin Ecological Services Field Office and reference Project Code 2024-0027345 associated with this Project.

## Action Description

You provided to IPaC the following name and description for the subject Action.

### 1. Name

Dairyland Wabasha Relocation Project - Federal

### 2. Description

The following description was provided for the project 'Dairyland Wabasha Relocation Project - Federal':

Transmission Line

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.24308155,-92.06752581909959,14z>





## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*No*

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*

11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

*Yes*

12. Have you conducted, or will you conduct, a voluntary Phase 1 habitat assessment for potentially suitable hibernacula in accordance with the guidance in Appendix H of the USFWS' current Range-wide Indiana bat and Northern long-eared bat Survey Guidelines?

**Note:** The survey guidelines can be found at: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

*No*

13. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

*Yes*

## PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

14.4

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

14.4

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

14.4

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

10

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

Yes

Will all project activities be completed by April 1, 2024?

No

## **IPAC USER CONTACT INFORMATION**

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Phone: 6127463677

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers



**Appendix E      Vegetation Management Plan**

# **DAIRYLAND POWER COOPERATIVE**

## **DRAFT VEGETATION MANAGEMENT PLAN WABASHA RELOCATION PROJECT**

**March 2024**



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## 1. INTRODUCTION

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Dairyland Power Cooperative (Dairyland, or the Applicant) has applied for a Route Permit to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation (the Wabasha Relocation Project, or the Project). The Project will begin in the vicinity of Structure X-Q3-75 on the existing Dairyland LQ34 161-kV transmission line (the Wabaco-Alma transmission line or LQ34 line) near the Town of Plainview, Minnesota in Wabasha County. This structure will be removed as part of the Project and will be replaced with the starting structure for the new 161-kV line. After travelling 13.3 miles northeast and then east, it will tie directly into a new 4-acre 161/69-kV substation located within a larger 10.8-acre site, which is proposed to be located off County Road 84, west of the Mississippi River and southeast of the City of Kellogg (Kellogg Substation). The Project is a relocation of approximately 10.4 miles of the existing LQ34 line, which presently connects to the Wabaco Substation (located approximately 2 miles south of the Town of Plainview) and to the Alma Substation (located on the east side of the Mississippi River in Wisconsin). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg in Wabasha County, Minnesota near the Mississippi River (**Figure 1-1**).

Within this Plan, the term “Proposed Alignment” refers to the centerline location of the transmission line and structures. The Proposed Alignment is contained within a 100-foot-wide right-of-way (ROW) for construction and operations. The term “Proposed Route” or “Project Route Width” is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation.

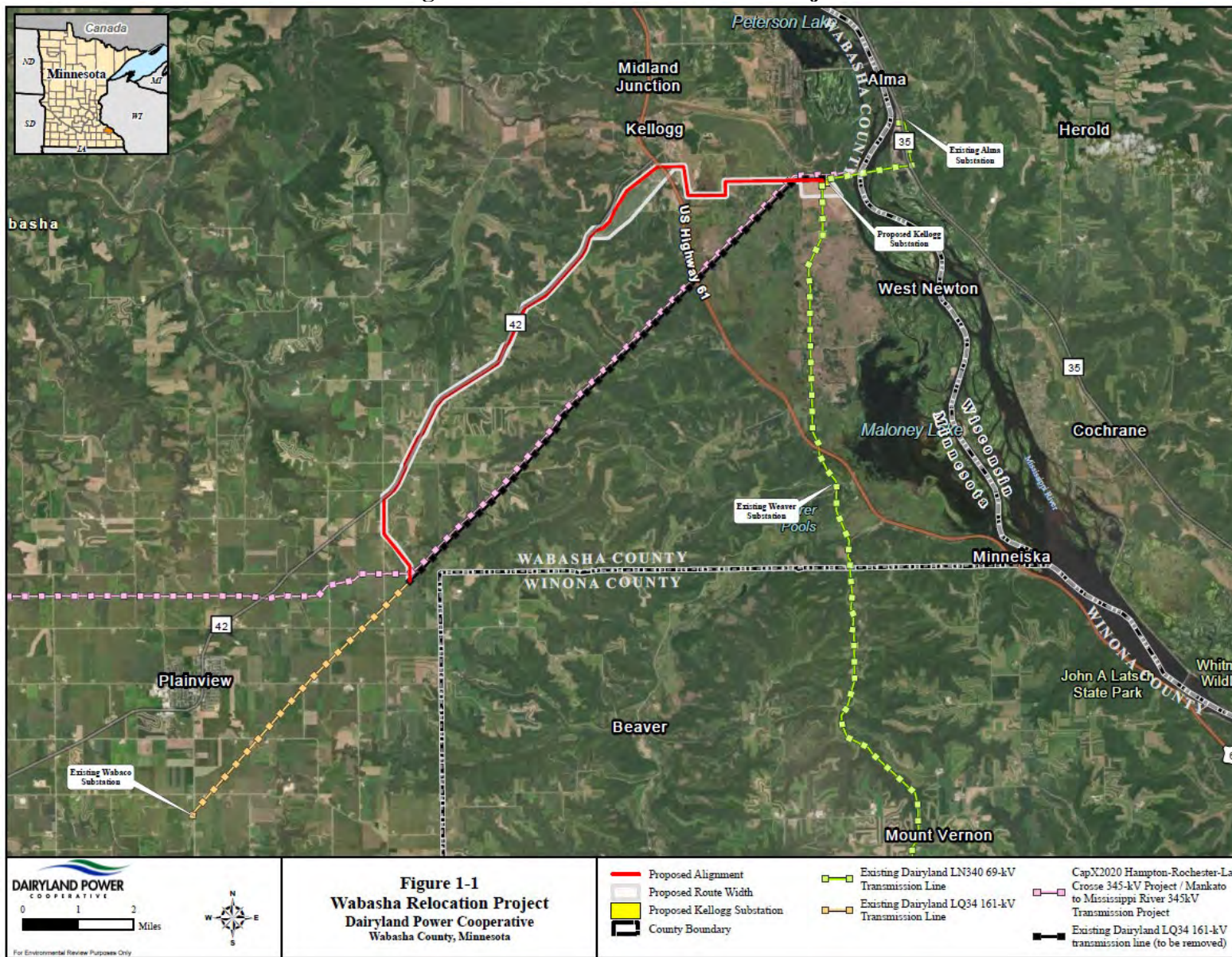
### 1.1 GOALS

Dairyland has developed this Vegetation Management Plan (VMP or Plan) for the Project to address an anticipated route permit condition for the Project related to vegetation management. The primary goals of this Plan are to describe the procedures that will be implemented:

- during construction of the transmission line to revegetate and restore the right-of-way in accordance with landowner preferences and in compliance with federal, state, and local permits and authorizations, and Minnesota water quality standards; and
- to maintain the ROW during operations in a manner that ensures a safe and reliable transmission line.

This Plan was developed based on Dairyland’s experience implementing best management practices (BMPs) during construction, as well as applicable North American Electric Reliability Corporation (NERC) requirements and requirements set by the Minnesota Public Utilities Commission (Commission). This Plan also incorporates, where applicable, the Minnesota Department of Commerce-Energy Environmental Review and Analysis (DOC-EERA)’s Generic Vegetation Establishment and Management Plan Guidance.

Figure 1-1. Wabasha Relocation Project



## 1.2 APPLICABLE PERMITS AND AUTHORIZATIONS

In addition to the route permit, the Project is required to comply with other applicable federal, state, and local permits, licenses, and/or easements. Where those permits, licenses, or easements conflict with this Plan, they shall take precedent over this Plan to the extent they do not violate any other route permit condition. For example:

- Road ROW permits: Where the Project will impact road ROWs, Dairyland will follow the vegetation management requirements and guidelines of the appropriate road authority. For example, the Minnesota Department of Transportation (MnDOT) has guidelines regarding seeding methods and mixes for its rights-of-way.
- Stormwater Pollution Prevention Plan (SWPPP): As a requirement of the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit program, a SWPPP must be prepared 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. The SWPPP covers, among other things, temporary erosion and sediment control BMPs. Many of those BMPs are reflected in this Plan.
- Minnesota Department of Natural Resources (MDNR) licenses/permits: The MDNR Utility License may have requirements specific to a public water crossing. Where applicable, Dairyland will implement MDNR-required site specific conditions.

## 1.3 LANDOWNER COORDINATION

Dairyland works cooperatively with landowners before, during, and after the construction process regarding easements, rights-of-way, structure locations, restoration, and maintenance. This coordination and cooperation are in recognition of the fact that, in most locations under private ownership, Dairyland has an easement for the Project – it does not own the property in fee simple – and, in large part, the landowners' use of their property, including the ROW, will continue after the Project is constructed and operational.

For example, land that is in agricultural production will likely return to agricultural production; similarly, landowners with mowed turf grass will typically want the ROW restored with turf grass that the landowner can mow, just like the rest of the parcel. In this way, a transmission line ROW is distinct from vegetation management for other types of energy infrastructure (for example, a solar farm where the project operator has exclusive control of the premises).

This Plan acknowledges that Dairyland does not have exclusive access to the easement and that the landowner can and will continue to use the easement in a manner that does not interfere with the safe and reliable operation of the Project and is otherwise lawful. As such, this Plan reflects that Dairyland will coordinate with landowners regarding restoration and maintenance, which means that restoration is likely to be consistent with pre-existing conditions and use, where practicable and consistent with safe and reliable transmission line operation. When coordinating with landowners regarding restoration and maintenance practices, Dairyland will also discuss the use of native and/or pollinator vegetation with landowners, where desired and practicable.

### **1.3.1 Landowner Notifications**

Landowners will be notified prior to clearing activities, as required by applicable permit conditions (typically 14 days). Among other things, the notification letter will inform landowners:

- The ROW will be staked indicating the extent of clearing activities.
- Landowners can request to keep any of the timber and materials. Requested wood will be cut to no less than 10-foot segments. Requested whole trees, trunks, wood chips, or mulch will be placed just outside of the ROW.
- All unwanted materials will be removed from the landowner's property.
- Herbicides to prevent regrowth of woody vegetation may be used, the method of application, and the opportunity for them request that no herbicides be used (**Section 4.4.2.4**).



## 2. PROJECT DESCRIPTION

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### 2.1 ENVIRONMENTAL SETTING AND EXISTING CONDITIONS

The Proposed Route occurs over varying topography. The southwestern 8.5 miles of the Proposed Route occurs over hilly terrain ranging in elevation from approximately 1,100 to 1,200 feet. The Project then decreases in elevation from approximately 1,100 feet to 700 feet from MPs 8.5 to 9.7. The remaining portion of the Project, MPs 9.7 to 13.3 is generally flat with a minor decrease in elevation from 700 feet to 680 feet.

Flora can be generally characterized for the Project area using the Ecological Classification System.<sup>1</sup> The system was developed by the MDNR and U.S. Forest Service for ecological mapping and landscape classification. The Project falls within Blufflands subsection. Pre-settlement vegetation was comprised of tallgrass prairie and bur oak savanna on ridge tops and dry upper slopes. Red oak-white oak-shagbark hickory-basswood forests were present on moister slopes, and red oak-basswood-black walnut forests in protected valleys. Prairie was restricted primarily to broader ridge tops, where fires could spread, but also occurred on steep slopes with south or southwest aspect.

Dairyland's Proposed Alignment is 71% collocated with existing electric distribution, road, and railroad corridors. There is some developed/commercial land as the Project nears Kellogg and the Canadian Pacific Railroad, and the majority of the Proposed Route occurs in agricultural areas. There are no organic farms crossed by the Project. Because the Proposed Alignment would be collocated with existing infrastructure and in agricultural land use areas, the majority of the ROW has already been cleared. Dairyland estimates only approximately 14.4 acres of tree clearing would be required.

The Proposed Alignment would cross 10 rivers and streams, including Gorman Creek, a public water managed by the MDNR. Gorman Creek is identified as an impaired water for Aquatic Macroinvertebrate Bioassessments and is further listed under the draft 2024 data as impaired for Fishes Bioassessments. The next closest impaired water is the Zumbro River. The Zumbro River is approximately 0.3 mile east of the Kellogg Substation and was listed in 2022 and is proposed for relisting in 2024 as impaired for Fecal Coliform, Mercury in Fish Tissue, PCB in Fish Tissue, and Turbidity.

The Proposed Alignment and associated ROW would also cross forested and emergent wetlands. The Proposed Alignment (centerline) would cross approximately 885 feet of wetlands, and the 100-foot-wide ROW would cross approximately 2,390 feet of wetlands.

In addition, the Project crosses the Minnesota Biological Survey (MBS) McCarthy Lake site with a "High" ranking. Dairyland will coordinate with the MDNR regarding any specialized restoration and maintenance measures at this location.

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<sup>1</sup> MDNR, 2024. Ecological Classification System. See: <https://www.dnr.state.mn.us/ecs/index.html>



## 2.2 TRANSMISSION LINE

### 2.2.1 ROW Requirements

The Project will require a 100-foot-wide ROW that will be used to construct the transmission line and will be permanently maintained for the life of the transmission line (as further described in **Section 7.0**). The transmission line ROW is generally 50 feet either side of the centerline for a total width of 100 feet. Where the transmission line parallels roads, the transmission line structures are typically installed one to five feet outside of road ROW, resulting in approximately 55 feet of ROW needed outside of the road ROW. All structures will be self-supporting; therefore, no guying will be required.

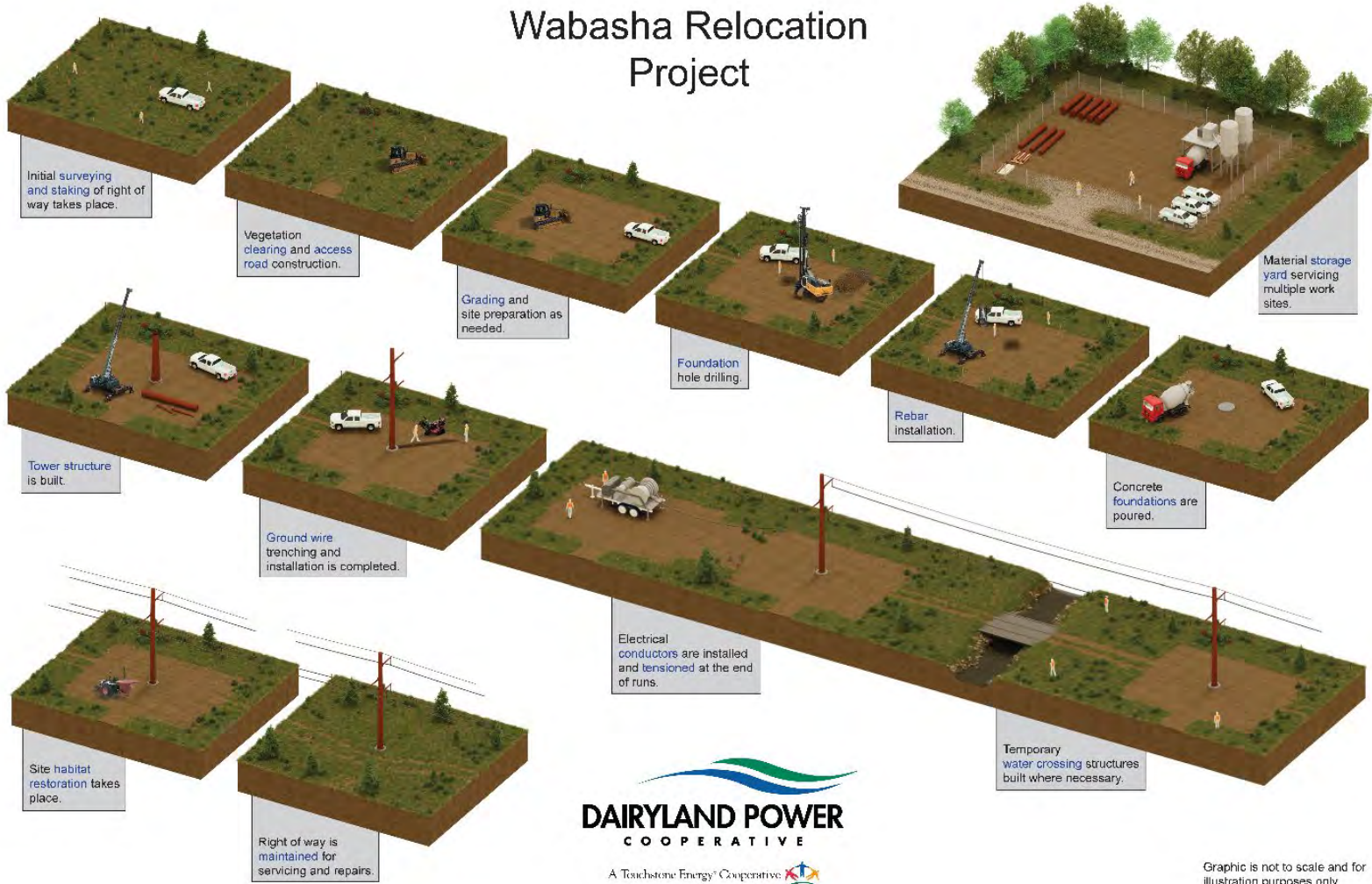
Additional temporary workspace (ATWS) beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings, along steep slopes, and at stringing locations. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation. Dairyland will avoid the placement of additional temporary workspace in wetlands and near waterbodies as practicable.

### 2.2.2 Construction Sequence

Construction of an overhead transmission line requires several different activities at any given location. **Diagram 2-1** and **Section 3.0** describe the major construction activities and approximate sequence.

- Surveying and Staking
- Install temporary erosion and sediment control BMPs
- Mobilization and Preparation of Staging / Laydown Yards
- Develop Temporary Access Roads
- Vegetation Clearing
- Establish Travel Lanes and Bridge Installation within the ROW
- Grading, Excavation, and Foundation Installation
- Structure Setting
- Wire Stringing and Clipping
- Removal of Existing Facilities
- Cleanup and Restoration of ROW

Figure 2-1. Transmission Line Construction Sequence



### **2.3 KELLOGG SUBSTATION**

The Kellogg Substation facilities are proposed to be sited on a 10.8-acre parcel of land. Approximately 4 acres of the site will be used for the substation, access drive, and stormwater drainage features.

Site preparation would include installing erosion and sediment control BMPs, stripping topsoil, and hauling in structural fill to build up the subgrade for the substation pad. Once the substation pad is built to the subgrade, all areas will be restored, and the site will be ready for use. This work will occur the year prior to transmission line and substation construction to allow for one winter to allow the ground to settle.

Construction within the newly prepared substation pad will consist of drilled pier foundations ranging in size from three to seven feet in diameter and 10 to 35 feet deep. The foundations will be installed to support transmission line dead-end structures, static masts, and bus and equipment support structures. Slabs-on-grade eight feet square by two feet thick will be used for 161-kV circuit breakers, and six-foot square by two feet thick will be used for 69-kV circuit breakers. The control building will be on a 20-foot by 40-foot- by 1-foot-thick concrete slab. Transformer and reactor secondary oil containment will be a concrete-lined pot filled with stone. Conduit for control and communication cables and grounding conductor will be installed prior to the placement of the final layer of crushed rock surfacing. The ground grid will be installed 18 inches below the subgrade surface throughout the substation pad and extend four feet outside the substation security wall.

## 3. CONSTRUCTION PROCEDURES

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### 3.1 SURVEYING AND STAKING

All construction equipment and vehicles will be confined to the approved construction workspace (i.e., ROW) and ATWS. Prior to the commencement of clearing activities, civil survey crews will flag or stake the boundaries of the construction workspace and improved access roads in a manner that ensures all individuals can readily identify the boundaries of the authorized construction limits and to ensure that construction activities will only occur in areas authorized. In addition, Dairyland will install signs or flagging for the following environmental features along the construction workspace and access roads so they can be easily identified by Project personnel and managed as described in applicable permit applications:

- wetland boundaries and waterbody crossing locations;
- drainages/drain tiles as identified by counties and landowners;
- hiking and hunter walking trails, snowmobile and all-terrain vehicle (ATV) trails, winter access roads, or other recreational areas as required by permit conditions;
- buffer zones for environmentally sensitive features, including archaeological and historic sites, bald eagle nests, rare plant or ecological communities, and other sensitive wildlife species and/or habitat per agency consultations (note that the signs will not disclose the specific location and/or species or feature type where laws require data protection).

These activities are generally completed by a two-person crew travelling by foot, ATV, or pick-up truck.

### 3.2 STAGING / LAYDOWN YARDS

Initially, labor and equipment will be mobilized to prepare laydown yards for temporary trailer(s) and security measures to receive materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment. Activities involved to prepare the staging / laydown yards include installation of erosion and sediment control BMPs, any grading/leveling of uneven surfaces, stripping, and stockpiling of topsoil (if necessary), and installation of gravel, tracking pads near entry/exit, if needed, installation of culvert(s), power, and fencing. This work is generally completed using equipment such as a bulldozer and dump trucks. The disturbance from the laydown yard is dependent on soil type and topography. Depending on landowner preferences, laydown yards may be left in place or returned to prior conditions following construction activities. Dairyland typically will locate staging / laydown yards in sites that have been previously disturbed (e.g., existing yards, parking lots, quarries).

### 3.3 TEMPORARY ACCESS ROADS

To provide temporary access to the construction workspace, Dairyland will maintain existing roads, improve existing trails or roads, or build new roads as needed and as approved through applicable permits and leases. Road improvements may include tree trimming, tree clearing, road grading, widening and fill placement. The travel surface of the access road is generally 20 to 25 feet wide. The total amount of disturbance of the road (cut slope to base of the spoils slope) is dependent on

soil type and topography. Access road improvement activities are generally completed using equipment such as a bulldozer, track-hoe, skid-loader, and dump trucks.

Typically, gravel will only be added to maintain existing roads that have an existing gravel road base, or to develop permanent access roads, if needed. Dairyland may use construction mats or rock on top of geotextile fabric, with or without a flume/culvert as appropriate depending on site conditions, to construct or widen access roads at intersections with other roads or the construction workspace. Gravel on top of geotextile fabric will only be used on approaches to construction workspace and not within construction workspace. Mats, rock, geotextile fabric, and flume/culverts will be removed after construction and the area will be restored to pre-construction conditions following construction.

Only construction mats will be used cross wetland features; construction mats will be removed after completion of construction activities.

After construction, Dairyland will return improved roads to their pre-construction condition unless the road authority, landowner, or land-managing agency requests that the improvements be left in place and the following conditions are met:

- The access road does not cross wetland features;
- No new temporary bridge/culverts were installed at waterbody features crossed by the road;
- Gravel fill was not added from originally non-gravel roads.

Restoration of temporary access roads will proceed as described in **Section 3.3**. Regardless of landowner, road authority, or land-managing agency preference, all temporary infrastructure in wetlands or waterbodies (e.g., bridges, construction mats, and/or other fill material) must be removed as required by applicable permits and authorizations.

### **3.4 VEGETATION CLEARING**

To facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line, all vegetation will be cleared for the full width of the ROW. Clearing may be accomplished with mechanical equipment such as mechanized mowers, sky trips, process harvesters, feller bunchers or brush cutters. In areas where clearing with large equipment is not viable, clearing will be done with hand tools such as chain saws or other hand tools.

All merchantable timber will be managed in accordance with landowner agreements and applicable permits and licenses. Trees, trunks and/or limbs cut on private property are typically cut to approximately 10-foot lengths unless the landowner requests longer lengths. All materials a landowner has requested to keep are stacked outside the ROW. All materials a landowner does not wish to keep are stacked inside the ROW for further processing and disposition. Any materials a landowner does not wish to keep will be removed from their property. These unwanted materials may be offered to other landowners, offered for sale, placed in a composting site, or disposed of at landfill. The balance of materials will likely be disposed of at the Wabasha County Landfill or another appropriate location, to be determined by the clearing contractor.



Unless otherwise agreed upon between Dairyland and the applicable landowner or land-managing agency, non-merchantable timber and slash will be disposed of by mowing, cutting, chipping, mulching and left in upland areas, and/or hauling off-site to an approved location or used in stabilizing erodible slopes or construction entrances. In non-agricultural, non-wetland areas, chips, mulch, or mechanically cut woody debris may be uniformly broadcast across the construction workspace in a manner that avoids inhibiting revegetation. This material may also be incorporated into the topsoil layer during grading activities, with landowner approval. Chips, mulch, or mechanically cut woody debris shall not be stockpiled in a wetland.

Trees ( $\geq 3$  inches diameter at breast height (dbh) or  $>20$  feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands. Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed one inch in depth. If sufficient brush is present such that debris will exceed one-inch, sufficient brush will be hauled out for processing in an upland area.

Vegetation within the ROW will be cut at or slightly above the ground surface. Any tree stumps or surface roots in managed turf grasses (e.g., residential areas) will be ground to slightly below grade and the hole backfilled with local soils and seeded with a similar turf grass mixture. Any stumps outside of managed turf grass areas will typically be cut or ground such that no more than two inches remain above grade. Dairyland does not typically grub stumps or roots to minimize soil impacts and erosion potential; however, stump removal may be necessary in some locations to facilitate the movement of construction vehicles, or when reasonably requested by the landowner.

Burning of non-merchantable wood may be allowed only where the applicable permits and approvals (e.g., agency and landowner) have been acquired and in accordance with all state and local regulations. Burning is not allowed in wetlands. Burning within 100 feet of a wetland or waterbody is prohibited without site-specific approval in advance from Dairyland and in accordance with applicable permits and/or approvals.

### **3.5 TRAVEL LANES**

Dairyland will establish a travel lane within the ROW to allow for the safe passage of construction vehicles and equipment. Construction mats will be placed along the travel lane within delineated wetlands within the construction workspace and along access roads to minimize ground impacts and provide access. Construction mats may also be used in other conditions, such as unstable soils, as needed. Most mat travel lanes will be 16 to 20 feet wide. Mat travel lanes are typically a single layer; however, there may be cases in saturated areas where more than one layer of mats must be placed to provide a stable working surface. Dairyland may use multiple mat configurations in inundated areas depending upon the depth of inundation and presence of channelized flow to maintain surface flow. Dairyland may use the following types of construction mats:

- Composite Mats: Composite mats are built out of high-density polyethylene material. Mats are typically 4 inches thick and 8 feet wide by 14 feet in length. Mats are interlocking, have a treaded traction surface, are flexible and extremely durable. These mats are also typically lighter in weight than traditional timber mats. Heavy duty mats are able to support construction equipment of all types, sizes, and weights, with load-bearing capabilities up to 600 pounds per square inch. Light duty mats are also available.

- Timber Mats: Timber mats are available in a variety of sizes and are constructed of hardwood materials that are bolted together. No individual timbers will be used. Timber mats are suitable for all vehicle types present on the construction workspace, have high durability under traffic, and are easily installed and removed using typical construction equipment. Timber mats are suitable for use in all soil conditions for all pipeline construction activities.
- Laminated Mats: Laminated mats are available in a variety of sizes and are constructed of laminated wood materials. Laminated mats are suitable for all vehicle types but are limited in their weight bearing capacity (e.g., 600 pounds per square inch). They have high durability and are easily installed and removed using typical construction equipment. Laminated mats are suitable for use in most soil conditions but should not be used in extremely saturated conditions. Laminated mats can be used on access roads, at drill pads, and for storage and staging of equipment.

Construction mats will be installed with rubber-tired grapple trucks, forwarders, forklifts, or skid loaders. Vegetation clearing crews will typically bring mats with the mechanized equipment and “leap frog” the mats forward as clearing progresses. The installation of the line will be completed in segments with mats being moved and used in other segments as construction progresses.

### **3.6 TEMPORARY BRIDGES**

Temporary bridges or culverts will typically be used to cross waterbodies from top of bank to top of bank with stable banks. Equipment bridges and culverts will be designed to meet the requirements of the applicable agencies and local authorities. Bridges will not restrict flow or pool water while the bridge is in place and will be constructed with clean materials. Bridges will be designed to prevent soil from entering the waterbody. Fording of waterbodies is prohibited (i.e., civil survey, potholing, or other equipment are not permitted to ford waterbodies prior to bridge or culvert placement).

Equipment bridges and culverts will be maintained in accordance with the applicable permits. Debris or vegetation that becomes lodged on the bridge support will be removed and disposed of in an upland area. Bridges will be maintained to prevent soil from entering the waterbody. Soil that accumulates on the bridge decking will be removed daily, or as deemed necessary by the Dairyland.

Equipment bridges will be removed during final cleanup or, if access is needed, after final cleanup and permanent seeding. Bridge decking will be removed to ensure sediment and debris are collected by geotextile fabric secured below decking during bridge construction. Subsequently, geotextile fabric will be removed to prevent debris from entering the waterbody.

Once the bridge is removed, Dairyland will conduct additional seeding and/or implement erosion and sediment control BMPs, as needed. Dairyland will follow the restoration procedures described in **Section 5.0**.

### **3.7 GRADING, EXCAVATION AND FOUNDATION INSTALLATION**

#### **3.7.1 Grading and Topsoil Segregation**

Prior to foundation installation, Dairyland will install a construction mat platform generally 40 feet by 40 feet around the structure location to ensure a level and safe working area. In areas with uneven terrain, Dairyland may grade this area. Where grading is required, Dairyland will strip the topsoil layer and potentially into the subsoil layer and store the topsoil and subsoil separately within the ROW. Gaps will be left and erosion and sediment control BMPs installed where stockpiled topsoil and subsoil piles intersect with water conveyances (i.e., ditches, swales) to maintain natural drainage. A minimum 1 foot of separation will be maintained between the topsoil and subsoil piles to prevent mixing. Where the 1-foot separation cannot be maintained due to space constraints, a physical barrier, such as a thick layer of mulch or silt fence, between the topsoil and subsoil piles may be used to prevent mixing.

#### **3.7.2 Excavation**

Excavation is required for all structures whether they are direct-embedded or use reinforced concrete foundations. In general, the excavated holes for each type of foundation will range from five to 10 feet in diameter and 20 to 50 feet in depth, or greater, depending on soil conditions. The method of installation, diameter and depth of the foundation will vary depending on the soil capability and structure loadings. For direct-embedded poles, a hole will be excavated to the appropriate depth.

#### **3.7.3 Foundation Installation**

The base of the structure will be placed into the excavated hole or, if soils are unstable, into a culvert, the area around the pole will be backfilled with clean granular fill or concrete. For structures requiring a reinforced concrete foundation, the required hole will be excavated, and a rebar cage and anchor bolts will be placed into the excavation. The excavation will then be filled with concrete to a point where the rebar cage and anchor bolts are covered leaving a typical one to two-foot reveal of the foundation above grade with exposed threaded anchor bolts. The complete caisson will then be allowed to cure. Typical equipment for this phase of construction would include dump trucks, drill rigs, cranes, vacuum trucks, concrete mixers, and tanker trucks.

#### **3.7.4 Construction Dewatering and Discharge**

In areas with high water tables, or where water is needed to stabilize the hole during drilling, it may be necessary to dewater the excavation. Dairyland will typically utilize portable pumps to dewater the excavation; the number and size of pumps employed will be based on the volume of water to be removed from the trench.

Prior to initiating dewatering activities, Dairyland will approve the water discharge plan to ensure that erosion and sediment control BMPs are applied in such a way as to minimize the potential for water containing sediment from reaching a wetland or waterbody. Furthermore, landowner approval is required in advance of placement of dewatering structures outside of the approved construction workspace. Dewatering structures will be sited to avoid environmental resources that may be affected by the discharge, such as federally- or state-listed species. Dairyland will utilize

the figures accompanying the SWPPP in addition to site-specific conditions at the time of dewatering to assess each water discharge situation, including soil type, contours, proximity to wetland and waterbody features, and existing vegetative coverage.

Typically, water will be directed to a well-vegetated upland area through a geotextile filter bag. Geotextile bags will be sized appropriately for the discharge flow and suspended sediment particle size. Where the dewatering discharge point cannot be located in an upland area due to site conditions and/or distance, the discharge will be directed into a straw bale dewatering structure designed based on the maximum water discharge rate. A straw bale dewatering structure will be used in conjunction with a geotextile filter bag to provide additional filtration near sensitive resource areas.

Appropriation and discharging activities will follow applicable regulations and permit requirements to ensure compliance with Minnesota water quality standards.

### **3.8 STRUCTURE SETTING**

For base plate structures (mounted on concrete foundation), the above-grade structure would be placed on the anchor bolt pattern, leveled, and tightened down. For direct-embedded structures, the base section would be installed, leveled, and backfilled with granular or flow-able fill. After that, the top section or sections will be installed. At each section, hydraulic jacking systems are typically used to slide the joints together to the engineered and fabricated tolerances. Equipment used for this phase of construction would include cranes and bucket trucks at each structure location.

### **3.9 WIRE STRINGING AND CLIPPING**

Once there are a sufficient number of structures set consecutively in a row to support a wire pull, the equipment for the wire pull is mobilized to the pull area and is set up. The conductor and static wires are then pulled and clipped into place. This stringing and clipping activity requires access to each structure with a bucket truck, crane, or helicopter. Other handling equipment used for this phase of construction includes reel trailers, wirepullers, and related stringing equipment.

Wire stringing areas or wire pulling areas are approximately 40 feet by 300 feet. At a minimum, at each wire pulling area, matting will be placed under wire equipment for construction grounding purposes. Incidental matting will also be required at most road crossings. Matting will be removed by similar equipment used for installation as each wire pull or construction segment is completed.

### **3.10 REMOVAL OF EXISTING FACILITIES**

Where replacing or overbuilding existing transmission circuits, the existing structures and wire will be removed. The removed materials will be evaluated to determine their appropriate disposal. Typical equipment used includes cranes, bucket trucks, reel trailers, wirepullers, and related stringing equipment. Where existing transmission structures are to be removed, it is common practice to remove the structure to a depth of at least 4 feet below grade; however, in some cases the structure may be cut off at grade. The determination will be site specific and will be based on the type of structure, land use at the site, and construction vehicle access constraints.

### **3.11 CLEANUP AND ROUGH/FINAL GRADING**

All waste materials, including litter generated by construction crews, will be disposed of daily. Initial cleanup and rough grading activities may take place simultaneously. Cleanup involves removing construction debris (including litter generated by construction crews and excess rock) and large woody debris and repairing/replacing fences or other infrastructure removed or damaged during construction as agreed upon with the landowner or land-managing agency.

Rough grading includes restoring disturbed subsoil to as near as practicable to pre-construction conditions and decompacting subsoil (where applicable) (**Section 5.1**). Final grading consists of returning the topsoil where topsoil has been stripped and final contouring to near as practicable to pre-construction conditions. This includes repairing any rutting observed along the ROW. Any remaining excess subsoil from excavations will be removed and disposed of at an approved off-site location as needed to ensure contours are restored to as near as practicable to pre-construction conditions. For temporary access roads that are not to be left in place per landowner agreement or permits and authorizations, the road area will be graded to near as practicable to pre-construction conditions. Dairyland will then prepare the seedbed and install or repair erosion control measures.

Construction mats and temporary bridges will be removed once restoration activities have been completed and access is no longer required to the ROW.



## 4. CONSTRUCTION MITIGATION MEASURES

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### 4.1 TEMPORARY EROSION AND SEDIMENT CONTROL BMPS

Dairyland will limit ground disturbance activities to the areas around pole structures along the transmission lines, along access roads where needed, and at the new Kellogg Substation. Dairyland will prepare a SWPPP in accordance with the General Permit. As required by the General Permit, the SWPPP will describe the timing for installation of all erosion prevention and sediment control BMPs, include the location and type of temporary and permanent erosion and sediment control BMPs, along with the procedures used to establish additional temporary BMPs as necessary for the site conditions during construction. The SWPPP will identify all surface waters, existing wetlands, and stormwater ponds or basins that will receive stormwater from the construction site, during or after construction, and will identify special or impaired waters. The SWPPP will also include a description of the permanent stormwater treatment system that will be installed at the Kellogg Substation.

Temporary erosion prevention and sediment control BMPs, also referred to as erosion control devices (ECDs), include but are not limited to sediment barriers (e.g., silt fence, certified weed-free straw bales, bio-logs), filter socks, certified weed-free mulch, upslope diversions, slope breakers (earthen berms), and revegetation subsequent to seeding of exposed soils. The equipment used during installation of erosion and sediment control BMPs typically includes ATVs and trucks for crew transportation, as well as skid loaders, tractors, backhoes, hydro-seeders, and other light-duty equipment.

Dairyland will maintain ECDs as required in the Project construction documents and as required by all applicable permits, including the SWPPP. Stormwater inspections of temporary ECDs will occur at least once every 7 calendar days and within 24 hours after a rainfall event of 0.5 inch or greater. Non-functional ECDs will be repaired, replaced, or supplemented with functional materials within 24 hours after discovery, or as otherwise specified in project permits. If silt fence is used, when the depth of sediment reaches about one-half of the height, the sediment will be removed.

Temporary ECDs will be installed prior to or at the same time as ground disturbing activities (e.g., grading, excavation) at the base of sloped approaches to streams, wetlands, water conveyances (e.g., ditches, swales) and roads. Temporary ECDs will also be installed at the edge of the construction workspace as needed, and/or in other areas to slow water leaving the site and prevent siltation of waterbodies and wetlands downslope or outside of the construction workspace (e.g., swales and side slopes). Temporary ECDs will be placed across the entire construction workspace at the base of slopes greater than 3 percent and at site-specific locations identified in the SWPPP until the area is revegetated and there is no potential scouring of, or sediment transport to surface waters. Adequate room will be available between the base of the slope and the sediment barrier to

accommodate ponding of water and sediment deposition. Temporary ECDs will be maintained until permanent cover<sup>2</sup> is established.

Temporary ECDs installed across the travel lane may be removed during active daytime construction; however, ECDs will be properly reinstalled after equipment passage, or activities in the area are completed for the day. These ECDs will also be repaired and/or replaced prior to inclement weather when forecasted. Dairyland is responsible for monitoring weather conditions and adjusting resources as needed to address pending and/or existing weather conditions.

## **4.2 EROSION PREVENTION**

During construction, certain activities may be suspended in wet soil conditions, based on consideration of the following factors:

- extent of surface ponding;
- potential for rutting, defined as the creation of linear depressions made by tire tracks of machinery that results in the mixing of topsoil and subsoil;
- extent and location of potential rutting and compaction (i.e., can traffic be rerouted around wet area); and
- type of equipment and nature of the construction operations proposed for that day.

Dairyland will monitor upcoming weather forecasts to determine if significant rainfall is anticipated during construction, and will be responsible for appropriately planning work, considering the potential for wet conditions, and being prepared to implement mitigation measures in the event of wet weather conditions and/or excessive waterflow. Dairyland will also be responsible for implementing any and all such corrective measures deemed necessary should conditions subsequently worsen where the above described criteria cannot be met. Dairyland will cease work in the applicable area until Dairyland determines that site conditions are such that work may continue in conformance with the required regulatory authorizations.

## **4.3 TEMPORARY STABILIZATION**

Stabilization<sup>3</sup> of all exposed areas, including spoil piles, must be initiated immediately<sup>4</sup> to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of

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<sup>2</sup> Permanent cover means surface types that will prevent soil failure under erosive conditions. Examples include gravel, concrete, perennial cover, or other landscaped material that will permanently arrest soil erosion. Permittees must establish 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 on all areas not covered by permanent structures, or equivalent permanent stabilization measures. Permanent cover does not include temporary BMPs such as wood fiber blanket, mulch, and rolled erosion control products (Minnesota Rules 7090).

<sup>3</sup> Stabilization means that 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 seeding, agricultural crop seeding, or other seeding alone is not stabilization. Mulch materials must achieve approximately 90 percent ground coverage (Minnesota Rules 7090).

<sup>4</sup> Initiated immediately means taking an action to commence soil stabilization as soon as practicable, but no later than the end of the work day, following the day when the land-disturbing activities temporarily or permanently cease, if permittees know that construction work on that portion of the site will be temporarily ceased for 14 or more additional calendar days or 7 days when within 1 mile of a special or impaired water (Minnesota Rules 7090).

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 has ceased.

In areas within 1 mile of, and draining to, a special or impaired water, stabilization measures will be initiated immediately and completed within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site. Areas of the Project where this timing restriction applies will be clearly defined on the figures accompanying the SWPPP.

On portions of the Project where work will be occurring during applicable “work in water restrictions” for Public Waters (i.e., Gorman Creek), all exposed soil areas within 200 feet of the water’s edge, and that drain to that water, will be stabilized within 24 hours during the fishery restriction period (March 1-June 1)<sup>5</sup>. Stabilization of all exposed soils within 200 feet of the public water’s edge, and that drain to that water, will be initiated immediately and completed within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site outside of the restriction period. These areas will be identified on the figures accompanying the SWPPP.

#### 4.3.1 Mulch

Dairyland will stabilize exposed ground surfaces within the periods described in **Section 4.3**. In most cases, Dairyland will utilize mulch (certified weed-free straw,<sup>6</sup> wood fiber hydromulch, or a functional equivalent) to disturbed areas (except for actively cultivated land and most wetlands) as required by the applicable permits and authorizations, and as approved by the landowner or land-managing agency. Other stabilization methods, such as staked sod, erosion control blanket<sup>7</sup>, mats or other material that prevents erosion from occurring may be used as appropriate based on site-specific conditions.

Mulch will be applied to cover at least 90 percent of the ground surface unless otherwise stipulated by permit conditions. Mulch will be uniformly distributed by a mechanical mulch blower, or by hand in areas not accessible to the mulch blower. Strands of mulch shall be sized to allow proper anchoring. Mulch will be anchored/crimped using a mulch-anchoring tool or disc set in the straight position to minimize loss by wind and water, as site conditions allow. In areas not accessible to a mulch-anchoring tool or too steep for safe operation, the mulch may be anchored by liquid tackifiers. The manufacturer’s recommended method and rate of application will be followed.

Hydro-mulch and liquid tackifier can be used in place of certified weed-free straw mulch with prior approval from Dairyland. All hydromulch and liquid tackifier products used will be on the

<sup>5</sup> MDNR. 2014.. Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001 (4<sup>th</sup> Version). Available online at: [https://files.dnr.state.mn.us/waters/watermgmt\\_section/pwpermits/gp\\_2004\\_0001\\_chapter1.pdf](https://files.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_chapter1.pdf). Accessed February 2024.

<sup>6</sup> Minnesota Department of Transportation. 2020. Standard Specifications for Construction 2020 Edition (Volume 1) 3882 Type 1 or 3 specifications: [2020 Standard Specifications Volume 1-12292450-v2.PDF](#). Accessed February 2024.

<sup>7</sup> Dairyland will consider the MPCA recommendation of using “wildlife friendly” natural fiber or 100 percent biodegradable materials that use loose-weave with a non-welded, movable jointed netting. Dairyland will avoid square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester.

applicable state MnDOT product list. Hydro-mulch and liquid tackifier products containing plastic/polypropylene fiber additives and Malachite Green (colorant) will not be utilized on this Project. Application rates will be at the manufacturer's recommended rate. Dairyland may use hydromulch on steep slopes to prevent erosion until permanent cover has been established.

#### 4.3.2 Temporary Slope Breakers

Temporary slope breakers will be installed to minimize concentrated or sheet flow runoff in disturbed areas. The following maximum allowable spacing unless otherwise specified in permit conditions.

<u>Slope (%)</u>	<u>Approximate Spacing (feet)</u>
3-5	250
5-15	200
15-25	150
>25	<100

If the length of the slope is less than the distance of the required spacing, slope breakers are not required unless a sensitive resource area (e.g., wetland or public roadway) is located immediately down slope, or as determined to be needed by Dairyland. Temporary slope breakers may be constructed using earthen subsoil material, silt fence, certified weed-free straw bales, or in non-agricultural land, rocked trenches may be used. On highly erodible slopes, slope breakers in the form of earthen berms will be used whenever possible.

Temporary slope breakers will be constructed according to the following specifications:

- certified weed-free straw bales used as slope breakers will be trenched in and staked so as to not allow spacing between bales or allow flow underneath the bales;
- the outfall of temporary slope breakers will be directed off the construction workspace into an appropriate energy-dissipating sediment control device (e.g., filter sock, silt fence, straw bales, rock aprons, sumps) to prevent the discharge of sediments and the area will be inspected to ensure stabilization;
- proper slope breaker outfalls will be established where topsoil segregation and/or grading has created a barrier at the edge of the construction workspace;
- J-hook sediment traps will be installed at the perimeter of the erosion control zones on the downslope side of the construction workspace; and
- gaps will be created through spoil piles where necessary to allow proper out-letting of temporary berms.

#### 4.4 MANAGEMENT OF INVASIVE AND NOXIOUS SPECIES

##### 4.4.1 Applicable Laws and Regulations

Dairyland will minimize the potential for introduction and/or spread of invasive and noxious species (INS) along the construction workspace and temporary access roads due to construction activities in compliance with law and regulation. Management strategies will be implemented where applicable and appropriate prior to construction, and during Project construction and restoration. This Plan defines terrestrial plant INS as any species that is listed by the Minnesota Department of Agriculture (MDA) as Prohibited Noxious Weeds. Specifically, this includes documented occurrences of terrestrial plant INS that are listed as “eradicate”<sup>8</sup> or “control”<sup>9</sup> (see **Table 4-1**) under the “Prohibited Noxious Weed” category by the MDA.

**Table 4-1. Minnesota Department of Agriculture Prohibited Noxious Weeds**

Eradicate List		Control List	
Species	Common Name	Species	Common Name
<i>Ailanthus altissima</i>	Tree of Heaven	<i>Berberis vulgaris</i>	Common Barberry
<i>Amaranthus palmeri</i>	Palmer Amaranth	<i>Cardamine impatiens</i>	Narrowleaf Bittercress
<i>Centaurea diffusa</i>	Diffuse Knapweed	<i>Carduus acanthoides</i>	Plumeless Thistle
<i>Centaurea jacea</i> <sup>a</sup>	Brown Knapweed	<i>Centaurea x moncktonii</i>	Meadow Knapweed
<i>Centaurea solstitialis</i>	Yellow Starthistle	<i>Celastrus orbiculatus</i>	Round Leaf Bittersweet
<i>Cynanchum louiseae</i>	Black Swallow-wort	<i>Centaurea stoebe</i>	Spotted Knapweed
<i>Cynanchum rossicum</i>	Pale swallow-wort	<i>Cirsium arvense</i>	Canada Thistle
<i>Digitalis lanata</i>	Grecian Foxglove	<i>Conium maculatum</i>	Poison Hemlock
<i>Dipsacus fullonum</i>	Common Teasel	<i>Euphorbia esula</i>	Leafy Spurge
<i>Dipsacus laciniatus</i>	Cutleaf Teasel	<i>Lythrum salicaria</i>	Purple Loosestrife
<i>Heracleum mantegazzianum</i>	Giant Hogweed	<i>Pastinaca sativa</i> <sup>a</sup>	Wild Parsnip
<i>Humulus japonicus</i>	Japanese Hops	<i>Phragmites australis</i> ssp. australis	Non-native Phragmites
<i>Linaria dalmatica</i>	Dalmatian Toadflax	<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Lonicera japonica</i>	Japanese honeysuckle	<i>Polygonum sachalinense</i>	Giant knotweed
<i>Sorghum halepense</i>	Japanese Hops	<i>Polygonum x bohemicum</i>	Bohemian knotweed
		<i>Tanacetum vulgare</i>	Common Tansy

Notes:  
 Source: MDA, 2024. Minnesota Noxious Weed List. Available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>. Accessed February 2024.  
<sup>a</sup> Indicates species that have been documented in the proposed 100-foot-wide ROW based on MDNR Terrestrial Invasive Species Observations dataset (<https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs>).

<sup>8</sup> Prohibited noxious weeds placed on the noxious weed eradicate list are plants that are not currently known to be present in Minnesota or are not widely established. These species must be eradicated (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

<sup>9</sup> Prohibited noxious weeds placed on the noxious weed control list are plants that are already established throughout Minnesota or regions of the state. Species on this list must be controlled (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.



At the public water (Gorman Creek) managed by the MDNR, the INS management objectives are to minimize the spread of documented occurrences of terrestrial plant INS that are: 1) listed as Noxious by the USDA; 2) listed as “Prohibited Noxious Weeds,” “Restricted Noxious Weeds,” or “Specially Regulated Plants” by the MDA; or 3) listed as invasive by MDNR Operational Order 113 . In addition, Dairyland will adhere to the requirements set forth by the MDNR Utility License to Cross Public Waters and Natural Heritage Review consultation process.

#### **4.4.2 Standard BMPs**

Dairyland will implement several standard BMPs that will limit the amount of disturbance associated with construction activities and assist with managing terrestrial INS infestations within Dairyland’s ROW. Dairyland does not have the authority to treat INS outside of its ROW. Where land outside of the ROW contains a significant population of INS visible from the ROW, Dairyland will attempt to notify landowners and suggest management options for consideration. Dairyland will implement the following BMPs during construction:

- Limiting grading and excavation to areas surrounding pole structure foundations, and only as needed along access roads and workspace areas for a level and safe working area.
- Installing construction mats for travel lanes in wetlands and other locations as needed.
- All disturbed areas will be revegetated using seed mixes labelled “Noxious Weeds; None Found” in accordance with regulations and will utilize yellow tag seed when available.
- Compliance with General Permit, including stabilization requirements, and inspection, maintenance and repair of erosion and sediment control BMPs. Certified weed-free straw or weed-free hay will be used for erosion and sediment control BMPs.
- All construction equipment must be clean prior to entering and before leaving the work site.
- Manual, mechanical, or chemical management of invasive and noxious weed infestations.

##### **4.4.2.1 Installation of Construction Mats**

Dairyland may install and work off of construction mats or equivalent to cover the INS source at locations where the infestation cannot be avoided. Construction mats will then be cleaned before use at another non-infested site as described in **Section 4.4.2.2**.

##### **4.4.2.2 Cleaning Stations**

Dairyland may establish cleaning stations to remove visible dirt and plant material from equipment and mats when exiting a known terrestrial INS infestation area along the construction workspace. Cleaning stations may also be implemented at staging/laydown yards, as needed to clean construction mats and equipment. Construction mats will be covered and contained in plastic tarps or geotextile fabric when they are transported and stored to minimize the spread of seeds.

Mechanical means (initial scrape down followed by blow down) will be the primary method used to remove dirt and plant materials from vehicles, equipment, and construction mats at the cleaning stations or construction yards.

#### **4.4.2.3 Mowing**

Spot mowing may be used during construction and restoration to control the spread of identified INS populations by cutting the vegetation before it goes to seed, and/or to allow native species the opportunity to establish.

#### **4.4.2.4 Herbicide Application**

Landowners, operators of organic farms on adjacent parcels, and bee apiary operators within three miles will be notified 14 days in advance if herbicides will be used on the ROW. The notice will indicate what herbicides will be used and the methods of application (e.g., broadcast, selective spot treatment, or basal treatment).

Unless a landowner or land-managing agency has specified that no herbicides are to be used on their property, herbicides may be used to treat tree and brush stumps to prevent regrowth, and/or to control listed invasive or noxious weed species.

Any weed control spraying will be in accordance with State of Minnesota regulations. Herbicides will be used in accordance with manufacturer's specifications and all applicable federal and state regulations.

Herbicides used within or near wetlands or waterbodies must be:

- designed for use in wet areas as designated by manufacturer's specifications and federal and state regulations, and
- be used in accordance with manufacturer's specifications as well as all applicable federal and state regulations.

Areas of high public exposure such as rivers, creeks, streams, and U.S. and state highways shall be treated with a selective basal or backpack application. Approximately 30 to 300 feet on each side of the crossing shall be treated in this manner.

Herbicides will not be used on any state or federal lands without approval of the agency having authority over such land.

Dairyland may use herbicides on land owned by Dairyland (e.g., substation facilities). Dairyland will work with adjacent landowners, if requested, on weed control activities.

#### **4.4.3 Invasive Tree Pests**

Invasive tree pests occur in the Project area, including the non-native emerald ash borer (*Agilus planipennis*). Emerald ash borer larvae feed on all species of ash trees. Most of the species' life cycle occurs underneath the bark; early indications of infestation are bark removal or flecking from

woodpeckers that eat the larvae.<sup>10</sup> The Project occurs in the quarantine area for the emerald ash borer.<sup>11</sup>

Dairyland will clear forested vegetation in upland and wetland areas and will generally dispose of non-merchantable timber and slash by mowing, cutting, chipping, mulching and/or hauling off site to an approved disposal facility. Merchantable timber will be disposed of in accordance with contract specifications and applicable permits and licenses. In accordance with this quarantine, Dairyland will not transport felled ash (genus *Fraxinus*) trees or any processed parts (i.e., logs, chips, mulch, stumps, roots, branches) from a quarantine to a non-quarantine area.<sup>12</sup>

#### 4.4.4 Oak Wilt

Oak wilt is caused by a non-native invasive fungus (*Bretziella fagacearum*), which invades and eventually kills the oak tree. Oak wilt has been identified in Wabasha County. Trees are most susceptible to the spread between April 1 to July 15; however, if daily high temperatures exceed about 60 degrees Fahrenheit or higher for six consecutive days, spread can occur.<sup>13</sup> In the event that a healthy oak tree adjacent to the construction workspace is damaged or wounded during construction activities, Dairyland will treat the cut surface with water-based paint, a pruning/wound sealer, or shellac to prevent further spread of the disease.

### 4.5 ORGANIC FARMS

There is one organic farm within the Proposed Route near MP 2.9; however, it is not crossed by nor directly adjacent to the Proposed Alignment and associated ROW.<sup>14, 15</sup> However, if Dairyland encounters a farm that is working toward certification or a landowner considers its farm to be organic, even if they are not certified, Dairyland will work with the landowner to minimize impacts. Special practices would be adhered to within and adjacent to these organic agricultural lands.

If Dairyland became aware of an existing or developing, unregistered organic farm within or adjacent to the right-of-way, Dairyland would work with the organic farmer to develop acceptable maintenance practices potentially including:

- Working with the landowner to identify site-specific maintenance and/or construction practices that would minimize the potential for decertification; once these are developed, the specific measures would be followed. Possible practices may include:
  - Equipment cleaning

<sup>10</sup> MDNR. 2024 Emerald ash borer. Available at: [Emerald ash borer \(EAB\) | Minnesota DNR \(state.mn.us\)](https://www.dnr.state.mn.us/emerald_ash_borer/). Accessed February 2024.

<sup>11</sup> MDA. 2024. Emerald Ash Borer Quarantine. Available at: [Emerald Ash Borer Quarantine | Minnesota Department of Agriculture \(state.mn.us\)](https://www.mda.state.mn.us/organic-farm-directory-county). Accessed February 2024.

<sup>12</sup> MDA. 2024. Minnesota Department of Agriculture State Formal Quarantine: Emerald Ash Borer (Version 33). Available online: [https://www.mda.state.mn.us/sites/default/files/docs/2024-01/Formal%20EAB%20Quarantine%20Morrison%20County.docx .pdf](https://www.mda.state.mn.us/sites/default/files/docs/2024-01/Formal%20EAB%20Quarantine%20Morrison%20County.docx.pdf). Accessed February 2024.

<sup>13</sup> MDNR. 2024. Oak Wilt. Available at: [https://www.dnr.state.mn.us/treecare/forest\\_health/oakwilt/index.html](https://www.dnr.state.mn.us/treecare/forest_health/oakwilt/index.html). Accessed February 2024.

<sup>14</sup> <https://www.mda.state.mn.us/organic-farm-directory-county>

<sup>15</sup> <https://organic.ams.usda.gov/integrity/>

- Planting a deep-rooted cover crop in lieu of mechanical decompaction
  - Application 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
  - Use of organic seeds for any cover crop
- Prohibited substances would not be applied onto organic agricultural land. No herbicides, pesticides, fertilizers, or seed would be applied unless requested and approved by the landowner.
  - No refueling, fuel or lubricant storage, or routine equipment would be allowed on organic agricultural land. If these prohibited substances are used on land adjacent to organic agricultural land, they would be used in such a way to prevent them from entering the organic agricultural land.
  - Topsoil and subsoil layers that are removed during work on these lands for temporary road impacts would be stored separately and replaced in the proper sequence after work is complete.
  - Erosion control methods on organic agricultural land would be consistent with USDA organic practices<sup>16</sup> to the extent feasible. Adjacent to these lands, erosion control procedures would be designed so sediment from non-organic land would not flow into the organic agricultural lands.
  - Weed control methods would be consistent with the USDA organic practices to the extent feasible.

## 5. RESTORATION

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As previously described, areas of ground disturbance will be limited mainly to structure locations and along temporary access roads. Although Dairyland will cut tall vegetation along the full width of the ROW, vegetation and root stock will remain during construction. Therefore, restoration activities will be limited to:

- Inspecting, maintaining, repairing, and replacing temporary erosion and sediment control BMPs until permanent cover is achieved (see **Section 6.0**).
- Conducting decompaction in areas where temporary access roads were developed and where grading occurred on the ROW, as needed.
- Install permanent erosion and sediment control measures where needed.

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<sup>16</sup> <https://www.ams.usda.gov/publications/content/fact-sheet-introduction-organic-practices>

- Applying temporary seed mix to minimize erosion potential to the extent practicable.
- Permanent seeding non-agricultural areas disturbed by transmission line structures to prevent runoff.
- Removal of construction mats and temporary bridges after restoration activities are complete.

## 5.1 DECOMPACTION

After rough grading and before topsoil replacement, Dairyland will decompact the subsoil in actively cultivated areas to relieve soil compaction and promote root penetration. Decompaction may also occur on improved upland temporary access roads as appropriate. To alleviate soil compaction, Dairyland will decompact the area prior to topsoil replacement with a deep tillage device or chisel plow if agreed to by the landowner or land-managing agency. Soil conditions must be dry enough to shatter the compacted soil between the points of a subsoiler or chisel plow to lower the bulk density of soil and reduce compaction. Soil at the compacted depth must not be wet and plastic at the time of tilling, otherwise it will not reduce compaction. If subsequent construction and cleanup activities result in further compaction, the measures described above will be completed a second time to alleviate the soil compaction.

After topsoil replacement, the soil will be tilled with a disc or rolling harrow, drag harrow, Harley rake, field cultivator, or chisel plow (or equivalent) to break up large clods and to prepare the soil surface. Suitable conditions generally include a firm soil surface that is not too loose or too compacted and will be prepared to accommodate the seeding equipment and method to be used.

## 5.2 PERMANENT EROSION AND SEDIMENT CONTROL BMPS

During final grading, slopes in areas other than cropland will be stabilized with erosion and sediment control BMPs (i.e., ECDs). With exception for actively cultivated areas, permanent berms (diversion dikes or slope breakers) will be installed on slopes where ground disturbance has occurred, or where otherwise deemed necessary, according to the following maximum spacing requirements unless otherwise specified in permit conditions.

<u>Slope (%)</u>	<u>Approximate Spacing (feet)</u>
5	250
>5-15	200
15-25	150
>25	<100

Permanent berms will be constructed according to the following specifications:

- Permanent berms will be installed with a 2 to 4 percent out slope.
- Permanent berms will be constructed of compacted earth, stone, or functional equivalent in conformance with the required regulatory authorizations and all applicable regulations governing this activity.



- The outfall of berms will be diverted into an appropriate energy-dissipating sediment control device (e.g., filter socks, silt fence, straw bales) until permanent cover is established to prevent discharge of sediment. Berms will be extended slightly beyond the edge of the construction workspace if possible; however, only with the appropriate sediment capturing device. Outfalls will be inspected to ensure stabilization.
- Permanent berms will be inspected and repaired as deemed necessary by Enbridge to maintain function and prevent erosion.

### **5.3 EROSION CONTROL BLANKETS**

The appropriate class of erosion control blanket will be installed in accordance with manufacture recommendations and/or MnDOT specifications on slopes greater than 33 percent that drain to surface waters, and at other locations based on site-specific conditions. Installation of erosion control blankets and additional erosion and sediment control BMPs may occur after first snowfall depending on construction progress, seasonal weather, and site conditions. Erosion control blankets will be installed running parallel (up and down) with the direction of the slope (not perpendicular).

Dairyland will consider the MPCA recommendation of using “wildlife friendly” natural fiber or 100 percent biodegradable materials that use loose-weave with a non-welded, movable jointed netting. Dairyland will avoid square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester.

### **5.4 PROJECT SEED SPECIFICATIONS**

Seed used will be purchased on a “Pure Live Seed” (PLS) basis for seeding (both temporary and permanent) revegetation areas. Dairyland will arrange for the appropriate storage of the seed. Dairyland will utilize yellow tag seed, which is certified by the Minnesota Crop Improvement Association, when it is available. Seed tags will identify:

- name of mixture;
- lot number;
- weed seed percentage;
- other crop percentage;
- inert matter percentage;
- noxious weeds by name and number per pound;
- net weight; and
- labeler’s name and address.
- In addition, for each component in the mix the following information must be included on the label:
  - kind;
  - variety;
  - pure seed percentage;
  - germination percentage;

- hard seed percentage;
- dormant seed percentage;
- total viable percentage;
- origin; and
- test date.

Seed will be used within 5, 12, or 15 months of testing as required by applicable laws and regulations. The seed tags on the seed sacks will also certify that the seed is “Noxious Weed: None Found.” The label must show any noxious weed seed by name and number per pound. If none were found in testing, then the label should state “Noxious Weeds: None Found.” Any *Amaranthus* seeds found in the purity and/or noxious exam must be tested using a genetic test to determine if Palmer amaranth is present. If Palmer amaranth is identified in testing, the seed is not legal for sale in Minnesota. Seed rates used on the Project will be based on PLS rate, not actual weight basis. Therefore, to determine the correct application rate if not indicated on the seed tag, a correction calculation will be performed based the purity and total germination.<sup>17</sup> For example, a seed mix that has a specified 10 pounds PLS per acre, 95 percent total germination rate, and is 80 percent pure needs to be applied at the following rate:

$$(95\% \text{ total germination} \times 80\% \text{ purity})/100 = 76\% \text{ PLS}$$

$$10 \text{ pounds PLS per acre}/.76\% \text{ PLS} = 13.2 \text{ pounds per acre actual seeding rate}$$

The species components of individual mixes are subject to availability at the time of purchase. Grass species may be substituted with alternative native or non-invasive species that are included in the Natural Resources Conservation Service guidelines in conformance with the required regulatory authorizations. Any seed substitution must meet all the Project requirements as outlined. The seed tag must always reflect the species in the container and reflect any substitutions.

Seed tags will be collected during seeding activities. The tags will be reviewed by the Dairyland prior to installation to ensure that the seed mix complies with regulations and Dairyland specifications and that it is being applied to the correct location. Seed tags will be maintained for a minimum of 2 years after seeding along with planting records for each specific location. If bulk delivery of seed is made, the above information will still be made available to Dairyland. Off-loading/on-loading of seed will not be performed in a designated wetland area. Dairyland will notify the Minnesota Department of Agriculture, Minnesota Seed Regulatory Program Coordinator so that seed lots may be sampled and tested to confirm compliance with Minnesota Seed Law, as necessary.

Legume seed (if used) will be treated with an inoculant specific to the species and in accordance with the manufacturer’s recommended rate of inoculant appropriate for the seeding method (broadcast, drill, or hydroseeding).

Fertilizers and other soil amendments are not recommended and will only be applied as requested by and agreed to in ROW negotiations with individual landowners.

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<sup>17</sup> Percent total germination = (germination + hard seed + dormant).

## 5.5 SEEDING METHODS

Seed will be applied uniformly at specified rates by broadcasting, hydroseeding, or drill seeding. Dairyland will ensure that the seeding equipment is appropriate for the seed mix and is capable of dispensing native seeds without plugging or unevenly distributing the seed. In order to minimize ground disturbance along the entire corridor, forested areas are being cleared, but roots and stumps are being left in place. Within areas of cleared forest, it may not be practical to access large areas of ground with seeding and seedbed preparation equipment. In these areas, smaller vehicles may be required to perform tasks such as preparing seedbeds with small rakes, and surface packing after seeding. Activities will be suspended if conditions are such that equipment will cause rutting of the surface in the designated seeding areas (see **Section 4.2**).

Broadcast seeding may be used at all disturbed areas where bare soil is created. Broadcast seeding will occur at rate specified in the mixture tabulation for the specified mix. Seed is to be uniformly distributed by a mechanical, hand-operated seeder, or in small seeding areas, by hand. Following seeding, the surface is to be raked with a cultipacker, harrow, or hand rake. The bed is to be firmed as appropriate to site conditions.

Hydroseeding may be used at all disturbed upland areas where bare soil is created. Hydroseeding is not approved in wetland locations as the method requires extra access by heavy vehicles. Hydroseeding will occur at rate specified in the mixture tabulation for the specified mix. Seed will be applied in a broadcast, hydromulch slurry. The hydromulch seed mix will allow the contractor to see where application has taken place, ensuring uniform coverage of the seeding area. The hydroseeder must provide for continuous agitation of slurry and provide for a uniform flow of slurry. Hydroseed slurry is not to be held in the tank for more than one hour prior to application. Dairyland will pre-approve all hydromulch products, which must be on the applicable MnDOT product list. Hydromulch and liquid tackifier products containing plastic/polypropylene fiber additives and Malachite Green (colorant) will not be utilized on this Project.

Seed drilling may be used in areas where stumps have been removed and a prepared seed bed can be created. However, these areas are expected to be infrequent and may not occur on the Project. Drilled seed will be sown at a depth of 0.25 inches. Seeding equipment will be able to accommodate and uniformly distribute different sizes of seed at the required depth. Feeding mechanisms will be able to evenly distribute different seed types at the rates specified. Seedbed soil is to be suitably firmed immediately following seed drilling.

## 5.6 TEMPORARY REVEGETATION

Temporary cover and/or seeding may be used as a quick means to minimize soil erosion and reducing the potential for the establishment of invasive and noxious species. Temporary seed mixes are considered a cover crop and are made up of annual grasses, have rapid germination, and provide quick ground cover. These seed mixes are not intended to provide multi-year cover. Unless specifically requested by landowners or regulatory agencies, the Project will not establish temporary vegetation on cultivated land or in inundated areas. Dairyland's temporary seed mixes were developed based on Minnesota BWSR seed mixes (**Table 5-1**).

**Table 5-1. Temporary Cover Crops**

<b>Seed Mix</b>	<b>Purpose</b>
Oats Cover Crop (21-111)	Temporary cover crop for spring and summer plantings
Winter Wheat Cover Crop (21-112)	Temporary cover crop for fall plantings
Soil Building Cover Crop (field pea/oats) (21-113)	Temporary crop with soil building function
Source: BWSR. 2024. <a href="#">Seed Mixes   MN Board of Water, Soil Resources (state.mn.us)</a> . Accessed February 2024.	

Temporary erosion and sediment control BMPs will also be established as described in **Section 5.6** until permanent cover has been established.

## **5.7 PERMANENT REVEGETATION**

Permanent vegetation will be established in areas disturbed within the construction work area (e.g., graded areas) and along temporary access roads that are to be restored to pre-construction conditions, except in actively cultivated areas and standing water wetlands. Dairyland's permanent seed mixes (**Table 5-2**) were selected to augment revegetation via natural recruitment from native seed stock in the topsoil and are not intended to change the natural species composition.

The seed mixes for permanent seeding include Minnesota state seed mixes that have been developed for a variety of habitats with the intent to increase diversity, create competition for invasive species, and promote plant community resiliency. Native seed mixes were determined by using the MnDOT Seeding Manual<sup>18</sup> and were selected to meet the expected variety of conditions present along the right-of-way. The seed mixes are suitable for the Eastern Broadleaf Province which the entire Project is located in. If sufficient seeds are not available at the time of seeding, a similar, appropriate seed mix will be used, determined by the BWSR Seed Substitutions table.<sup>19</sup>

It is important to note that native seed mixes can take 2 to 3 years to fully germinate depending on the time of year that the seeds were installed, soil, site, and weather conditions. During the first year, many native plants will have a somewhat weedy appearance growing to only about 1-3 inches tall. By the second year, some native grasses, sedges, and flowers may reach mature height, and some may flower, alongside many first-year native seedlings as well. Many of the native plants will be mature and start flowering by the third year. Depending on the seed mix, other plants will not appear or mature for several years.

<sup>18</sup>. MnDOT Seeding Manual 2023. [Vegetation - Erosion Control and Stormwater Management \(state.mn.us\)](#)

<sup>19</sup>. [Seed Substitution list \(state.mn.us\)](#)

**Table 5-2. Permanent Seed Mixes**

<b>Seed Mix (State Seed Code)</b>	<b>Purpose</b>	<b>Example Seeding Areas along Project</b>
Mesic Prairie Southeast (35-641)	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program planting	<ul style="list-style-type: none"> <li>• Roadside</li> </ul>
Dry Prairie General (35-221)	General dry prairie mix for native roadsides, ecological restoration, or conservation program planting	<ul style="list-style-type: none"> <li>• Roadside</li> </ul>
Woodland Edge South & West (36-211)	Partly shaded grassland planting for native roadsides, reclamation, etc.	<ul style="list-style-type: none"> <li>• Edges of forested areas</li> </ul>
Wetland Seedbank Release (31-721)	Wet meadows where there is a high likelihood that seeds of native species will be in the seedbank and there is a need for a seed mix to supplement the seed bank, improve cover of bare soils, and increase diversity.	<ul style="list-style-type: none"> <li>• Emergent/herbaceous wetlands that need supplemental seeding only</li> </ul>
Wetland Rehabilitation (34-172)	For use in areas with soil saturation within a foot of the surface during a majority of the growing season and full to partial sun where a wet meadow community is the goal. Intended for wetlands where supplemental seeding is needed.	<ul style="list-style-type: none"> <li>• Wetlands that need supplemental seeding only</li> </ul>
Wet Meadow South and West (34-272)	Areas with soil saturation within 1 foot of the surface during the majority of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to wetland restoration.	<ul style="list-style-type: none"> <li>• Emergent wetland areas</li> </ul>
Stormwater South and West (33-261)	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms	<ul style="list-style-type: none"> <li>• Edge of stormwater pond at Kellogg Substation; edges of ponds or ditch bottoms that are temporarily flooded</li> </ul>
Impoundment General (33-161)	Areas with mesic soils to soil saturation within a foot of the surface during a majority of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to an impoundment for periodic holding of water	<ul style="list-style-type: none"> <li>• Kellogg Substation stormwater pond</li> </ul>
Dry Swale / Pond	Temporarily flooded swales in agricultural settings	<ul style="list-style-type: none"> <li>• Swales in agricultural fields</li> </ul>
Low Diversity Buffer South & West (32-242A)	Riparian buffer areas with mesic soils and full sun for at least 70% of the day where the goals of providing wildlife habitat, soil stabilization, and water quality benefits.	<ul style="list-style-type: none"> <li>• Waterbody / ditch crossings</li> </ul>



Riparian South & West (34-262)	Riparian areas along rivers, streams, and other waterbodies with areas of moist soils and potential flooding during part of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to riparian plants	<ul style="list-style-type: none"> <li>• Waterbody / ditch crossings</li> </ul>
Beneficial Insects South and West (38-541A)	Designed to support specialist bees, many Lepidoptera species, and a wide range of beneficial insects. Includes a wide range of plant families to maximize insect use, bloom periods, and long-term resiliency of the mix	<ul style="list-style-type: none"> <li>• Roadsides / upland areas</li> </ul>
Pollinator Plot Southeast (38-641)	Designed to support specialist bees, many Lepidoptera species, and a wide range of beneficial insects. Includes a wide range of plant families to maximize insect use, bloom periods, and long-term resiliency of the mix	<ul style="list-style-type: none"> <li>• Roadsides / upland areas</li> </ul>
Source: BWSR, 2024		

### 5.7.1 Permanent Seeding of Upland Areas

The Project primarily occurs along roadsides within agricultural areas. Dairyland does not intend to seed actively cultivated areas; however, Dairyland will seed with temporary cover crops identified in Table 4-1 or other mixes at the landowner request. In landscaped / lawn areas, Dairyland will use turf grass seed mixes requested by the landowner. Roadside areas may be reseeded with seed mixes in Table 4-2 that most closely resemble the current vegetation community, unless otherwise agreed upon with the landowner and/or road authorities.

Dairyland will consider the inclusion of pollinator species based on availability of local genotypes, appropriateness for the location/site, and landowner preference. For example, even if a site would otherwise support pollinator habitat, if the landowner intends to instead plant and maintain turf grass, the parcel would be restored in accordance with the landowner's preference. Similarly, if a parcel is in agricultural production, depending on the timing of restoration, a cover crop may be planted to minimize erosion in the short-term, but pollinator or native species would not be planted in recognition of the fact that the parcel will return to agricultural production.

### 5.7.2 Permanent Seeding of Wetland Areas

The Project would cross approximately 2,400 feet of wetlands consisting of forested and emergent wetland types. Construction mats will be placed in these wetlands for vegetation clearing and access; however, Dairyland plans to span these wetlands to avoid structure placement within the wetlands where practical. Therefore, Dairyland does not anticipate the need to grade within these wetland communities. Dairyland will continue to manage woody vegetation within these wetlands as further discussed in **Section 7.0**.

In wetlands, the preferred method for revegetation of disturbed areas is reliance on revegetation by resident plant communities. However, supplemental seeding may be beneficial at some

locations to improve cover of bare soils and increase diversity. Dairyland will use a wetland seed mix in Table 4-2 that most closely corresponds to the native vegetation community to seed large bare soil disturbance areas (i.e., greater than 50 square feet of exposed soils that is greater than two feet wide) (see Table 4-2). No fertilizer, lime, or mulch will be applied in wetlands.

There is a forested/emergent wetland complex located between MPs 12.8 to 12.9 that occurs within the McCarthy Lake Minnesota Biological Survey site. This site is potentially a Rare Natural Community and requires additional consultation with the MDNR. Dairyland will coordinate with the MDNR regarding the appropriate restoration of this location.

### **5.7.3 Permanent Seeding of Waterbody Banks**

Dairyland will reestablish stream bank vegetation as needed using the seed mix the southeast and south and west regions. Dairyland crosses the public water, Gorman Creek, which is managed by the MDNR. Dairyland will coordinate with the MDNR regarding the appropriate restoration of this location.

### **5.7.4 Timing**

Native plant seed mixes are often planted in the fall, generally after November 1, or when temperatures are below 50 degrees Fahrenheit for a consistent period of time in order to stratify the seeds to break their seed dormancy. Snow seeding may also be conducted in early or late winter when there is less than 4 inches of snow on sunny days. Spring seedings should be done around May 1 to June 30, or when soil temperatures at least 60 degrees Fahrenheit or higher. Outside of these time windows, the cover crop seed mixes will be applied according to temporary cover crop seed mix specifications, as shown above in Table 4-1.

## 6. INSPECTIONS

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After construction, Dairyland will inspect areas where seeding and erosion control measures have been implemented and will follow up with reseeding measures where vegetative cover by the specified seed mix, or revegetation by the local, native seed source, is inadequate to provide long term stability and sustainable permanent cover. The Project ROW will be monitored until permanent cover is achieved.

## 7. OPERATION & MAINTENANCE

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Dairyland's primary goal is to construct the Project and then operate and maintain the Project and its ROW in a manner that ensures a safe and reliable transmission line.

In response to widespread outages in the United States in the early 2000s, Congress enacted the Energy Policy Act of 2005, which authorized the Federal Energy Regulatory Commission (FERC) to certify an Electric Reliability Organization (ERO) to create mandatory, enforceable reliability standards; the standards are subject to FERC review and approval. FERC subsequently designated NERC as the ERO tasked with developing and enforcing standards to ensure the reliability of the transmission system in North America. NERC's standards are developed using a results-based approach that focus on performance, risk management, and entity capabilities, and using an American National Standards Institute-accredited process that ensures the process is open to all persons directly and materially affected by the reliability of the North American bulk power system.<sup>20</sup>

More specifically, NERC developed its Reliability Standard FAC-003 Transmission Vegetation Management Program and began enforcement of that standard in 2007. In recognition of the fact that failure to address vegetation requirements can cause major power outages and injury, NERC is authorized to assess regulatory penalties for non-compliance. This standard is updated from time to time and is reviewed and approved by FERC, just like other NERC reliability standards. NERC has determined that “[m]ajor outages and operational problems have resulted from interference between overgrown vegetation and transmission lines located on many types of lands and ownership situations” and that adhere to standard requirements “will reduce and manage this risk.”<sup>21</sup> The purpose of the NERC standard is:

*To maintain a reliable electric transmission system by using a defense- in-depth[-]strategy to manage vegetation located on transmission rights of way (ROW) and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.*<sup>22</sup>

For transmission lines subject to NERC standards, compliance with these standards is required. And, even for transmission lines which are not subject to NERC standards, ensuring safe and reliable construction and operation is paramount. While the Project is not subject to NERC standards, it is Dairyland's general practice to follow the standards for its 161-kV transmission lines. The purpose of this Plan is to meet the objective of a safe and reliable transmission line,

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<sup>20.</sup> See North American Electric Reliability Corporation, *Standards*, available at <https://www.nerc.com/pa/Stand/Pages/default.aspx>.

<sup>21.</sup> 2 E.g., NERC, *FAC-003-4 Transmission Vegetation Management*, available at <https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-4.pdf>.

<sup>22.</sup> *Id.*

consistent with applicable laws, permits, and other requirements, while also minimizing human and environmental impacts associated with vegetation management to the extent possible.

### **7.1 ROUTINE INSPECTIONS**

Dairyland will conduct aerial and/or ground visual inspections of the ROW every year to ensure a safe and reliable corridor and to ensure access for maintenance activities or emergencies. Maintenance work will be based on the findings of those inspections.

### **7.2 ROUTINE MAINTENANCE**

Dairyland will periodically clear vegetation from the 100-foot-wide ROW to maintain a safe and apparent corridor, and to allow access for maintenance activities or emergencies. The clearing will be done consistent with the practices outlined in **Section 7.3**. Clearing typically includes brushing equipment traveling down the right-of-way, which may consist of tracked or rubber-tired equipment to cut brush and trees, hand-held saws, or other manual methods. Small cuttings will be left in place, non-merchantable timber or slash will be disposed of where it originates, hauled off-site, or chipped and evenly spread on the ROW. If burning is proposed, Dairyland will consult with landowners, as well as applicable authorities to obtain necessary authorization or permits.

Project-specific maintenance techniques and mitigation measures include:

- If the surface is unstable such that rutting, soil compaction, or soil mixing may occur, low ground-pressure equipment will be used or maintenance equipment will be operated from weed-free mats or temporary timber corduroy that will be removed upon completion of the work.
- Steep slopes and slopes leading to waterbodies will be cleared by hand, leaving adequate herbaceous or low shrub cover to avoid erosion. Trees and shrubs will not be grubbed; all roots will be left intact.
- Vegetation management requirements stipulated in any MDNR, MnDOT, or local governmental unit licenses or permits will be followed.
- All extra work areas (such as staging areas and additional spoil storage areas) will be located outside of wetland boundaries, where topographic conditions permit. If topographic conditions do not permit, an alternate location or matting will be used to minimize impacts.

Due to the typically unstable nature of soils in wetlands, and to preserve wetland hydrology and function, special practices are necessary for some operations and maintenance activities as follows:

- Heavy equipment passage through wetlands will be limited to only when necessary to complete the activity.



Dairyland will attempt to complete maintenance clearing during frozen conditions. When frozen conditions are not practicable, maintenance will be done using low ground-pressure equipment (ATVs and the like), after installing temporary matting or corduroy, or with hand tools.

Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed one inch in depth. If sufficient brush is present such that debris will exceed one-inch, sufficient brush will be hauled out for processing in an upland area.

Wetlands generally revegetate naturally. If no standing water is present, Dairyland will use a wetland seed mix in Table 4-2 that most closely corresponds to the native vegetation community. No fertilizer or lime will be applied in wetlands.

### **7.3 FALL LINE TREES**

Dairyland will cut all trees which may strike line facilities, including stub, guy and anchor facilities, based upon the application of a standard fall line calculation through an average 6-year growth horizon of the species identified adjacent to the ROW. Danger trees are typically any tree that is leaning, damaged, having poor root structure, or showing signs of internal decay such that Dairyland's ROW inspectors believe all or portions of the tree may fall into the transmission line. Dairyland's easements authorize the removal of danger trees outside of the ROW. Danger tree removal is a critical aspect of ensuring transmission line reliability and fire prevention. Healthy trees located outside of the ROW with a limited number of limbs and branches that extend within the ROW may be trimmed such that the limbs are completely removed from the ROW.

### **7.4 EMERGENCIES**

It may be necessary for Dairyland to cut, trim or remove vegetation due to damage caused by weather events or accidents. Such work is typically done to facilitate restoring services on the line. Dairyland will attempt to notify the landowner prior to entering the property.

## 8. GLOSSARY OF TERMS

<b>Term</b>	<b>Definition</b>
ATV	All-Terrain Vehicle
BMPs	Best Management Practices
Dairyland, or the Applicant	Dairyland Power Cooperative
dBh	diameter at breast height
DOC	Department of Commerce
ECD	erosion control device
EERA	Department of Commerce, Energy Environmental Review and Analysis
ERO	Electric Reliability Organization
FERC	Federal Energy Regulatory Commission
HVTL	High voltage transmission line
INS	invasive and noxious species
kV	Kilovolt
MBS	MDNR Minnesota Biological Survey
MDA	Minnesota Department of Agriculture
MDNR	Minnesota Department of Natural Resources
MnDOT	Minnesota Department of Transportation
NERC	North American Electric Reliability Corporation
PLS	Pure Live Seed
Project	Wabasha Relocation Project
Proposed Alignment	Proposed Alignment is used to refer to the centerline location of the transmission line and structures. The Proposed Alignment follows an approximately 13.3-mile route starting in the vicinity of Structure X-Q3-75 on Dairyland's LQ34 161-kV transmission line northeast of the Town of Plainview, Minnesota in Wabasha County to the new 4-acre Kellogg Substation.
Proposed Route or Project Route Width	The Proposed Route is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation.
ROW	right-of-way
VMP, or Plan	Vegetation Management Plan

**From:** Kotch Egstad, Stacy (DOT) <stacy.kotch@state.mn.us>  
**Sent:** Friday, March 15, 2024 9:44 AM  
**To:** Britta Bergland  
**Cc:** Sage Williams; Kristin Lenz; Angie Ronayne  
**Subject:** EXTERNAL: RE: DPC - Wabasha Relocation Project Utility ENM Submittal

**CAUTION:** This email originated from outside of Merjent.

Good Morning Britta,

Thank you very much for participating in and providing the populated Utility ENM. All links and attachments were received without issue.

Considering the anticipated joint filing timeline stated below, MnDOT functional groups and District office will review the provided information and respond accordingly (general comments, mitigative suggestions, permitting requirements, etc.) in our scoping comment letter. I will reach out should reviewers have questions or need clarification on the information you've provided.

As an FYI, I've developed/updated some general Large Energy Facility guidance documents that are now on a new subpage of MnDOT's Utility Agreements and Permits site. If bookmarked, you may find this page a handy and quick reference aid: [Large Energy Facility Project Guidance - MnDOT \(state.mn.us\)](https://state.mn.us/large-energy-facility-project-guidance)

Thanks again,

**Stacy Kotch Egstad**

Utility Routing & Siting Coordinator | Office of Land Management

**Minnesota Department of Transportation**

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**From:** Britta Bergland <britta.bergland@merjent.com>

**Sent:** Thursday, March 14, 2024 12:24 PM

**To:** Kotch Egstad, Stacy (DOT) <stacy.kotch@state.mn.us>

**Cc:** Sage Williams <Sage.Williams@DairylandPower.com>; Kristin Lenz <kristin.lenz@merjent.com>; Angie Ronayne <angie.ronayne@merjent.com>

**Subject:** DPC - Wabasha Relocation Project Utility ENM Submittal

You don't often get email from [britta.bergland@merjent.com](mailto:britta.bergland@merjent.com). [Learn why this is important](#)

**This message may be from an external email source.**

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Hello Stacy,

On behalf of Dairyland Power Cooperative, please find the completed Utility Early Notification Memo form and supplemental information for the Wabasha Relocation Project in Wabasha County, Minnesota. The submittal materials include four parts:

- Cover Letter and ENM Form (attached)
- Supplemental Information package with attachments A, C, D, and E, available to download from Adobe Cloud due to file size: <https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:5a001ca9-826a-483c-99d3-4fff01252d91>
  - Attachment B – Project shapefiles and kmzs (attached)
  - Attachment B – GIS data tables (attached)

Please reach out if you have any questions as you complete your review. Dairyland intends to file its joint Certificate of Need/Route Permit application to the Minnesota Public Utilities Commission at the end of March 2024.

Thank you!

Britta

**Britta Bergland**

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**Minnesota State Historic Preservation Office**



1 Main Street SE ■ Suite 300 ■ Minneapolis, Minnesota ■ 55414

February 6, 2024

Minnesota State Historic Preservation Office  
 Administration Building #203  
 50 Sherburne Ave.  
 St. Paul, MN 55155  
 ENReviewSHPO@state.mn.us

Re: Dairyland Power Cooperative  
 Wabasha Relocation Project  
 Phase IA Cultural Resources Assessment

To Whom it May Concern:

This letter presents the results of a file search completed in support of the Wabasha Relocation Project (Project) in Wabasha County, Minnesota. Dairyland Power Cooperative (Dairyland) is proposing to relocate its existing LQ34 161-kilovolt (kV) transmission line that is currently located on existing structures that support the CapX2020 Hampton-Rochester-La Crosse 345-kV (CapX2020) transmission system. The Dairyland 161-kV circuit must be relocated from the CapX2020 structures to make room for a new, second 345-kV circuit that is planned for the existing CapX2020 structures. Therefore, the Project includes the installation of a new 13.3-mile 161-kV transmission line and construction of a new substation near Kellogg, Minnesota. To assist with Project planning, Merjent, Inc (Merjent) prepared this letter; it includes the results of a file search and recommendations.

In order to adequately address resources that may be affected by Project improvements, Merjent established a larger Study Area to establish context and understand nearby archaeological site density. The Study Area includes the Project alignment plus an additional half-mile buffer on each side. The Study Area is comprised of the following locations:

County	Township (T)	Range (R)	Sections (S)
Wabasha	108N	11W	1
Wabasha	109N	10W	4, 5, 7, 8, 18
Wabasha	109N	11W	13, 23, 24, 26, 35
Wabasha	110N	9W	30, 31
Wabasha	110N	10W	25, 26, 27, 33, 34, 35, 36

**REGULATORY FRAMEWORK**

When Project development proceeds, we expect that the Minnesota Field Archaeology Act (Minn. Stat § 138.31-138.42) will apply to the Project. Regardless of specific permits required prior to construction, the Private Cemeteries Act (Minn. Stat § 307.08) will apply.

The Minnesota Field Archaeology Act (Minn. Stat § 138.32-138.42) establishes the Office of the State Archaeologist (OSA); requires licenses to engage in archaeology on nonfederal public land;

Note: This letter is also intended to serve as notice of the opportunity for a pre-application consultation meeting under Minn. Stat. § 216E.03, subd. 3a.



establishes ownership, custody, and use of objects and data recovered during survey; and requires state agencies to submit development plans to the OSA, Minnesota State Historic Preservation Office (SHPO), and the Minnesota Indian Affairs Council for review when there are known or suspected archaeological sites in the area.

Minnesota’s Private Cemeteries Act (Minn. Stat § 307.08) affords all human burial grounds and remains older than 50 years and located outside of platted or identified cemeteries protection from unauthorized disturbance. This statute applies to burials on either public or private lands or waters and includes prehistoric Indian burial mounds as well as historic cemeteries.

**Literature Review**

On December 22, 2023, Merjent retrieved cultural resources site files (archaeological sites and historic structures) and on Tuesday January 16, 2024, retrieved previous survey files from the SHPO. Merjent Cultural Resource Specialists reviewed archaeological site files on the OSA online portal, as well as the General Land Office (GLO) maps and available historical aerial photography accessed online through the OSA Portal<sup>1</sup>. Enclosed Figures 1 and 2 show the features that were identified during this review and are discussed below.

**BACKGROUND RESEARCH RESULTS**

**Previously Recorded Archaeological Resources**

Based on OSA and SHPO files, no archaeological sites intersect the Project transmission line alignment. There are seven archaeological sites within 0.5-mile of the Project (Sites 21WB0124, 21WB0047, 21WB0139, 21WB0140, 21WB0059, 21WB0060, and 21WB0120).

Site 21WB0140 [REDACTED] does not intersect, the Project alignment. This site is characterized as a historic artifact scatter and includes some structural ruins. According to the site form, this site has been heavily disturbed by plowing and the removal of buildings. The U.S. Army Corps of Engineers (USACE) [REDACTED] [REDACTED] for use as a dredge material storage area. According to their Draft Operational Plan, this site is planned to be converted over time to Sand Prairie / Dune Areas<sup>2</sup>. It has been recommended as Not Eligible for inclusion in the National Register of Historic Places (NRHP).

There are six additional archaeological sites within 0.5-mile of the Project. Two of these sites are precontact lithic scatters (21WB0059 and 21WB0060) that are located in close proximity to each

<sup>1</sup> OSA Portal. 2024. <https://osa.gisdata.mn.gov/OSAportal>. Accessed January 2024.

<sup>2</sup> [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



other. Both have been determined Not Eligible for listing on the NRHP. Also near these sites is Site 21WB0120, which is a precontact artifact scatter that is unevaluated for the NRHP. The remaining sites consist of two historic artifact scatters (21WB0124 and 21WB0139) which have been determined Not Eligible for inclusion in the NRHP, and one burial mound (21WB0047) which is unevaluated for the NRHP. All of these sites range [REDACTED] [REDACTED] will not be directly impacted due to distance.

### Previously Recorded Archaeological Surveys

The Study Area falls mostly within the Unknown Site Potential/Poorly Surveyed layer of the Mn Model (Phase 4) Survey Implementation Model. One previous archaeological survey was identified in the Study Area. Survey number WB-2003-01 overlaps the current Project at the eastern terminus and includes the area that is proposed for the new substation (see extent of survey within the Study Area as shown on Figures 1 and 2). This survey identified and evaluated the Petersen Farm sites, determining that they are not eligible for listing on the NRHP. Given that the Project is located largely along utility and road ROWs, it is unlikely that the Project area contains intact cultural deposits.

### Previously Recorded Standing Historic Buildings and Structures

Fourteen historic buildings and structures are located within the Study Area, four of which intersect the Project Area.

Property Number/Name	Historic Function/Use	Location (TRS)	NRHP Status
XX-ROD-00065	Transportation (Road-related)	Various	Not Eligible
XX-ROD-00011	Transportation (Road-related)	Various	Not Eligible
WB-GRN-00015	Transportation (Road-related)	[REDACTED]	Unevaluated
XX-RRD-CSP044	Transportation (District)	Various	Eligible

- Trunk Highway 42 (XX-ROD-00065) parallels the Project alignment for a large portion of the route ([REDACTED]). Trunk Highway 42 (XX-ROD-00065) was determined Not Eligible for listing on the NRHP by the SHPO on July 8, 2022.
- US/Trunk Highway 61 (XX-ROD-00011) intersects perpendicularly with the Project Route ([REDACTED]). This property was determined Not Eligible for listing on the NRHP by the SHPO on September 19, 2018. US/Trunk Highway 61 is a designated Scenic Byway. Dairyland has met with the Minnesota Department of Transportation and the Mississippi River Parkway Commission regarding this crossing and will include photo simulations of this crossing in its Minnesota Public Utilities Commission Certificate of Need and Route Permit Application.
- A previously-used portion of US/Trunk Highway 61 ("Old Highway 61"; formerly TH 1 and 3) (WB-GRN-00015) intersects perpendicularly with the Project Route ([REDACTED]). It was constructed in 1927 and was later superseded when the present-day Highway 61 was constructed west of the original alignment; it is currently designated 161<sup>st</sup> Avenue

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within the Study Area and is a paved, crowned-and-ditched road. According to Google Street View, there are existing overhead electric distribution lines at this point of intersection. This site has not been evaluated for listing on the NRHP. Due to collocation with the existing distribution line, this Project will not result in an appreciable change in viewshed.

- The St. Paul and Chicago Railway Company/Chicago Milwaukee and St. Paul Railway Company/Chicago Milwaukee St. Paul and Pacific Railroad Company River Division Railroad Corridor Historic District (XX-RRD-CSP044) intersects perpendicularly with the Project Route ( ). It is a linear railroad-related property that extends from St. Paul, Minnesota to La Crescent, Minnesota. Various sections of this railroad were constructed between 1869 and 1876. This linear district is considered eligible for listing on the NRHP. It is also actively used and operated by Canadian Pacific. At the point of intersection, electric distribution lines are visible 0.2-mile or less from the railroad. Due to the extant distribution lines, this Project will not result in an appreciable change in viewshed.

The remaining historic buildings and structures within the Study Area do not intersect Project components. The remaining buildings and structures include nine farmsteads (WB-GRN-00018, WB-GRN-00019, WB-GRN-00020, WB-GRN-00021, WB-GRN-00022, WB-GRN-00023, WB-GRN-00024, WB-GRN-00028, WB-WAT-00002), one bridge (WB-GRN-00012), and one culvert (WB-GRN-00030). In addition, building and structures WB-GRN-0018 through WB-GRN-0024 were purchased by the USACE and have since been removed for the Upper Mississippi River Pool 5 Dredged Material Management Plan Rolling Prairie Site (see note above).

#### **General Land Office and Aerial Photo Review**

Merjent reviewed nineteenth-century GLO maps and notes on file with the Bureau of Land Management.<sup>3</sup> The GLO map of the Project Area illustrated conditions in 1870 as predominately a floodplain with many streams and rivers. Aerial photographs from 1939 show that roads have been constructed and farms have been established with agricultural fields dominating the landscape, and by 1949 the city of Kellogg had been established to the extent it exists today. Subsequent historic and modern aerial photographs show that the landscape of the Project area has remained largely the same since that time, with roads being the main addition to the area.

#### **SUMMARY AND RECOMMENDATIONS**

Seven archaeological sites and fourteen historic buildings and structures were identified within the Study Area. There is potential for Historic-era sites within the Project Area because the area has been inhabited at least since the 1930s; however, given that the Project is an overhead transmission line project proposed mostly within an already disturbed ROW, there is a low potential for intact historic sites. The Project Area could contain pre-contact sites given its location among several water sources. Given that the Project is located in an area with several existing overhead distribution and transmission lines and will be constructed along and within areas of previous disturbance such as existing ROWs, Merjent recommends no survey ahead of Project

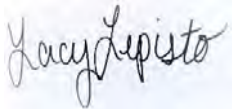
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<sup>3</sup> Bureau of Land Management GLO Records. 2024. <https://glorerecords.blm.gov/>. Accessed January 2024.

construction. If human remains are encountered during construction activities, all ground disturbing activity must cease, and local law enforcement must be notified per Minn. Stat § 307.08. Dairyland will develop an Unanticipated Discoveries Plan for use during Project construction.

If you have any questions regarding this memorandum, please do not hesitate to contact me ([lacy.lepisto@merjent.com](mailto:lacy.lepisto@merjent.com)).

Sincerely,  
Merjent, Inc.



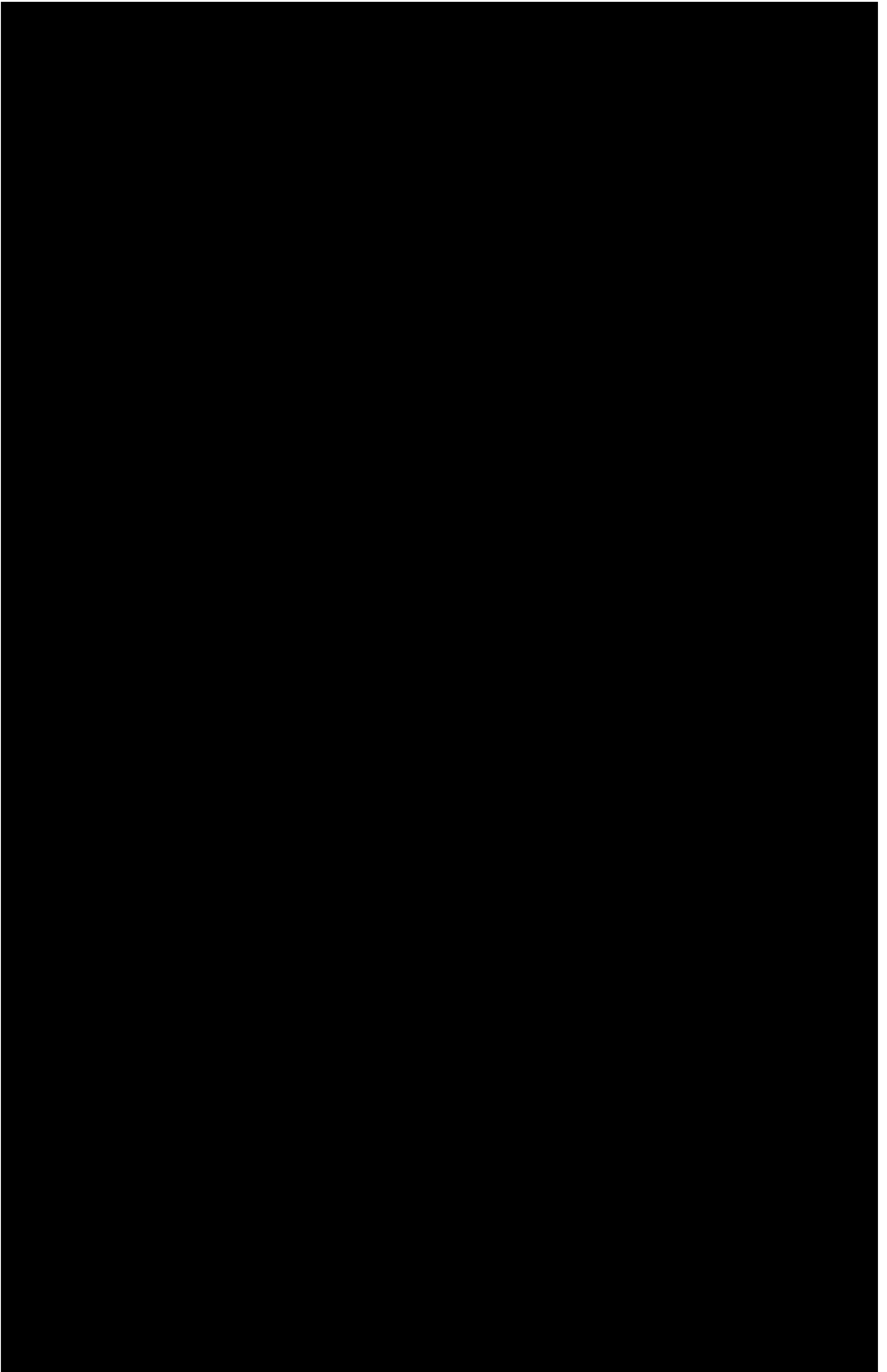
Lacy Lepisto  
Cultural Resource Specialist

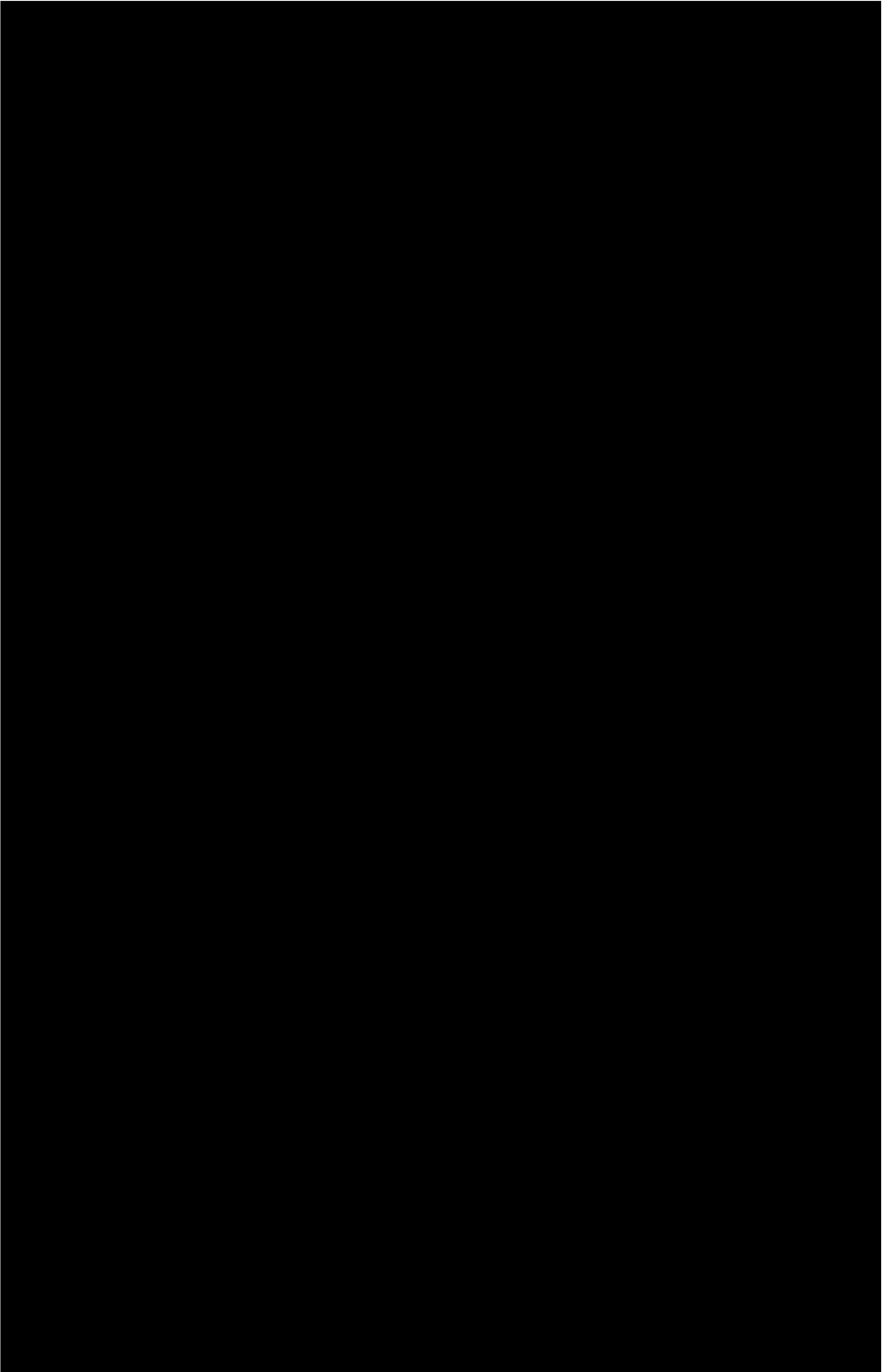
Enclosed:

Figure 1 Topographic Map (*Contains Confidential and Privileged Information*)

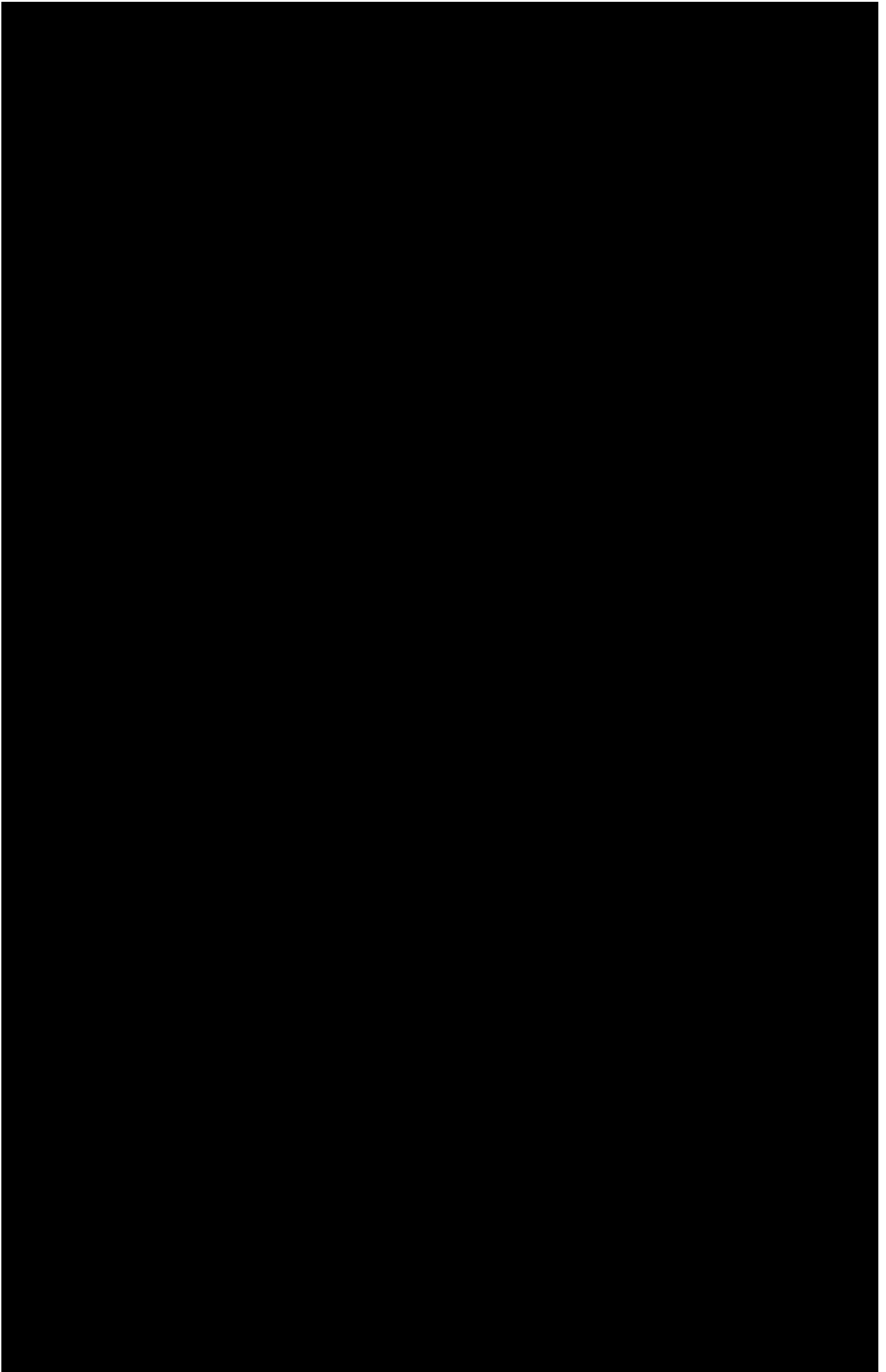
Figure 2 Aerial Map (*Contains Confidential and Privileged Information*)

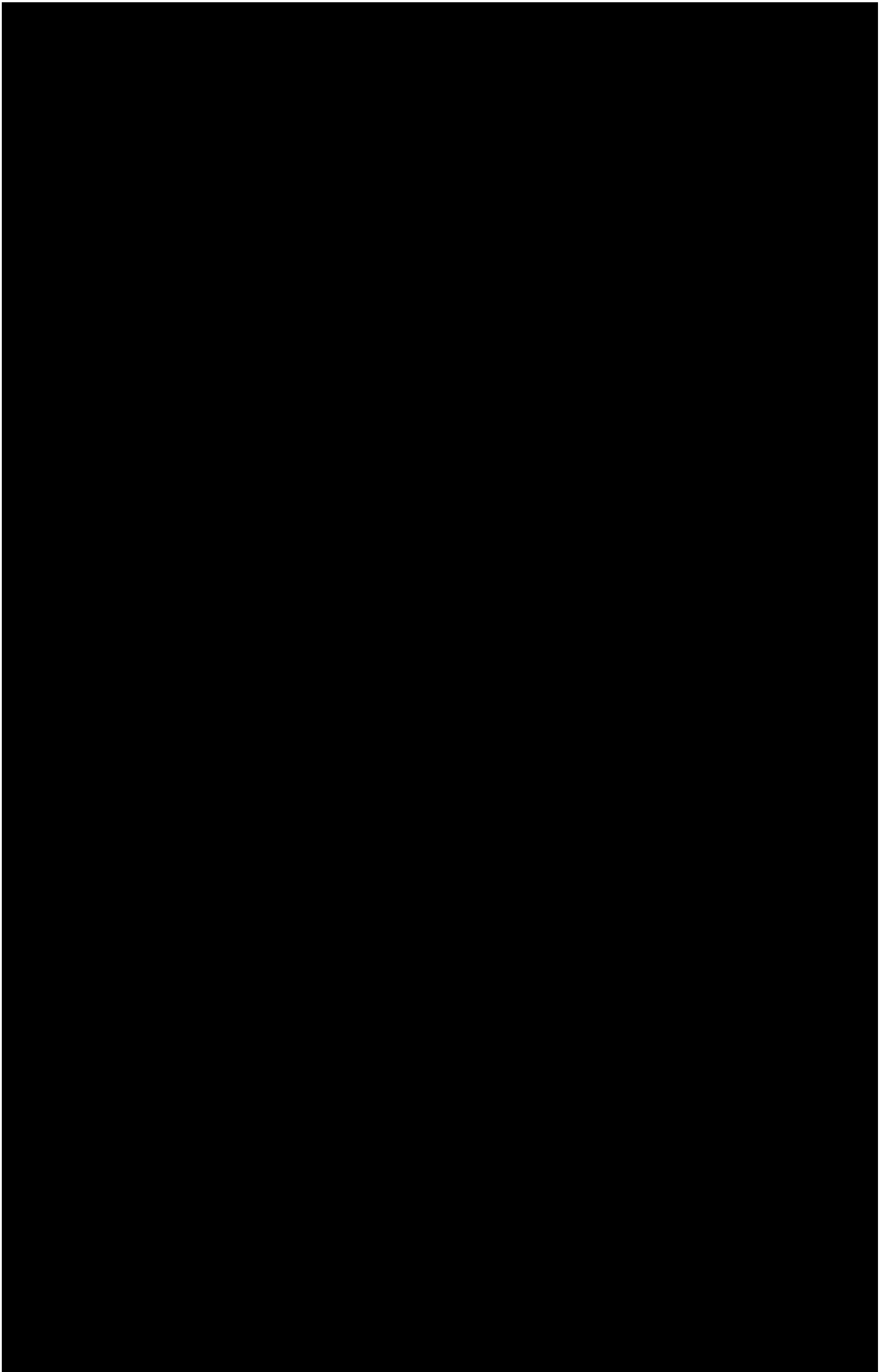
cc: Sage Williams, Dairyland Power Cooperative  
Britta Bergland, Merjent  
Kristin Lenz, Merjent  
Bill Harding, Merjent



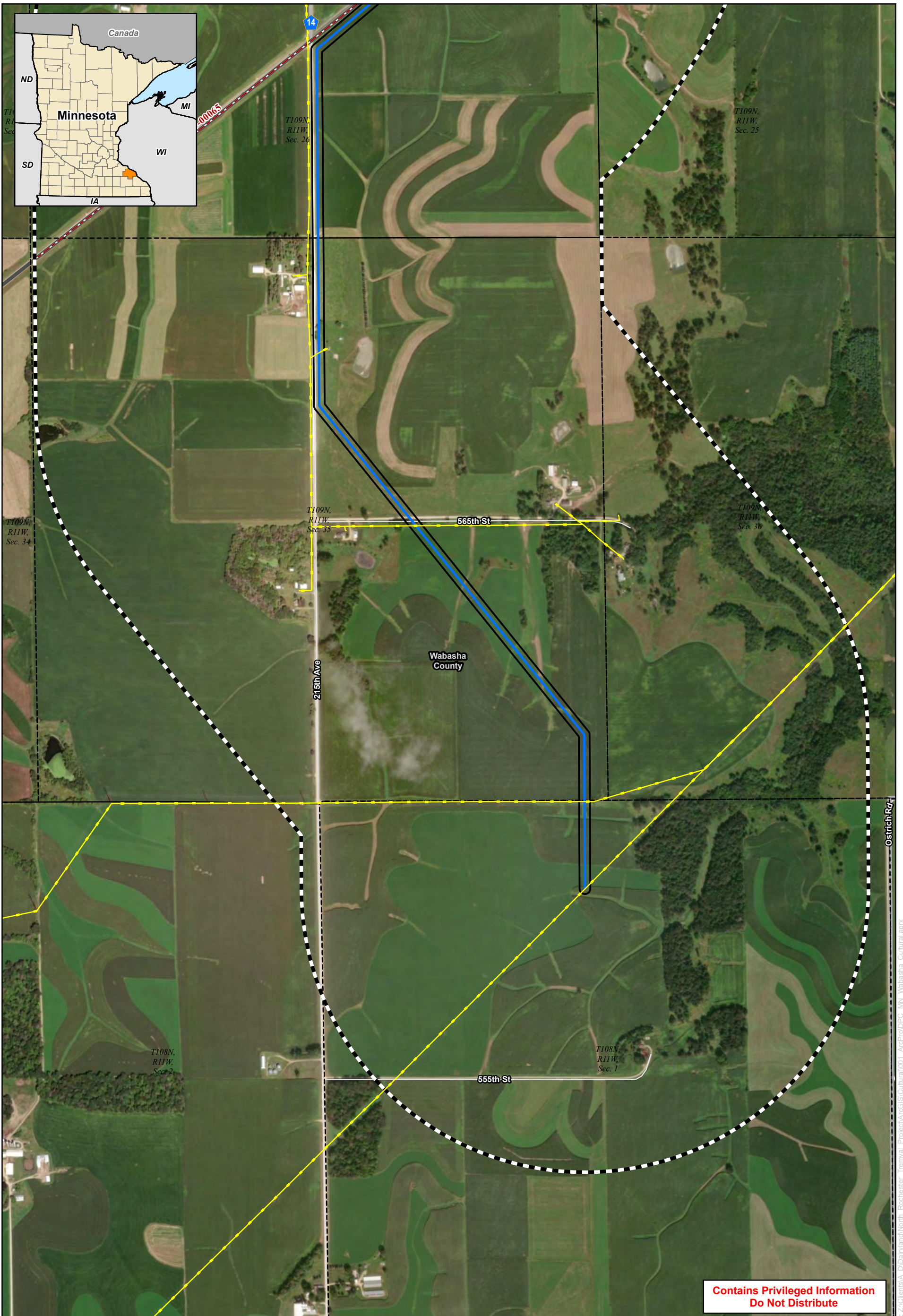












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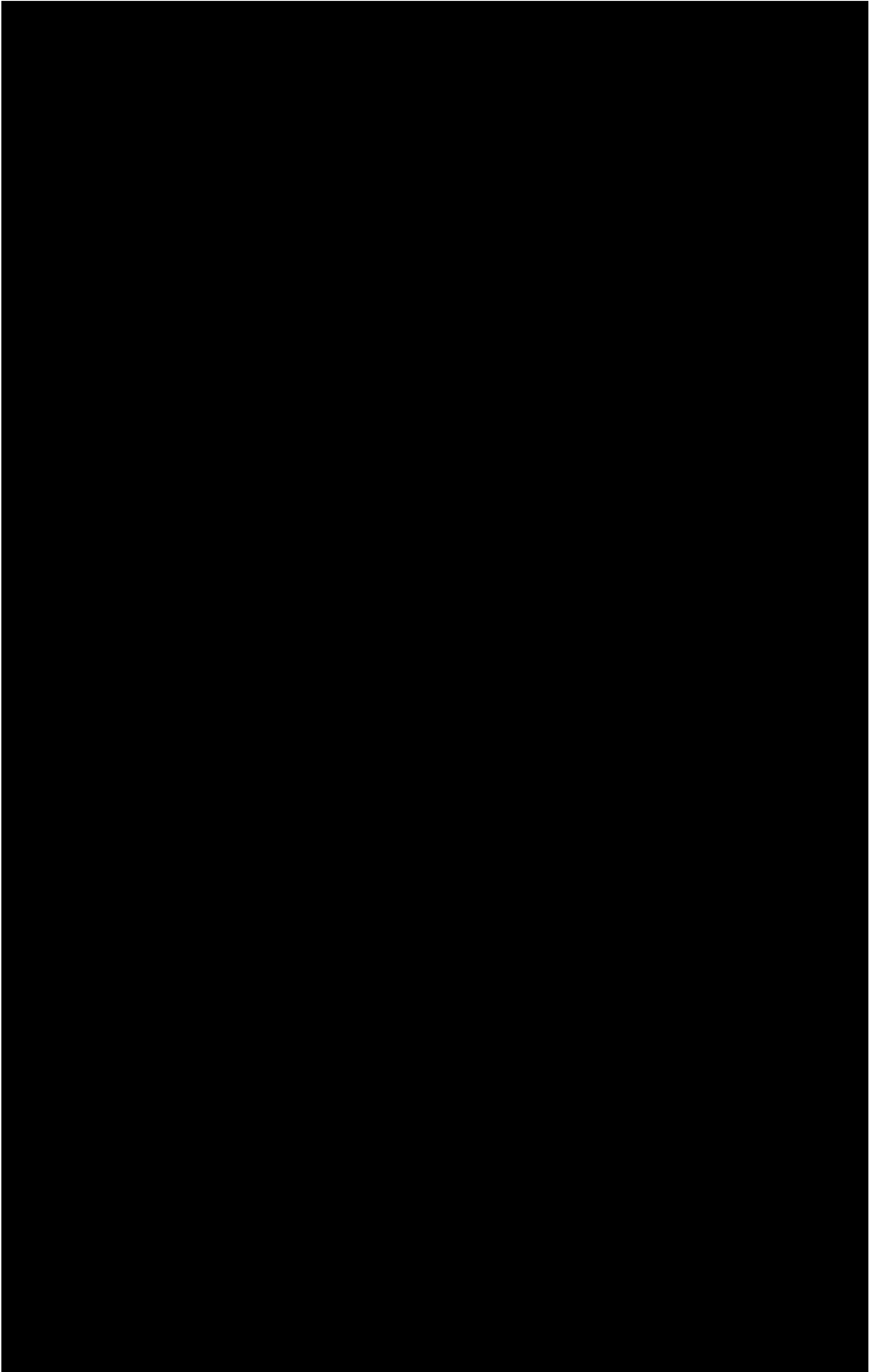
**DAIRYLAND POWER COOPERATIVE**  
For Environmental Review Purposes Only

**Figure 2: Aerial Map**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota

- Alignment
- Existing Transmission/Distribution Line
- Halfmile Study Area
- 100ft Right-of-Way
- Proposed Substation
- Section Boundary
- Historic Site
- Historic Site
- Archaeological Site
- Previous Survey

Source: z:\Content\GIS\Projects\Wabasha\North\Kochester\Tremva\Project\ArcGIS\Cultural\001\_ArcProDPC\_Min\_Wabasha\_Cultural.aprx Date: 1/28/2024

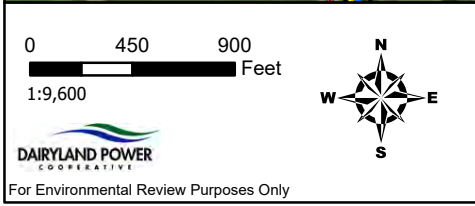








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Do Not Distribute**

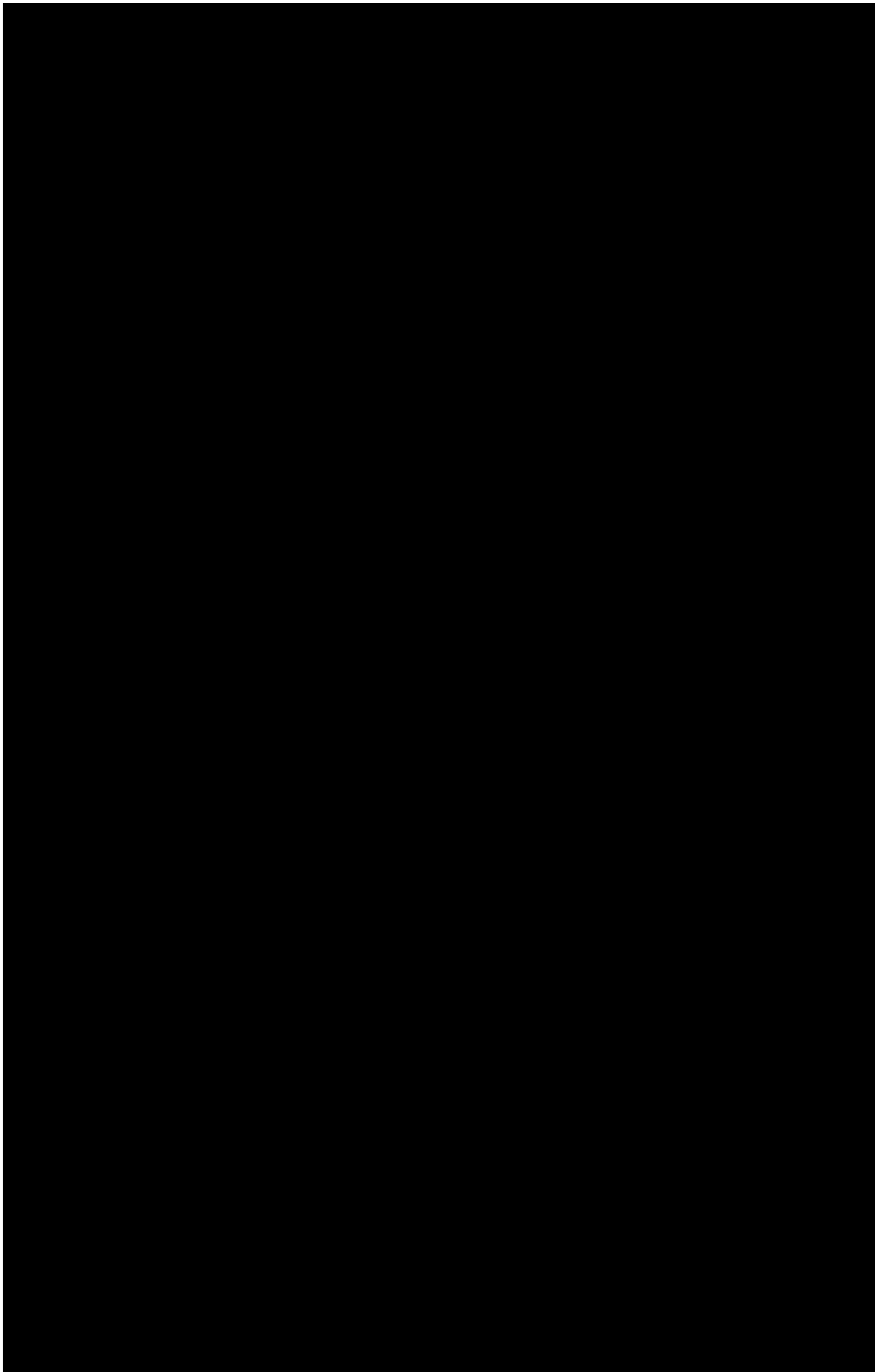


**Figure 2: Aerial Map**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota

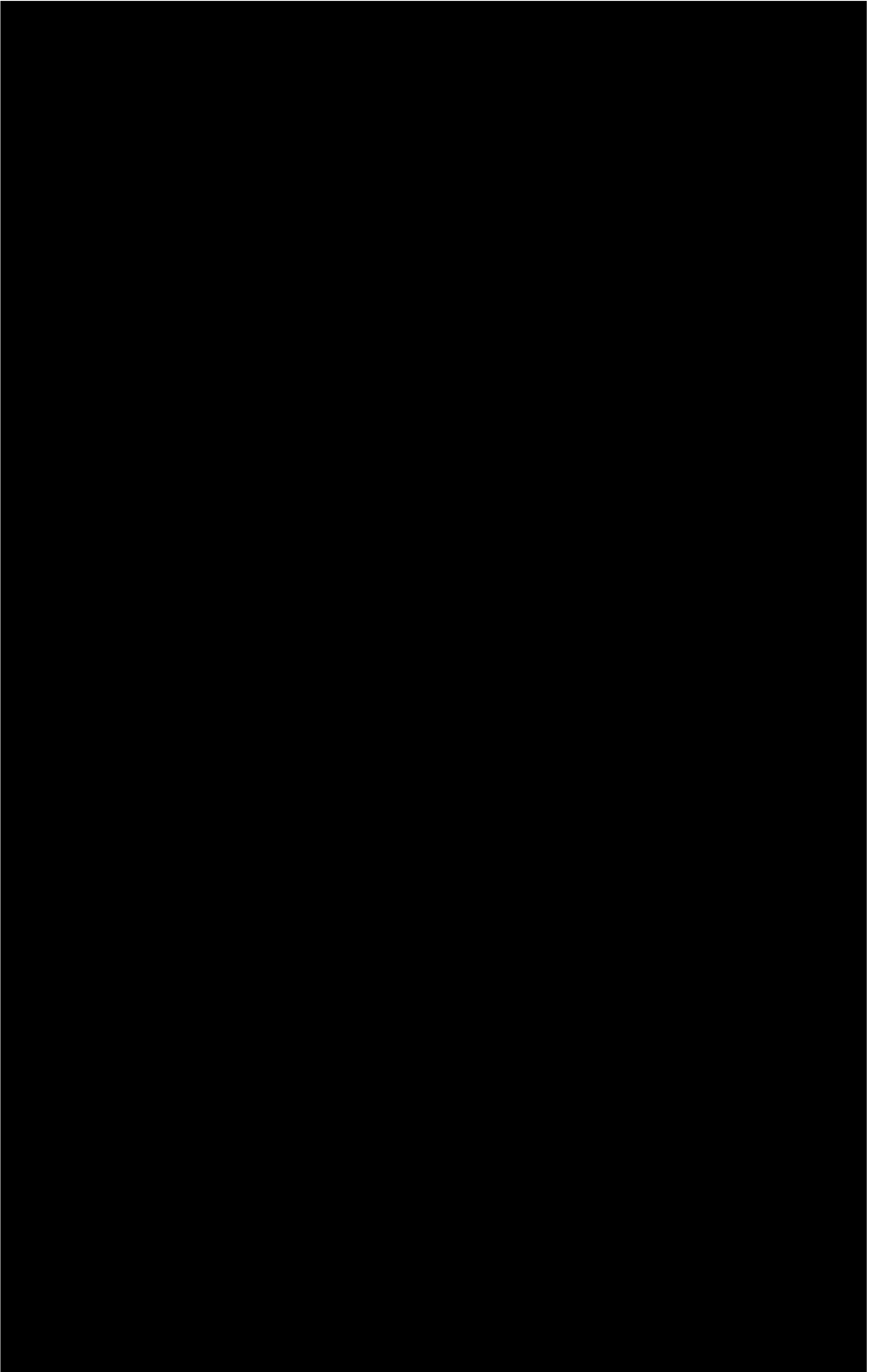
- Alignment
- Existing Transmission/Distribution Line
- Halfmile Study Area
- 100ft Right-of-Way
- Proposed Substation
- Section Boundary
- Historic Site
- Historic Site
- Archaeological Site
- Previous Survey

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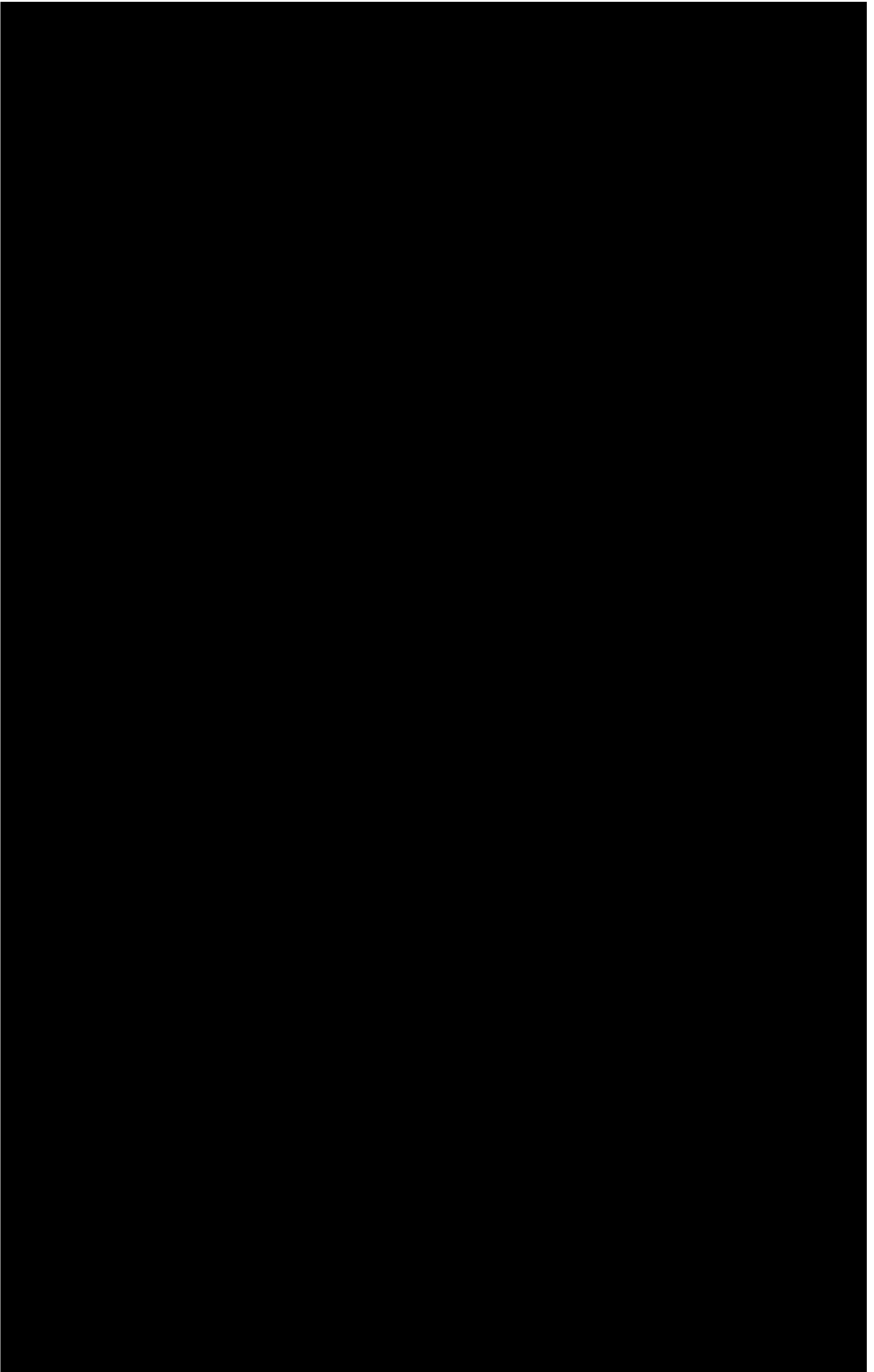


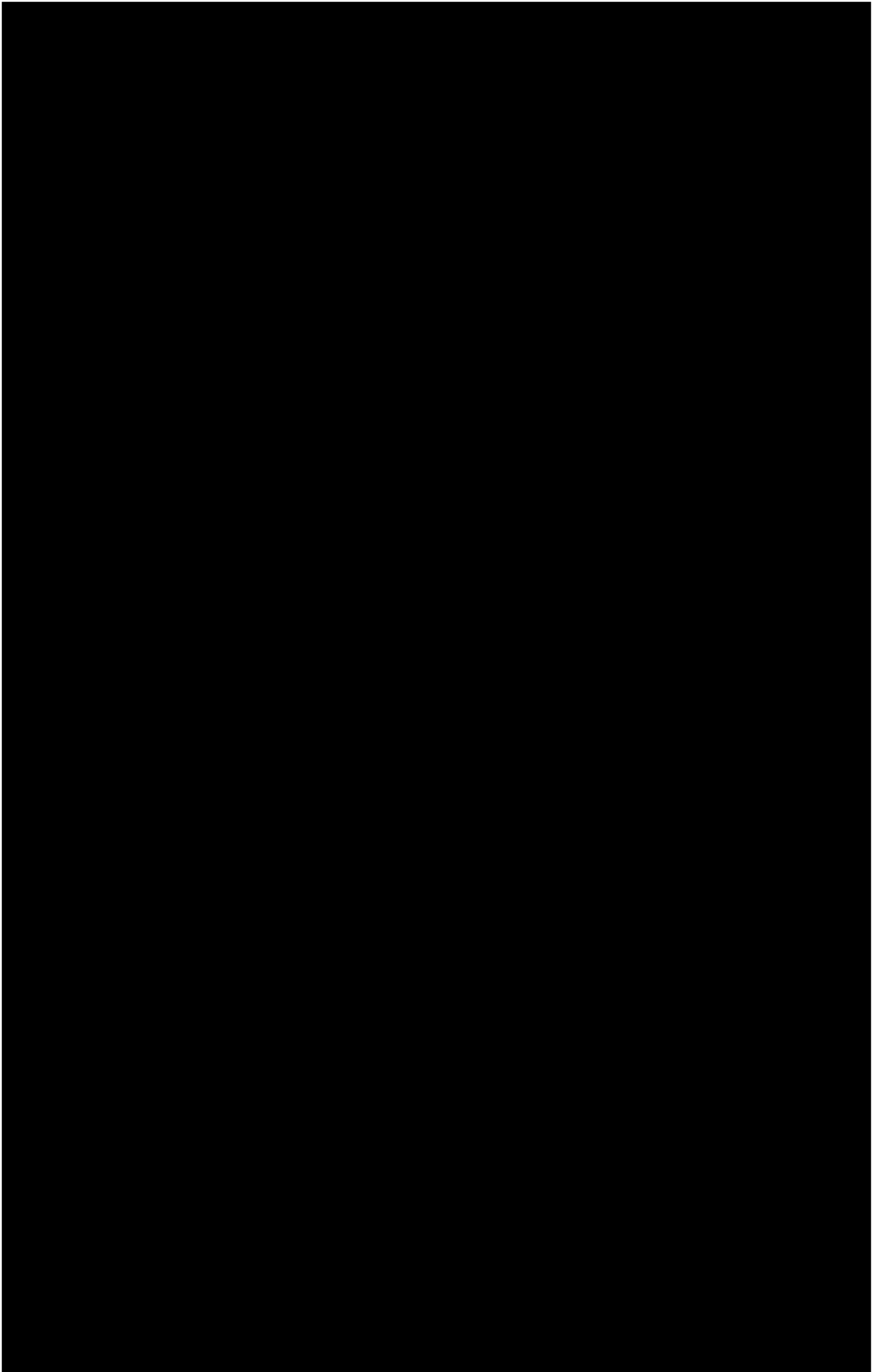


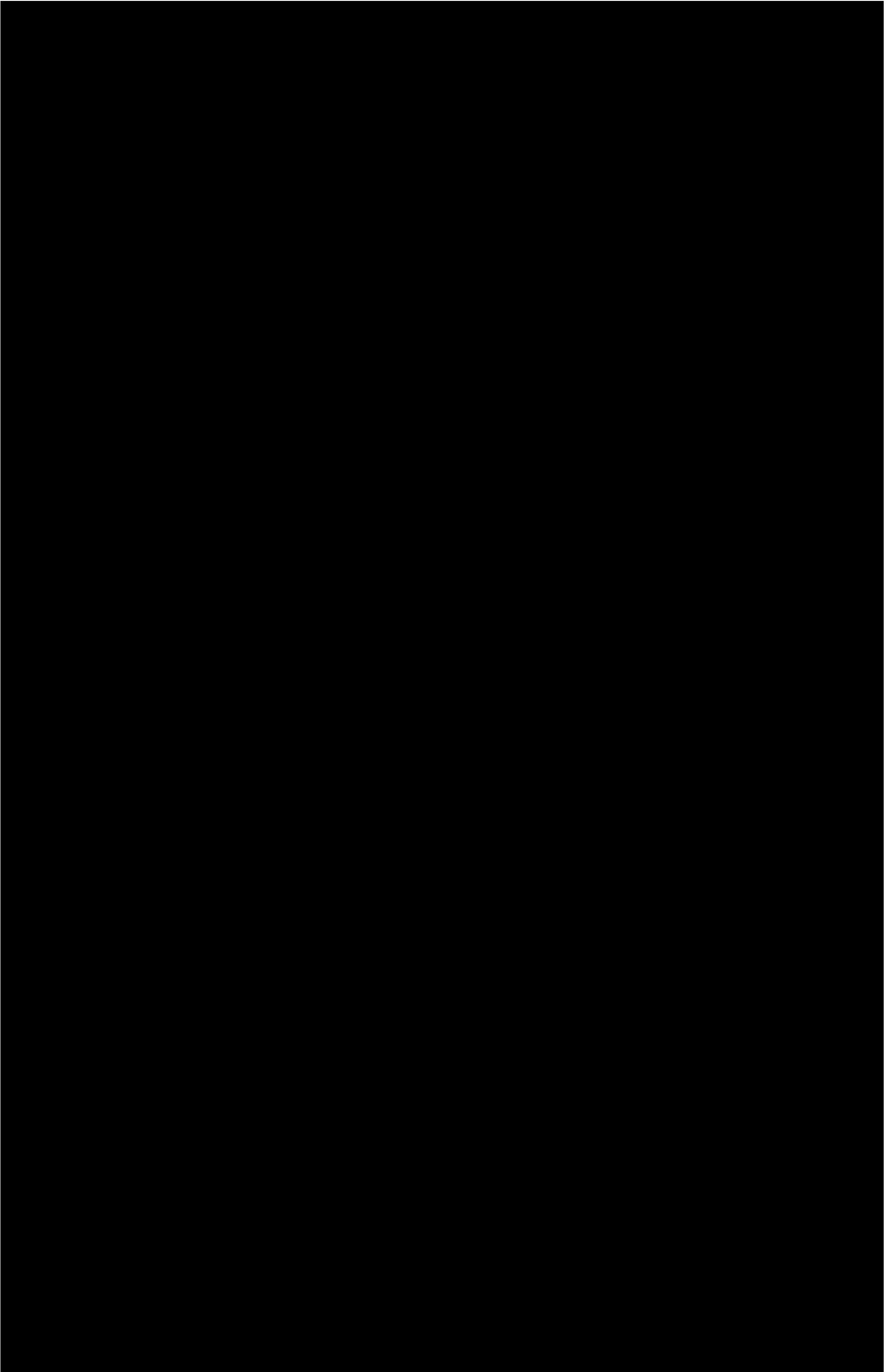


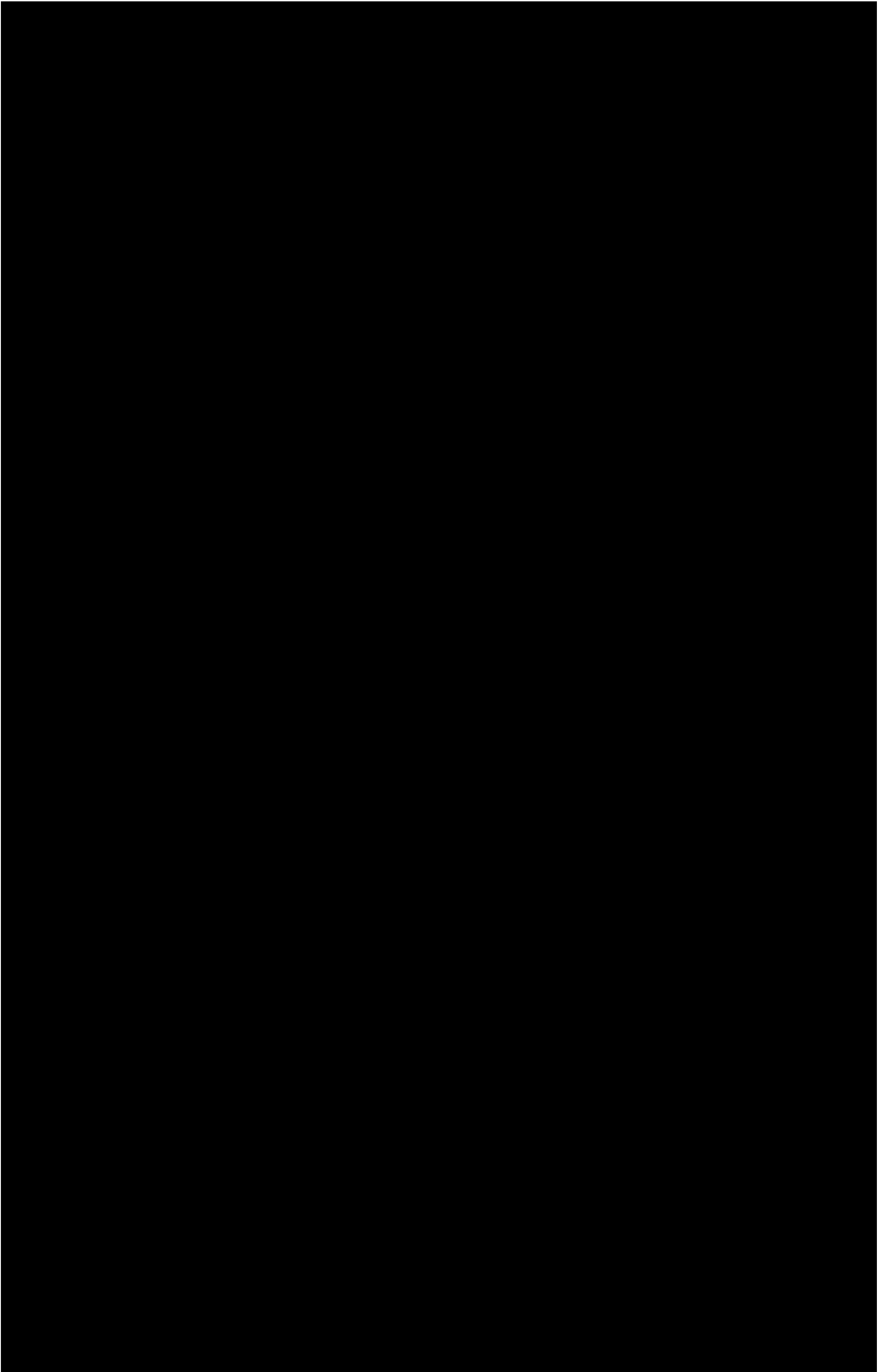














**Mississippi River Parkway Commission**

**From:** [Chris Miller](#)  
**To:** [Kristin Lenz](#)  
**Cc:** "[Sage Williams](#)"; "[Oates, Travis M](#)"; [Britta Bergland](#); "[John Anfinson](#)"; [Kate Carlson](#); [Marni Karnowski](#)  
**Subject:** RE: Dairyland Wabasha Relocation Project - Project Intro and Meeting Request  
**Date:** Monday, November 20, 2023 10:15:37 AM  
**Attachments:** [image.png](#)

---

Hi Kristin,

The Minnesota Mississippi River Parkway Commission met on November 16. The Commission appreciated your invitation to meet regarding the Dairyland Wabasha Relocation Project, and the members below were identified to represent the Commission at a meeting. All are copied on this email.

John Anfinson, MN-MRPC Vice Chair and Regional Member representing Elk River to Hastings  
Kate Carlson, Regional Member representing Hastings to the Iowa Border  
Marni Karnowski, Minnesota Department of Transportation appointee

I would sit in with the group and can assist with a Zoom link as needed...

Thanks much!

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

**From:** Kristin Lenz <kristin.lenz@merjent.com>  
**Sent:** Thursday, November 2, 2023 4:13 PM  
**To:** Chris Miller <chris@togpartners.com>  
**Cc:** 'Sage Williams' <Sage.Williams@DairylandPower.com>; 'Oates, Travis M' <travis.m.oates@sargentlundy.com>; Britta Bergland <britta.bergland@merjent.com>  
**Subject:** RE: Dairyland Wabasha Relocation Project - Project Intro and Meeting Request

Thank you Chris,

Dairyland will be hosting a Project Open House on November 9, 2023 between 11AM-1PM and 4-6PM at the Saint Agnes Catholic Church at 115 W. Belvidere Ave. in Kellogg, MN.

We will be considering feedback received from these meetings, in addition to other agency meetings we currently have scheduled to determine if we should further refine the Proposed Route width or alignment before filing with the Minnesota Public Utilities Commission.

We will reach back out soon to connect.

Thank you,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
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[www.merjent.com](http://www.merjent.com)

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**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Sent:** Thursday, November 2, 2023 4:07 PM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; 'Oates, Travis M' <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Intro and Meeting Request

**CAUTION:** This email originated from outside of Merjent.

Hi again, Kristin,

Based on response thus far and since the MN-MRPC will be meeting on November 16, I think it is most likely that the group will consider the request below and project fact sheet at that time, and then I'll be back in touch. Feel free to reach out in the meantime if you have questions or additional information to share...

Thanks!  
Chris

---

**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Sent:** Thursday, October 26, 2023 10:25 AM  
**To:** 'Kristin Lenz' <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; 'Oates, Travis M' <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; 'Britta Bergland' <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Subject:** RE: Dairyland Wabasha Relocation Project - Project Intro and Meeting Request

Hi Kristin,

Thanks so much for reaching out. I will share this with the MN Mississippi River Parkway Commission Chair and Vice Chair, and a couple of other members for guidance on how they'd like to proceed. I'll get back to you... I'm happy to gather information to carry back to Commission members for their feedback but they might be interested in a small group discussion with you, or possibly discussion at

their next regular quarterly meeting which happens to be on November 16 (so this is good timing).

Details about the Great River Road and MN Mississippi River Parkway Commission are available at - <https://www.mnmississippiriver.com/about-us/>.

Thanks again!

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Sent:** Thursday, October 26, 2023 9:15 AM  
**To:** [chris@togpartners.com](mailto:chris@togpartners.com)  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Oates, Travis M <[travis.m.oates@sargentlundy.com](mailto:travis.m.oates@sargentlundy.com)>; Britta Bergland <[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)>  
**Subject:** Dairyland Wabasha Relocation Project - Project Intro and Meeting Request

Good afternoon Chris,

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 14 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. The Proposed Route would primarily follow State Highway 42 and would also involve a crossing of State Highway 61 (Great River Road, Designated Scenic Byway) southwest of Kellogg.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV circuit must be removed and relocated to make room for a new, second 345-kV circuit on the existing CapX2020 structures.

Dairyland is currently gathering information in preparation for filing its route permit application with the Minnesota Public Utilities Commission, which it plans to submit in early 2024.

I have attached a Project fact sheet along with a map that shows the current location of the transmission line and the initial Proposed Route. We would appreciate any input the MN Mississippi

River Parkway Commission may have on the Project and the proposed route and crossing of the Great River Road, and would like to propose a pre-application meeting to introduce the Project and review the initial route with interested Commission staff. Would there be a good time in the next few weeks?

Let us know what works best for you.

Thank you,

Kristin

**Kristin Lenz**

*Senior Project Manager*

612.924.3962 direct

763.913.4740 mobile

[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**Dairyland Power Cooperative  
Mississippi River Parkway Commission  
Wabasha County Relocation Project Introduction Meeting  
December 8, 2023**

**Participants:** John Anfinson (Mississippi River Parkway Commission), Marni Karnowski (Mississippi River Parkway Commission / MnDOT), Chris Miller (Mississippi River Parkway Commission), Sage Williams (Dairyland), Travis Oates (S&L), Andy Zorn (S&L), Britta Bergland (Merjent), Kristin Lenz (Merjent)

Lenz provided a brief intro for the Project. The Project is a relocation of Dairyland Power Cooperatives' (Dairyland's) existing 161-kV transmission line that is currently located on the CapX structures that runs roughly from the Town of Plainville northeast toward the City of Kellogg and the Mississippi River. Xcel Energy and CapX owners are moving forward with the 2<sup>nd</sup> circuit on the CapX structures, which necessitates that Dairyland vacate the 161-kV line. Dairyland has reviewed other potential route alternatives through the area. There is a quite a bit of state-managed and federally-managed lands to the east along the Mississippi River; based on Dairyland's initial review of potential routes, the proposed route along Highway 42 appears to be the most environmentally preferable because of the avoidance of these areas and the ability to be near a road right-of-way. Lenz clarified that although the 161-kV line will be removed, the CapX structures will stay; the 161-kV will be replaced by the 2<sup>nd</sup> 345-kV line by the CapX owners as a separate project.

Lenz shared the Project alignment crossing of the State Highway 61 scenic byway on the Project Viewer. Lenz indicated that Dairyland held open houses in early November 2023 and as a result of landowner input, some changes have been made to the alignment; however, the crossing of State Highway 61 has not changed from the Project Fact Sheet provided to the Mississippi River Parkway Commission (Commission). Considerations of the crossing include steep topography on the west side along State Highway 42 – Dairyland is currently planning to traverse the valley through this area. On the east side of State Highway 61, the U.S. Army Corps of Engineers (USACE) has purchased several properties – Dairyland is in communication with the USACE. Dairyland has also reached out to Wabasha County, who has informed Dairyland that in the next 10 years, there are plans to soften to curves along County Road 84. These factors were taken into consideration when designing the Proposed Route. Dairyland is currently working on developing a Certificate of Need and Route Permit application to submit to the Minnesota Public Utilities Commission (MPUC) around mid-March 2023.

Anfinson indicated that based on the aeriels, it appeared there would be minimal tree clearing on both sides of State Highway 61 at the proposed crossing location. Anfinson requested that Dairyland look to minimize the tree clearing on both sides and/or try to site the poles behind the treed areas to screen the structures as much as possible. Lenz indicated that trees below the lines will be cleared, but Dairyland can look at minimizing tree clearing as much as possible. Anfinson indicated that sight lines are important to consider – a perpendicular crossing is better than paralleling the roadway because one would only see the crossing for a moment while driving down the Great River Road.

Miller indicated that other mitigation measures that the Commission recommends to protect the viewshed include:

- Minimization of tree and vegetation removal
- Setback of poles from the Great River Road to the extent possible
- Choose a color of poles that blends into the landscape



**Dairyland Power Cooperative  
Mississippi River Parkway Commission  
Wabasha County Relocation Project Introduction Meeting  
December 8, 2023**

Miller and Karnowski requested that Dairyland provide visual simulations of before and after the crossing to understand how the new infrastructure would look. Miller requested that a scale be provided to understand the magnitude of the change.

Anfinson inquired on the span lengths. Spans are planned to be 400-800 feet, poles will be between 70-110 feet high and the poles are also planned to be weathered steel (brown).

Lenz indicated that during Dairyland's meeting with the Minnesota Department of Transportation (MnDOT), they also requested a visual simulation of the crossing, which Dairyland is planning on developing. This may also be included in the Route Permit application.

Kate Carlson is another Commissioner and local contact for the Commission that was unable to attend today; however, the other Commissioners will provide her an update on the meeting.

Karnowski inquired on the success of the open houses; Lenz and Williams responded that it was well attended, with about 60 participants. No significant environmental resource concerns were identified. Some participants expressed concerns related to electric magnetic fields and stray voltage.

The Commissioners were very appreciative of the early coordination and will reach out if anything else comes up.

**From:** [Chris Miller](#)  
**To:** [Kristin Lenz](#); ["John Anfinson"](#); ["Kate Carlson"](#); ["Marni Karnowski"](#)  
**Cc:** ["Zorn, Andrew V"](#); ["Sage Williams"](#); ["Oates, Travis M"](#); [Britta Bergland](#)  
**Subject:** EXTERNAL: RE: Dairyland Wabasha Relocation Project - Project Introduction Meeting Notes  
**Date:** Wednesday, December 13, 2023 2:43:02 PM  
**Attachments:** [image002.png](#)

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**CAUTION:** This email originated from outside of Merjent.

Hi Kristin,

Thanks so much for sending the notes – the only revision(s) we see on this end would be a correction on the spelling of John’s last name – Anfinson (missing the first n in the notes). Kate has reviewed and responded to you directly.

It was nice meeting you all last week. Happy Holidays!

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

**From:** Kristin Lenz <kristin.lenz@merjent.com>  
**Sent:** Tuesday, December 12, 2023 3:04 PM  
**To:** 'John Anfinson' <janfinson@comcast.net>; Kate Carlson <kcarlson@visitwinona.com>; Chris Miller <chris@togpartners.com>; Marni Karnowski <marni.karnowski@state.mn.us>  
**Cc:** Zorn, Andrew V <andrew.v.zorn@sargentlundy.com>; Sage Williams <Sage.Williams@DairylandPower.com>; Oates, Travis M <travis.m.oates@sargentlundy.com>; Britta Bergland <britta.berglund@merjent.com>  
**Subject:** RE: Dairyland Wabasha Relocation Project - Project Introduction Meeting Notes

Good afternoon,

Thank you all again for taking the time to meet with us on Friday. Attached are the meeting notes; please let us know if you have any revisions. We’ll include these notes with the Minnesota Public Utilities Route Permit application.

Please reach out if you have any further questions or recommendations!

Thank you,  
Kristin

**Kristin Lenz**

*Senior Project Manager*

612.924.3962 direct

763.913.4740 mobile

[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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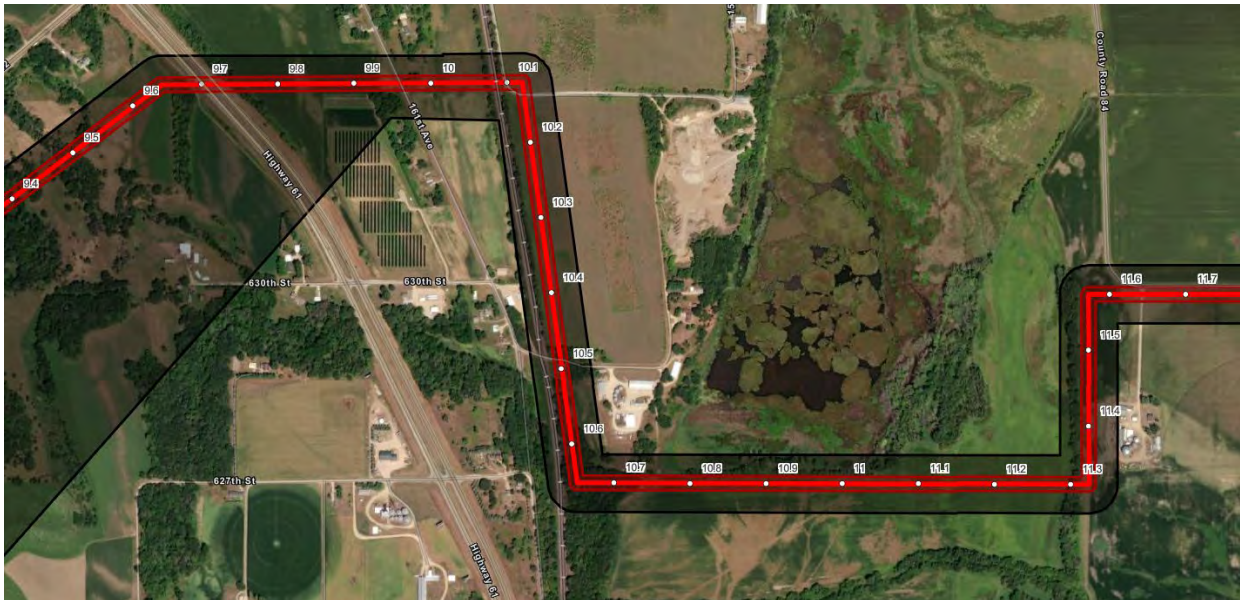
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**From:** [Britta Bergland](#)  
**To:** "Chris Miller"  
**Cc:** [Kristin Lenz](#); "John Anfinson"; [Marni Karnowski](#); "Sage Williams"; [Kate Carlson](#)  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Date:** Friday, December 22, 2023 1:25:00 PM  
**Attachments:** [image.png](#)  
[image.png](#)  
[Dairyland - Wabasha - 12-22-23.pdf](#)

Hi Chris,

Thank you for your prompt response!

Dairyland did choose to modify the route east of the Great River Road crossing since we last met, and that change is a result of a subsequent meeting with the U.S. Army Corps of Engineers (USACE). USACE staff preferred a route that crossed south of their interests on the north side of County Road 84 because it would have been difficult for them to realize their plans for development of that land with new transmission infrastructure. This change had the added benefit of avoiding the curves along County Road 84, which we know that Wabasha County would like to straighten in the future and avoids impacts to homeowners along County Road 84 and center-pivot irrigation systems. A snip of the area is included below, but we could make additional maps, if you'd like. Note the numbers on the line are "milepost markers" - not pole locations. Dairyland has not finalized pole locations.



Regarding your remaining questions, the crossing of Great River Road has remained unchanged since we met. We are in the process of creating visualizations of the proposed crossing location with images of the pole design, as requested. The route now crosses the Canadian Pacific Railroad east of 161<sup>st</sup> Avenue and then parallels the railroad north-south on the east side. The route is 820 feet from the northbound portion of Great River Road at its closest point, and 0.4 miles at its furthest point. In between the route and the road are numerous wooded areas, a tree line, the railroad, a solar array, and various buildings and businesses.


Regarding the substation, Dairyland has advanced conversations with the landowner and will be pursuing purchase of an approximately 10-acre portion of the larger parcel that was initially reviewed, so you are correct, this map now shows that smaller area. I attached the same map from the Fact Sheet here so you can have it at a larger scale.

We'd be happy to meet with you again to discuss the project or provide additional information.

Take care –

Britta

**Britta Bergland**  
612.746.3673 direct  
612.220.9692 mobile  
[britta.berglund@merjent.com](mailto:britta.berglund@merjent.com)

  
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**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>

**Sent:** Wednesday, December 20, 2023 9:57 AM

**To:** 'Sage Williams' <Sage.Williams@DairylandPower.com>

**Cc:** Britta Bergland <britta.bergland@merjent.com>; Kristin Lenz <kristin.lenz@merjent.com>; 'John Anfinson' <janfinson@comcast.net>; Marni Karnowski <marni.karnowski@state.mn.us>; Kate Carlson <kcarlson@visitwinona.com>

**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Hi Sage,

Thank you to Britta for the notice below and new mapping. A route modification was mentioned when MN Mississippi River Parkway Commission representatives met with you and others on December 8, and it's helpful to see it on a map. I've shared the new map with those MN-MRPC members (copied on this email), and we have a few comments and questions –

- Looking at the two maps, it appears that the new route will have more impact on the Great River Road.
- The new route will parallel the Great River Road for a stretch – what is the distance, how many poles will be along the Great River Road, and could we get images of what that might look like?
- Could you share more information on the landowner concerns that resulted in the change from the previous proposed route?
- On the new map, it looks like the area for the proposed Kellogg substation is now substantially smaller. Is that correct? It's helpful in comparing the overall changes from the previous map.

Let me know if you have questions for us, and/or would like to set up a meeting and I'll be happy to help coordinate.

Thanks again,

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>

**Sent:** Monday, December 18, 2023 2:55 PM

**To:** [chris@togpartners.com](mailto:chris@togpartners.com)

**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Dear Chris Miller:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

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[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)

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From: [Chris Miller](#)  
To: [Britta Bergland](#)  
Cc: [Kristin Lenz](#); [John Anfinson](#); [Marni Karnowski](#); [Sage Williams](#); [Kate Carlson](#)  
Subject: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
Date: Thursday, January 4, 2024 8:47:28 AM  
Attachments: [image.png](#)  
[image.png](#)

Hi Britta,

Thanks so much for the additional information. Our team looks forward to reviewing the visual simulations when available and doesn't have further questions right now.

Happy New Year!  
Chris

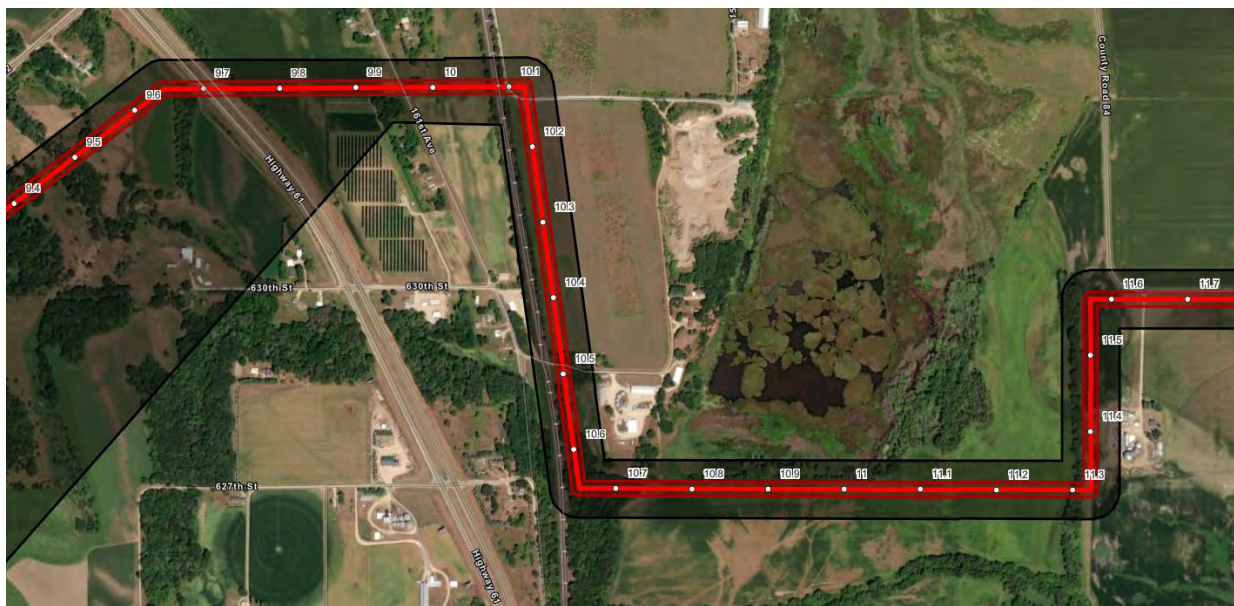
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Regarding your remaining questions, the crossing of Great River Road has remained unchanged since we met. We are in the process of creating visualizations of the proposed crossing location with images of the pole design, as requested. The route now crosses the Canadian Pacific Railroad east of 161<sup>st</sup> Avenue and then parallels the railroad north-south on the east side. The route is 820 feet from the northbound portion of Great River Road at its closest point, and 0.4 miles at its furthest point. In between the route and the road are numerous wooded areas, a tree line, the railroad, a solar array, and various buildings and businesses.


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We'd be happy to meet with you again to discuss the project or provide additional information.

Take care –

Britta

**Britta Bergland**  
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612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)

  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)

---

**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Sent:** Wednesday, December 20, 2023 9:57 AM  
**To:** 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>  
**Cc:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; Marni Karnowski <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; Kate Carlson <[kcarlson@visitwinona.com](mailto:kcarlson@visitwinona.com)>  
**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Hi Sage,

Thank you to Britta for the notice below and new mapping. A route modification was mentioned when MN Mississippi River Parkway Commission representatives met with you and others on December 8, and it's helpful to see it on a map. I've shared the new map with those MN-MRPC members (copied on this email), and we have a few comments and questions –

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Let me know if you have questions for us, and/or would like to set up a meeting and I'll be happy to help coordinate.

Thanks again,

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

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**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Sent:** Monday, December 18, 2023 2:55 PM  
**To:** [chris@togpartners.com](mailto:chris@togpartners.com)  
**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Dear Chris Miller:

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Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

612.746.3673 direct

612.220.9692 mobile

[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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**From:** Britta Bergland  
**Sent:** Wednesday, March 13, 2024 4:28 PM  
**To:** Chris Miller  
**Cc:** Kristin Lenz; 'John Anfinson'; 'Marni Karnowski'; 'Sage Williams'; 'Kate Carlson'  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Attachments:** DPC\_Wabasha\_Project\_Hwy\_61\_Visualization\_20240313.pdf; DPC\_Wabasha\_Project\_Hwy\_61\_Overview\_Map\_20240313.pdf

Good afternoon –

I'm writing today with an update on Dairyland's Wabasha Relocation Project (the Project) in Wabasha County, Minnesota.

Dairyland has prepared visualizations of the Highway 61/Great River Road crossing– please see attached. I've also attached an overview map with a close-up of the Project relative to the highway crossing.

As the visualizations show, there would be a new visual impact because of the Project. On the west side of U.S. Highway 61, although some trees will be cleared within the 100-foot-wide right-of-way, Dairyland placed the Proposed Alignment to minimize tree clearing. The westerly pole will be shielded from view to some extent by the remaining forested area (see Diagram 8-3). Regarding the east side of U.S. Highway 61, Dairyland has placed the easterly alignment in an area where minimal large tree removal will occur on the north side of the Proposed Alignment (see Diagrams 8-1 and 8-2). The south side of the alignment is presently sparsely vegetated. The span length between the two poles is approximately 800 feet, which is near the maximum span length of 1,000 feet. The poles will be red/brown (weathered steel), which will allow them to blend with existing colors in the area. The crossing will also occur perpendicular to the road.

Dairyland intends to file its Certificate of Need and Route Permit application near the end of March 2024. We will also be sending these visualizations along to the Minnesota Department of Transportation (Stacy Kotch Egstad) as part of their ENM review process.

We'd be happy to discuss the Project and these visualizations with you if that would be helpful. Please reach out if there is anything we can provide.

Thank you!

Britta

**Britta Bergland**  
612.746.3673 direct  
612.472.0329 mobile  
britta.bergland@merjent.com



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
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**From:** Britta Bergland  
**Sent:** Thursday, January 4, 2024 9:28 AM  
**To:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; 'Marni Karnowski' <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; 'Kate Carlson' <[kcarlson@visitwinona.com](mailto:kcarlson@visitwinona.com)>  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Thanks for the reply - We will keep you posted. Happy New Year as well!

Britta

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612.746.3673 direct  
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[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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Hi Britta,

Thanks so much for the additional information. Our team looks forward to reviewing the visual simulations when available and doesn't have further questions right now.

Happy New Year!  
Chris

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Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

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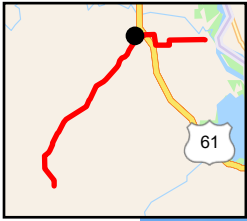


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**Before**

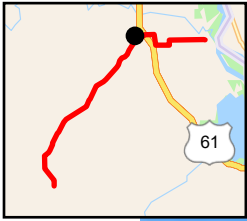


**After**



Photos Taken  
December 19, 2023

**Figure 8-1: Visualization of Highway 61 - West Side of Highway, Looking South**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota



**Before**



**After**

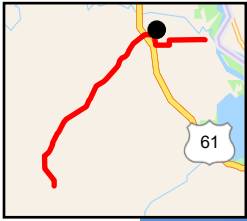


Photos Taken  
December 19, 2023

**Figure 8-2: Visualization of Highway 61 - West Side of Highway, Looking Southwest**

Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota





**Before**



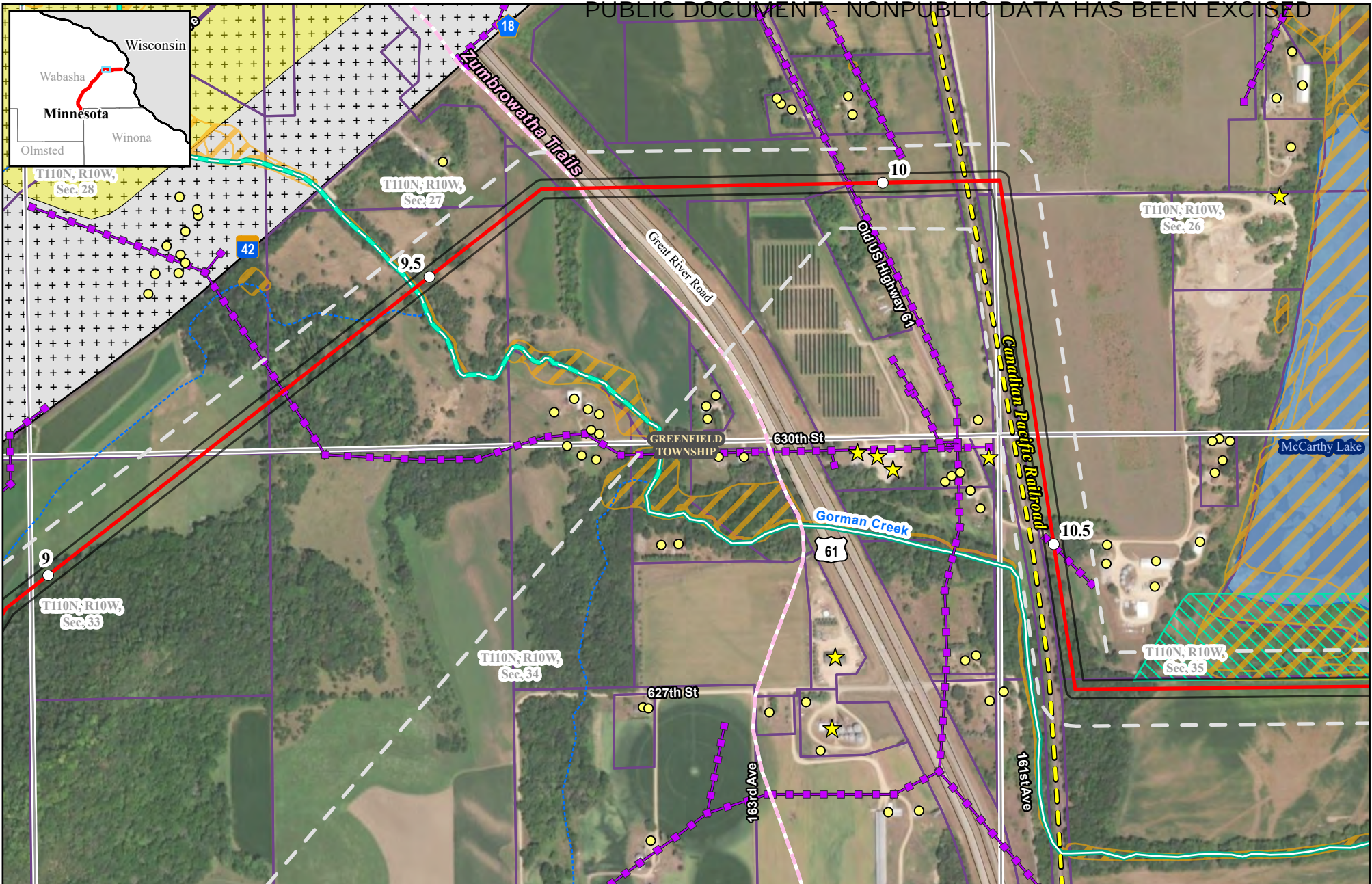
**After**



Photos Taken  
December 19, 2023

**Figure 8-3: Visualization of Highway 61 - East Side of Highway, Looking North**  
Wabasha Relocation Project  
Dairyland Power Cooperative  
Wabasha County, Minnesota





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**Wabasha Relocation Project**  
**Appendix A.2**  
**Dairyland Power Cooperative**  
 Wabasha County, Minnesota  
 Page 8 of 10

- |                               |                                |                            |                              |
|-------------------------------|--------------------------------|----------------------------|------------------------------|
| ○ Milepost                    | ★ NSR Commercial/Industrial    | ■ Wellhead Protection Area | <b>Land Ownership</b>        |
| — Proposed Alignment          | ○ NSR Private                  | ■ DWSMA                    | □ Private Land               |
| — Proposed Right-of-Way       | — MDNR PWI Watercourse         | — MDNR Hydrography Dataset | ▨ BWSR Conservation Easement |
| ■ Proposed Kellogg Substation | — Impaired Stream (Draft 2024) | — Stream (Perennial)       |                              |
| — Proposed Route Width        | — MDNR PWI Basin/Wetland       | — Stream (Intermittent)    |                              |
| — Existing Transmission Line  | ○ NWI Wetland                  |                            |                              |
| — Section Boundary            | — Canadian Pacific Railroad    |                            |                              |
|                               | — Snowmobile Trail             |                            |                              |

**From:** Chris Miller <chris@togpartners.com>  
**Sent:** Friday, March 15, 2024 11:33 AM  
**To:** Britta Bergland  
**Cc:** Kristin Lenz; 'John Anfinson'; 'Marni Karnowski'; 'Sage Williams'; 'Kate Carlson'  
**Subject:** RE: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Hi Britta,

Thanks so much for sending the update and visualizations. We do not have additional questions or comments at this time. If there are changes to this crossing of the Great River Road, please let us know. Our team members noted that they appreciated the opportunity to discuss this project and its potential impact to the Great River Road in early stages along with the consideration and responses that have been provided.

Thanks again and have a great weekend,

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

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**Sent:** Wednesday, March 13, 2024 4:28 PM  
**To:** Chris Miller <chris@togpartners.com>  
**Cc:** Kristin Lenz <kristin.lenz@merjent.com>; 'John Anfinson' <janfinson@comcast.net>; 'Marni Karnowski' <marni.karnowski@state.mn.us>; 'Sage Williams' <Sage.Williams@DairylandPower.com>; 'Kate Carlson' <kcarlson@visitwinona.com>  
**Subject:** SPAM-LOW: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Good afternoon –

I'm writing today with an update on Dairyland's Wabasha Relocation Project (the Project) in Wabasha County, Minnesota.

Dairyland has prepared visualizations of the Highway 61/Great River Road crossing– please see attached. I've also attached an overview map with a close-up of the Project relative to the highway crossing.

As the visualizations show, there would be a new visual impact because of the Project. On the west side of U.S. Highway 61, although some trees will be cleared within the 100-foot-wide right-of-way, Dairyland placed the Proposed Alignment to minimize tree clearing. The westerly pole will be shielded from view to some extent by the remaining forested area (see Diagram 8-3). Regarding the east side of U.S. Highway 61, Dairyland has placed the easterly alignment in an area where minimal large tree removal will occur on the north side of the Proposed Alignment (see Diagrams 8-1 and 8-2). The south side of the alignment is presently sparsely vegetated. The span length between the two poles is approximately 800 feet, which is near the maximum span length of 1,000 feet. The poles will be red/brown (weathered steel), which will allow them to blend with existing colors in the area. The crossing will also occur perpendicular to the road.

Dairyland intends to file its Certificate of Need and Route Permit application near the end of March 2024. We will also be sending these visualizations along to the Minnesota Department of Transportation (Stacy Kotch Egstad) as part of their ENM review process.

We'd be happy to discuss the Project and these visualizations with you if that would be helpful. Please reach out if there is anything we can provide.

Thank you!

Britta

**Britta Bergland**

612.746.3673 direct  
612.472.0329 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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---

**From:** Britta Bergland  
**Sent:** Thursday, January 4, 2024 9:28 AM  
**To:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; 'Marni Karnowski' <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; 'Kate Carlson' <[kcarlson@visitwinona.com](mailto:kcarlson@visitwinona.com)>  
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Thanks for the reply - We will keep you posted. Happy New Year as well!

Britta

**Britta Bergland**

612.746.3673 direct  
612.220.9692 mobile  
[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>  
**Sent:** Thursday, January 4, 2024 8:47 AM  
**To:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; 'Marni Karnowski' <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; 'Kate Carlson'



[<kcarlson@visitwinona.com>](mailto:kcarlson@visitwinona.com)

**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Hi Britta,

Thanks so much for the additional information. Our team looks forward to reviewing the visual simulations when available and doesn't have further questions right now.

Happy New Year!  
Chris

---

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>

**Sent:** Friday, December 22, 2023 1:26 PM

**To:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>

**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; Marni Karnowski <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kate Carlson <[kcarlson@visitwinona.com](mailto:kcarlson@visitwinona.com)>

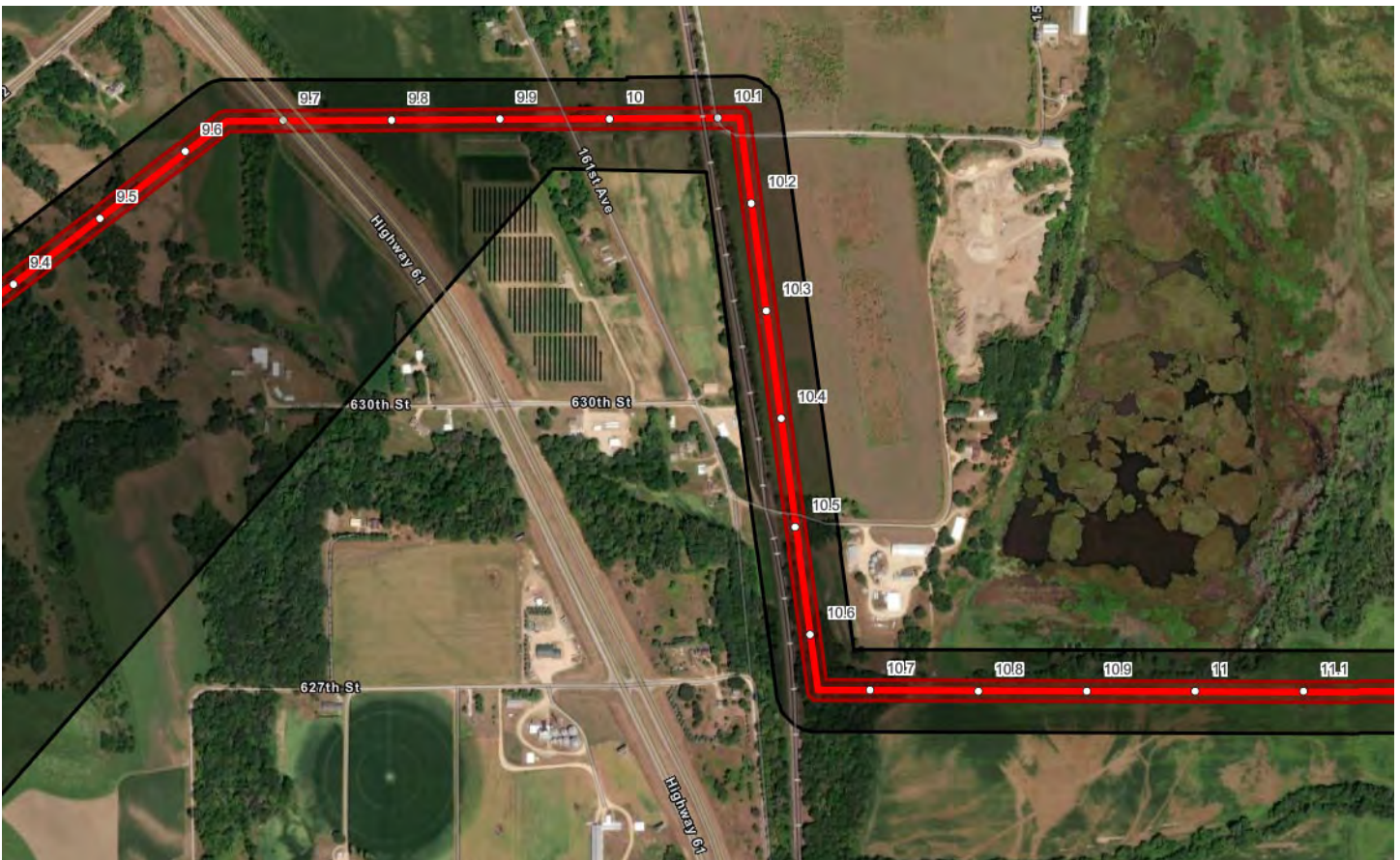
**Subject:** RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Hi Chris,

Thank you for your prompt response!

Dairyland did choose to modify the route east of the Great River Road crossing since we last met, and that change is a result of a subsequent meeting with the U.S. Army Corps of Engineers (USACE). USACE staff preferred a route that crossed south of their interests on the north side of County Road 84 because it would have been difficult for them to realize their plans for development of that land with new transmission infrastructure. This change had the added benefit of avoiding the curves along County Road 84, which we know that Wabasha County would like to straighten in the future and avoids impacts to homeowners along County Road 84 and center-pivot irrigation systems. A snip of the area is included below, but we could make additional maps, if you'd like. Note the numbers on the line are "milepost markers"-not pole locations. Dairyland has not finalized pole locations.





Regarding your remaining questions, the crossing of Great River Road has remained unchanged since we met. We are in the process of creating visualizations of the proposed crossing location with images of the pole design, as requested. The route now crosses the Canadian Pacific Railroad east of 161<sup>st</sup> Avenue and then parallels the railroad north-south on the east side. The route is 820 feet from the northbound portion of Great River Road at its closest point, and 0.4 miles at its furthest point. In between the route and the road are numerous wooded areas, a tree line, the railroad, a solar array, and various buildings and businesses.

Regarding the substation, Dairyland has advanced conversations with the landowner and will be pursuing purchase of an approximately 10-acre portion of the larger parcel that was initially reviewed, so you are correct, this map now shows that smaller area. I attached the same map from the Fact Sheet here so you can have it at a larger scale.

We'd be happy to meet with you again to discuss the project or provide additional information.

Take care –

Britta

**Britta Bergland**

612.746.3673 direct

612.220.9692 mobile

[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)



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---

**From:** Chris Miller <[chris@togpartners.com](mailto:chris@togpartners.com)>

**Sent:** Wednesday, December 20, 2023 9:57 AM

**To:** 'Sage Williams' <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>

**Cc:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; 'John Anfinson' <[janfinson@comcast.net](mailto:janfinson@comcast.net)>; Marni Karnowski <[marni.karnowski@state.mn.us](mailto:marni.karnowski@state.mn.us)>; Kate Carlson <[kcarlson@visitwinona.com](mailto:kcarlson@visitwinona.com)>

**Subject:** EXTERNAL: RE: Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Hi Sage,

Thank you to Britta for the notice below and new mapping. A route modification was mentioned when MN Mississippi River Parkway Commission representatives met with you and others on December 8, and it's helpful to see it on a map. I've shared the new map with those MN-MRPC members (copied on this email), and we have a few comments and questions –

- Looking at the two maps, it appears that the new route will have more impact on the Great River Road.
- The new route will parallel the Great River Road for a stretch – what is the distance, how many poles will be along the Great River Road, and could we get images of what that might look like?
- Could you share more information on the landowner concerns that resulted in the change from the previous proposed route?
- On the new map, it looks like the area for the proposed Kellogg substation is now substantially smaller. Is that correct? It's helpful in comparing the overall changes from the previous map.

Let me know if you have questions for us, and/or would like to set up a meeting and I'll be happy to help coordinate.

Thanks again,

Chris Miller, Director  
MN Mississippi River Parkway Commission  
56 33<sup>rd</sup> Ave S, #283  
St. Cloud, MN 56301  
651-341-4196

---

**From:** Britta Bergland <[britta.bergland@merjent.com](mailto:britta.bergland@merjent.com)>

**Sent:** Monday, December 18, 2023 2:55 PM

**To:** [chris@togpartners.com](mailto:chris@togpartners.com)

**Cc:** Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>

**Subject:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Dear Chris Miller:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River. More information on the Project, along with a Project map, is available in the attached fact sheet.

Dairyland plans to file a joint Certificate of Need and Route Permit application with the Minnesota Public Utilities Commission in March 2024. Dairyland would appreciate any input you may have on the Project. Please reach out to Sage Williams with Dairyland at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com) with questions, written comments, or a request for a meeting.

Thank you –

Britta Bergland [on behalf of Sage Williams, Dairyland Power Cooperative]

**Britta Bergland**

612.746.3673 direct

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**Wabasha County**

**From:** [Kristin Lenz](#)  
**To:** [Flesch, Dietrich](#)  
**Cc:** [Sage Williams](#); [Oates, Travis M](#); [Tom Hillstrom \(Contractor\)](#)  
**Subject:** RE: Dairyland Power Transmission Project  
**Date:** Thursday, September 28, 2023 1:37:00 PM  
**Attachments:** [image.png](#)

---

Good afternoon Dietrich,

Would you have availability in the next couple of weeks to review Dairyland's initial alignment along County Road 84 in Wabasha County and discuss upcoming road projects? If you are available, we would set up a virtual meeting so we can show you the preliminary design and see if you have any initial questions, concerns or feedback.

Let us know what dates or times might work for you!

Thank you,  
Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>  
**Sent:** Tuesday, August 22, 2023 11:36 AM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Subject:** RE: Dairyland Power Transmission Project

Kristin

Proposed work within Wabasha County Highway right of way (including crossing or adjacent to and within the County's right of way) would require a utility permit from Wabasha County Highway Department. Hwy 42 and Hwy 61 are State Highways, owned and operated by Minnesota Department of Transportation which is responsible for its own permitting. If township roads are affected please contact the appropriate township; if you are unsure please don't hesitate to ask me.

A contact list for townships can be found at the following webpage:

[https://www.co.wabasha.mn.us/document\\_center/directory.pdf](https://www.co.wabasha.mn.us/document_center/directory.pdf)



Regards,

Dietrich Flesch  
Wabasha County Engineer  
821 Hiawatha Drive West  
Wabasha, MN 55981  
Phone 651.565.3366 ext.2

---

**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) [<mailto:Robert.K.Edstrom@usace.army.mil>]  
**Sent:** Tuesday, August 22, 2023 9:48 AM  
**To:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>; Flesch, Dietrich <[dflesch@co.wabasha.mn.us](mailto:dflesch@co.wabasha.mn.us)>  
**Subject:** RE: Dairyland Power Transmission Project

**CAUTION: This email came from outside the county**

Kristin,

Are you staying in the County Road 84 ROW? If so, this would be strictly a Wabasha County question for Mr. Dietrich Flesch (copied), their Highway Engineer. It should also be noted at some point in the future, there is a proposal to soften the "S" curve on CR84. If you need to extend outside of the County ROW, we would need to engage our Real Estate Office on next steps.

Thanks,

Bob

---

**From:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Sent:** Friday, August 11, 2023 4:11 PM  
**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Cc:** Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>; Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>; Sage Williams <[Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)>  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] RE: Dairyland Power Transmission Project

Good afternoon Robert,

Dairyland Power Cooperative (Dairyland) is in the planning process to reroute approximately 10.4 miles of their existing 161-kilovolt (kV) transmission line that is currently located on the CapX 2020 Hampton-Rochester-LaCrosse (CapX) structures that extend from the Plainview, Minnesota area northeast toward the Mississippi River east of Kellogg, Minnesota. This existing 161-kV circuit must be removed to make room for a new 345-kV circuit on the existing CapX 2020 structures. Dairyland

must build a new transmission line to continue to provide power to their existing infrastructure and customers and therefore are in the process of evaluating feasible routes in this area. One of the routes that is in consideration would start at the existing CapX structures near Plainview, Minnesota and would parallel County Highway 42 northeast until crossing Highway 61 southwest of Kellogg. The route would then continue east following County Road 84 to tie-in with existing infrastructure on the west side of the Mississippi River. I've attached a snip of a preliminary potential route through this area where the U.S. Army Corps of Engineers may have made recent land purchases.

We are currently trying to identify environmental constraints and potential permitting needs in order to evaluate the feasibility of this route. Dairyland will be preparing a Route Permit application for the Minnesota Public Utilities Commission (MPUC) and these considerations would be discussed within that application. We would appreciate any information that you may have on the USACE ownership and the permitting pathway that may be required for Dairyland to route the transmission line through these properties (e.g., Section 408 authorization?).

Thank you – and please don't hesitate to reach out if you have any questions.

Kristin

**Kristin Lenz**  
*Senior Project Manager*  
612.924.3962 direct  
763.913.4740 mobile  
[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)



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**From:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Sent:** Wednesday, August 9, 2023 3:26 PM  
**To:** Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>; Machajewski, Paul R CIV USARMY CEMVP (USA) <[Paul.R.Machajewski@usace.army.mil](mailto:Paul.R.Machajewski@usace.army.mil)>  
**Subject:** EXTERNAL: RE: Dairyland Power Transmission Project

**CAUTION:** This email originated from outside of Merjent.

Tom,

Can you send me a brief synopsis of your proposal/needs in the Kellogg area? I want to make sure I get it right when transferring these questions to our Real Estate group. I am working on getting a map of our properties now.

Thanks,

Bob

--

Robert Edstrom, PMP  
Project Manager  
United States Army Corps of Engineers, Saint Paul District  
332 Minnesota Street, Suite E1500  
Saint Paul, Minnesota 55101-1323  
Office: 651-290-5026  
Cell: 651-368-3973  
[robert.k.edstrom@usace.army.mil](mailto:robert.k.edstrom@usace.army.mil)

---

**From:** Tom Hillstrom (Contractor) <[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)>  
**Sent:** Wednesday, August 9, 2023 2:34 PM  
**To:** Edstrom, Robert K CIV USARMY CEMVP (USA) <[Robert.K.Edstrom@usace.army.mil](mailto:Robert.K.Edstrom@usace.army.mil)>  
**Cc:** Kristin Lenz <[kristin.lenz@merjent.com](mailto:kristin.lenz@merjent.com)>  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] Dairyland Power Transmission Project

Hi Bob,

Thanks for talking to me today. I'll look forward to seeing whatever information you can send pertaining to the recent Corps land purchase.

We'll be in touch.

**Tom Hillstrom**  
612 584 8783 mobile  
[tom.hillstrom@merjent.com](mailto:tom.hillstrom@merjent.com)



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**Dairyland Power Cooperative  
N Rochester-Tremval LRTP4 – Minnesota 161-kV Relocation  
Wabasha County Highway Department Meeting Notes  
October 5, 2023**

Participants: Sage Williams (Dairyland Power Cooperative), Kristin Lenz (Merjent), Tom Hillstrom (Merjent), Travis Oates (S&L), Matthew Thompson (S&L), Britta Bergland (Merjent), Dietrich Flesch (Wabasha County Highway Dept)

Lenz provided an overview of the Project status and purpose and general review of the route along State Highway 42 and crossing of State Highway 61.

Flesch inquired on whether the proposed alignment would be located within the road ROW. The ROW width along County Road 84 is only approximately 33 feet (66 feet edge to edge); any improvements made in the future that involve expansion would require pole movement and may be at least partially at the expense of Dairyland. County preference to keep the line out of the road ROW. Flesch indicated it may be possible to route the alignment within road ROW but may require deeper pole foundations.

Oates showed the initial route along County Road 84 with the Viewer. Oates inquired on whether there were plans to do any road improvements within or outside of the current road ROW. Flesch indicated improvements would not occur for another 8-10 years until the road is at the end of the pavement life. Not sure if any improvements could occur within the existing road ROW; likely would occur outside of the road ROW. Generally, the new road ROW would be 50-60 from center in each direction (120 feet total).

Oates also inquired on whether the County is planning to flatten out any of the S-curves on this road; County provided comments to the USACE on their beneficial reuse project that they are eventually planning to soften the 3 90-degree curves along the road. The curve farthest to the east would likely move to the southwest. The curves to the west would need to avoid the wetlands, so likely would be pushed further to the east (see snip below with conceptual idea of the improvements). At this point there are no formal plans in place for these road improvements; likely 3-4 years in an advance of construction; 8-10 years until construction would likely start. Design work likely will not be completed for 5-6 years. Also depends on whether they have funding sources – there are potential outside funding sources for completion.





**Dairyland Power Cooperative**  
**N Rochester-Tremval LRTP4 – Minnesota 161-kV Relocation**  
**Wabasha County Highway Department Meeting Notes**  
**October 5, 2023**

Flesch inquired if the 161-kV line will go back on the CapX structures to cross the river – Oates/Williams clarified it will be partially on CapX west of the river and go into the substation, then be on its own structures to the west.

Dairyland to discuss further, but approach likely will be to expand the route width through this area to allow flexibility in the final alignment as conversations progress with both the County and USACE. Flesch inquired on whether it was possible to seek a permit from the USACE; Lenz responded that the assumption is that this is a Section 408 civil works project and that there is a process by which the USACE can grant an authorization. Dairyland will be talking with the USACE next to understand this process better. Dairyland will also continue to follow-up with the County on potential future planning for this road.

**Britta Bergland**

---

**From:** Britta Bergland  
**Sent:** Tuesday, January 2, 2024 3:49 PM  
**To:** Kempinger, Matthew - FPAC-NRCS, MN  
**Cc:** sage.williams@dairylandpower.com  
**Subject:** RE: EXTERNAL: Comments on - Dairyland Power - Wabasha Relocation Project in Wabasha County, MN  
**Attachments:** Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

Hi Matt,


Thanks so much for your note! I am sorry the original letter did not make its way to you directly, but I have attached it here for your reference.

We will be sure to keep you posted regarding Project developments. Dairyland plans to file a joint application for a Route Permit and Certificate of Need with the Minnesota Public Utilities Commission in March of this year. There will be opportunities for public comment as part of that process. Dairyland will then pursue additional environmental permits once a route is determined. Please let us know if you'd like to set a meeting with you and your coworkers before those milestones, however – we'd be happy to meet anytime to discuss the Project.

Take care,

Britta

**Britta Bergland**  
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britta.bergland@merjent.com

  
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---

**From:** Kempinger, Matthew - FPAC-NRCS, MN <Matthew.Kempinger@mn.nacdnet.net>  
**Sent:** Wednesday, December 27, 2023 12:10 PM  
**To:** Britta Bergland <britta.bergland@merjent.com>; sage.williams@dairylandpower.com  
**Subject:** EXTERNAL: Comments on - Dairyland Power - Wabasha Relocation Project in Wabasha County, MN

**CAUTION:** This email originated from outside of Merjent.

Britta and Sage,

Your project intro letter to the USDA for the Dairyland Power relocation project in Wabasha County was forwarded to me and other Wabasha SWCD staff. I understand that there is a lot already in the works and that likely includes the things I am about to mention. Wabasha SWCD is the LGU for the Minnesota Wetland Conservation Act (WCA). If there are any potential wetland impacts from this project we would need to be included in those conversations and we would require a [Joint Application](#) to review your plan in relation to WCA. In addition to this, the SWCD would like to be

included in public comment periods as more details come out. Some of my coworkers mentioned interest in reviewing plans related to forest clearing and vegetative management.

In summary, I just wanted to introduce myself as a contact for the Wabasha SWCD and state our interest in being involved in comment periods and wetland reviews as this project moves forward.

Thank you,

Matt Kempinger  
District Technician / WCA LGU  
[Wabasha SWCD](#)  
(651) 560-2055



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December 18, 2023

Matt Kempinger  
Wabasha County Soil & Water Conservation District  
611 Broadway Avenue, Ste. 10  
Wabasha, MN 55981  
Matthew.Kempinger@mn.nacdnet.net

Re: **In the Matter of the Application of Dairyland Power Cooperative to Relocate an Existing 161-kV Transmission Line in Wabasha County, Minnesota  
MPUC Docket Nos. ET3/CN-23-504 and ET3/TL23-388**

Dear Matt Kempinger:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line which is presently located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV transmission line must be removed from the existing CapX2020 structures and relocated to make room for the new 345-kV circuit on the CapX2020 structures.

The Project would involve installation of 70- to 110-foot-high steel monopoles placed 400 to 800 feet apart within a 100-foot-wide right-of-way, and construction of a new substation east of the City of Kellogg, Minnesota. The enclosed Project Fact Sheet provides additional information on the Project, including a map of the Project area and proposed route.

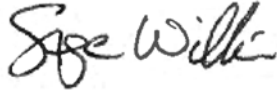
Dairyland plans to file a joint Certificate of Need and Route Permit application (Application) with the Minnesota Public Utilities Commission (Commission) in March 2024. Dairyland would appreciate any input you may have on the Project and the proposed route. This letter, and any responses received, will be submitted along with Dairyland's Application. There will also be numerous public input opportunities as part of the Commission's Certificate of Need and Route Permit process.



We would welcome the opportunity to meet with you regarding the proposed Project. If you would like to request a meeting, please contact me at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com).<sup>1</sup> We also welcome written comments, and I am available to answer any questions you have.

Sincerely,

DAIRYLAND POWER COOPERATIVE

A handwritten signature in black ink that reads "Sage Williams". The signature is written in a cursive, flowing style.

Sage Williams  
Manager, Transmission Operations and Development

Cc: Jed Chesnut, BWSR

Encl: Project Fact Sheet

---

<sup>1</sup> This letter is intended to serve as notice of the opportunity for a pre-application consultation meeting under Minn. Stat. § 216E.03, subd. 3a.





Dairyland Power Cooperative  
Manager, Transmission Operations and Development  
3200 East Avenue South  
P.O. Box 817  
La Crosse, WI 54602-0817

## **Wabasha Relocation Project**

### **Project Overview**

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) in Wabasha County (the Project). The Project will make room for a second 345-kV circuit to be attached to the existing CapX Hampton-Rochester-LaCrosse (CapX) structures, which extend diagonally northeast from the Town of Plainview to the City of Kellogg, Minnesota. The Project will allow Dairyland to maintain its transmission system, supply the Wabaco Substation, and provide power to the Town of Plainview and neighboring areas. Once the 161-kV transmission line has been relocated to the new right of way, the existing transmission circuit located on the CapX 2020 345-kV structures will be transferred to Xcel Energy. Structures would consist of 70- to 110-foot steel monopoles with spans of 400 to 800 feet apart. Dairyland will seek a 100-foot-wide right-of-way – 50 feet on each side of the centerline.

This Project also includes the construction of a new substation proposed near the City of Kellogg. This substation is required because the new CapX 345-kV circuit across the Mississippi River will eliminate Dairyland's existing 69-kV transmission line crossing and connection to the Alma Station in Wisconsin. The new Kellogg Substation will supply power to Dairyland's existing north-south 69-kV transmission line supplying the Weaver Substation, which provides power to communities within the southeast Minnesota area.

### **Permitting and Public Involvement**

Dairyland plans to submit a Certificate of Need and Route Permit Application to the Minnesota Public Utilities Commission (Commission) in March 2024. During this process, the public and regulatory agencies will have several opportunities to review and provide input on the Project, including public meetings hosted by the Commission and the Department of Commerce Energy Environmental Review and Analysis (DOC-EERA). DOC-EERA will also prepare an environmental assessment for the Project that will be available for public review. Once the Commission issues a decision, Dairyland will finalize the Project route and obtain any additional permits needed from federal, state, and local agencies.

### **Landowner Coordination and Easement Negotiation**

After Dairyland submits the Certificate of Need and Route Permit application to the Commission, a representative from Dairyland will contact property owners to discuss access to the Proposed Route and the process for acquisition of easements. Dairyland will continue to engage with landowners throughout the permitting process to answer any questions they may have regarding the easement process or the Project, including those with respect to construction or operation of the transmission line.

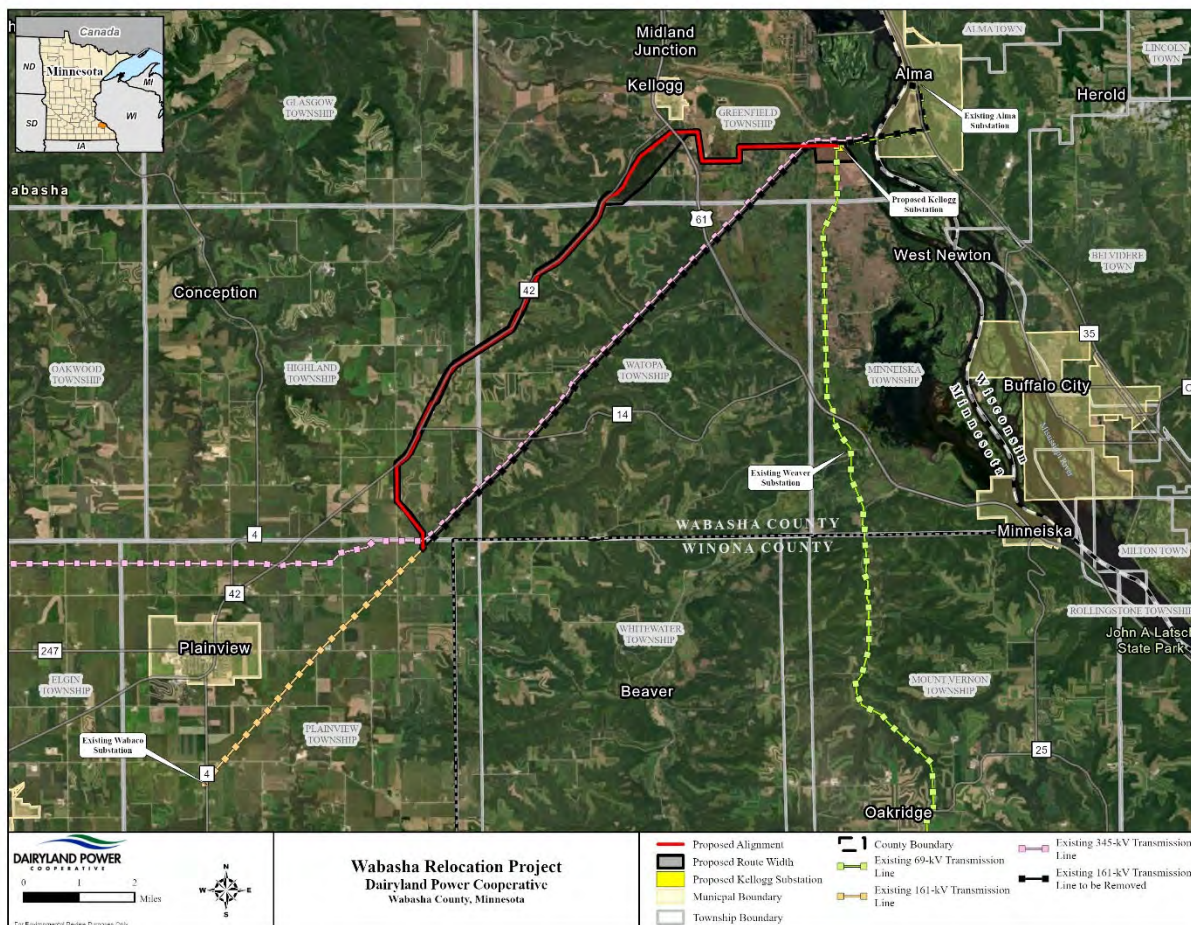
### **About Dairyland**

Dairyland is a Touchstone Energy Cooperative formed in December 1941 and based in La Crosse, Wisconsin. Dairyland provides wholesale electrical requirements to more than 700,000 people through its 24 distribution cooperatives and 27 municipals in a four-state area including Wisconsin, Minnesota, Iowa, and Illinois.



Dairyland Power Cooperative  
 Manager, Transmission Operations and Development  
 3200 East Avenue South  
 P.O. Box 817  
 La Crosse, WI 54602-0817

Project Schedule	
Timeframe	Project Phase/Activity
November 2023	Notifications and Open Houses
Winter 2024 – Summer 2025	Certificate of Need and Route Permit
Summer/Fall 2025	Survey/Design
Winter 2025 – Fall 2025	Easements/Additional Permits
Spring 2026 – Summer 2027	Construction
Summer 2028	Energization



Dairyland Representatives	
<b>Jessica Sandry</b>	<b>Sage Williams</b>
Jessica Sandry, Real Estate and Right-of-Way	Project Manager, Transmission Operations and Development
608-792-3359	608-791-2993
<a href="mailto:Jessica.Sandry@DairylandPower.com">Jessica.Sandry@DairylandPower.com</a>	<a href="mailto:Sage.Williams@DairylandPower.com">Sage.Williams@DairylandPower.com</a>

**From:** Kaltenbach, Joseph <jkaltbach@co.wabasha.mn.us>  
**Sent:** Tuesday, January 2, 2024 12:04 PM  
**To:** Jessica Sandry  
**Subject:** [EXT] RE: Questions Regarding Setbacks and Parcel Dimension Requirements for Proposed Substation Site

Jessica,

In regards to the setback from the county road, here is the response from our Highway Engineer:

*The ROW is width of actual use/prescriptive and is approx. 35' on the easterly side, except near the curve at the section 31/30 line which we would claim a line extending north to the section line aligned with the north/south running power line.*

*An access permit would be required. For this road, a 30 feet setback from ROW is required, but for a substation a greater setback would be encouraged.*

For any structures (that are not dwellings) there would be a 10 foot setback from any property lines. You are correct with respect to the fence height requirements. If the facilities are up near the road, the facility would not be in shoreland or the 100-year floodplain.

The 10 acres portion could be split off through an administrative subdivision. The 10 acre portion that would be split off would need to be deed restricted for dwellings due to Wabasha County's dwelling density and lot size requirements for the A-1 district.

If you have more questions please let me know.

Thanks,

Joe Kaltenbach

Zoning Administrator

Wabasha County

625 Jefferson Ave

Wabasha, MN 55981

Phone: (651)-565-3062

E-mail: [jkaltenbach@co.wabasha.mn.us](mailto:jkaltenbach@co.wabasha.mn.us)

---

**From:** Jessica Sandry [mailto:Jessica.Sandry@DairylandPower.com]

**Sent:** Thursday, December 28, 2023 11:13 AM

**To:** Kaltenbach, Joseph <jkaltenbach@co.wabasha.mn.us>

**Subject:** Questions Regarding Setbacks and Parcel Dimension Requirements for Proposed Substation Site

**CAUTION: This email came from outside the county**

Mr. Kaltenbach,

Thank you for taking my telephone call this morning. As I mentioned, Dairyland Power Cooperative has made some initial contact with a landowner in the Town of Greenfield along County Highway 84 regarding the potential purchase of property for a substation site. The subject location being within that portion of parcel number R05.00411.00 lying easterly of Highway 84. Dairyland is interested in purchasing approximately 10 acres from that portion of property. Dairyland's substation design engineers are interested in better understanding any setbacks or parcel dimension requirements that would be applicable to the proposed parcel or substation facility, in the interest of confirming that the dimensions of the proposed 10 acre property will allow for ready placement of the required facilities.

The substation facilities would be enclosed by a chain link fence panels minimum 7 feet high with posts extending taller to support barbed strands. The chain link fence enclosure being approximately 350' x 350' (the initial estimate was actually 304' X 360'). The surface within the fenced area would be gravel (raised above existing grade) and the gravel would extend beyond the chain link fence for between 5' and 10' with a gradual slope back to existing grade extending from gravel edge.

There would be a control shed on a concrete pad within the fence with dimensions approximately 20' x 40'. There would also be various wooden and steel poles on the property, but outside of the fence. There could be the potential for some of the poles to have individual concrete foundations, others would be directly embedded. There would also be a gravel parking area outside of the fence.

Per our conversation, I understand that the fence (at a height in excess of 7 feet) and the control building would both be subject to the Setback Ordinance and thus a highway setback of 50 feet from the road right-of-way, which said right-of-way limits would be by prescription if not of record.

It would be my present understanding that the proposed area is not considered Shoreland or Floodplain, that essential services are generally exempt from the Wabasha County Zoning Ordinance or requirement for a conditional use permit and that the land division would fall in the classification of an administrative subdivision. Would there be any property line setbacks or subdivision design standards within the Wabasha County Zoning or Subdivision Regulations Ordinances that would remain applicable to the placement of facilities on or the dimensions of the proposed parcel?

Thank you again for your assistance. My full contact information follows.

Regards,

Jessica A. Sandry, SR/WA

Right of Way Agent - Senior

Real Estate and Right-of-Way

**DAIRYLAND POWER COOPERATIVE**

3200 East Ave. S.

PO Box 817, La Crosse, WI 54602-0817

Mobile: 608-792-3359

[Jessica.Sandry@DairylandPower.com](mailto:Jessica.Sandry@DairylandPower.com)

[www.DairylandPower.com](http://www.DairylandPower.com)



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Dairyland Power Cooperative is an equal opportunity provider and employer.

***"Zero By Choice - Everyone Home Safe Every Day"***

# Appendix C

## Commission's Exemption Order

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben  
Hwikwon Ham  
Valerie Means  
Joseph K. Sullivan  
John A. Tuma

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the Application of Dairyland Power Cooperative for a Certificate of Need for the Wabasha Relocation 161 kV Transmission Line Project in Wabasha County, Minnesota

SERVICE DATE: February 13, 2024

DOCKET NO. ET-3/CN-23-504

The above entitled matter has been considered by the Commission and the following disposition made:

- 1. Approved the Notice Petition with the following modifications:**
  - a. Required that all residents and landowners in the 5-mile buffer area shown on the map be included in the notice.**
  - b. Required that the following local governments be added to the notice plan:**
    - i. the counties of Wabasha and Winona; and**
    - ii. the cities of Plainview and Kellogg.**
  - c. Required that the Upper Mississippi River Wildlife and Fish Refuge be added.**
  - d. Required that the Star Tribune be added to the list of newspapers.**
  - e. Required that the map be modified to show the proposed end points of the line and existing transmission facilities in the area.**
  - f. Required that the text of the notices be modified to mention the website on which the biennial transmission projects report is posted (minnelectrans.com).**
- 2. Granted a variance to Minnesota Rules 7829.2550, Subp. 6 so that the notices occur no more than 60 days and no less than one week prior to the filing of the CN application.**
- 3. Approved the Exemption Petition with the following condition:**
  - a. Dairyland Power Cooperative must provide a discussion of the availability of alternatives under Minnesota Rules 7849.0260 Subps. (B) (1), (4), (6) and (8) as agreed to by DPC.**

**This decision is issued by the Commission's consent calendar subcommittee, under a delegation of authority granted under Minn. Stat. § 216A.03, subd. 8 (a). Unless a party, a participant, or a Commissioner files an objection to this decision within ten days of receiving it, it will become the Order of the full Commission under Minn. Stat. § 216A.03, subd. 8 (b).**

The Commission agrees with and adopts the recommendations of the Department of Commerce, which are attached and hereby incorporated into the Order.

BY ORDER OF THE COMMISSION



Will Seuffert  
Executive Secretary



To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us) for assistance.



January 2, 2024

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, Minnesota 55101-2147

**RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. ET3/CN-23-504

Dear Mr. Seuffert:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Application of Dairyland Power Cooperative for a Certificate of Need for the Wabasha Relocation 161 kV Transmission Line Project in Wabasha County, Minnesota: Notice Plan Approval Request.

The petition was filed by Christina K. Brusven, Attorney, Frederikson & Byron, P.A., Attorneys for Dairyland Power Cooperative on December 13, 2023.

The Department recommends **approval with modifications** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ LOUISE MILTICH  
Assistant Commissioner of Regulatory Affairs

/s/ STEVE RAKOW  
Analyst Coordinator

SR/ar  
Attachment



## Before the Minnesota Public Utilities Commission

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### Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. ET3/CN-23-504

#### I. INTRODUCTION

On December 13, 2023, Dairyland Power Cooperative (DPC or the Cooperative) filed the Cooperative's *Certificate of Need Notice Plan Approval Request (Petition)*. The Petition provides DPC's proposal to provide notice to all persons reasonably likely to be affected by the Wabasha 161 kV relocation project.

The Wabasha 161 kV relocation project consists of relocating approximately 10.4 miles of an existing 161 kilovolt (kV) transmission line between the Wabaco Substation and Mississippi River, including construction of approximately 14 miles of 161-kV transmission on a new right-of-way and a new 161/69-kV substation near Kellogg, Minnesota, in Wabasha County (Project).<sup>1</sup> In addition, the Petition states that "the 69-kV transmission line from Kellogg, Minnesota to Alma, Wisconsin will be converted to 161-kV operation to allow for an additional 345-kV circuit across the Mississippi River, requiring a new Kellogg 161/69-kV substation." Since this converted line would be greater than 100 kV and cross a state line the Department concludes that it also meets the definition of a LEF and requires a CN. Therefore, the Department recommends that all materials in the notice plan, including the map, list of residents, and list of landowners be adjusted so that this 69 kV to 161 kV conversion is also covered.

Also on December 13, 2023, DPC filed the Cooperative's *Request for Exemption from Certain Certificate of Need Application Content Requirements (Exemption Petition)*. The Exemption Petition will be addressed in separate comments.

On December 18, 2023, the Minnesota Public Utilities Commission (Commission) issued its *Notice of Comment Period on Request for Exemption From Certain Certificate of Need Filing Requirements (Notice)*. The Notice indicated that two topics are open for comment:

- Should the Commission grant the exemptions to the certificate of need (CN) application content requirements requested by Dairyland Power Cooperative in its December 13<sup>th</sup>, 2023 filing?
- Should the Commission approve the proposed notice plan?

Below are the comments of the Minnesota Department of Commerce (Department) regarding the Petition and the second topic regarding approval of the proposed notice plan.

---

<sup>1</sup> The current 161-kV transmission line is co-located with the Hampton-Rochester-La Crosse 345-kV project between Plainview and Kellogg and will need to be relocated if a separate project, the Mankato to Mississippi 345-kV Transmission Line, is permitted to be operated on the second circuit of the existing 345-kV double circuit capable structures; see Docket No. E002/CN-22-532 for further details.

## II. DEPARTMENT ANALYSIS

### A. GOVERNING STATUTES AND RULES

DPC filed the Petition pursuant to Minnesota Rules 7829.2550, Subp. 1 which states in part “[t]hree months before filing a certificate of need application for a high-voltage transmission line as defined by Minnesota Statutes, section 216B.2421, the applicant shall file a proposed plan for providing notice to all persons reasonably likely to be affected by the proposed line.”

Minnesota Statutes § 216B.2421 includes in its definition of a Large Energy Facility (LEF) “any high-voltage transmission line with a capacity of 100 kilovolts or more with more than ten miles of its length in Minnesota or that crosses a state line.” In turn, Minnesota Statutes § 216B.243 requires a LEF obtain a CN. Given that the proposed Project is a 161 kV transmission line longer than 10 miles, the proposed Project falls within the definition of a LEF which triggers a CN requirement, and, therefore, also requires a notice plan. As mentioned above, the 69-kV to 161-kV conversion for the transmission line from Kellogg, Minnesota to Alma, Wisconsin also requires a CN.

### B. TYPES OF NOTICE

Minnesota Rules 7829.2550, Subp. 3, requires types of notice as follows:

- direct mail notice, based on county tax assessment rolls, to landowners reasonably likely to be affected by the proposed transmission line;
- direct mail notice to all mailing addresses within the area reasonably likely to be affected by the proposed transmission line;
- direct mail notice to tribal governments and to the governments of towns, statutory cities, home rule charter cities, and counties whose jurisdictions are reasonably likely to be affected by the proposed transmission line; and
- newspaper notice to members of the public in areas reasonably likely to be affected by the proposed transmission line.

The list of individuals and entities to be provided notice is to be compiled by DPC as follows:

- Regarding landowner notice—DPC will review county tax assessment rolls and other relevant county records to determine the names and addresses of landowners who own property within or adjacent to the proposed transmission line corridor.
- Regarding notice to mailing addresses—DPC gather addresses from mailing lists maintained by the United States Post Office or from bulk mailing firms.
- Regarding notice to tribal governments—DPC will provide direct mail notice to all tribal governments located in Minnesota.
- Regarding notice to local governmental jurisdictions—DPC did not identify any local governments.
- Regarding newspaper notice—DPC will provide notice in Wabasha County Herald.

The Department concludes that DPC's general process for identification of individuals and tribal governments that should receive notice for the Project meets the required notice in Minnesota Rules 7829.2550, Subp. 3 as long as all residents and landowners in the 5-mile buffer area shown on the map in the Petition are included along with residents and landowners potentially impacted by the 69-kV to 161-kV conversion.<sup>2, 3</sup>

Regarding the process for identification of local governments, the Petition did not mention any local governments. Therefore, the Department recommends that the following local governments be added to the notice plan:

- the counties of Wabasha and Winona; and
- the cities of Plainview and Kellogg.

In addition, while not listed as a requirement in Minnesota Rules, the Department recommends that notice be provided to the Upper Mississippi River Wildlife and Fish Refuge, which is shown on the map and included within 5-mile buffer.

Regarding newspaper notice, while technically not part of the notice plan, the Department notes that Minnesota Rules 7829.2500, Subp. 5, requires an applicant publish newspaper notice of the filing in a newspaper of general circulation throughout the state at the time the CN petition is filed. Therefore, the Department recommends that the Star Tribune be added to the list of newspapers to cover this requirement.

### C. *CONTENT OF NOTICE*

Minnesota Rules 7829.2550, Subp. 4 requires the notices to provide the following information:

- a map showing the end points of the line and existing transmission facilities in the area;
- a description of general right-of-way requirements for a line of the size and voltage proposed and a statement that the applicant intends to acquire property rights for the right-of-way that the proposed line will require;
- a notice that the line cannot be constructed unless the Commission certifies that it is needed;
- the Commission's mailing address, telephone number, and website;
- if the applicant is a utility subject to chapter 7848, the address of the website on which the utility applicant will post or has posted its biennial transmission projects report required under that chapter;

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<sup>2</sup> This is implied by the text of the second notice which states "We have sent a similar notice to residents and landowners within or adjacent to the corridor outlined in the enclosed map..." but is not clear from the rest of the Petition's text.

<sup>3</sup> In analyzing the Petition, the Department also referred to the map included on the proposed Project's website, at: <https://www.dairylandpower.com/wabasha-relocation-project>

- a statement that the Environmental Quality Board<sup>4</sup> will be preparing an environmental report on each high-voltage transmission line for which certification is requested;
- a brief explanation of how to get on the mailing list for the Environmental Quality Board's proceeding; and
- a statement that requests for certification of high-voltage transmission lines are governed by Minnesota law, including specifically chapter 4410, parts 7849.0010 to 7849.0400, and 7849.1000 to 7849.2100, and Minnesota Statutes, section 216B.243.

The Department reviewed the text of the proposed notices provided in the Petition and recommends the Commission require:

- the map to be modified to show the proposed end points of the line and existing transmission facilities in the area; and
- the text to be modified to mention the website on which the biennial transmission projects report is posted (minnelectrans.com).

*D. NOTICE TIMING*

Minnesota Rules 7829.2550, Subp. 6, requires the applicant to implement the notice plan within 30 days of its approval by the Commission. In this case the Department recommends that the Commission grant a variance and direct the notices occur no more than 60 days and no less than one week prior to the filing of the CN application. Minnesota Rules 7829.3200 governs such variance requests and establishes the following criteria:

1. enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
2. granting the variance would not adversely affect the public interest; and
3. granting the variance would not conflict with standards imposed by law.

The Department concludes that the requirements for a variance are met as follows:

1. The notice requirements would burden all parties by separating notice provided to interested stakeholders from the start of the proceeding;
2. granting the variance would not adversely affect the public interest because the variance ties implementation of the notice to filing the CN petition; and
3. granting a variance would not conflict with standards imposed by law.

Regarding the second criterion, the Department notes that granting the variance would promote the public interest by avoiding separation between implementation of the notice plan and the start of the CN proceeding. In addition, the Commission has approved similar variances in other CN proceedings,

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<sup>4</sup> This function has since been transferred to the Commission and the Department.



with the Commission's April 19, 2023 Order in Docket No. E017,ET02, E002, ET10, E015/CN-22-538 being a recent example.<sup>5</sup> Therefore, the Department recommends the Commission approve the variance.

### **III. DEPARTMENT RECOMMENDATION**

Based on review of the Petition and applicable statutes and rules, the Department recommends the Commission:

- require that all materials in the notice plan, including the map, list of residents, and list of landowners be adjusted so that the conversion of the 69 kV transmission line from Kellogg, Minnesota to Alma, Wisconsin to 161 kV be included;
- require that all residents and landowners in the 5-mile buffer area shown on the map be included in the notice;
- add the following local governments to the notice plan:
  - the counties of Wabasha and Winona; and
  - the cities of Plainview and Kellogg;
- add the Upper Mississippi River Wildlife and Fish Refuge;
- add the Star Tribune to the list of newspapers;
- modify the map to show the proposed end points of the line and existing transmission facilities in the area; and
- modify the text of the notices to mention the website on which the biennial transmission projects report is posted ([minnelectrans.com](http://minnelectrans.com)).

Finally, the Department recommends that the Commission grant a variance to Minnesota Rules 7829.2550, Subp. 6 and direct the notices occur no more than 60 days and no less than one week prior to the filing of the CN application.

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<sup>5</sup> See [20234-194943-01](#)

January 2, 2024

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. ET3/CN-23-504

Dear Mr. Seuffert:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Application of Dairyland Power Cooperative for a Certificate of Need for the Wabasha Relocation 161 kV Transmission Line Project in Wabasha County, Minnesota: Request for Exemption from Application Content Requirements.

The petition was filed by Christina K. Brusven, Attorney, Frederikson & Byron, P.A., Attorneys for Dairyland Power Cooperative on December 13, 2023.

The Department recommends **approval with modifications** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ LOUISE MILTICH  
Assistant Commissioner of Regulatory Affairs

/s/ STEVE RAKOW  
Analyst Coordinator

SR/ar  
Attachment



## Before the Minnesota Public Utilities Commission

---

### Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. ET3/CN-23-504

#### I. INTRODUCTION

On December 13, 2023, Dairyland Power Cooperative (DPC or the Cooperative) filed the Cooperative's *Request for Exemption from Certain Certificate of Need Application Content Requirements* (Petition). The Petition provides DPC's proposal to obtain exemptions from certain data requirements of Minnesota Rules 7849.0010 to 7849.0400.

The proposed project consists of relocating approximately 10.4 miles of an existing 161 kilovolt (kV) transmission line between the Wabaco Substation and Mississippi River, including construction of approximately 14 miles of 161-kV transmission on a new right-of-way and a new 161/69-kV substation near Kellogg, Minnesota, in Wabasha County (Project).<sup>1</sup> In addition, the Petition states that "The 69-kV transmission line from Kellogg, Minnesota to Alma, Wisconsin will be converted to 161-kV operation to allow for an additional 345-kV circuit across the Mississippi River, requiring a new Kellogg 161/69-kV substation." Since this converted line would be greater than 100 kV and cross a state line the Department concludes that it also meets the definition of a LEF and requires a CN. The Department considered the conversion when analyzing the Petition.

Also on December 13, 2023, DPC filed the Cooperative's *Certificate of Need Notice Plan Approval Request* (Notice Petition). The Notice Petition will be addressed in separate comments.

On December 18, 2023, the Minnesota Public Utilities Commission (Commission) issued its *Notice of Comment Period on Request for Exemption From Certain Certificate of Need Filing Requirements* (Notice). The Notice indicated that two topics are open for comment:

- Should the Commission grant the exemptions to the certificate of need (CN) application content requirements requested by Dairyland Power Cooperative in its December 13th, 2023 filing?
- Should the Commission approve the proposed notice plan?

Below are the comments of the Minnesota Department of Commerce (Department) regarding the Petition and the first topic—granting exemptions.

---

<sup>1</sup> The current 161-kV transmission line is co-located with the Hampton-Rochester-La Crosse 345-kV project between Plainview and Kellogg and will need to be relocated if a separate project, the Mankato to Mississippi 345-kV Transmission Line, is permitted to be operated on the second circuit of the existing 345-kV double circuit capable structures; see Docket No. E002/CN-22-532 for further details.

## II. DEPARTMENT ANALYSIS

### A. GOVERNING STATUTES AND RULES

The Cooperative filed the Petition pursuant to Minnesota Rules, 7849.0200, Subp. 6 which states, in part:

Before submitting an application, a person is exempted from any data requirement of parts 7849.0010 to 7849.0400 if the person (1) requests an exemption from specified rules, in writing to the commission, and (2) shows that the data requirement is unnecessary to determine the need for the proposed facility or may be satisfied by submitting another document. A request for exemption must be filed at least 45 days before submitting an application.

Based on this standard the Commission may grant exemptions when the data requirements are shown to be unnecessary to determine need or can be satisfied by submitting alternative information. In the Petition the DPC requested to be exempted from certain data requirements of parts 7849.0010 to 7849.0400.

### B. REQUESTED EXEMPTIONS

The Petition requests exemptions from the following data requirements:

- 7849.0260 Subps. (A) (3) and (C) (6)—line-specific losses;
- 7849.0260 Subps. (B) (1),(4), (6) and (8)—alternative end points;
- 7849.0260 Subp. (C) (5)—effect on rates;
- 7849.0270—forecasting;
- 7849.0270 Subp. 2 (E)—annual revenue requirements;
- 7849.0280 Subps. (B) through (I)—system capacity;
- 7849.0290—conservation programs;
- 7849.0300—consequences of delay; and
- 7849.0340—no facility alternative.

The Department examines each specific exemption request separately. The required criterion is whether the Cooperative has shown that “the data requirement is unnecessary to determine the need for the proposed facility or may be satisfied by submitting another document” as discussed above.

C. ANALYSIS OF EXEMPTION REQUESTS

1. 7849.0260 Subps. A (3) and C (6)

Minnesota Rules 7849.0260, Subps. A (3) and C (6) require an applicant for a CN provide estimated “losses under projected maximum loading and under projected average loading in the length of the transmission line and at the terminals or substations.” The Petition explains that:

The electrical grid operates as a single, integrated system, which prevents electricity from being “directed” along a particular line or set of lines. Consequently, losses take place across the entire transmission system ... It is necessary, therefore, to calculate losses across the system affected by the addition of new transmission lines.

The Department agrees that line losses for the system are more relevant than line losses for an individual line. Also, as indicated in the Petition, the proposal is consistent with the approach previously approved by the Commission in several other transmission line CN dockets.<sup>2</sup> Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0260 Subps. A (3) and C (6) with the provision of the proposed alternative data.

2. 7849.0260 Subps. (B) (1), (4), (6) and (8)

Minnesota Rules 7849.0260 (B) requires an applicant for a CN to provide a “discussion of the availability of alternatives to the facility” including:

- (1) new generation of various technologies, sizes, and fuel types;
- (4) transmission lines with different terminals or substations;
- (6) if the proposed facility is for DC (AC) transmission, an AC (DC) transmission line; and
- (8) any reasonable combinations of the alternatives listed in subitems (1) to (7).

Regarding this data DPC states that “the purpose of the Project is to relocate the existing 161-kV line from the CapX2020 poles to accommodate the Mankato to Mississippi 345 line.” Therefore, DPC argues that new generation, a transmission line with different endpoints, or a DC transmission line would not be feasible because they would not meet the identified need.

The purpose of the proposed Project is not to relocate the existing 161-kV line from the CapX2020 poles; instead that is DPC’s preferred alternative. The purpose of the proposed Project is to maintain a 161 kV source to the 69 kV network in the area. There may be superior alternatives for maintaining that energy.<sup>3</sup> Therefore, the Department recommends the Commission reject this exemption request.

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<sup>2</sup> For two recent examples, see the Commission’s June 28, 2022 order in Docket No. E002/CN-22-131 [20226-186932-01](#) and June 21, 2023 order in Docket No. E015, ET2/CN-22-416 [20236-196704-01](#)

<sup>3</sup> The Department recognizes that the discussion of these alternatives in a CN petition may be brief but the screening analysis required Minnesota Rules 7849.0260 B should take place for all alternatives.



### 3. 7849.0260 Subp. (C) (5)

Minnesota Rules 7849.0260 Subp. (C) (5) requires an applicant for a CN to provide, for the proposed facility and for each alternative that could address the asserted need, a discussion of “an estimate of its effect on rates systemwide and in Minnesota, assuming a test year beginning with the proposed in-service date.” DPC argues that the proposed Project is part of Midcontinent Independent System Operator, Inc.’s (MISO) long range transmission planning (LRTP) tranche 1 portfolio. Therefore, DPC requests an exemption from this requirement and proposes instead to provide an explanation of how MISO LRTP project costs are allocated.

The Department agrees that providing information regarding how the costs for MISO’s LRTP projects are actually allocated would be more appropriate to the analysis than using the information required by the rule since the information in the rule has no relation to how the proposed Project’s costs would be allocated. Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0270, Subp. 2 (E) with the provision of the proposed alternative data.

### 4. 7849.0270

Minnesota Rules 7849.0270 requires an applicant for a CN to provide detailed forecasting information as follows:

- Subpart 1—establishes the scope of the forecast to be peak demand and annual electrical consumption within the applicant's service area and system;
  - instead, DPC proposes to provide demand data supporting the ongoing need for the proposed Project in the affected load area.
- Subparts 2(A) and (B)—require a Minnesota service area energy forecast, forecast of the number of consumers and amount of energy consumed by customer class;
  - As noted above, DPC proposes to provide data regarding the local load area.
- Subpart 2(C)—requires an estimate of the peak demand both for the system as a whole and by customer class at the time of annual system peak demand;
  - As noted above, DPC proposes to provide data regarding the local load area.
- Subpart 2(D)—requires provision of monthly peak demand data for the applicant’s system;
  - DPC proposes to provide information on the reliability risks faced by not constructing the proposed Project.<sup>4</sup>
- Subpart 2(E)—requires an estimate of the annual revenue requirement per kilowatt-hour for the system in current dollars as a result of the proposed Project;
  - DPC proposes to provide an explanation of how the costs of LRTP projects are allocated by MISO.<sup>5</sup>

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<sup>4</sup> The Cooperative states that this data will demonstrate reliability risks to DPC’s members when power demand in the affected load area exceeds the transmission system’s capacity.

<sup>5</sup> The Cooperative also notes that the Commission has previously granted similar requests. See Docket No. E015, ET2/CN-22-416 for an example; [20236-196704-01](#)

- Subpart 2(F)—requires an applicant to provide the average system weekday load factor by month;
  - DPC requests a full exemption from this requirement because load factor is not a relevant measure when evaluating the need for the proposed Project.
- Subparts 3 to 5—require provision of information on the applicant’s forecast methodology along with the data and assumptions used;
  - DPC proposes to provide simplified load data demonstrating that continued operation of the 161-kV system and related power transformations to the 69-kV system are needed in the local area.

In summary, DPC requests a full exemption from Minnesota Rules 7849.0270 and will provide:

- demand data supporting the ongoing need for the proposed Project in the affected load area;
- information on the reliability risks faced by not constructing the proposed Project;
- an explanation of how the costs of LRTP projects are allocated by MISO; and
- simplified load data demonstrating that continued operation of the 161-kV system and related power transformations to the 69-kV system are needed in the local area.

The Department agrees with DPC that the proposed alternative data is superior to the data required by the rule. Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0270 with the provision of the proposed alternative data.

*5. 7849.0280 Subps. (B) through (I)*

Minnesota Rules 7849.0280, Subps. (B) through (I) requires an applicant for a CN provide information that describes the ability of the existing system to meet forecasted demand; in essence, load and capability information. DPC states that the general purpose of this information is to provide a discussion of the ability of the existing system to meet the forecasted demand, which is not relevant when the claimed need is local rather than system wide.<sup>6</sup> Thus, DPC requests a full exemption from the rule.

The Department agrees with DPC that the Commission has previously granted exemption requests from Minnesota Rules 7849.0280, Subps. (B) through (I) in transmission line CN dockets where, as here, the issue relates to transmission adequacy rather than generation adequacy. Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0280, Subps. (B) through (I).

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<sup>6</sup> The Cooperative cites a previous transmission line CN docket where the Commission granted similar exemption request, see Docket No. E015/CN-22-607; [20232-192809-01](#)

*6. 7849.0290*

Minnesota Rules 7849.0290 requires an applicant for a CN provide general conservation program information and a quantification of the impact of conservation programs on the forecast. DPC argues that this information is not relevant here. Instead, DPC proposes to provide substitute summary information related to its conservation programs.

The Department notes that similar exemptions have been granted in recent CN proceedings.<sup>7</sup> The Department agrees with the Cooperative that the proposed information will for an adequate starting point in the record for parties to review the impact of conservation on the need for the proposed Project. Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0290 with the provision of the proposed alternative data.

*7. 7849.0300 and 7849.0340*

Minnesota Rules 7849.0300 requires an applicant for a CN provide detailed information regarding the consequences of delay at three specific, statistically-based levels of demand and energy consumption. Similarly, Minnesota Rules 7849.0340 requires an applicant for a CN provide a discussion of the impact of the no-build alternative on existing generation and transmission facilities at the same three levels of demand as specified in Minnesota Rules 7849.0300. DPC states that the Cooperative will evaluate the consequences of delay and a no build alternative. However, DPC “requests a variance from the portions of these rules that require the examination to incorporate the three specific levels of demand.”

The Department agrees with DPC that information on the consequences of delay and a no build alternative tied to three specific, statistically-based levels of demand and energy consumption is not likely to be a useful part of the analysis for the proposed Project and that a general discussion is reasonable.<sup>8</sup> Therefore, the Department recommends that the Commission grant the requested exemption to Minnesota Rules 7849.0300 and 7849.0340 with the provision of the proposed alternative data.

### **III. DEPARTMENT RECOMMENDATION**

The Department recommends that the Commission approve the requested exemptions, with the provision of the proposed alternative data, with the exception that the Cooperative should be required to provide a discussion of the availability of alternatives under Minnesota Rules 7849.0260 Subps. (B) (1), (4), (6) and (8).

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<sup>7</sup> See the Commission’s April 19, 2023 order in Docket No. E017, ET2, E002, ET10, E015/CN-22-538, available at [20234-194943-01](#)

<sup>8</sup> As noted in the Petition similar exemptions were approved in several other transmission CNs.

January 25, 2024

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, Minnesota 55101-2147

RE: **Supplemental Comments of the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. ET3/CN-23-504

Dear Mr. Seuffert:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Application of Dairyland Power Cooperative for a Certificate of Need for the Wabasha Relocation 161 kV Transmission Line Project in Wabasha County, Minnesota: Exemption and Notice Petitions.

The petitions were filed by Christina K. Brusven, Attorney, Frederikson & Byron, P.A., Attorneys for Dairyland Power Cooperative on December 13, 2023.

The Department recommends **approval with modifications** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ LOUISE MILTICH  
Assistant Commissioner of Regulatory Affairs

/s/ STEVE RAKOW  
Analyst Coordinator

SR/ad  
Attachment



## Before the Minnesota Public Utilities Commission

### Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. ET3/CN-23-504

#### I. INTRODUCTION

On December 13, 2023, Dairyland Power Cooperative (DPC or the Cooperative) filed the Cooperative's *Request for Exemption from Certain Certificate of Need Application Content Requirements* (Exemption Petition). The Exemption Petition provided DPC's proposal to obtain exemptions from certain data requirements of Minnesota Rules 7849.0010 to 7849.0400 for a future certificate of need petition regarding the Wabasha 161 kV relocation project. On the same date DPC filed the Cooperative's *Certificate of Need Notice Plan Approval Request* (Notice Petition). The Notice Petition provided DPC's proposal to provide notice to all persons reasonably likely to be affected by the Wabasha 161 kV relocation project.

On December 18, 2023, the Minnesota Public Utilities Commission (Commission) issued its *Notice of Comment Period on Request for Exemption From Certain Certificate of Need Filing Requirements* (Notice). The Notice established comment periods and topics open for comment.

On January 2, 2024, the Minnesota Department of Commerce (Department) filed comments regarding the Exemption Petition. The Department recommends that the Commission approve the requested exemptions, with the provision of the proposed alternative data, with the exception that the Cooperative be required to provide a discussion of the availability of alternatives under Minnesota Rules 7849.0260 Subps. (B) (1), (4), (6) and (8). Regarding Notice Petition, the Department recommended the Commission:

- require that all materials in the notice plan, including the map, list of residents, and list of landowners be adjusted so that the conversion of the 69 kV transmission line from Kellogg, Minnesota to Alma, Wisconsin to 161 kV be included;
- require that all residents and landowners in the 5-mile buffer area shown on the map be included in the notice;
- add the following local governments to the notice plan:
  - the counties of Wabasha and Winona; and
  - the cities of Plainview and Kellogg;
- add the Upper Mississippi River Wildlife and Fish Refuge;
- add the Star Tribune to the list of newspapers;
- modify the map to show the proposed end points of the line and existing transmission facilities in the area;
- modify the text of the notices to mention the website on which the biennial transmission projects report is posted ([minnelectrans.com](http://minnelectrans.com)); and
- grant a variance to Minnesota Rules 7829.2550, Subp. 6 and direct the notices occur no more than 60 days and no less than one week prior to the filing of the CN application.

On January 22, 2024 DPC filed reply comments regarding the Exemption Petition and the Notice Petition.

Below are the Department's supplemental comments.

## **II. DEPARTMENT ANALYSIS**

### **A. NOTICE PETITION**

DPC's reply states that the lines crossing the state border are operated at 345/161/69 kV. The eventual goal is to operate the border crossing lines at 345/345/161 kV. DPC also states that no new construction is required to achieve the 345/345/161 kV configuration. This demonstrates that the incremental impact of the change is that the 69 kV circuit would become a 345 kV circuit with no other changes required. Also, the updated map provided in DPC's reply comment shows that all of the transmission lines in question would be within the notice corridor. Therefore, the Department withdraws the recommendation to "require that all materials in the notice plan, including the map, list of residents, and list of landowners be adjusted so that the conversion of the 69 kV transmission line from Kellogg, Minnesota to Alma, Wisconsin to 161 kV be included." This is because all of the transmission lines in question are already in the notice corridor and the incremental impact of the overall changes at the border crossing is to convert a 69 kV circuit to a 345 kV circuit. Note that the additional 345 kV circuit is being addressed separately in Docket No. E002/CN-22-532.

All other Department recommendations regarding the Notice Petition were agreed to by DPC. The Department considers the other recommendations regarding the Notice Petition to be resolved.

Regarding the Exemption Petition DPC agreed to provide a brief screening analysis of the alternatives as suggested in footnote 3 of the Department's comments. The Department considers all of the recommendations regarding the Exemption Petition to be resolved.

## **II. DEPARTMENT RECOMMENDATION**

Regarding the Notice Petition, as agreed to by DPC, the Department recommends the Commission approve the Notice Petition with the following modifications:

- require that all residents and landowners in the 5-mile buffer area shown on the map be included in the notice;
- add the following local governments to the notice plan:
  - the counties of Wabasha and Winona; and
  - the cities of Plainview and Kellogg;
- add the Upper Mississippi River Wildlife and Fish Refuge;
- add the Star Tribune to the list of newspapers;
- modify the map to show the proposed end points of the line and existing transmission facilities in the area;



- modify the text of the notices to mention the website on which the biennial transmission projects report is posted ([minnelectrans.com](http://minnelectrans.com)); and
- grant a variance to Minnesota Rules 7829.2550, Subp. 6 and direct the notices occur no more than 60 days and no less than one week prior to the filing of the CN application.

Regarding the Exemption Petition, the Department recommends that the Commission approve the Exemption Petition but require DPC to provide a discussion of the availability of alternatives under Minnesota Rules 7849.0260 Subps. (B) (1), (4), (6) and (8) as agreed to by DPC.

## **CERTIFICATE OF SERVICE**

I, Robin Benson, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at St. Paul, Minnesota.

### **Minnesota Public Utilities Commission ORDER**

Docket Number: **ET-3/CN-23-504**

Dated this **13th** day of **February, 2024**

/s/ Robin Benson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sarah	Beimers	sarah.beimers@state.mn.us	Department of Administration - State Historic Preservation Office	50 Sherburne Avenue Suite 203 St. Paul, MN 55155	Electronic Service	No	OFF_SL_23-504_CN-23-504
David	Bell	david.bell@state.mn.us	Department of Health	POB 64975  St. Paul, MN 55164	Electronic Service	No	OFF_SL_23-504_CN-23-504
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron	60 S 6th St Ste 1500  Minneapolis, MN 55402-4400	Electronic Service	No	OFF_SL_23-504_CN-23-504
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-504_CN-23-504
Randall	Doneen	randall.doneen@state.mn.us	Department of Natural Resources	500 Lafayette Rd, PO Box 25  Saint Paul, MN 55155	Electronic Service	No	OFF_SL_23-504_CN-23-504
Kate	Fairman	kate.frantz@state.mn.us	Department of Natural Resources	Box 32 500 Lafayette Rd St. Paul, MN 551554032	Electronic Service	No	OFF_SL_23-504_CN-23-504
Annie	Felix Gerth	annie.felix-gerth@state.mn.us		Board of Water & Soil Resources 520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_23-504_CN-23-504
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-504_CN-23-504
Todd	Green	Todd.A.Green@state.mn.us	Minnesota Department of Labor & Industry	443 Lafayette Rd N  St. Paul, MN 55155-4341	Electronic Service	No	OFF_SL_23-504_CN-23-504
Kari	Howe	kari.howe@state.mn.us	DEED	332 Minnesota St, #E200 1ST National Bank Bldg St. Paul, MN 55101	Electronic Service	No	OFF_SL_23-504_CN-23-504

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	85 7th Place E Ste 500  St. Paul, MN 55101	Electronic Service	No	OFF_SL_23-504_CN-23-504
Chad	Konickson	chad.konickson@usace.army.mil	U.S.Army Corps of Engineers	180 5th St # 700  Saint Paul, MN 55101	Electronic Service	No	OFF_SL_23-504_CN-23-504
Stacy	Kotch Egstad	Stacy.Kotch@state.mn.us	MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd.  St. Paul, MN 55155	Electronic Service	No	OFF_SL_23-504_CN-23-504
Dawn S	Marsh	dawn_marsh@fws.gov	U.S. Fish & Wildlife Service	Minnesota-Wisconsin Field Offices 4101 American Blvd E Bloomington, MN 55425	Electronic Service	No	OFF_SL_23-504_CN-23-504
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-504_CN-23-504
Stephan	Roos	stephan.roos@state.mn.us	MN Department of Agriculture	625 Robert St N  Saint Paul, MN 55155-2538	Electronic Service	No	OFF_SL_23-504_CN-23-504
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-504_CN-23-504
Jayme	Trusty	execdir@swrdc.org	SWRDC	2401 Broadway Ave #1  Slayton, MN 56172	Electronic Service	No	OFF_SL_23-504_CN-23-504
Jen	Tyler	tyler.jennifer@epa.gov	US Environmental Protection Agency	Environmental Planning & Evaluation Unit 77 W Jackson Blvd. Mailstop B-19J Chicago, IL 60604-3590	Electronic Service	No	OFF_SL_23-504_CN-23-504

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources	500 Lafayette Road Box 25 St. Paul, MN 55155-4040	Electronic Service	No	OFF_SL_23-504_CN-23-504
Alan	Whipple	sa.property@state.mn.us	Minnesota Department Of Revenue	Property Tax Division 600 N. Robert Street St. Paul, MN 551463340	Electronic Service	No	OFF_SL_23-504_CN-23-504
Jonathan	Wolfgram	Jonathan.Wolfgram@state.mn.us	Office of Pipeline Safety	445 Minnesota St Ste 147  Woodbury, MN 55125	Electronic Service	No	OFF_SL_23-504_CN-23-504

# Appendix D

## Certificate of Need Completeness Checklist



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**Wabasha Relocation Project  
Certificate of Need Application  
Completeness Checklist**

<b>AUTHORITY</b>	<b>REQUIRED INFORMATION</b>	<b>LOCATION IN APPLICATION</b>
Minn. R. 7829.2500, subp. 2	Brief summary of filing on separate page sufficient to apprise potentially interested parties of its nature and general content	One-page summary
Minn. R. 7849.0200, subp. 2	Title Page and Table of Contents	TOC
Minn. R. 7849.0200, subp. 4	Cover Letter	Cover Letter
Minn. R. 7849.0220, subp. 3	Joint Ownership and Multiparty use	3.5
Minn. R. 7849.0240	Need summary and additional considerations	1.1
subp. 1	Summary of the major factors that justify the need for the proposed facility	4.1-4.5
subp. 2	Relationship of the proposed facility to the following socioeconomic considerations:	—
A.	Socially beneficial uses of the output of the facility	4.11
B.	Promotional activities that may have given rise to the demand for the facility	4.9
C.	Effects of the facility in inducing future development	4.10
Minn. R. 7849.0260	Proposed LHVTL and Alternatives	—

AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
A.	A description of the type and general location of the proposed line, including:	—
(1)	Design voltage	1.1
(2)	Number, sizes and types of conductors	3.2.4
(3)	Expected losses under projected maximum loading and under projected average loading in the length of the line and at terminals or substations	<b>Exempt with Alternate Data:</b> Dairyland provides substitute data in the form of overall system losses in section 4.7
(4)	Approximate length of the proposed line	1.4
(5)	Approximate locations of DC terminals or AC substations on a map	Appendix A
(6)	List of likely affected counties	1.1, 1.4, 3
B.	Discussion of the available alternatives including:	—
(1)	New generation	5.2
(2)	Upgrading existing transmission lines	5.4
(3)	Transmission lines with different voltages or conductor arrays	5.5
(4)	Transmission lines with different terminals or substations	5.7
(5)	Double circuiting of existing transmission lines	5.6
(6)	If facility for DC (AC) transmission, an AC (DC) transmission line	5.9

AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
(7)	If proposed facility is for overhead (underground) transmission, an underground (overhead) transmission line	5.10
(8)	Any reasonable combination of alternatives (1) – (7)	5.11
C.	For the facility and for each alternative in B, a discussion of:	—
(1)	Total cost in current dollars	3.3
(2)	Service life	3.2.6
(3)	Estimated average annual availability	3.2.7
(4)	Estimated annual O&M costs in current dollars	3.3.3
(5)	Estimate of its effect on rates system wide and in Minnesota	<p><b>Exemption with Alternate Data:</b> Dairyland provides an explanation of how MISO LRTP project costs are spread among users of the transmission grid in section 3.3.4.</p>
(6)	Efficiency	<p><b>Exempt with Alternate Data:</b> Dairyland provides substitute data in the form of overall system losses in section 4.7</p>
(7)	Major assumptions made in subitems (1) – (6)	3.5
D.	A map (of appropriate scale) showing the applicant’s system or load center to be served by the proposed LHVTL	1.2

AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
E.	Such other information about the proposed facility and each alternative as may be relevant to determination of need.	Ch. 4, 5
Minn. R. 7849.0270	Content of Forecast	<b>Exempt with Alternate Data:</b> Dairyland provides data supporting the ongoing need for the Project in the affected load area as noted in the section below.
Minn. R. 7849.0270, subp. 1	Peak demand and annual consumption data	4.6
Minn. R. 7849.0270, subp. 2	For each forecast year the following data:	<b>Exempt</b> See Minn. R. 7849.0270, subp. 1
Minn. R. 7849.0270, subp. 3	Forecast Methodology	<b>Exempt</b> See Minn. R. 7849.0270, subp. 1
Minn. R. 7849.0270, subp. 4	Discussion of data base used for forecasts including:	<b>Exempt</b> See Minn. R. 7849.0270, subp. 1
Minn. R. 7849.0270, subp. 5	Assumptions and Special Information	<b>Exempt</b> See Minn. R. 7849.0270, subp. 1
Minn. R. 7849.0270, subp. 6	Coordination of Forecasts with Other Systems	—
A.	Extent of coordination of load forecasts with those of other systems	4.6
B.	Description of the manner in which those forecasts are coordinated	4.6

AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
Minn. R. 7849.0280	System Capacity	
	Description of ability of existing system to meet demand forecast including:	—
A.	Power planning programs	4.4
B – I.	Seasonal firm purchases and sales, seasonal participation purchases and sales, generating and capacity data, seasonal capacity and load data, proposed additions and retirements data, outages, and reserve margins	<b>Exempt</b>
Minn. R. 7849.0290	Conservation Programs	—
A.	Persons responsible for energy conservation and efficiency programs	<b>Exemption Requested</b> Dairyland proposes to provide substitute information related to its conservation programs in Minnesota.  <b>5.3</b>
B.	List of energy conservation and efficiency goals and objectives	<b>Exempt</b>
C.	Description of programs considered, implemented and rejected	<b>Exempt</b>
D.	Description of major accomplishments in conservation and efficiency	<b>Exempt</b>
E.	Description of future plans with respect to conservation and efficiency	<b>Exempt</b>
F.	Quantification of the manner by which these programs impact the forecast	<b>Exempt</b>



AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
Minn. R. 7849.0300	Consequence of Delay	<b>Exempt with Alternate Data:</b> Dairyland provides substitute data regarding potential impacts caused by delay in building the Project in section 4.8
Minn. R. 7849.0310	Required Environmental Information	—
Minn. R. 7849.0330	Transmission Facilities	—
	Data for each alternative that would require LHVTL construction including:	—
A.	For overhead transmission lines	—
(1)	Schematics showing dimensions of support structures	3.2.1, Figures 3-1, 3-2
(2)	Discussion of electric fields	8.3.3
(3)	Discussion of ozone and nitrogen oxide emissions	8.3.5.3
(4)	Discussion of radio and television interference	8.3.3.1
(5)	Discussion of audible noise	8.2.3
B.	For underground transmission facilities:	N/A
(1)	Types and dimensions of cable systems	N/A
(2)	Types and qualities of cable system materials	N/A
(3)	Heat released in kW per foot of cable	N/A
C.	Estimated right-of-way required for the facility	3.1.2, 7
D.	Description of construction practices	7.2

AUTHORITY	REQUIRED INFORMATION	LOCATION IN APPLICATION
E.	Description of O&M practices	7.5
F.	Estimated workforce required for construction and O&M	7.4
G.	Description of region between endpoints in likely area for routes emphasizing a three mile radius of endpoints including:	--
(1)	Hydrological features	8.6.4
(2)	Vegetation and wildlife	8.6.5, 8.6.6
(3)	Physiographic regions	8.6.2
(4)	Land use types	8
Minn. R. 7849.0340	No-Facility Alternative	<b>Exempt with Alternate Data:</b> Dairyland provides substitute data regarding potential impacts caused by not building the Project in section 5.12.

# Appendix E

## Notice of Intent to Submit Route Permit Application

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January 29, 2024

**VIA E-FILING**

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

**RE: Notice of Intent by Dairyland Power Cooperative to Submit a Route Permit Application under the Alternative Permitting Process  
Docket No. ET3/TL-23-388**

Dear Mr. Seuffert,

In accordance with Minn. R. 7850.2800, subp. 2, this letter serves as notice to the Minnesota Public Utilities Commission (“Commission”) that Dairyland Power Cooperative (“Applicant”) intends to submit a Route Permit Application for the relocation of an existing 161 kV transmission line in Wabasha County, Minnesota under the alternative permitting procedures of Minn. R. 7850.2800 to 7850.3900. The Applicant intends to submit the Route Permit Application to the Commission in the first quarter of 2024.

Please let me know if you have any questions regarding this filing.

Sincerely,

Fredrikson & Byron, P.A.

*/s/ Christina K. Brusven*

Christina K. Brusven  
**Direct Dial:** 612-492-7412  
**Email:** cbrusven@fredlaw.com

**In the Matter of the Application of  
Dairyland Power Cooperative to Relocate  
an Existing 161 kV Transmission Line in  
Wabasha County, Minnesota**

**Docket No. ET3/CN-23-388**

**CERTIFICATE OF SERVICE**

Maia M. Martinez certifies that on the 29th day of January, 2024, she e-filed true and correct copy of the following documents on behalf of Dairyland Power Cooperative via eDockets ([www.edockets.state.mn.us](http://www.edockets.state.mn.us)):

1. Notice of Intent to Submit a Route Permit Application; and
2. Certificate of Service.

Said documents were also served as designated on the Official Service Lists on file with the Minnesota Public Utilities Commission and as attached hereto.

Executed on: January 29, 2024

*Signed: /s/ Maia M. Martinez*

---

Fredrikson & Byron, P.A.  
60 South Sixth Street  
Suite 1500  
Minneapolis, MN 55402



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron	60 S 6th St Ste 1500  Minneapolis, MN 55402-4400	Electronic Service	No	OFF_SL_23-388_TL-23-388
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-388_TL-23-388
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-388_TL-23-388
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-388_TL-23-388
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-388_TL-23-388

# Appendix F

## Route Permit Completeness Checklist

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**Wabasha Relocation Project  
Route Permit Application (Alternative Review)  
Completeness Checklist**

Authority	Required Information	Location in Application
Minn. Stat. § 216E.04, subd. 2(3) Minn. R. 7850.2800, subp. 1(C)	<b>Alternative Review of Applications.</b> Alternative review is available for <b>high-voltage transmission lines between 100 and 200 kilovolts.</b>	2.2, 3.1
Minn. Stat. § 216E.04, subd. 4	<b>Notice of application.</b> Upon submission of an application under this section, the applicant shall provide the same notice as required by section 216E.03, subdivision 4.	To be provided
Minn. R. 7850.2800, subp. 2	<b>Notice to PUC.</b> An applicant for a permit for one of the qualifying projects in subpart 1, who intends to follow the procedures of parts 7850.2800 to 7850.3700, shall notify the PUC of such intent, in writing, at least ten days before submitting an application for the project.	Appendix E
Minn. R. 7850.3100	<b>Contents of Application (Alternative Review).</b> The applicant shall include in the application the same information required in part 7850.1900, except the applicant need not propose any alternative sites or routes to the preferred site or route. If the applicant has rejected alternative sites or routes, the applicant shall include in the application the identity of the rejected sites or routes and an explanation of the reasons for rejecting them.	6.2
Minn. R. 7850.1900, subp. 2	<b>Route permit for HVTL.</b> An application for a route permit for a high voltage transmission line shall contain the following information:	--
	A. a statement of proposed ownership of the facility at the time of filing the application and after commercial operation;	3.5
	B. the precise name of any person or organization to be initially named as permittee or permittees and the name of any other person to whom the permit may be transferred if transfer of the permit is contemplated;	1.3

Authority	Required Information	Location in Application
	C. at least two proposed routes for the proposed high voltage transmission line and identification of the applicant's preferred route and the reasons for the preference;	N/A
	D. a description of the proposed high voltage transmission line and all associated facilities including the size and type of the high voltage transmission line;	3.1
	E. the environmental information required under subpart 3;	See below
	F. identification of land uses and environmental conditions along the proposed routes;	8
	G. the names of each owner whose property is within any of the proposed routes for the high voltage transmission line;	Appendix G
	H. United States Geological Survey topographical maps or other maps acceptable to the commission showing the entire length of the high voltage transmission line on all proposed routes;	Appendix A
	I. identification of existing utility and public rights-of-way along or parallel to the proposed routes that have the potential to share the right-of-way with the proposed line;	1.4, 3.1.1, Appendix A
	J. the engineering and operational design concepts for the proposed high voltage transmission line, including information on the electric and magnetic fields of the transmission line;	8.3.4
	K. cost analysis of each route, including the costs of constructing, operating, and maintaining the high voltage transmission line that are dependent on design and route;	3.3
	L. a description of possible design options to accommodate expansion of the high voltage transmission line in the future;	5.5.2

Authority	Required Information	Location in Application
	M. the procedures and practices proposed for the acquisition and restoration of the right-of-way, construction, and maintenance of the high voltage transmission line;	7.1
	N. a listing and brief description of federal, state, and local permits that may be required for the proposed high voltage transmission line; and	2.4
	O. a copy of the Certificate of Need or the certified HVTL list containing the proposed high voltage transmission line or documentation that an application for a Certificate of Need has been submitted or is not required.	1.1, 2.1
Minn. R. 7850.3100	Identification of rejected route alternatives and explanation for rejection.	6.2
Minn. R. 7850.1900, subp. 3	<b>Environmental information.</b> An applicant for a site permit or a route permit shall include in the application the following environmental information for each proposed site or route to aid in the preparation of an environmental impact statement:	--
	A. a description of the environmental setting for each site or route;	8.1
	B. a description of the effects of construction and operation of the facility on human settlement, including, but not limited to, public health and safety, displacement, noise, aesthetics, socioeconomic impacts, cultural values, recreation, and public services;	8.2
	C. a description of the effects of the facility on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;	8.4
	D. a description of the effects of the facility on archaeological and historic resources;	8.5
	E. a description of the effects of the facility on the natural environment, including effects on air and water quality resources and flora and fauna;	8.3.5, 8.6.4, 8.6.5



Authority	Required Information	Location in Application
	F. a description of the effects of the facility on rare and unique natural resources;	8.6.7
	G. identification of human and natural environmental effects that cannot be avoided if the facility is approved at a specific site or route; and	8.8
	H. a description of measures that might be implemented to mitigate the potential human and environmental impacts identified in items A to G and the estimated costs of such mitigative measures.	8, Appendices I, K
Minn. R. 7850.3300; Minn. R. 7850.2100, subp. 2; Minn. R. 7850.2100, subp. 4; Minn. R. 7850.2100, subp. 5.	<p><b>Notice of Project.</b> Notification to persons on PUC’s general list, to local officials, and to property owners. Content of notice governed by Minn. R. 7850.2100, subp. 3.</p> <p><b>Publication of notice.</b> Within 15 days after submission of an application, the applicant shall publish notice in a legal newspaper of general circulation in each county in which a site, route, or any alternative is proposed to be located that an application has been submitted and a description of the proposed project. The notice must also state where a copy of the application may be reviewed.</p> <p><b>Confirmation of notice.</b> Within 30 days after providing the requisite notice, the applicant shall submit to the PUC documentation that all notices required under this part have been given. The applicant shall document the giving of the notice by providing the PUC with affidavits of publication or mailing and copies of the notice provided.</p>	To be provided; to be published.
Minn. R. 7850.4100	<b>Factors Considered.</b> In determining whether to issue a permit for a large electric power generating plant or a high voltage transmission line, the commission shall consider the following:	--
	A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;	8.2
	B. effects on public health and safety;	8.3

Authority	Required Information	Location in Application
	C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;	8.4
	D. effects on archaeological and historic resources;	8.5
	E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;	8.6
	F. effects on rare and unique natural resources;	8.6.7
	G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;	3.2
	H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;	3.1.3
	I. use of existing large electric power generating plant sites;	N/A
	J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;	3.1.3
	K. electrical system reliability;	4.3
	L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;	3
	M. adverse human and natural environmental effects which cannot be avoided; and	8.8
	N. irreversible and irretrievable commitments of resources.	8.8

Authority	Required Information	Location in Application
Minn. R. 7850.4300, subps. 1, 2	<p><b>Wilderness areas.</b> No high voltage transmission line may be routed through state or national wilderness areas.</p> <p><b>Parks and natural areas.</b> No high voltage transmission line may be routed through state or national parks or state scientific and natural areas unless the transmission line would not materially damage or impair the purpose for which the area was designated and no feasible and prudent alternative exists. Economic considerations alone do not justify use of these areas for a high voltage transmission line.</p>	6.2
Minn. Stat. § 216E.03, subd. 7 (applicable per § 216E.04, subd. 8)	<p><b>Considerations in designating sites and routes.</b></p> <p>(a) The commission's site and route permit determinations must be guided by the state's goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.</p> <p>(b) To facilitate the study, research, evaluation, and designation of sites and routes, the commission shall be guided by, but not limited to, the following considerations:</p>	6.1
	(1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;	8, 8.2.3, 8.3.4
	(2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;	3.2.10, 4.10, 8.2.5

Authority	Required Information	Location in Application
	(3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;	N/A
	(4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;	N/A
	(5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;	8.2.4, 8.4
	(6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;	8.8
	(7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;	6.2
	(8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of- way;	6.2
	(9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;	8.4.1
	(10) evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;	3.4
	(11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved;	8.8
	(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities;	2.4, Appendix B

Authority	Required Information	Location in Application
	(13) evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;	4
	(14) evaluation of the proposed facility's impact on socioeconomic factors; and	8.2.4
	(15) evaluation of the proposed facility's employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility's local employment and economic impacts, and may reject or place conditions on a site or route permit based on the local employment and economic impacts.	3.3, 7.4

# Appendix G

## Property Owners Within or Adjacent to the Proposed Route



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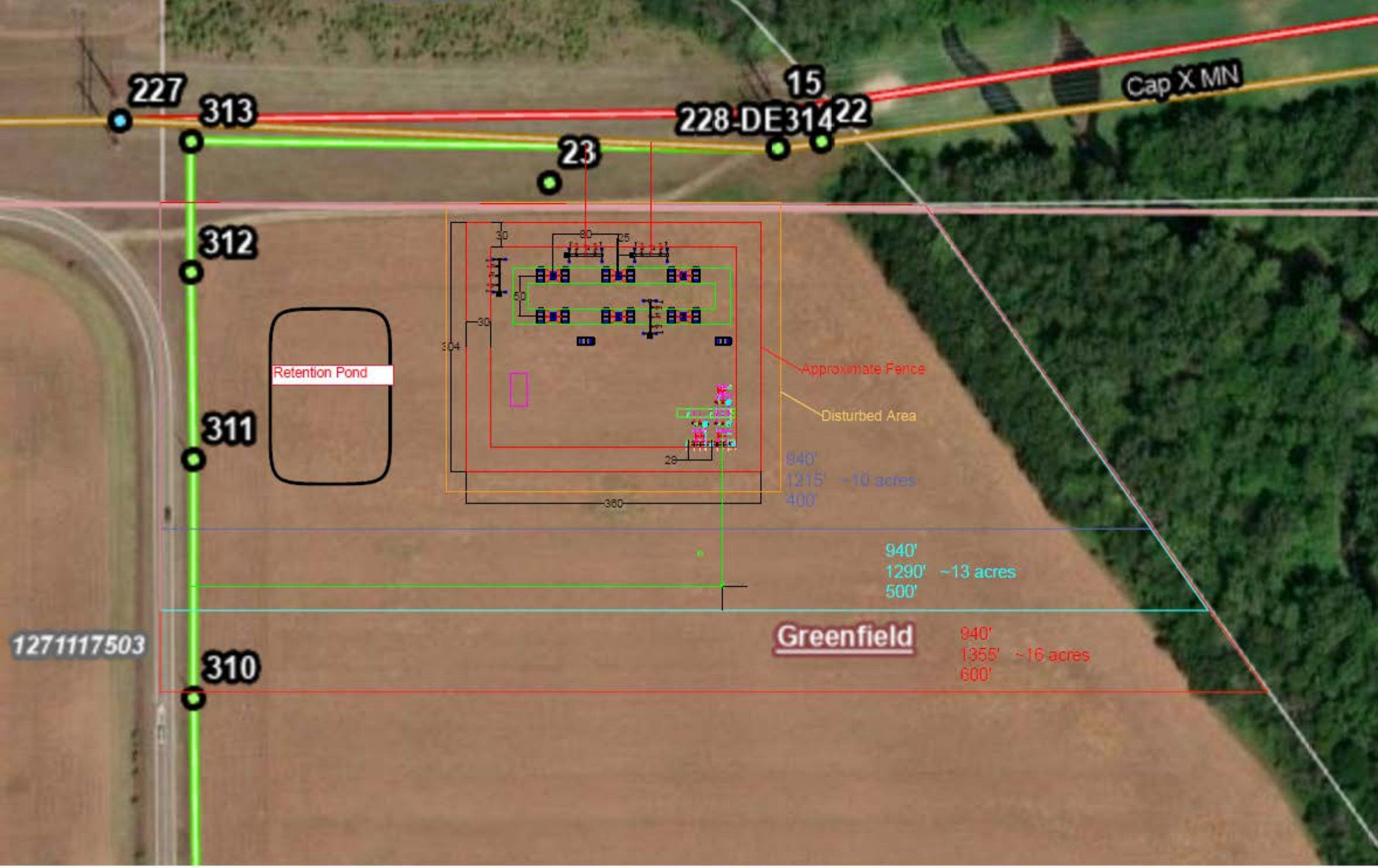
Property Owners	Street Address	City	State	Zip
ACE TRUST	21749 595TH ST	KELLOGG	MN	55945
ADAM C & SHELLEY A WINGERT	PO BOX 149	KELLOGG	MN	55945
ANTHONY J & JESSICA A RIESTER	62758 COUNTY ROAD 84	KELLOGG	MN	55945
ARTHUR L & BRIDGET M HOFFMAN	62049 HIGHWAY 42	KELLOGG	MN	55945
BARTLEY JR & VIVIAN MCDONOUGH	630 S DODGE ST	KELLOGG	MN	55945
BERNARD T SHEEHAN	63041 COUNTY ROAD 84	KELLOGG	MN	55945
BERNARD T SHEEHAN	62810 COUNTY ROAD 84	KELLOGG	MN	55945
BRADLEY G & JOAN A SWENSON	16125 627TH ST	KELLOGG	MN	55945
BRYTON MILLER	59751 HIGHWAY 42	KELLOGG	MN	55945
DALON H MILLER	60857 HIGHWAY 42	KELLOGG	MN	55945
DARREL & MARY GUSA	PO BOX 74	KELLOGG	MN	55945
DAVID J & SHELLY A SPEEDLING	62099 HIGHWAY 42	KELLOGG	MN	55945
DUANE C HAGER	63147 HIGHWAY 42	KELLOGG	MN	55945
EDPO LLC	30 S WACKER DR STE 2575	CHICAGO	IL	60606
EDWARD J & DEBORAH L HALL	61930 HIGHWAY 42	KELLOGG	MN	55945
ERIC J PASSE	PO BOX 21	KELLOGG	MN	55945
ETHAN G WOLF & GARY J & CAROL J WOLF	59998 HIGHWAY 42	KELLOGG	MN	55945
EUGENE EVERSMAN	20819 595TH ST	KELLOGG	MN	55945
GARY & ELIZABETH M LEHNERTZ	20634 E COUNTY ROAD 14	PLAINVIEW	MN	55964
GARY R & GAIL D GUSA	15751 WINONA AVE	KELLOGG	MN	55945
GENE ZARLING	21090 565TH ST	PLAINVIEW	MN	55964
GRANER FARM FLP	63494 157TH AVE	KELLOGG	MN	55945
HARLAN & ELAINE DILLINGER LIVING TRUST	PO BOX 96	KELLOGG	MN	55945
JACK & CYNTHIA STAMSCHROR TRUST AGREEMENT	58374 HIGHWAY 42	KELLOGG	MN	55945
JAMES D & JANE E KLASSEN	20951 578TH ST	PLAINVIEW	MN	55964
JARY K & CELENE HOLST	20514 590TH ST	KELLOGG	MN	55945
JEFFREY G GUSA & XIE ZHONGHUA	62668 HIGHWAY 42	KELLOGG	MN	55945
JEFFREY GRANER	62916 161ST AVE	KELLOGG	MN	55945
JEREMIAH LEONHARDT & JESSICA BRUCE	60035 HIGHWAY 42	KELLOGG	MN	55945
JOHN V JR EVERSMAN	20819 595TH ST	KELLOGG	MN	55945
KARI A SCHMIDT	58664 HIGHWAY 42	KELLOGG	MN	55945
KENT R & JANINE A ZARLING	21405 COUNTY ROAD 27	PLAINVIEW	MN	55964
KEVIN E & KRISTI L PETERSEN	13826 622ND ST	KELLOGG	MN	55945
LARRY & DIANE LEONHARDT	60037 HIGHWAY 42	KELLOGG	MN	55945
LARRY W & LISA KENNEDY	16799 627TH ST	KELLOGG	MN	55945
LEO W KOTTSCHADE	22321 575TH ST	PLAINVIEW	MN	55964
MARILYN A WALLACE	63336 HIGHWAY 42	KELLOGG	MN	55945
MARK D & PEGGY A RICHARDSON	58985 HIGHWAY 42	KELLOGG	MN	55945
MARK E & KATHY A LEHNERTZ	21077 595TH ST	KELLOGG	MN	55945
MARTIN J & ANGELA M MURPHY	19631 596TH ST	KELLOGG	MN	55945
MAURICE H & RITA E YOUNG	10229 COUNTY ROAD 41	PLAINVIEW	MN	55964
MICHAEL D & JACQUELINE MEYERS	62046 HIGHWAY 42	KELLOGG	MN	55945
MICHAEL T MCMILLIN & TIMOTHY J MCMILLIN	833 JEFFERSON AVE	WABASHA	MN	55981
PATRICK JUDGE	58653 HIGHWAY 42	KELLOGG	MN	55945
PAUL KRUGER ENTERPRISES LLC	68948 209TH AVE	WABASHA	MN	55981
PHILIP G & KATHLEEN S PERRY	1123 RUSTIC LN	WABASHA	MN	55981
RICHARD JERRY PETERSEN	62951 161ST AVE	KELLOGG	MN	55945
RON B & ELIZABETH SANDERS	17576 615TH ST	KELLOGG	MN	55945
RONALD J & LINDA K STAMSCHROR	17957 615TH ST	KELLOGG	MN	55945
SOO LINE RAILROAD COMPANY	120 S 6TH ST	MINNEAPOLIS	MN	55402
THOMAS H & KATHRYN J MILLER	60503 HIGHWAY 42	KELLOGG	MN	55945
THOMAS MILLER	60503 HIGHWAY 42	KELLOGG	MN	55945
TRAVIS J DANCKWART	16396 627TH ST	KELLOGG	MN	55945
UNITED STATES OF AMERICA	102 WALNUT ST STE 205	WINONA	MN	55987

US ARMY CORPS OF ENGINEERS	180 5TH ST W STE 700	SAINT PAUL	MN	55101
US ARMY CORPS OF ENGINEERS	180 5TH ST E STE 700	SAINT PAUL	MN	55101
VINCENT W & SUSAN M WELCH	21000 E COUNTY ROAD 14	PLAINVIEW	MN	55964
WINSHIP LLC	310 S MAIN ST	CHIPPEWA FALLS	WI	54729
ZARLING LAND TRUST	21090 565TH ST	PLAINVIEW	MN	55964
MARY PAT DANCKWART	12922 622ND ST	KELLOGG	MN	55945
JAMES & MARY LOU JUDGE	57907 COUNTY ROAD 86	PLAINVIEW	MN	55964
VINCENT J SULLIVAN	60857 HIGHWAY 42	KELLOGG	MN	55945
WILLIAM J & BONNIE M MCMILLIN REVOCABLE TRUST	1303 RIVER DR S	WABASHA	MN	55981

# Appendix H

## Kellogg Substation Initial Layout

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227

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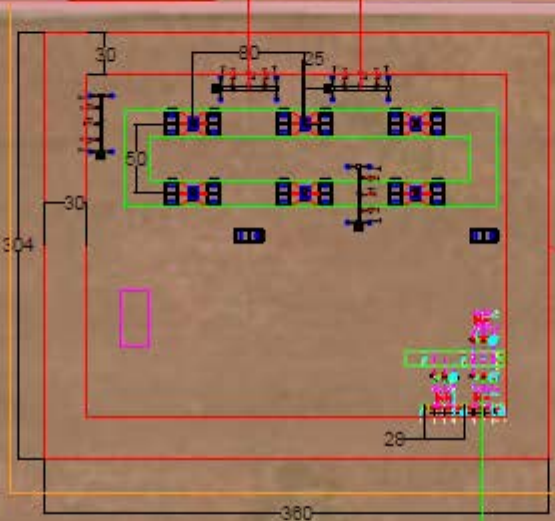
15  
228-DE31422

23

312



311



Approximate Fence

Disturbed Area

940'  
1315' ~10 acres  
400'

940'  
1290' ~13 acres  
500'

**Greenfield**

940'  
1355' ~16 acres  
600'

1271117503

310



# Appendix I

## Vegetation Management Plan

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# **DAIRYLAND POWER COOPERATIVE**

## **DRAFT VEGETATION MANAGEMENT PLAN WABASHA RELOCATION PROJECT**

**March 2024**



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# 1. INTRODUCTION

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Dairyland Power Cooperative (Dairyland, or the Applicant) has applied for a Route Permit to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation (the Wabasha Relocation Project, or the Project). The Project will begin in the vicinity of Structure X-Q3-75 on the existing Dairyland LQ34 161-kV transmission line (the Wabaco-Alma transmission line or LQ34 line) near the Town of Plainview, Minnesota in Wabasha County. This structure will be removed as part of the Project and will be replaced with the starting structure for the new 161-kV line. After travelling 13.3 miles northeast and then east, it will tie directly into a new 4-acre 161/69-kV substation located within a larger 10.8-acre site, which is proposed to be located off County Road 84, west of the Mississippi River and southeast of the City of Kellogg (Kellogg Substation). The Project is a relocation of approximately 10.4 miles of the existing LQ34 line, which presently connects to the Wabaco Substation (located approximately 2 miles south of the Town of Plainview) and to the Alma Substation (located on the east side of the Mississippi River in Wisconsin). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg in Wabasha County, Minnesota near the Mississippi River (**Figure 1-1**).

Within this Plan, the term “Proposed Alignment” refers to the centerline location of the transmission line and structures. The Proposed Alignment is contained within a 100-foot-wide right-of-way (ROW) for construction and operations. The term “Proposed Route” or “Project Route Width” is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation.

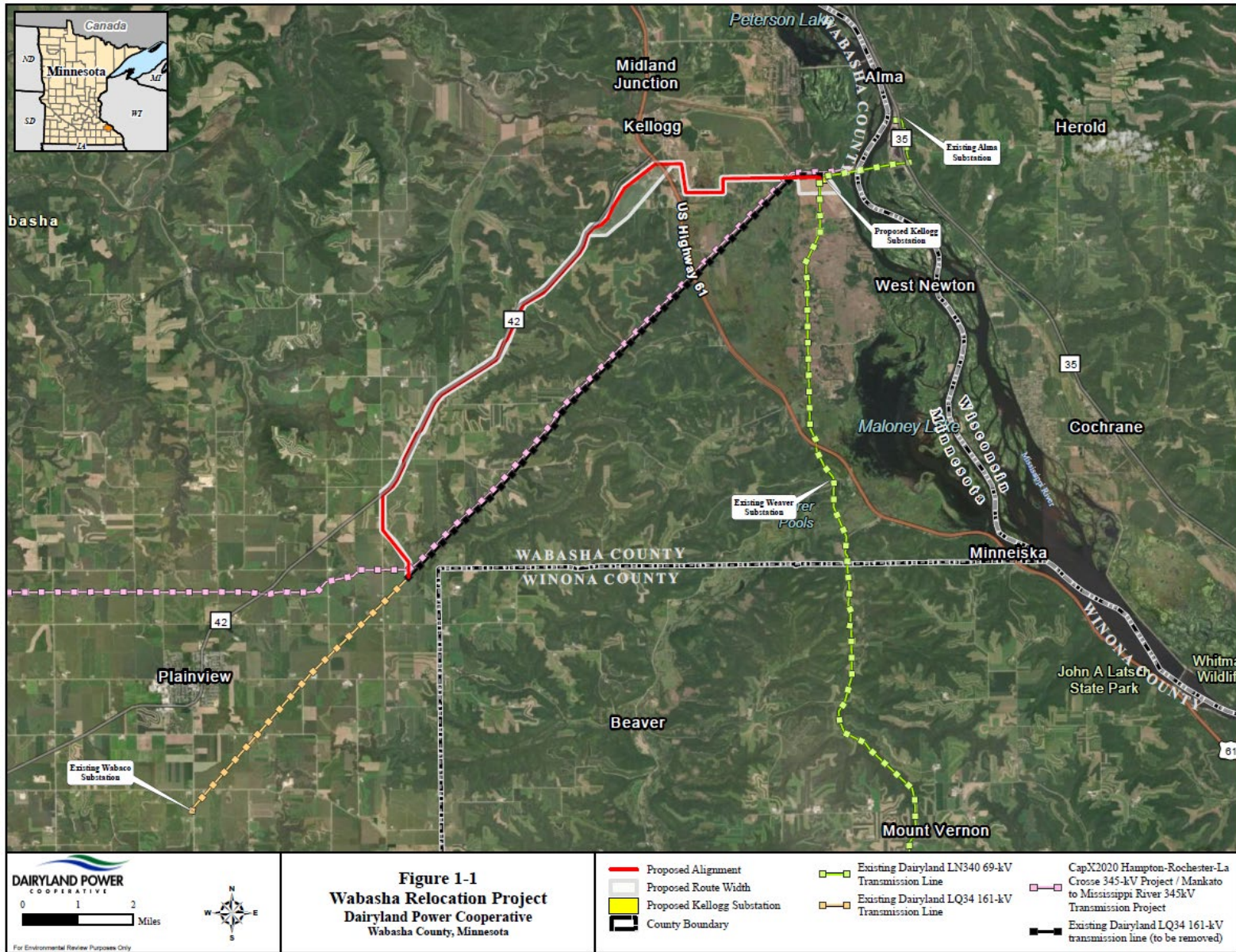
## 1.1 GOALS

Dairyland has developed this Vegetation Management Plan (VMP or Plan) for the Project to address an anticipated route permit condition for the Project related to vegetation management. The primary goals of this Plan are to describe the procedures that will be implemented:

- during construction of the transmission line to revegetate and restore the right-of-way in accordance with landowner preferences and in compliance with federal, state, and local permits and authorizations, and Minnesota water quality standards; and
- to maintain the ROW during operations in a manner that ensures a safe and reliable transmission line.

This Plan was developed based on Dairyland’s experience implementing best management practices (BMPs) during construction, as well as applicable North American Electric Reliability Corporation (NERC) requirements and requirements set by the Minnesota Public Utilities Commission (Commission). This Plan also incorporates, where applicable, the Minnesota Department of Commerce-Energy Environmental Review and Analysis (DOC-EERA)’s Generic Vegetation Establishment and Management Plan Guidance.

Figure 1-1. Wabasha Relocation Project



## 1.2 APPLICABLE PERMITS AND AUTHORIZATIONS

In addition to the route permit, the Project is required to comply with other applicable federal, state, and local permits, licenses, and/or easements. Where those permits, licenses, or easements conflict with this Plan, they shall take precedent over this Plan to the extent they do not violate any other route permit condition. For example:

- Road ROW permits: Where the Project will impact road ROWs, Dairyland will follow the vegetation management requirements and guidelines of the appropriate road authority. For example, the Minnesota Department of Transportation (MnDOT) has guidelines regarding seeding methods and mixes for its rights-of-way.
- Stormwater Pollution Prevention Plan (SWPPP): As a requirement of the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit program, a SWPPP must be prepared 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. The SWPPP covers, among other things, temporary erosion and sediment control BMPs. Many of those BMPs are reflected in this Plan.
- Minnesota Department of Natural Resources (MDNR) licenses/permits: The MDNR Utility License may have requirements specific to a public water crossing. Where applicable, Dairyland will implement MDNR-required site specific conditions.

## 1.3 LANDOWNER COORDINATION

Dairyland works cooperatively with landowners before, during, and after the construction process regarding easements, rights-of-way, structure locations, restoration, and maintenance. This coordination and cooperation are in recognition of the fact that, in most locations under private ownership, Dairyland has an easement for the Project – it does not own the property in fee simple – and, in large part, the landowners’ use of their property, including the ROW, will continue after the Project is constructed and operational.

For example, land that is in agricultural production will likely return to agricultural production; similarly, landowners with mowed turf grass will typically want the ROW restored with turf grass that the landowner can mow, just like the rest of the parcel. In this way, a transmission line ROW is distinct from vegetation management for other types of energy infrastructure (for example, a solar farm where the project operator has exclusive control of the premises).

This Plan acknowledges that Dairyland does not have exclusive access to the easement and that the landowner can and will continue to use the easement in a manner that does not interfere with the safe and reliable operation of the Project and is otherwise lawful. As such, this Plan reflects that Dairyland will coordinate with landowners regarding restoration and maintenance, which means that restoration is likely to be consistent with pre-existing conditions and use, where practicable and consistent with safe and reliable transmission line operation. When coordinating with landowners regarding restoration and maintenance practices, Dairyland will also discuss the use of native and/or pollinator vegetation with landowners, where desired and practicable.

### 1.3.1 Landowner Notifications

Landowners will be notified prior to clearing activities, as required by applicable permit conditions (typically 14 days). Among other things, the notification letter will inform landowners:

- The ROW will be staked indicating the extent of clearing activities.
- Landowners can request to keep any of the timber and materials. Requested wood will be cut to no less than 10-foot segments. Requested whole trees, trunks, wood chips, or mulch will be placed just outside of the ROW.
- All unwanted materials will be removed from the landowner's property.
- Herbicides to prevent regrowth of woody vegetation may be used, the method of application, and the opportunity for them request that no herbicides be used (**Section 4.4.2.4**).



## 2. PROJECT DESCRIPTION

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### 2.1 ENVIRONMENTAL SETTING AND EXISTING CONDITIONS

The Proposed Route occurs over varying topography. The southwestern 8.5 miles of the Proposed Route occurs over hilly terrain ranging in elevation from approximately 1,100 to 1,200 feet. The Project then decreases in elevation from approximately 1,100 feet to 700 feet from MPs 8.5 to 9.7. The remaining portion of the Project, MPs 9.7 to 13.3 is generally flat with a minor decrease in elevation from 700 feet to 680 feet.

Flora can be generally characterized for the Project area using the Ecological Classification System.<sup>1</sup> The system was developed by the MDNR and U.S. Forest Service for ecological mapping and landscape classification. The Project falls within Blufflands subsection. Pre-settlement vegetation was comprised of tallgrass prairie and bur oak savanna on ridge tops and dry upper slopes. Red oak-white oak-shagbark hickory-basswood forests were present on moister slopes, and red oak-basswood-black walnut forests in protected valleys. Prairie was restricted primarily to broader ridge tops, where fires could spread, but also occurred on steep slopes with south or southwest aspect.

Dairyland's Proposed Alignment is 71% collocated with existing electric distribution, road, and railroad corridors. There is some developed/commercial land as the Project nears Kellogg and the Canadian Pacific Railroad, and the majority of the Proposed Route occurs in agricultural areas. There are no organic farms crossed by the Project. Because the Proposed Alignment would be collocated with existing infrastructure and in agricultural land use areas, the majority of the ROW has already been cleared. Dairyland estimates only approximately 14.4 acres of tree clearing would be required.

The Proposed Alignment would cross 10 rivers and streams, including Gorman Creek, a public water managed by the MDNR. Gorman Creek is identified as an impaired water for Aquatic Macroinvertebrate Bioassessments and is further listed under the draft 2024 data as impaired for Fishes Bioassessments. The next closest impaired water is the Zumbro River. The Zumbro River is approximately 0.3 mile east of the Kellogg Substation and was listed in 2022 and is proposed for relisting in 2024 as impaired for Fecal Coliform, Mercury in Fish Tissue, PCB in Fish Tissue, and Turbidity.

The Proposed Alignment and associated ROW would also cross forested and emergent wetlands. The Proposed Alignment (centerline) would cross approximately 885 feet of wetlands, and the 100-foot-wide ROW would cross approximately 2,390 feet of wetlands.

In addition, the Project crosses the Minnesota Biological Survey (MBS) McCarthy Lake site with a "High" ranking. Dairyland will coordinate with the MDNR regarding any specialized restoration and maintenance measures at this location.

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<sup>1</sup> MDNR, 2024. Ecological Classification System. See: <https://www.dnr.state.mn.us/ecs/index.html>

## 2.2 TRANSMISSION LINE

### 2.2.1 ROW Requirements

The Project will require a 100-foot-wide ROW that will be used to construct the transmission line and will be permanently maintained for the life of the transmission line (as further described in **Section 7.0**). The transmission line ROW is generally 50 feet either side of the centerline for a total width of 100 feet. Where the transmission line parallels roads, the transmission line structures are typically installed one to five feet outside of road ROW, resulting in approximately 55 feet of ROW needed outside of the road ROW. All structures will be self-supporting; therefore, no guying will be required.

Additional temporary workspace (ATWS) beyond the 100-foot-wide ROW may be required at certain locations, such as road or railroad intersections, utility crossings, along steep slopes, and at stringing locations. In addition, there will be temporary staging of materials such as structures and hardware along the ROW prior to construction installation. Dairyland will avoid the placement of additional temporary workspace in wetlands and near waterbodies as practicable.

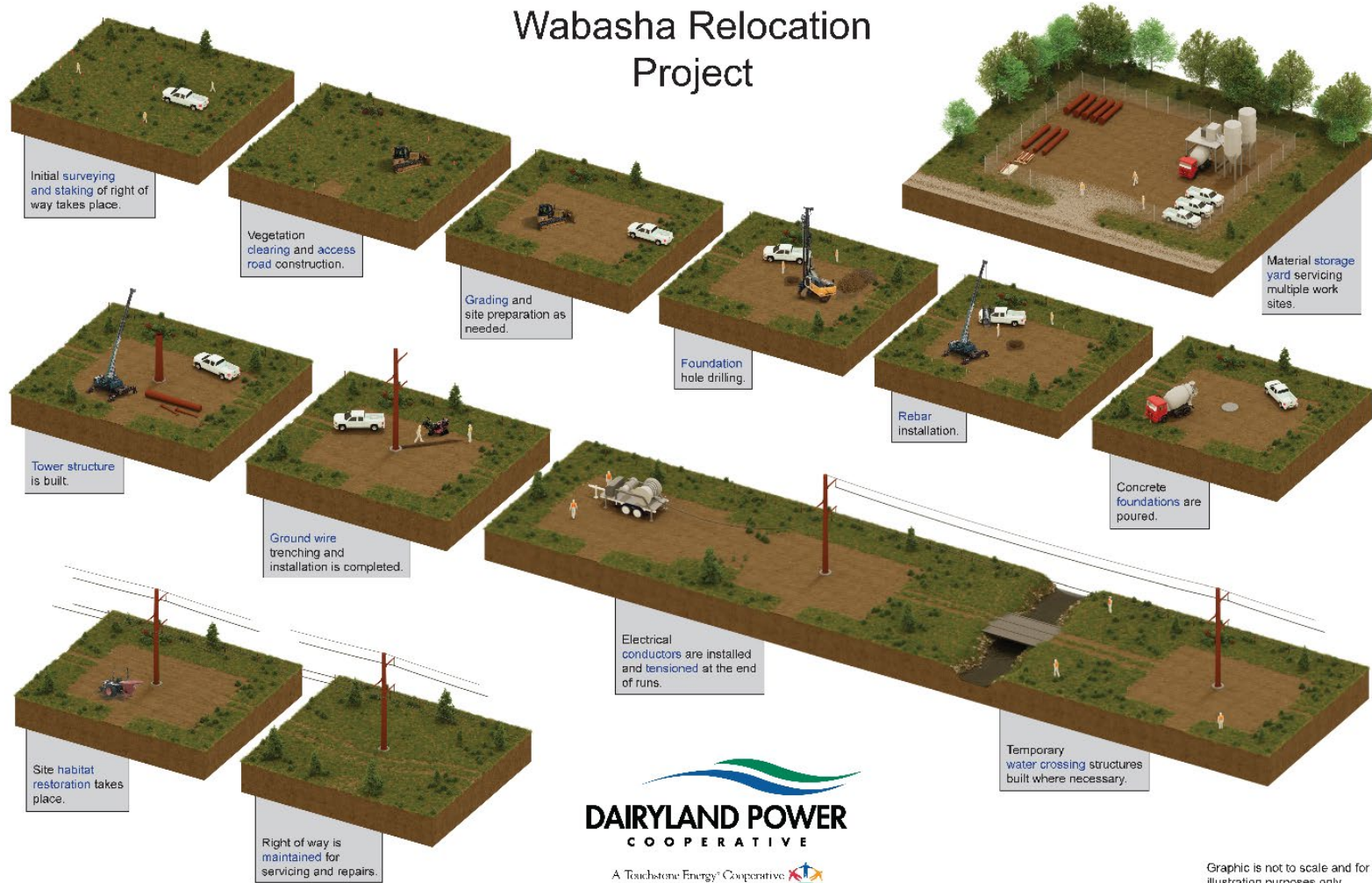
### 2.2.2 Construction Sequence

Construction of an overhead transmission line requires several different activities at any given location. **Diagram 2-1** and **Section 3.0** describe the major construction activities and approximate sequence.

- Surveying and Staking
- Install temporary erosion and sediment control BMPs
- Mobilization and Preparation of Staging / Laydown Yards
- Develop Temporary Access Roads
- Vegetation Clearing
- Establish Travel Lanes and Bridge Installation within the ROW
- Grading, Excavation, and Foundation Installation
- Structure Setting
- Wire Stringing and Clipping
- Removal of Existing Facilities
- Cleanup and Restoration of ROW



Figure 2-1. Transmission Line Construction Sequence



## **2.3 KELLOGG SUBSTATION**

The Kellogg Substation facilities are proposed to be sited on a 10.8-acre parcel of land. Approximately 4 acres of the site will be used for the substation, access drive, and stormwater drainage features.

Site preparation would include installing erosion and sediment control BMPs, stripping topsoil, and hauling in structural fill to build up the subgrade for the substation pad. Once the substation pad is built to the subgrade, all areas will be restored, and the site will be ready for use. This work will occur the year prior to transmission line and substation construction to allow for one winter to allow the ground to settle.

Construction within the newly prepared substation pad will consist of drilled pier foundations ranging in size from three to seven feet in diameter and 10 to 35 feet deep. The foundations will be installed to support transmission line dead-end structures, static masts, and bus and equipment support structures. Slabs-on-grade eight feet square by two feet thick will be used for 161-kV circuit breakers, and six-foot square by two feet thick will be used for 69-kV circuit breakers. The control building will be on a 20-foot by 40-foot- by 1-foot-thick concrete slab. Transformer and reactor secondary oil containment will be a concrete-lined pot filled with stone. Conduit for control and communication cables and grounding conductor will be installed prior to the placement of the final layer of crushed rock surfacing. The ground grid will be installed 18 inches below the subgrade surface throughout the substation pad and extend four feet outside the substation security wall.

## 3. CONSTRUCTION PROCEDURES

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### 3.1 SURVEYING AND STAKING

All construction equipment and vehicles will be confined to the approved construction workspace (i.e., ROW) and ATWS. Prior to the commencement of clearing activities, civil survey crews will flag or stake the boundaries of the construction workspace and improved access roads in a manner that ensures all individuals can readily identify the boundaries of the authorized construction limits and to ensure that construction activities will only occur in areas authorized. In addition, Dairyland will install signs or flagging for the following environmental features along the construction workspace and access roads so they can be easily identified by Project personnel and managed as described in applicable permit applications:

- wetland boundaries and waterbody crossing locations;
- drainages/drain tiles as identified by counties and landowners;
- hiking and hunter walking trails, snowmobile and all-terrain vehicle (ATV) trails, winter access roads, or other recreational areas as required by permit conditions;
- buffer zones for environmentally sensitive features, including archaeological and historic sites, bald eagle nests, rare plant or ecological communities, and other sensitive wildlife species and/or habitat per agency consultations (note that the signs will not disclose the specific location and/or species or feature type where laws require data protection).

These activities are generally completed by a two-person crew travelling by foot, ATV, or pick-up truck.

### 3.2 STAGING / LAYDOWN YARDS

Initially, labor and equipment will be mobilized to prepare laydown yards for temporary trailer(s) and security measures to receive materials, storage containers, portable toilets, dumpsters, construction mats, tools, and equipment. Activities involved to prepare the staging / laydown yards include installation of erosion and sediment control BMPs, any grading/leveling of uneven surfaces, stripping, and stockpiling of topsoil (if necessary), and installation of gravel, tracking pads near entry/exit, if needed, installation of culvert(s), power, and fencing. This work is generally completed using equipment such as a bulldozer and dump trucks. The disturbance from the laydown yard is dependent on soil type and topography. Depending on landowner preferences, laydown yards may be left in place or returned to prior conditions following construction activities. Dairyland typically will locate staging / laydown yards in sites that have been previously disturbed (e.g., existing yards, parking lots, quarries).

### 3.3 TEMPORARY ACCESS ROADS

To provide temporary access to the construction workspace, Dairyland will maintain existing roads, improve existing trails or roads, or build new roads as needed and as approved through applicable permits and leases. Road improvements may include tree trimming, tree clearing, road grading, widening and fill placement. The travel surface of the access road is generally 20 to 25 feet wide. The total amount of disturbance of the road (cut slope to base of the spoils slope) is dependent on

soil type and topography. Access road improvement activities are generally completed using equipment such as a bulldozer, track-hoe, skid-loader, and dump trucks.

Typically, gravel will only be added to maintain existing roads that have an existing gravel road base, or to develop permanent access roads, if needed. Dairyland may use construction mats or rock on top of geotextile fabric, with or without a flume/culvert as appropriate depending on site conditions, to construct or widen access roads at intersections with other roads or the construction workspace. Gravel on top of geotextile fabric will only be used on approaches to construction workspace and not within construction workspace. Mats, rock, geotextile fabric, and flume/culverts will be removed after construction and the area will be restored to pre-construction conditions following construction.

Only construction mats will be used cross wetland features; construction mats will be removed after completion of construction activities.

After construction, Dairyland will return improved roads to their pre-construction condition unless the road authority, landowner, or land-managing agency requests that the improvements be left in place and the following conditions are met:

- The access road does not cross wetland features;
- No new temporary bridge/culverts were installed at waterbody features crossed by the road;
- Gravel fill was not added from originally non-gravel roads.

Restoration of temporary access roads will proceed as described in **Section 3.3**. Regardless of landowner, road authority, or land-managing agency preference, all temporary infrastructure in wetlands or waterbodies (e.g., bridges, construction mats, and/or other fill material) must be removed as required by applicable permits and authorizations.

### **3.4 VEGETATION CLEARING**

To facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line, all vegetation will be cleared for the full width of the ROW. Clearing may be accomplished with mechanical equipment such as mechanized mowers, sky trips, process harvesters, feller bunchers or brush cutters. In areas where clearing with large equipment is not viable, clearing will be done with hand tools such as chain saws or other hand tools.

All merchantable timber will be managed in accordance with landowner agreements and applicable permits and licenses. Trees, trunks and/or limbs cut on private property are typically cut to approximately 10-foot lengths unless the landowner requests longer lengths. All materials a landowner has requested to keep are stacked outside the ROW. All materials a landowner does not wish to keep are stacked inside the ROW for further processing and disposition. Any materials a landowner does not wish to keep will be removed from their property. These unwanted materials may be offered to other landowners, offered for sale, placed in a composting site, or disposed of at landfill. The balance of materials will likely be disposed of at the Wabasha County Landfill or another appropriate location, to be determined by the clearing contractor.

Unless otherwise agreed upon between Dairyland and the applicable landowner or land-managing agency, non-merchantable timber and slash will be disposed of by mowing, cutting, chipping, mulching and left in upland areas, and/or hauling off-site to an approved location or used in stabilizing erodible slopes or construction entrances. In non-agricultural, non-wetland areas, chips, mulch, or mechanically cut woody debris may be uniformly broadcast across the construction workspace in a manner that avoids inhibiting revegetation. This material may also be incorporated into the topsoil layer during grading activities, with landowner approval. Chips, mulch, or mechanically cut woody debris shall not be stockpiled in a wetland.

Trees ( $\geq 3$  inches diameter at breast height (dbh) or  $>20$  feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands. Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed one inch in depth. If sufficient brush is present such that debris will exceed one-inch, sufficient brush will be hauled out for processing in an upland area.

Vegetation within the ROW will be cut at or slightly above the ground surface. Any tree stumps or surface roots in managed turf grasses (e.g., residential areas) will be ground to slightly below grade and the hole backfilled with local soils and seeded with a similar turf grass mixture. Any stumps outside of managed turf grass areas will typically be cut or ground such that no more than two inches remain above grade. Dairyland does not typically grub stumps or roots to minimize soil impacts and erosion potential; however, stump removal may be necessary in some locations to facilitate the movement of construction vehicles, or when reasonably requested by the landowner.

Burning of non-merchantable wood may be allowed only where the applicable permits and approvals (e.g., agency and landowner) have been acquired and in accordance with all state and local regulations. Burning is not allowed in wetlands. Burning within 100 feet of a wetland or waterbody is prohibited without site-specific approval in advance from Dairyland and in accordance with applicable permits and/or approvals.

### **3.5 TRAVEL LANES**

Dairyland will establish a travel lane within the ROW to allow for the safe passage of construction vehicles and equipment. Construction mats will be placed along the travel lane within delineated wetlands within the construction workspace and along access roads to minimize ground impacts and provide access. Construction mats may also be used in other conditions, such as unstable soils, as needed. Most mat travel lanes will be 16 to 20 feet wide. Mat travel lanes are typically a single layer; however, there may be cases in saturated areas where more than one layer of mats must be placed to provide a stable working surface. Dairyland may use multiple mat configurations in inundated areas depending upon the depth of inundation and presence of channelized flow to maintain surface flow. Dairyland may use the following types of construction mats:

- Composite Mats: Composite mats are built out of high-density polyethylene material. Mats are typically 4 inches thick and 8 feet wide by 14 feet in length. Mats are interlocking, have a treaded traction surface, are flexible and extremely durable. These mats are also typically lighter in weight than traditional timber mats. Heavy duty mats are able to support construction equipment of all types, sizes, and weights, with load-bearing capabilities up to 600 pounds per square inch. Light duty mats are also available.

- Timber Mats: Timber mats are available in a variety of sizes and are constructed of hardwood materials that are bolted together. No individual timbers will be used. Timber mats are suitable for all vehicle types present on the construction workspace, have high durability under traffic, and are easily installed and removed using typical construction equipment. Timber mats are suitable for use in all soil conditions for all pipeline construction activities.
- Laminated Mats: Laminated mats are available in a variety of sizes and are constructed of laminated wood materials. Laminated mats are suitable for all vehicle types but are limited in their weight bearing capacity (e.g., 600 pounds per square inch). They have high durability and are easily installed and removed using typical construction equipment. Laminated mats are suitable for use in most soil conditions but should not be used in extremely saturated conditions. Laminated mats can be used on access roads, at drill pads, and for storage and staging of equipment.

Construction mats will be installed with rubber-tired grapple trucks, forwarders, forklifts, or skid loaders. Vegetation clearing crews will typically bring mats with the mechanized equipment and “leap frog” the mats forward as clearing progresses. The installation of the line will be completed in segments with mats being moved and used in other segments as construction progresses.

### **3.6 TEMPORARY BRIDGES**

Temporary bridges or culverts will typically be used to cross waterbodies from top of bank to top of bank with stable banks. Equipment bridges and culverts will be designed to meet the requirements of the applicable agencies and local authorities. Bridges will not restrict flow or pool water while the bridge is in place and will be constructed with clean materials. Bridges will be designed to prevent soil from entering the waterbody. Fording of waterbodies is prohibited (i.e., civil survey, potholing, or other equipment are not permitted to ford waterbodies prior to bridge or culvert placement).

Equipment bridges and culverts will be maintained in accordance with the applicable permits. Debris or vegetation that becomes lodged on the bridge support will be removed and disposed of in an upland area. Bridges will be maintained to prevent soil from entering the waterbody. Soil that accumulates on the bridge decking will be removed daily, or as deemed necessary by the Dairyland.

Equipment bridges will be removed during final cleanup or, if access is needed, after final cleanup and permanent seeding. Bridge decking will be removed to ensure sediment and debris are collected by geotextile fabric secured below decking during bridge construction. Subsequently, geotextile fabric will be removed to prevent debris from entering the waterbody.

Once the bridge is removed, Dairyland will conduct additional seeding and/or implement erosion and sediment control BMPs, as needed. Dairyland will follow the restoration procedures described in **Section 5.0**.



## **3.7 GRADING, EXCAVATION AND FOUNDATION INSTALLATION**

### **3.7.1 Grading and Topsoil Segregation**

Prior to foundation installation, Dairyland will install a construction mat platform generally 40 feet by 40 feet around the structure location to ensure a level and safe working area. In areas with uneven terrain, Dairyland may grade this area. Where grading is required, Dairyland will strip the topsoil layer and potentially into the subsoil layer and store the topsoil and subsoil separately within the ROW. Gaps will be left and erosion and sediment control BMPs installed where stockpiled topsoil and subsoil piles intersect with water conveyances (i.e., ditches, swales) to maintain natural drainage. A minimum 1 foot of separation will be maintained between the topsoil and subsoil piles to prevent mixing. Where the 1-foot separation cannot be maintained due to space constraints, a physical barrier, such as a thick layer of mulch or silt fence, between the topsoil and subsoil piles may be used to prevent mixing.

### **3.7.2 Excavation**

Excavation is required for all structures whether they are direct-embedded or use reinforced concrete foundations. In general, the excavated holes for each type of foundation will range from five to 10 feet in diameter and 20 to 50 feet in depth, or greater, depending on soil conditions. The method of installation, diameter and depth of the foundation will vary depending on the soil capability and structure loadings. For direct-embedded poles, a hole will be excavated to the appropriate depth.

### **3.7.3 Foundation Installation**

The base of the structure will be placed into the excavated hole or, if soils are unstable, into a culvert, the area around the pole will be backfilled with clean granular fill or concrete. For structures requiring a reinforced concrete foundation, the required hole will be excavated, and a rebar cage and anchor bolts will be placed into the excavation. The excavation will then be filled with concrete to a point where the rebar cage and anchor bolts are covered leaving a typical one to two-foot reveal of the foundation above grade with exposed threaded anchor bolts. The complete caisson will then be allowed to cure. Typical equipment for this phase of construction would include dump trucks, drill rigs, cranes, vacuum trucks, concrete mixers, and tanker trucks.

### **3.7.4 Construction Dewatering and Discharge**

In areas with high water tables, or where water is needed to stabilize the hole during drilling, it may be necessary to dewater the excavation. Dairyland will typically utilize portable pumps to dewater the excavation; the number and size of pumps employed will be based on the volume of water to be removed from the trench.

Prior to initiating dewatering activities, Dairyland will approve the water discharge plan to ensure that erosion and sediment control BMPs are applied in such a way as to minimize the potential for water containing sediment from reaching a wetland or waterbody. Furthermore, landowner approval is required in advance of placement of dewatering structures outside of the approved construction workspace. Dewatering structures will be sited to avoid environmental resources that may be affected by the discharge, such as federally- or state-listed species. Dairyland will utilize

the figures accompanying the SWPPP in addition to site-specific conditions at the time of dewatering to assess each water discharge situation, including soil type, contours, proximity to wetland and waterbody features, and existing vegetative coverage.

Typically, water will be directed to a well-vegetated upland area through a geotextile filter bag. Geotextile bags will be sized appropriately for the discharge flow and suspended sediment particle size. Where the dewatering discharge point cannot be located in an upland area due to site conditions and/or distance, the discharge will be directed into a straw bale dewatering structure designed based on the maximum water discharge rate. A straw bale dewatering structure will be used in conjunction with a geotextile filter bag to provide additional filtration near sensitive resource areas.

Appropriation and discharging activities will follow applicable regulations and permit requirements to ensure compliance with Minnesota water quality standards.

### **3.8 STRUCTURE SETTING**

For base plate structures (mounted on concrete foundation), the above-grade structure would be placed on the anchor bolt pattern, leveled, and tightened down. For direct-embedded structures, the base section would be installed, leveled, and backfilled with granular or flow-able fill. After that, the top section or sections will be installed. At each section, hydraulic jacking systems are typically used to slide the joints together to the engineered and fabricated tolerances. Equipment used for this phase of construction would include cranes and bucket trucks at each structure location.

### **3.9 WIRE STRINGING AND CLIPPING**

Once there are a sufficient number of structures set consecutively in a row to support a wire pull, the equipment for the wire pull is mobilized to the pull area and is set up. The conductor and static wires are then pulled and clipped into place. This stringing and clipping activity requires access to each structure with a bucket truck, crane, or helicopter. Other handling equipment used for this phase of construction includes reel trailers, wirepullers, and related stringing equipment.

Wire stringing areas or wire pulling areas are approximately 40 feet by 300 feet. At a minimum, at each wire pulling area, matting will be placed under wire equipment for construction grounding purposes. Incidental matting will also be required at most road crossings. Matting will be removed by similar equipment used for installation as each wire pull or construction segment is completed.

### **3.10 REMOVAL OF EXISTING FACILITIES**

Where replacing or overbuilding existing transmission circuits, the existing structures and wire will be removed. The removed materials will be evaluated to determine their appropriate disposal. Typical equipment used includes cranes, bucket trucks, reel trailers, wirepullers, and related stringing equipment. Where existing transmission structures are to be removed, it is common practice to remove the structure to a depth of at least 4 feet below grade; however, in some cases the structure may be cut off at grade. The determination will be site specific and will be based on the type of structure, land use at the site, and construction vehicle access constraints.

### 3.11 CLEANUP AND ROUGH/FINAL GRADING

All waste materials, including litter generated by construction crews, will be disposed of daily. Initial cleanup and rough grading activities may take place simultaneously. Cleanup involves removing construction debris (including litter generated by construction crews and excess rock) and large woody debris and repairing/replacing fences or other infrastructure removed or damaged during construction as agreed upon with the landowner or land-managing agency.

Rough grading includes restoring disturbed subsoil to as near as practicable to pre-construction conditions and decompacting subsoil (where applicable) (**Section 5.1**). Final grading consists of returning the topsoil where topsoil has been stripped and final contouring to near as practicable to pre-construction conditions. This includes repairing any rutting observed along the ROW. Any remaining excess subsoil from excavations will be removed and disposed of at an approved off-site location as needed to ensure contours are restored to as near as practicable to pre-construction conditions. For temporary access roads that are not to be left in place per landowner agreement or permits and authorizations, the road area will be graded to near as practicable to pre-construction conditions. Dairyland will then prepare the seedbed and install or repair erosion control measures.

Construction mats and temporary bridges will be removed once restoration activities have been completed and access is no longer required to the ROW.

## 4. CONSTRUCTION MITIGATION MEASURES

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### 4.1 TEMPORARY EROSION AND SEDIMENT CONTROL BMPS

Dairyland will limit ground disturbance activities to the areas around pole structures along the transmission lines, along access roads where needed, and at the new Kellogg Substation. Dairyland will prepare a SWPPP in accordance with the General Permit. As required by the General Permit, the SWPPP will describe the timing for installation of all erosion prevention and sediment control BMPs, include the location and type of temporary and permanent erosion and sediment control BMPs, along with the procedures used to establish additional temporary BMPs as necessary for the site conditions during construction. The SWPPP will identify all surface waters, existing wetlands, and stormwater ponds or basins that will receive stormwater from the construction site, during or after construction, and will identify special or impaired waters. The SWPPP will also include a description of the permanent stormwater treatment system that will be installed at the Kellogg Substation.

Temporary erosion prevention and sediment control BMPs, also referred to as erosion control devices (ECDs), include but are not limited to sediment barriers (e.g., silt fence, certified weed-free straw bales, bio-logs), filter socks, certified weed-free mulch, upslope diversions, slope breakers (earthen berms), and revegetation subsequent to seeding of exposed soils. The equipment used during installation of erosion and sediment control BMPs typically includes ATVs and trucks for crew transportation, as well as skid loaders, tractors, backhoes, hydro-seeders, and other light-duty equipment.

Dairyland will maintain ECDs as required in the Project construction documents and as required by all applicable permits, including the SWPPP. Stormwater inspections of temporary ECDs will occur at least once every 7 calendar days and within 24 hours after a rainfall event of 0.5 inch or greater. Non-functional ECDs will be repaired, replaced, or supplemented with functional materials within 24 hours after discovery, or as otherwise specified in project permits. If silt fence is used, when the depth of sediment reaches about one-half of the height, the sediment will be removed.

Temporary ECDs will be installed prior to or at the same time as ground disturbing activities (e.g., grading, excavation) at the base of sloped approaches to streams, wetlands, water conveyances (e.g., ditches, swales) and roads. Temporary ECDs will also be installed at the edge of the construction workspace as needed, and/or in other areas to slow water leaving the site and prevent siltation of waterbodies and wetlands downslope or outside of the construction workspace (e.g., swales and side slopes). Temporary ECDs will be placed across the entire construction workspace at the base of slopes greater than 3 percent and at site-specific locations identified in the SWPPP until the area is revegetated and there is no potential scouring of, or sediment transport to surface waters. Adequate room will be available between the base of the slope and the sediment barrier to

accommodate ponding of water and sediment deposition. Temporary ECDs will be maintained until permanent cover<sup>2</sup> is established.

Temporary ECDs installed across the travel lane may be removed during active daytime construction; however, ECDs will be properly reinstalled after equipment passage, or activities in the area are completed for the day. These ECDs will also be repaired and/or replaced prior to inclement weather when forecasted. Dairyland is responsible for monitoring weather conditions and adjusting resources as needed to address pending and/or existing weather conditions.

## **4.2 EROSION PREVENTION**

During construction, certain activities may be suspended in wet soil conditions, based on consideration of the following factors:

- extent of surface ponding;
- potential for rutting, defined as the creation of linear depressions made by tire tracks of machinery that results in the mixing of topsoil and subsoil;
- extent and location of potential rutting and compaction (i.e., can traffic be rerouted around wet area); and
- type of equipment and nature of the construction operations proposed for that day.

Dairyland will monitor upcoming weather forecasts to determine if significant rainfall is anticipated during construction, and will be responsible for appropriately planning work, considering the potential for wet conditions, and being prepared to implement mitigation measures in the event of wet weather conditions and/or excessive waterflow. Dairyland will also be responsible for implementing any and all such corrective measures deemed necessary should conditions subsequently worsen where the above described criteria cannot be met. Dairyland will cease work in the applicable area until Dairyland determines that site conditions are such that work may continue in conformance with the required regulatory authorizations.

## **4.3 TEMPORARY STABILIZATION**

Stabilization<sup>3</sup> of all exposed areas, including spoil piles, must be initiated immediately<sup>4</sup> to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of

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<sup>2</sup> Permanent cover means surface types that will prevent soil failure under erosive conditions. Examples include gravel, concrete, perennial cover, or other landscaped material that will permanently arrest soil erosion. Permittees must establish 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 on all areas not covered by permanent structures, or equivalent permanent stabilization measures. Permanent cover does not include temporary BMPs such as wood fiber blanket, mulch, and rolled erosion control products (Minnesota Rules 7090).

<sup>3</sup> Stabilization means that 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 seeding, agricultural crop seeding, or other seeding alone is not stabilization. Mulch materials must achieve approximately 90 percent ground coverage (Minnesota Rules 7090).

<sup>4</sup> Initiated immediately means taking an action to commence soil stabilization as soon as practicable, but no later than the end of the work day, following the day when the land-disturbing activities temporarily or permanently cease, if permittees know that construction work on that portion of the site will be temporarily ceased for 14 or more additional calendar days or 7 days when within 1 mile of a special or impaired water (Minnesota Rules 7090).

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 has ceased.

In areas within 1 mile of, and draining to, a special or impaired water, stabilization measures will be initiated immediately and completed within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site. Areas of the Project where this timing restriction applies will be clearly defined on the figures accompanying the SWPPP.

On portions of the Project where work will be occurring during applicable “work in water restrictions” for Public Waters (i.e., Gorman Creek), all exposed soil areas within 200 feet of the water’s edge, and that drain to that water, will be stabilized within 24 hours during the fishery restriction period (March 1-June 1)<sup>5</sup>. Stabilization of all exposed soils within 200 feet of the public water’s edge, and that drain to that water, will be initiated immediately and completed within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site outside of the restriction period. These areas will be identified on the figures accompanying the SWPPP.

#### 4.3.1 Mulch

Dairyland will stabilize exposed ground surfaces within the periods described in **Section 4.3**. In most cases, Dairyland will utilize mulch (certified weed-free straw,<sup>6</sup> wood fiber hydromulch, or a functional equivalent) to disturbed areas (except for actively cultivated land and most wetlands) as required by the applicable permits and authorizations, and as approved by the landowner or land-managing agency. Other stabilization methods, such as staked sod, erosion control blanket<sup>7</sup>, mats or other material that prevents erosion from occurring may be used as appropriate based on site-specific conditions.

Mulch will be applied to cover at least 90 percent of the ground surface unless otherwise stipulated by permit conditions. Mulch will be uniformly distributed by a mechanical mulch blower, or by hand in areas not accessible to the mulch blower. Strands of mulch shall be sized to allow proper anchoring. Mulch will be anchored/crimped using a mulch-anchoring tool or disc set in the straight position to minimize loss by wind and water, as site conditions allow. In areas not accessible to a mulch-anchoring tool or too steep for safe operation, the mulch may be anchored by liquid tackifiers. The manufacturer’s recommended method and rate of application will be followed.

Hydro-mulch and liquid tackifier can be used in place of certified weed-free straw mulch with prior approval from Dairyland. All hydromulch and liquid tackifier products used will be on the

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<sup>5</sup> MDNR. 2014.. Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001 (4<sup>th</sup> Version). Available online at: [https://files.dnr.state.mn.us/waters/watermgmt\\_section/pwpermits/gp\\_2004\\_0001\\_chapter1.pdf](https://files.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_chapter1.pdf). Accessed February 2024.

<sup>6</sup> Minnesota Department of Transportation. 2020. Standard Specifications for Construction 2020 Edition (Volume 1) 3882 Type 1 or 3 specifications: [2020 Standard Specifications Volume 1-12292450-v2.PDF](#). Accessed February 2024.

<sup>7</sup> Dairyland will consider the MPCA recommendation of using “wildlife friendly” natural fiber or 100 percent biodegradable materials that use loose-weave with a non-welded, movable jointed netting. Dairyland will avoid square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester.



applicable state MnDOT product list. Hydro-mulch and liquid tackifier products containing plastic/polypropylene fiber additives and Malachite Green (colorant) will not be utilized on this Project. Application rates will be at the manufacturer's recommended rate. Dairyland may use hydromulch on steep slopes to prevent erosion until permanent cover has been established.

### 4.3.2 Temporary Slope Breakers

Temporary slope breakers will be installed to minimize concentrated or sheet flow runoff in disturbed areas. The following maximum allowable spacing unless otherwise specified in permit conditions.

<u>Slope (%)</u>	<u>Approximate Spacing (feet)</u>
3-5	250
5-15	200
15-25	150
>25	<100

If the length of the slope is less than the distance of the required spacing, slope breakers are not required unless a sensitive resource area (e.g., wetland or public roadway) is located immediately down slope, or as determined to be needed by Dairyland. Temporary slope breakers may be constructed using earthen subsoil material, silt fence, certified weed-free straw bales, or in non-agricultural land, rocked trenches may be used. On highly erodible slopes, slope breakers in the form of earthen berms will be used whenever possible.

Temporary slope breakers will be constructed according to the following specifications:

- certified weed-free straw bales used as slope breakers will be trenched in and staked so as to not allow spacing between bales or allow flow underneath the bales;
- the outfall of temporary slope breakers will be directed off the construction workspace into an appropriate energy-dissipating sediment control device (e.g., filter sock, silt fence, straw bales, rock aprons, sumps) to prevent the discharge of sediments and the area will be inspected to ensure stabilization;
- proper slope breaker outfalls will be established where topsoil segregation and/or grading has created a barrier at the edge of the construction workspace;
- J-hook sediment traps will be installed at the perimeter of the erosion control zones on the downslope side of the construction workspace; and
- gaps will be created through spoil piles where necessary to allow proper out-letting of temporary berms.

## 4.4 MANAGEMENT OF INVASIVE AND NOXIOUS SPECIES

### 4.4.1 Applicable Laws and Regulations

Dairyland will minimize the potential for introduction and/or spread of invasive and noxious species (INS) along the construction workspace and temporary access roads due to construction activities in compliance with law and regulation. Management strategies will be implemented where applicable and appropriate prior to construction, and during Project construction and restoration. This Plan defines terrestrial plant INS as any species that is listed by the Minnesota Department of Agriculture (MDA) as Prohibited Noxious Weeds. Specifically, this includes documented occurrences of terrestrial plant INS that are listed as “eradicate”<sup>8</sup> or “control”<sup>9</sup> (see **Table 4-1**) under the “Prohibited Noxious Weed” category by the MDA.

**Table 4-1. Minnesota Department of Agriculture Prohibited Noxious Weeds**

Eradicate List		Control List	
Species	Common Name	Species	Common Name
<i>Ailanthus altissima</i>	Tree of Heaven	<i>Berberis vulgaris</i>	Common Barberry
<i>Amaranthus palmeri</i>	Palmer Amaranth	<i>Cardamine impatiens</i>	Narrowleaf Bittercress
<i>Centaurea diffusa</i>	Diffuse Knapweed	<i>Carduus acanthoides</i>	Plumeless Thistle
<i>Centaurea jacea</i> <sup>a</sup>	Brown Knapweed	<i>Centaurea x moncktonii</i>	Meadow Knapweed
<i>Centaurea solstitialis</i>	Yellow Starthistle	<i>Celastrus orbiculatus</i>	Round Leaf Bittersweet
<i>Cynanchum louiseae</i>	Black Swallow-wort	<i>Centaurea stoebe</i>	Spotted Knapweed
<i>Cynanchum rossicum</i>	Pale swallow-wort	<i>Cirsium arvense</i>	Canada Thistle
<i>Digitalis lanata</i>	Grecian Foxglove	<i>Conium maculatum</i>	Poison Hemlock
<i>Dipsacus fullonum</i>	Common Teasel	<i>Euphorbia esula</i>	Leafy Spurge
<i>Dipsacus laciniatus</i>	Cutleaf Teasel	<i>Lythrum salicaria</i>	Purple Loosestrife
<i>Heracleum mantegazzianum</i>	Giant Hogweed	<i>Pastinaca sativa</i> <sup>a</sup>	Wild Parsnip
<i>Humulus japonicus</i>	Japanese Hops	<i>Phragmites australis</i> ssp. australis	Non-native Phragmites
<i>Linaria dalmatica</i>	Dalmatian Toadflax	<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Lonicera japonica</i>	Japanese honeysuckle	<i>Polygonum sachalinense</i>	Giant knotweed
<i>Sorghum halepense</i>	Japanese Hops	<i>Polygonum x bohemicum</i>	Bohemian knotweed
		<i>Tanacetum vulgare</i>	Common Tansy

Notes:  
 Source: MDA, 2024. Minnesota Noxious Weed List. Available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>. Accessed February 2024.  
<sup>a</sup> Indicates species that have been documented in the proposed 100-foot-wide ROW based on MDNR Terrestrial Invasive Species Observations dataset (<https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs>).

<sup>8</sup> Prohibited noxious weeds placed on the noxious weed eradicate list are plants that are not currently known to be present in Minnesota or are not widely established. These species must be eradicated (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

<sup>9</sup> Prohibited noxious weeds placed on the noxious weed control list are plants that are already established throughout Minnesota or regions of the state. Species on this list must be controlled (Minnesota Statute §18.771 (b)(1)). This list is available at: <https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list>.

At the public water (Gorman Creek) managed by the MDNR, the INS management objectives are to minimize the spread of documented occurrences of terrestrial plant INS that are: 1) listed as Noxious by the USDA; 2) listed as “Prohibited Noxious Weeds,” “Restricted Noxious Weeds,” or “Specially Regulated Plants” by the MDA; or 3) listed as invasive by MDNR Operational Order 113 . In addition, Dairyland will adhere to the requirements set forth by the MDNR Utility License to Cross Public Waters and Natural Heritage Review consultation process.

#### **4.4.2 Standard BMPs**

Dairyland will implement several standard BMPs that will limit the amount of disturbance associated with construction activities and assist with managing terrestrial INS infestations within Dairyland’s ROW. Dairyland does not have the authority to treat INS outside of its ROW. Where land outside of the ROW contains a significant population of INS visible from the ROW, Dairyland will attempt to notify landowners and suggest management options for consideration. Dairyland will implement the following BMPs during construction:

- Limiting grading and excavation to areas surrounding pole structure foundations, and only as needed along access roads and workspace areas for a level and safe working area.
- Installing construction mats for travel lanes in wetlands and other locations as needed.
- All disturbed areas will be revegetated using seed mixes labelled “Noxious Weeds; None Found” in accordance with regulations and will utilize yellow tag seed when available.
- Compliance with General Permit, including stabilization requirements, and inspection, maintenance and repair of erosion and sediment control BMPs. Certified weed-free straw or weed-free hay will be used for erosion and sediment control BMPs.
- All construction equipment must be clean prior to entering and before leaving the work site.
- Manual, mechanical, or chemical management of invasive and noxious weed infestations.

##### **4.4.2.1 Installation of Construction Mats**

Dairyland may install and work off of construction mats or equivalent to cover the INS source at locations where the infestation cannot be avoided. Construction mats will then be cleaned before use at another non-infested site as described in **Section 4.4.2.2**.

##### **4.4.2.2 Cleaning Stations**

Dairyland may establish cleaning stations to remove visible dirt and plant material from equipment and mats when exiting a known terrestrial INS infestation area along the construction workspace. Cleaning stations may also be implemented at staging/laydown yards, as needed to clean construction mats and equipment. Construction mats will be covered and contained in plastic tarps or geotextile fabric when they are transported and stored to minimize the spread of seeds.

Mechanical means (initial scrape down followed by blow down) will be the primary method used to remove dirt and plant materials from vehicles, equipment, and construction mats at the cleaning stations or construction yards.

#### **4.4.2.3 Mowing**

Spot mowing may be used during construction and restoration to control the spread of identified INS populations by cutting the vegetation before it goes to seed, and/or to allow native species the opportunity to establish.

#### **4.4.2.4 Herbicide Application**

Landowners, operators of organic farms on adjacent parcels, and bee apiary operators within three miles will be notified 14 days in advance if herbicides will be used on the ROW. The notice will indicate what herbicides will be used and the methods of application (e.g., broadcast, selective spot treatment, or basal treatment).

Unless a landowner or land-managing agency has specified that no herbicides are to be used on their property, herbicides may be used to treat tree and brush stumps to prevent regrowth, and/or to control listed invasive or noxious weed species.

Any weed control spraying will be in accordance with State of Minnesota regulations. Herbicides will be used in accordance with manufacturer's specifications and all applicable federal and state regulations.

Herbicides used within or near wetlands or waterbodies must be:

- designed for use in wet areas as designated by manufacturer's specifications and federal and state regulations, and
- be used in accordance with manufacturer's specifications as well as all applicable federal and state regulations.

Areas of high public exposure such as rivers, creeks, streams, and U.S. and state highways shall be treated with a selective basal or backpack application. Approximately 30 to 300 feet on each side of the crossing shall be treated in this manner.

Herbicides will not be used on any state or federal lands without approval of the agency having authority over such land.

Dairyland may use herbicides on land owned by Dairyland (e.g., substation facilities). Dairyland will work with adjacent landowners, if requested, on weed control activities.

#### **4.4.3 Invasive Tree Pests**

Invasive tree pests occur in the Project area, including the non-native emerald ash borer (*Agilus planipennis*). Emerald ash borer larvae feed on all species of ash trees. Most of the species' life cycle occurs underneath the bark; early indications of infestation are bark removal or flecking from

woodpeckers that eat the larvae.<sup>10</sup> The Project occurs in the quarantine area for the emerald ash borer.<sup>11</sup>

Dairyland will clear forested vegetation in upland and wetland areas and will generally dispose of non-merchantable timber and slash by mowing, cutting, chipping, mulching and/or hauling off site to an approved disposal facility. Merchantable timber will be disposed of in accordance with contract specifications and applicable permits and licenses. In accordance with this quarantine, Dairyland will not transport felled ash (genus *Fraxinus*) trees or any processed parts (i.e., logs, chips, mulch, stumps, roots, branches) from a quarantine to a non-quarantine area.<sup>12</sup>

#### 4.4.4 Oak Wilt

Oak wilt is caused by a non-native invasive fungus (*Bretziella fagacearum*), which invades and eventually kills the oak tree. Oak wilt has been identified in Wabasha County. Trees are most susceptible to the spread between April 1 to July 15; however, if daily high temperatures exceed about 60 degrees Fahrenheit or higher for six consecutive days, spread can occur.<sup>13</sup> In the event that a healthy oak tree adjacent to the construction workspace is damaged or wounded during construction activities, Dairyland will treat the cut surface with water-based paint, a pruning/wound sealer, or shellac to prevent further spread of the disease.

### 4.5 ORGANIC FARMS

There is one organic farm within the Proposed Route near MP 2.9; however, it is not crossed by nor directly adjacent to the Proposed Alignment and associated ROW.<sup>14, 15</sup> However, if Dairyland encounters a farm that is working toward certification or a landowner considers its farm to be organic, even if they are not certified, Dairyland will work with the landowner to minimize impacts. Special practices would be adhered to within and adjacent to these organic agricultural lands.

If Dairyland became aware of an existing or developing, unregistered organic farm within or adjacent to the right-of-way, Dairyland would work with the organic farmer to develop acceptable maintenance practices potentially including:

- Working with the landowner to identify site-specific maintenance and/or construction practices that would minimize the potential for decertification; once these are developed, the specific measures would be followed. Possible practices may include:
  - Equipment cleaning

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<sup>10</sup> MDNR. 2024 Emerald ash borer. Available at: [Emerald ash borer \(EAB\) | Minnesota DNR \(state.mn.us\)](https://www.dnr.state.mn.us/eab/). Accessed February 2024.

<sup>11</sup> MDA. 2024. Emerald Ash Borer Quarantine. Available at: [Emerald Ash Borer Quarantine | Minnesota Department of Agriculture \(state.mn.us\)](https://www.mda.state.mn.us/organic-farm-directory-county). Accessed February 2024.

<sup>12</sup> MDA. 2024. Minnesota Department of Agriculture State Formal Quarantine: Emerald Ash Borer (Version 33). Available online: [https://www.mda.state.mn.us/sites/default/files/docs/2024-01/Formal%20EAB%20Quarantine%20Morrison%20County.docx .pdf](https://www.mda.state.mn.us/sites/default/files/docs/2024-01/Formal%20EAB%20Quarantine%20Morrison%20County.docx.pdf). Accessed February 2024.

<sup>13</sup> MDNR. 2024. Oak Wilt. Available at: [https://www.dnr.state.mn.us/treecare/forest\\_health/oakwilt/index.html](https://www.dnr.state.mn.us/treecare/forest_health/oakwilt/index.html). Accessed February 2024.

<sup>14</sup> <https://www.mda.state.mn.us/organic-farm-directory-county>

<sup>15</sup> <https://organic.ams.usda.gov/integrity/>

- Planting a deep-rooted cover crop in lieu of mechanical decompaction
  - Application 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
  - Use of organic seeds for any cover crop
- Prohibited substances would not be applied onto organic agricultural land. No herbicides, pesticides, fertilizers, or seed would be applied unless requested and approved by the landowner.
  - No refueling, fuel or lubricant storage, or routine equipment would be allowed on organic agricultural land. If these prohibited substances are used on land adjacent to organic agricultural land, they would be used in such a way to prevent them from entering the organic agricultural land.
  - Topsoil and subsoil layers that are removed during work on these lands for temporary road impacts would be stored separately and replaced in the proper sequence after work is complete.
  - Erosion control methods on organic agricultural land would be consistent with USDA organic practices<sup>16</sup> to the extent feasible. Adjacent to these lands, erosion control procedures would be designed so sediment from non-organic land would not flow into the organic agricultural lands.
  - Weed control methods would be consistent with the USDA organic practices to the extent feasible.

## 5. RESTORATION

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As previously described, areas of ground disturbance will be limited mainly to structure locations and along temporary access roads. Although Dairyland will cut tall vegetation along the full width of the ROW, vegetation and root stock will remain during construction. Therefore, restoration activities will be limited to:

- Inspecting, maintaining, repairing, and replacing temporary erosion and sediment control BMPs until permanent cover is achieved (see **Section 6.0**).
- Conducting decompaction in areas where temporary access roads were developed and where grading occurred on the ROW, as needed.
- Install permanent erosion and sediment control measures where needed.

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<sup>16</sup> <https://www.ams.usda.gov/publications/content/fact-sheet-introduction-organic-practices>



- Applying temporary seed mix to minimize erosion potential to the extent practicable.
- Permanent seeding non-agricultural areas disturbed by transmission line structures to prevent runoff.
- Removal of construction mats and temporary bridges after restoration activities are complete.

## 5.1 DECOMPACTION

After rough grading and before topsoil replacement, Dairyland will decompact the subsoil in actively cultivated areas to relieve soil compaction and promote root penetration. Decompaction may also occur on improved upland temporary access roads as appropriate. To alleviate soil compaction, Dairyland will decompact the area prior to topsoil replacement with a deep tillage device or chisel plow if agreed to by the landowner or land-managing agency. Soil conditions must be dry enough to shatter the compacted soil between the points of a subsoiler or chisel plow to lower the bulk density of soil and reduce compaction. Soil at the compacted depth must not be wet and plastic at the time of tilling, otherwise it will not reduce compaction. If subsequent construction and cleanup activities result in further compaction, the measures described above will be completed a second time to alleviate the soil compaction.

After topsoil replacement, the soil will be tilled with a disc or rolling harrow, drag harrow, Harley rake, field cultivator, or chisel plow (or equivalent) to break up large clods and to prepare the soil surface. Suitable conditions generally include a firm soil surface that is not too loose or too compacted and will be prepared to accommodate the seeding equipment and method to be used.

## 5.2 PERMANENT EROSION AND SEDIMENT CONTROL BMPS

During final grading, slopes in areas other than cropland will be stabilized with erosion and sediment control BMPs (i.e., ECDs). With exception for actively cultivated areas, permanent berms (diversion dikes or slope breakers) will be installed on slopes where ground disturbance has occurred, or where otherwise deemed necessary, according to the following maximum spacing requirements unless otherwise specified in permit conditions.

<u>Slope (%)</u>	<u>Approximate Spacing (feet)</u>
5	250
>5-15	200
15-25	150
>25	<100

Permanent berms will be constructed according to the following specifications:

- Permanent berms will be installed with a 2 to 4 percent out slope.
- Permanent berms will be constructed of compacted earth, stone, or functional equivalent in conformance with the required regulatory authorizations and all applicable regulations governing this activity.

- The outfall of berms will be diverted into an appropriate energy-dissipating sediment control device (e.g., filter socks, silt fence, straw bales) until permanent cover is established to prevent discharge of sediment. Berms will be extended slightly beyond the edge of the construction workspace if possible; however, only with the appropriate sediment capturing device. Outfalls will be inspected to ensure stabilization.
- Permanent berms will be inspected and repaired as deemed necessary by Enbridge to maintain function and prevent erosion.

### **5.3 EROSION CONTROL BLANKETS**

The appropriate class of erosion control blanket will be installed in accordance with manufacture recommendations and/or MnDOT specifications on slopes greater than 33 percent that drain to surface waters, and at other locations based on site-specific conditions. Installation of erosion control blankets and additional erosion and sediment control BMPs may occur after first snowfall depending on construction progress, seasonal weather, and site conditions. Erosion control blankets will be installed running parallel (up and down) with the direction of the slope (not perpendicular).

Dairyland will consider the MPCA recommendation of using “wildlife friendly” natural fiber or 100 percent biodegradable materials that use loose-weave with a non-welded, movable jointed netting. Dairyland will avoid square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester.

### **5.4 PROJECT SEED SPECIFICATIONS**

Seed used will be purchased on a “Pure Live Seed” (PLS) basis for seeding (both temporary and permanent) revegetation areas. Dairyland will arrange for the appropriate storage of the seed. Dairyland will utilize yellow tag seed, which is certified by the Minnesota Crop Improvement Association, when it is available. Seed tags will identify:

- name of mixture;
- lot number;
- weed seed percentage;
- other crop percentage;
- inert matter percentage;
- noxious weeds by name and number per pound;
- net weight; and
- labeler’s name and address.
- In addition, for each component in the mix the following information must be included on the label:
  - kind;
  - variety;
  - pure seed percentage;
  - germination percentage;

- hard seed percentage;
- dormant seed percentage;
- total viable percentage;
- origin; and
- test date.

Seed will be used within 5, 12, or 15 months of testing as required by applicable laws and regulations. The seed tags on the seed sacks will also certify that the seed is “Noxious Weed: None Found.” The label must show any noxious weed seed by name and number per pound. If none were found in testing, then the label should state “Noxious Weeds: None Found.” Any *Amaranthus* seeds found in the purity and/or noxious exam must be tested using a genetic test to determine if Palmer amaranth is present. If Palmer amaranth is identified in testing, the seed is not legal for sale in Minnesota. Seed rates used on the Project will be based on PLS rate, not actual weight basis. Therefore, to determine the correct application rate if not indicated on the seed tag, a correction calculation will be performed based the purity and total germination.<sup>17</sup> For example, a seed mix that has a specified 10 pounds PLS per acre, 95 percent total germination rate, and is 80 percent pure needs to be applied at the following rate:

$$(95\% \text{ total germination} \times 80\% \text{ purity})/100 = 76\% \text{ PLS}$$

$$10 \text{ pounds PLS per acre}/.76\% \text{ PLS} = 13.2 \text{ pounds per acre actual seeding rate}$$

The species components of individual mixes are subject to availability at the time of purchase. Grass species may be substituted with alternative native or non-invasive species that are included in the Natural Resources Conservation Service guidelines in conformance with the required regulatory authorizations. Any seed substitution must meet all the Project requirements as outlined. The seed tag must always reflect the species in the container and reflect any substitutions.

Seed tags will be collected during seeding activities. The tags will be reviewed by the Dairyland prior to installation to ensure that the seed mix complies with regulations and Dairyland specifications and that it is being applied to the correct location. Seed tags will be maintained for a minimum of 2 years after seeding along with planting records for each specific location. If bulk delivery of seed is made, the above information will still be made available to Dairyland. Off-loading/on-loading of seed will not be performed in a designated wetland area. Dairyland will notify the Minnesota Department of Agriculture, Minnesota Seed Regulatory Program Coordinator so that seed lots may be sampled and tested to confirm compliance with Minnesota Seed Law, as necessary.

Legume seed (if used) will be treated with an inoculant specific to the species and in accordance with the manufacturer’s recommended rate of inoculant appropriate for the seeding method (broadcast, drill, or hydroseeding).

Fertilizers and other soil amendments are not recommended and will only be applied as requested by and agreed to in ROW negotiations with individual landowners.

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<sup>17</sup> Percent total germination = (germination + hard seed + dormant).

## 5.5 SEEDING METHODS

Seed will be applied uniformly at specified rates by broadcasting, hydroseeding, or drill seeding. Dairyland will ensure that the seeding equipment is appropriate for the seed mix and is capable of dispensing native seeds without plugging or unevenly distributing the seed. In order to minimize ground disturbance along the entire corridor, forested areas are being cleared, but roots and stumps are being left in place. Within areas of cleared forest, it may not be practical to access large areas of ground with seeding and seedbed preparation equipment. In these areas, smaller vehicles may be required to perform tasks such as preparing seedbeds with small rakes, and surface packing after seeding. Activities will be suspended if conditions are such that equipment will cause rutting of the surface in the designated seeding areas (see **Section 4.2**).

Broadcast seeding may be used at all disturbed areas where bare soil is created. Broadcast seeding will occur at rate specified in the mixture tabulation for the specified mix. Seed is to be uniformly distributed by a mechanical, hand-operated seeder, or in small seeding areas, by hand. Following seeding, the surface is to be raked with a cultipacker, harrow, or hand rake. The bed is to be firmed as appropriate to site conditions.

Hydroseeding may be used at all disturbed upland areas where bare soil is created. Hydroseeding is not approved in wetland locations as the method requires extra access by heavy vehicles. Hydroseeding will occur at rate specified in the mixture tabulation for the specified mix. Seed will be applied in a broadcast, hydromulch slurry. The hydromulch seed mix will allow the contractor to see where application has taken place, ensuring uniform coverage of the seeding area. The hydroseeder must provide for continuous agitation of slurry and provide for a uniform flow of slurry. Hydroseed slurry is not to be held in the tank for more than one hour prior to application. Dairyland will pre-approve all hydromulch products, which must be on the applicable MnDOT product list. Hydromulch and liquid tackifier products containing plastic/polypropylene fiber additives and Malachite Green (colorant) will not be utilized on this Project.

Seed drilling may be used in areas where stumps have been removed and a prepared seed bed can be created. However, these areas are expected to be infrequent and may not occur on the Project. Drilled seed will be sown at a depth of 0.25 inches. Seeding equipment will be able to accommodate and uniformly distribute different sizes of seed at the required depth. Feeding mechanisms will be able to evenly distribute different seed types at the rates specified. Seedbed soil is to be suitably firmed immediately following seed drilling.

## 5.6 TEMPORARY REVEGETATION

Temporary cover and/or seeding may be used as a quick means to minimize soil erosion and reducing the potential for the establishment of invasive and noxious species. Temporary seed mixes are considered a cover crop and are made up of annual grasses, have rapid germination, and provide quick ground cover. These seed mixes are not intended to provide multi-year cover. Unless specifically requested by landowners or regulatory agencies, the Project will not establish temporary vegetation on cultivated land or in inundated areas. Dairyland's temporary seed mixes were developed based on Minnesota BWSR seed mixes (**Table 5-1**).

**Table 5-1. Temporary Cover Crops**

<b>Seed Mix</b>	<b>Purpose</b>
Oats Cover Crop (21-111)	Temporary cover crop for spring and summer plantings
Winter Wheat Cover Crop (21-112)	Temporary cover crop for fall plantings
Soil Building Cover Crop (field pea/oats) (21-113)	Temporary crop with soil building function

Source: BWSR. 2024. [Seed Mixes | MN Board of Water, Soil Resources \(state.mn.us\)](#). Accessed February 2024.

Temporary erosion and sediment control BMPs will also be established as described in **Section 5.6** until permanent cover has been established.

## **5.7 PERMANENT REVEGETATION**

Permanent vegetation will be established in areas disturbed within the construction work area (e.g., graded areas) and along temporary access roads that are to be restored to pre-construction conditions, except in actively cultivated areas and standing water wetlands. Dairyland’s permanent seed mixes (**Table 5-2**) were selected to augment revegetation via natural recruitment from native seed stock in the topsoil and are not intended to change the natural species composition.

The seed mixes for permanent seeding include Minnesota state seed mixes that have been developed for a variety of habitats with the intent to increase diversity, create competition for invasive species, and promote plant community resiliency. Native seed mixes were determined by using the MnDOT Seeding Manual<sup>18</sup> and were selected to meet the expected variety of conditions present along the right-of-way. The seed mixes are suitable for the Eastern Broadleaf Province which the entire Project is located in. If sufficient seeds are not available at the time of seeding, a similar, appropriate seed mix will be used, determined by the BWSR Seed Substitutions table.<sup>19</sup>

It is important to note that native seed mixes can take 2 to 3 years to fully germinate depending on the time of year that the seeds were installed, soil, site, and weather conditions. During the first year, many native plants will have a somewhat weedy appearance growing to only about 1-3 inches tall. By the second year, some native grasses, sedges, and flowers may reach mature height, and some may flower, alongside many first-year native seedlings as well. Many of the native plants will be mature and start flowering by the third year. Depending on the seed mix, other plants will not appear or mature for several years.

<sup>18</sup>. MnDOT Seeding Manual 2023. [Vegetation - Erosion Control and Stormwater Management \(state.mn.us\)](#)

<sup>19</sup>. [Seed Substitution list \(state.mn.us\)](#)





**Table 5-2. Permanent Seed Mixes**

Seed Mix (State Seed Code)	Purpose	Example Seeding Areas along Project
Mesic Prairie Southeast (35-641)	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program planting	<ul style="list-style-type: none"> <li>• Roadside</li> </ul>
Dry Prairie General (35-221)	General dry prairie mix for native roadsides, ecological restoration, or conservation program planting	<ul style="list-style-type: none"> <li>• Roadside</li> </ul>
Woodland Edge South & West (36-211)	Partly shaded grassland planting for native roadsides, reclamation, etc.	<ul style="list-style-type: none"> <li>• Edges of forested areas</li> </ul>
Wetland Seedbank Release (31-721)	Wet meadows where there is a high likelihood that seeds of native species will be in the seedbank and there is a need for a seed mix to supplement the seed bank, improve cover of bare soils, and increase diversity.	<ul style="list-style-type: none"> <li>• Emergent/herbaceous wetlands that need supplemental seeding only</li> </ul>
Wetland Rehabilitation (34-172)	For use in areas with soil saturation within a foot of the surface during a majority of the growing season and full to partial sun where a wet meadow community is the goal. Intended for wetlands where supplemental seeding is needed.	<ul style="list-style-type: none"> <li>• Wetlands that need supplemental seeding only</li> </ul>
Wet Meadow South and West (34-272)	Areas with soil saturation within 1 foot of the surface during the majority of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to wetland restoration.	<ul style="list-style-type: none"> <li>• Emergent wetland areas</li> </ul>
Stormwater South and West (33-261)	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms	<ul style="list-style-type: none"> <li>• Edge of stormwater pond at Kellogg Substation; edges of ponds or ditch bottoms that are temporarily flooded</li> </ul>
Impoundment General (33-161)	Areas with mesic soils to soil saturation within a foot of the surface during a majority of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to an impoundment for periodic holding of water	<ul style="list-style-type: none"> <li>• Kellogg Substation stormwater pond</li> </ul>
Dry Swale / Pond	Temporarily flooded swales in agricultural settings	<ul style="list-style-type: none"> <li>• Swales in agricultural fields</li> </ul>
Low Diversity Buffer South & West (32-242A)	Riparian buffer areas with mesic soils and full sun for at least 70% of the day where the goals of providing wildlife habitat, soil stabilization, and water quality benefits.	<ul style="list-style-type: none"> <li>• Waterbody / ditch crossings</li> </ul>

Riparian South & West (34-262)	Riparian areas along rivers, streams, and other waterbodies with areas of moist soils and potential flooding during part of the growing season and full to partial sun where land is being converted from other uses such as agriculture or non-native grasses to riparian plants	<ul style="list-style-type: none"> <li>• Waterbody / ditch crossings</li> </ul>
Beneficial Insects South and West (38-541A)	Designed to support specialist bees, many Lepidoptera species, and a wide range of beneficial insects. Includes a wide range of plant families to maximize insect use, bloom periods, and long-term resiliency of the mix	<ul style="list-style-type: none"> <li>• Roadsides / upland areas</li> </ul>
Pollinator Plot Southeast (38-641)	Designed to support specialist bees, many Lepidoptera species, and a wide range of beneficial insects. Includes a wide range of plant families to maximize insect use, bloom periods, and long-term resiliency of the mix	<ul style="list-style-type: none"> <li>• Roadsides / upland areas</li> </ul>
Source: BWSR, 2024		

### 5.7.1 Permanent Seeding of Upland Areas

The Project primarily occurs along roadsides within agricultural areas. Dairyland does not intend to seed actively cultivated areas; however, Dairyland will seed with temporary cover crops identified in Table 4-1 or other mixes at the landowner request. In landscaped / lawn areas, Dairyland will use turf grass seed mixes requested by the landowner. Roadside areas may be reseeded with seed mixes in Table 4-2 that most closely resemble the current vegetation community, unless otherwise agreed upon with the landowner and/or road authorities.

Dairyland will consider the inclusion of pollinator species based on availability of local genotypes, appropriateness for the location/site, and landowner preference. For example, even if a site would otherwise support pollinator habitat, if the landowner intends to instead plant and maintain turf grass, the parcel would be restored in accordance with the landowner’s preference. Similarly, if a parcel is in agricultural production, depending on the timing of restoration, a cover crop may be planted to minimize erosion in the short-term, but pollinator or native species would not be planted in recognition of the fact that the parcel will return to agricultural production.

### 5.7.2 Permanent Seeding of Wetland Areas

The Project would cross approximately 2,400 feet of wetlands consisting of forested and emergent wetland types. Construction mats will be placed in these wetlands for vegetation clearing and access; however, Dairyland plans to span these wetlands to avoid structure placement within the wetlands where practical. Therefore, Dairyland does not anticipate the need to grade within these wetland communities. Dairyland will continue to manage woody vegetation within these wetlands as further discussed in **Section 7.0**.

In wetlands, the preferred method for revegetation of disturbed areas is reliance on revegetation by resident plant communities. However, supplemental seeding may be beneficial at some

locations to improve cover of bare soils and increase diversity. Dairyland will use a wetland seed mix in Table 4-2 that most closely corresponds to the native vegetation community to seed large bare soil disturbance areas (i.e., greater than 50 square feet of exposed soils that is greater than two feet wide) (see Table 4-2). No fertilizer, lime, or mulch will be applied in wetlands.

There is a forested/emergent wetland complex located between MPs 12.8 to 12.9 that occurs within the McCarthy Lake Minnesota Biological Survey site. This site is potentially a Rare Natural Community and requires additional consultation with the MDNR. Dairyland will coordinate with the MDNR regarding the appropriate restoration of this location.

### **5.7.3 Permanent Seeding of Waterbody Banks**

Dairyland will reestablish stream bank vegetation as needed using the seed mix the southeast and south and west regions. Dairyland crosses the public water, Gorman Creek, which is managed by the MDNR. Dairyland will coordinate with the MDNR regarding the appropriate restoration of this location.

### **5.7.4 Timing**

Native plant seed mixes are often planted in the fall, generally after November 1, or when temperatures are below 50 degrees Fahrenheit for a consistent period of time in order to stratify the seeds to break their seed dormancy. Snow seeding may also be conducted in early or late winter when there is less than 4 inches of snow on sunny days. Spring seedings should be done around May 1 to June 30, or when soil temperatures at least 60 degrees Fahrenheit or higher. Outside of these time windows, the cover crop seed mixes will be applied according to temporary cover crop seed mix specifications, as shown above in Table 4-1.

## 6. INSPECTIONS

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After construction, Dairyland will inspect areas where seeding and erosion control measures have been implemented and will follow up with reseeding measures where vegetative cover by the specified seed mix, or revegetation by the local, native seed source, is inadequate to provide long term stability and sustainable permanent cover. The Project ROW will be monitored until permanent cover is achieved.

## 7. OPERATION & MAINTENANCE

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Dairyland’s primary goal is to construct the Project and then operate and maintain the Project and its ROW in a manner that ensures a safe and reliable transmission line.

In response to widespread outages in the United States in the early 2000s, Congress enacted the Energy Policy Act of 2005, which authorized the Federal Energy Regulatory Commission (FERC) to certify an Electric Reliability Organization (ERO) to create mandatory, enforceable reliability standards; the standards are subject to FERC review and approval. FERC subsequently designated NERC as the ERO tasked with developing and enforcing standards to ensure the reliability of the transmission system in North America. NERC’s standards are developed using a results-based approach that focus on performance, risk management, and entity capabilities, and using an American National Standards Institute-accredited process that ensures the process is open to all persons directly and materially affected by the reliability of the North American bulk power system.<sup>20</sup>

More specifically, NERC developed its Reliability Standard FAC-003 Transmission Vegetation Management Program and began enforcement of that standard in 2007. In recognition of the fact that failure to address vegetation requirements can cause major power outages and injury, NERC is authorized to assess regulatory penalties for non-compliance. This standard is updated from time to time and is reviewed and approved by FERC, just like other NERC reliability standards. NERC has determined that “[m]ajor outages and operational problems have resulted from interference between overgrown vegetation and transmission lines located on many types of lands and ownership situations” and that adhere to standard requirements “will reduce and manage this risk.”<sup>21</sup> The purpose of the NERC standard is:

*To maintain a reliable electric transmission system by using a defense- in-depth[-]strategy to manage vegetation located on transmission rights of way (ROW) and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.*<sup>22</sup>

For transmission lines subject to NERC standards, compliance with these standards is required. And, even for transmission lines which are not subject to NERC standards, ensuring safe and reliable construction and operation is paramount. While the Project is not subject to NERC standards, it is Dairyland’s general practice to follow the standards for its 161-kV transmission lines. The purpose of this Plan is to meet the objective of a safe and reliable transmission line,

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<sup>20.</sup> See North American Electric Reliability Corporation, *Standards*, available at <https://www.nerc.com/pa/Stand/Pages/default.aspx>.

<sup>21.</sup> 2 E.g., NERC, *FAC-003-4 Transmission Vegetation Management*, available at <https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-4.pdf>.

<sup>22.</sup> *Id.*

consistent with applicable laws, permits, and other requirements, while also minimizing human and environmental impacts associated with vegetation management to the extent possible.

## **7.1 ROUTINE INSPECTIONS**

Dairyland will conduct aerial and/or ground visual inspections of the ROW every year to ensure a safe and reliable corridor and to ensure access for maintenance activities or emergencies. Maintenance work will be based on the findings of those inspections.

## **7.2 ROUTINE MAINTENANCE**

Dairyland will periodically clear vegetation from the 100-foot-wide ROW to maintain a safe and apparent corridor, and to allow access for maintenance activities or emergencies. The clearing will be done consistent with the practices outlined in **Section 7.3**. Clearing typically includes brushing equipment traveling down the right-of-way, which may consist of tracked or rubber-tired equipment to cut brush and trees, hand-held saws, or other manual methods. Small cuttings will be left in place, non-merchantable timber or slash will be disposed of where it originates, hauled off-site, or chipped and evenly spread on the ROW. If burning is proposed, Dairyland will consult with landowners, as well as applicable authorities to obtain necessary authorization or permits.

Project-specific maintenance techniques and mitigation measures include:

- If the surface is unstable such that rutting, soil compaction, or soil mixing may occur, low ground-pressure equipment will be used or maintenance equipment will be operated from weed-free mats or temporary timber corduroy that will be removed upon completion of the work.
- Steep slopes and slopes leading to waterbodies will be cleared by hand, leaving adequate herbaceous or low shrub cover to avoid erosion. Trees and shrubs will not be grubbed; all roots will be left intact.
- Vegetation management requirements stipulated in any MDNR, MnDOT, or local governmental unit licenses or permits will be followed.
- All extra work areas (such as staging areas and additional spoil storage areas) will be located outside of wetland boundaries, where topographic conditions permit. If topographic conditions do not permit, an alternate location or matting will be used to minimize impacts.

Due to the typically unstable nature of soils in wetlands, and to preserve wetland hydrology and function, special practices are necessary for some operations and maintenance activities as follows:

- Heavy equipment passage through wetlands will be limited to only when necessary to complete the activity.



Dairyland will attempt to complete maintenance clearing during frozen conditions. When frozen conditions are not practicable, maintenance will be done using low ground-pressure equipment (ATVs and the like), after installing temporary matting or corduroy, or with hand tools.

Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed one inch in depth. If sufficient brush is present such that debris will exceed one-inch, sufficient brush will be hauled out for processing in an upland area.

Wetlands generally revegetate naturally. If no standing water is present, Dairyland will use a wetland seed mix in Table 4-2 that most closely corresponds to the native vegetation community. No fertilizer or lime will be applied in wetlands.

### **7.3 FALL LINE TREES**

Dairyland will cut all trees which may strike line facilities, including stub, guy and anchor facilities, based upon the application of a standard fall line calculation through an average 6-year growth horizon of the species identified adjacent to the ROW. Danger trees are typically any tree that is leaning, damaged, having poor root structure, or showing signs of internal decay such that Dairyland's ROW inspectors believe all or portions of the tree may fall into the transmission line. Dairyland's easements authorize the removal of danger trees outside of the ROW. Danger tree removal is a critical aspect of ensuring transmission line reliability and fire prevention. Healthy trees located outside of the ROW with a limited number of limbs and branches that extend within the ROW may be trimmed such that the limbs are completely removed from the ROW.

### **7.4 EMERGENCIES**

It may be necessary for Dairyland to cut, trim or remove vegetation due to damage caused by weather events or accidents. Such work is typically done to facilitate restoring services on the line. Dairyland will attempt to notify the landowner prior to entering the property.

## 8. GLOSSARY OF TERMS

<b>Term</b>	<b>Definition</b>
ATV	All-Terrain Vehicle
BMPs	Best Management Practices
Dairyland, or the Applicant	Dairyland Power Cooperative
dBh	diameter at breast height
DOC	Department of Commerce
ECD	erosion control device
EERA	Department of Commerce, Energy Environmental Review and Analysis
ERO	Electric Reliability Organization
FERC	Federal Energy Regulatory Commission
HVTL	High voltage transmission line
INS	invasive and noxious species
kV	Kilovolt
MBS	MDNR Minnesota Biological Survey
MDA	Minnesota Department of Agriculture
MDNR	Minnesota Department of Natural Resources
MnDOT	Minnesota Department of Transportation
NERC	North American Electric Reliability Corporation
PLS	Pure Live Seed
Project	Wabasha Relocation Project
Proposed Alignment	Proposed Alignment is used to refer to the centerline location of the transmission line and structures. The Proposed Alignment follows an approximately 13.3-mile route starting in the vicinity of Structure X-Q3-75 on Dairyland's LQ34 161-kV transmission line northeast of the Town of Plainview, Minnesota in Wabasha County to the new 4-acre Kellogg Substation.
Proposed Route or Project Route Width	The Proposed Route is a larger area that is inclusive of the Proposed Alignment and the Kellogg Substation.
ROW	right-of-way
VMP, or Plan	Vegetation Management Plan

# Appendix J

## Detailed Emissions Calculations

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Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Summary

Description	Emissions (tons per year)					
	NOx	CO	VOC	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road Engine Emissions	40.71	8.72	2.86	0.02	1.51	1.51
Unpaved Roads	--	--	--	--	4.77	0.48
Commuters and Delivery Vehicles	19.50	3.79	0.75	0.01	0.59	0.59
Earthmoving	--	--	--	--	12.18	1.29
<b>TOTAL</b>	<b>60.20</b>	<b>12.51</b>	<b>3.61</b>	<b>0.03</b>	<b>19.05</b>	<b>3.86</b>

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Emission Factors for Construction Engines

Equipment	Quantity <sup>a</sup>	Hours per Day	Days per Week	Number of Weeks	Total Hours Used <sup>b</sup>	Max Power (HP)	Load Factor <sup>c</sup>	Loaded Power (HP)	Emission Factors <sup>d,e</sup> (g/hp hr)					
									VOC	CO	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
Air Compressor	1	10	6	21	1,260	80	1	80	0.367	2.366	4.700	0.240	0.240	0.002
ATV	4	10	6	56	13,440	20	0.5	10	0.438	2.161	4.440	0.267	0.267	0.002
Backhoe - line	2	10	6	16	1,920	75	0.8	60	0.367	2.366	4.700	0.240	0.240	0.002
Backhoe - substation	1	10	6	8	480	75	0.8	60	0.367	2.366	4.700	0.240	0.240	0.002
Bulldozer - line	2	10	6	16	1,920	250	1	250	0.309	0.748	4.000	0.132	0.132	0.002
Bulldozer - substation	1	10	6	8	480	250	1	250	0.309	0.748	4.000	0.132	0.132	0.002
Compactor - line	1	10	6	16	960	300	1	300	0.167	0.843	4.335	0.132	0.132	0.002
Compactor - substation	1	10	6	8	480	300	1	300	0.167	0.843	4.335	0.132	0.132	0.002
Compactor, Vibratory - line	1	10	6	16	960	100	1	100	0.338	0.867	4.100	0.180	0.180	0.002
Compactor, Vibratory - substation	1	10	6	8	480	100	1	100	0.338	0.867	4.100	0.180	0.180	0.002
Fork Lift - line	1	4	6	21	504	120	1	120	0.167	0.843	4.335	0.132	0.132	0.002
Fork Lift - substation	1	4	6	8	192	120	1	120	0.167	0.843	4.335	0.132	0.132	0.002
Concrete Mixer Truck	2	6	3	8	288	325	1	325	0.338	0.867	4.100	0.180	0.180	0.002
Concrete Pump	1	10	1	2	20	300	1	300	0.338	0.867	4.100	0.180	0.180	0.002
Dump Truck - line	3	10	6	41	7,380	325	0.8	260	0.338	0.867	4.100	0.180	0.180	0.002
Dump Truck - substation	1	10	6	8	480	325	0.8	260	0.338	0.867	4.100	0.180	0.180	0.002
Excavator - line	2	10	6	11	1,320	138	1	138	0.309	0.748	4.000	0.132	0.132	0.002
Excavator - substation	1	10	6	8	480	138	1	138	0.309	0.748	4.000	0.132	0.132	0.002
Front End Loader - line	2	10	6	16	1,920	196	1	196	0.309	0.748	4.000	0.132	0.132	0.002
Front End Loader - substation	1	10	6	8	480	196	1	196	0.309	0.748	4.000	0.132	0.132	0.002
Generator	2	10	6	51	6,120	250	0.5	125	0.167	0.843	4.335	0.132	0.132	0.002
Guided Bore Machine	0	0	0	0	0	150	0.8	120	0.637	2.366	4.700	0.240	0.240	0.002
Light Tower	1	4	6	6	144	50	1	50	0.309	0.748	4.000	0.132	0.132	0.002
Manlift	2	8	6	21	2,016	50	1	50	0.338	0.867	4.100	0.180	0.180	0.002
Pickup Truck	10	6	6	56	20,160	150	0.25	38	0.167	0.843	4.335	0.132	0.132	0.002
Piping Truck	2	10	6	18	2,160	300	1	300	0.309	0.748	4.000	0.132	0.132	0.002
Skid steer loader	8	8	6	41	15,744	50	1	50	0.309	0.748	4.000	0.132	0.132	0.002
Water truck	1	6	6	13	468	100	0.5	50	0.637	2.366	4.700	0.240	0.240	0.002
Welding machine	1	8	6	11	528	35	0.8	28	0.367	2.366	4.700	0.240	0.240	0.002
Grader	2	10	6	11	1,320	35	0.8	28	0.438	2.161	4.44	0.267	0.259	0.002
Large Crane	1	8	2	2	32	15	0.21	3	0.438	2.161	4.44	0.267	0.259	0.002
Medium Crane	4	6	6	16	2,304	450	0.7	315	0.3085	0.7475	4.0	0.132	0.128	0.002
Fuel Truck	1	2	2	39	156	200	0.59	118	0.3085	0.7475	4.0	0.132	0.128	0.002
Hydrovac Truck	1	4	3	16	192	200	0.59	118	0.3085	0.7475	4.0	0.132	0.128	0.002
Road Bore Machine	0	0	0	0	0	260	0.79	205	0.3085	0.7475	4.0	0.132	0.128	0.002
6-inch Water Pump	0	0	0	0	0	30	0.69	21	0.438	2.161	4.44	0.267	0.259	0.002
4-inch Water Pump	1	10	6	8	480	10	0.69	7	0.438	2.161	4.44	0.267	0.259	0.002
2-inch Water Pump	0	0	0	0	0	5	0.69	3	0.438	2.161	4.44	0.267	0.259	0.002
Pile Driver	0	0	0	0	0	49	1	49	0.2789	1.5323	4.7279	0.3389	0.3389	0.002
100 HP Tractor	1	10	3	6	180	100	0.21	100	0.338	0.867	4.1	0.18	0.18	0.002
Semitruck/Trailer	4	10	4	51	8,160	500	0.59	500	0.167	0.843	4.335	0.132	0.132	0.002
Boom Truck	5	8	6	41	9,840	50	1	50	0.338	0.867	4.1	0.18	0.18	0.002
Bucket Truck	6	10	6	31	11,160	50	1	50	0.338	0.867	4.1	0.18	0.18	0.002

<sup>a</sup> Equipment counts based on experience with construction of a similar projects.

<sup>b</sup> Generally assumes work will occur 7 am - 7 pm, Monday through Saturday, for a total of 72 work hours per week over 20 weeks

<sup>c</sup> Load Factors from Appendix A of EPA 420\_P 04 005, Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, USEPA, April 2004.

<sup>d</sup> EPA 420 P 04 009, Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling Compression Ignition, USEPA, April 2004 Tier 2 Engines.

<sup>e</sup> GHG emission factors from Title 40 Subchapter C Part 98 Subpart C Table C-1 and C-2 to Subpart C.

Assumption:

393.5 hp-hr/MMBtu  
453.6 g/lb



Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Emission Estimates from Construction Engines

Equipment	Potential Emissions (ton/yr)					
	VOC	CO	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
Air Compressor	4.08E-02	0.263	0.522	0.027	0.027	0.000
ATV	6.49E-02	0.320	0.658	0.039	0.039	0.000
Backhoe - line	4.66E-02	0.300	0.597	0.030	0.030	0.000
Backhoe - substation	1.17E-02	0.075	0.149	0.008	0.008	0.000
Bulldozer - line	1.63E-01	0.396	2.116	0.070	0.070	0.001
Bulldozer - substation	4.08E-02	0.099	0.529	0.017	0.017	0.000
Compactor - line	5.30E-02	0.267	1.376	0.042	0.042	0.001
Compactor - substation	2.65E-02	0.134	0.688	0.021	0.021	0.000
Compactor, Vibratory - line	3.58E-02	0.092	0.434	0.019	0.019	0.000
Compactor, Vibratory - substation	1.79E-02	0.046	0.217	0.010	0.010	0.000
Fork Lift - line	1.11E-02	0.056	0.289	0.009	0.009	0.000
Fork Lift - substation	4.24E-03	0.021	0.110	0.003	0.003	0.000
Concrete Mixer Truck	3.49E-02	0.089	0.423	0.019	0.019	0.000
Concrete Pump	2.24E-03	0.006	0.027	0.001	0.001	0.000
Dump Truck - line	7.16E-01	1.833	8.672	0.381	0.381	0.004
Dump Truck - substation	4.66E-02	0.119	0.564	0.025	0.025	0.000
Excavator - line	6.19E-02	0.150	0.803	0.026	0.026	0.000
Excavator - substation	2.25E-02	0.055	0.292	0.010	0.010	0.000
Front End Loader - line	1.28E-01	0.310	1.659	0.055	0.055	0.001
Front End Loader - substation	3.20E-02	0.078	0.415	0.014	0.014	0.000
Generator	1.41E-01	0.710	3.656	0.111	0.111	0.002
Guided Bore Machine	0.00E+00	0.000	0.000	0.000	0.000	0.000
Light Tower	2.45E-03	0.006	0.032	0.001	0.001	0.000
Manlift	3.76E-02	0.096	0.456	0.020	0.020	0.000
Pickup Truck	1.39E-01	0.702	3.613	0.110	0.110	0.002
Piping Truck	2.20E-01	0.534	2.857	0.094	0.094	0.001
Skid steer loader	2.68E-01	0.649	3.471	0.114	0.114	0.002
Water truck	1.64E-02	0.061	0.121	0.006	0.006	0.000
Welding machine	5.98E-03	0.039	0.077	0.004	0.004	0.000
Grader	1.78E-02	0.088	0.181	0.011	0.011	0.000
Large Crane	4.87E-05	0.000	0.000	0.000	0.000	0.000
Medium Crane	2.47E-01	0.598	3.200	0.106	0.102	0.002
Fuel Truck	6.26E-03	0.015	0.081	0.003	0.003	0.000
Hydrovac Truck	7.70E-03	0.019	0.100	0.003	0.003	0.000
Road Bore Machine	0.00E+00	0.000	0.000	0.000	0.000	0.000
6-inch Water Pump	0.00E+00	0.000	0.000	0.000	0.000	0.000
4-inch Water Pump.	1.60E-03	0.008	0.016	0.001	0.001	0.000
2-inch Water Pump	0.00E+00	0.000	0.000	0.000	0.000	0.000
Pile Driver	0.00E+00	0.000	0.000	0.000	0.000	0.000
100 HP Tractor	6.71E-03	0.017	0.081	0.004	0.004	0.000
Semitruck/Trailer	7.51E-01	3.791	19.496	0.594	0.594	0.009
Boom Truck	1.83E-01	0.470	2.224	0.098	0.098	0.001
Bucket Truck	2.08E-01	0.533	2.522	0.111	0.111	0.001
<b>TOTAL</b>	<b>3.61</b>	<b>12.51</b>	<b>60.20</b>	<b>2.10</b>	<b>2.10</b>	<b>0.03</b>

Global Warming Potentials		
CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
1	25	298

Source: Title 40 Part 98 Table A-1.

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Fugitive Dust Emissions from Unpaved Roads

Equipment	Quantity <sup>a</sup>	Total Days		W	Emission Factor (lb/VMT) <sup>c</sup>		Emissions (ton/yr)	
		Used	VMT <sup>b</sup>		PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
ATV	4	1,344	672	20	1.73	0.17	0.58	0.06
Backhoe - line	2	192	96	50	2.62	0.26	0.13	0.01
Backhoe - substation	1	48	24	51	2.64	0.26	0.03	0.00
Bulldozer - line	2	192	96	20	1.73	0.17	0.08	0.01
Bulldozer - substation	1	48	24	21	1.77	0.18	0.02	0.00
Fork Lift - line	1	126	63	20	1.73	0.17	0.05	0.01
Fork Lift - substation	1	48	24	21	1.77	0.18	0.02	0.00
Concrete Mixer Truck	2	48	24	20	1.73	0.17	0.02	0.00
Dump Truck - line	3	738	369	21	1.77	0.18	0.33	0.03
Dump Truck - substation	1	48	24	22	1.81	0.18	0.02	0.00
Excavator - line	2	132	66	22	1.81	0.18	0.06	0.01
Excavator - substation	1	48	24	23	1.85	0.18	0.02	0.00
Front End Loader - line	2	192	96	23	1.85	0.18	0.09	0.01
Front End Loader - substation	1	48	24	24	1.88	0.19	0.02	0.00
Boom Truck	5	1,230	615	24	1.88	0.19	0.58	0.06
Pickup Truck	10	3,360	1,680	24	1.88	0.19	1.58	0.16
Piping Truck	2	216	108	25	1.92	0.19	0.10	0.01
Skid steer loader	8	1,968	984	26	1.95	0.20	0.96	0.10
Water truck	1	78	39	20	1.73	0.17	0.03	0.00
Welding Machine	1	66	33	20	1.73	0.17	0.03	0.00
Grader	2	132	66	20	1.73	0.17	0.06	0.01
Large Crane	1	4	2	50	2.62	0.26	0.00	0.00
Medium Crane	4	384	192	25	1.92	0.19	0.18	0.02
Semitruck/Trailer	4	816	408	25	1.92	0.19	0.39	0.04
Bucket Truck	6	1,116	558	24	1.88	0.19	0.53	0.05
4-inch Water Pump	1	48	24	25	1.92	0.19	0.02	0.00
<b>TOTAL</b>	--	--	--	--	--	--	<b>4.77</b>	<b>0.48</b>

<sup>a</sup> Equipment counts are estimated based current construction plan.

<sup>b</sup> Each vehicle is assumed to travel 0.5 mile per day on site.

<sup>c</sup> AP-42 Section 13.2.2 Unpaved Roads, dated November 2006, Equations 1a and 2 TOTALS 11.19 1.12 Surface Silt content based on Table 13.2.2 1 construction sites.

Eq 1a:  $E = k * (s/12)^a * (W/3)^b$

Eq 2:  $E_{ext} = E * [(365-P)/365]$

where:

VMT = Vehicle Miles Traveled

W = Mean Vehicle Weight, tons

S = Mean Vehicle Speed, mph

**P** = 120 days with at least 0.01 inches rain, EPA's AP-42 Figure 13.2.2-1

**s** = 8.5 surface material silt content (%) for construction sites, EPA's AP-42 Table 13.2.2-1

E = size-specific emission factor, lb/ VMT

$E_{ext}$  = annual size-specific emission factor extrapolated for natural migration, lb/VMT

Constants	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>k (lb/VMT)</b>	4.9	1.5	0.15
<b>a</b>	0.7	0.9	0.9
<b>b</b>	0.45	0.45	0.45

Miles traveled per day

0.5

0.5

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Fugitive Dust Emissions from Earthmoving Activities

Summary of Fugitive Dust Emissions From Earthmoving Activities							
Construction Activity	Daily Material Handling		Average Exposed Area (acres)	Emission Factors <sup>a-c</sup> (lb/ton)		Emissions (ton)	
	Construction Rate (ton/day)	Handling Time (days)		PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Topsoil removed by scraper <sup>d</sup>	903.4	384	---	0.058	0.0061	10.06	1.06
Topsoil replacement	903.4	384	---	0.012	0.0013	2.08	0.23
Wind erosion of exposed areas	--	384	172.01	0.38	0.03999	0.03	0.00
<b>TOTAL</b>						<b>12.18</b>	<b>1.29</b>

Notes and Assumptions:

<sup>a</sup> As worst case, PM<sub>10</sub> is set equal to Total Particulate Matter. PM<sub>2.5</sub> is set to 0.105 times PM<sub>10</sub> per Table 11.9 1.

<sup>b</sup> Emission factor: AP 42 Section 11.9 Western Surface Coal Mining, Table 11.9 4, July 1998, topsoil removal by scraper.

<sup>c</sup> Wind Erosion Exposed Areas emission factor: AP 42 Section 11.9 Western Surface Coal Mining, Table 11.9 4, July 1998, wind erosion of exposed areas (ton/year/acre).

<sup>d</sup> Assumes the entire workspace is cleared to 1 foot deep, 1.25 tons per cubic yard, for the entire duration of the project. This is highly conservative, as only areas required for construction will be disturbed.

Construction Schedule		
Work Days per week	6	Monday through Saturday
Weeks	64	
Total Days	384	

Topsoil Removed by Scraper				
Facility	Total <sup>a</sup> (Acres)	Soil Volume <sup>b</sup> (yd <sup>3</sup> )	Soil Weight <sup>c</sup> (ton)	Daily Material Handling Rate (ton/day)
Substation	10.8	17,424	21,780	57
Replacement line (13.3 miles)	161.2	260,089	325,111	847
<b>TOTAL</b>	<b>172.0</b>	<b>277,513</b>	<b>346,891</b>	<b>903</b>

<sup>a</sup> Conservatively assumes the entire 100-foot route width is disturbed.

<sup>b</sup> Assumes the top 12 inches of topsoil is removed.

<sup>c</sup> Assumes soil density: 1.25 tons per yard

Conversions:

1 acre	43560 ft <sup>2</sup>
Depth of topsoil removed	12 inches
Depth of topsoil removed	1 feet
1 yd <sup>3</sup>	27 ft <sup>3</sup>
1 mile	5280 feet

Route width	100 ft
Route length	13.3 miles
	70224 feet
Route area	7022400 ft <sup>2</sup>
	161.2121212 acres

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Summary

<b>Greenhouse Gas Emissions From Construction Engines</b>				
<b>Description</b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub>e<sup>a</sup></b>
Off-Road Engine Emissions	2,697.87	0.11	0.02	2,707.20
Commuters and Delivery Vehicles	188.09	0.00	0.00	188.09
<b>TOTAL</b>	<b>2,885.96</b>	<b>0.11</b>	<b>0.02</b>	<b>2,895.30</b>

<sup>a</sup> CO<sub>2</sub>e = carbon dioxide equivalent. Includes global warming potentials from 40 CFR 98 Table A-1.

<b>Global Warming Potentials</b>		
<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>
1	25	298

Source: 40 CFR 98 Table A-1: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98#Table-A-1-to-Subpart-A-of-Part-98>

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Greenhouse Gas Emissions from On Road Construction Traffic

<b>On-Road Vehicles</b>					
	<b>Vehicles per day</b>	<b>Miles per vehicle</b>	<b>Number of Days</b>	<b>Fuel Used (gallons)</b>	<b>CO<sub>2</sub> Emissions<sup>a</sup> (tons)</b>
Commuter Vehicles - Gasoline <sup>b,c</sup>	10	60	384	9,600	94
Delivery Trucks - Diesel <sup>d</sup>	4	60	204.0	7,532	84.5
Concrete Mixer Trucks - Diesel <sup>e</sup>	2	60	24.0	847	9.5

<sup>a</sup> Assumes 1 gallon of gasoline = 8,887 grams CO<sub>2</sub> and 1 gallon of diesel = 10,180 g CO<sub>2</sub>, per US EPA's "Greenhouse Gas Emissions from a Typical Passenger Vehicle," available online at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100U8YT.pdf>

<sup>b</sup> Assumes commuters travel 30 miles each way (60 miles round trip) per day, with a fuel economy of 24 miles per gallon, per US EPA and US Department of Energy Fuel Economy data for combined city and highway driving in 2023, available online at: <https://www.fueleconomy.gov/feg/download.shtml>.

<sup>c</sup> Assumes commuters will travel for 44 weeks, 6 days a week.

<sup>d</sup> Assumes delivery trucks travel 30 miles each way (60 miles round trip) per day, with a fuel economy of 6.5 miles per gallon, industry average.

<sup>e</sup> Assumes concrete mixer trucks travel 30 miles each way (60 miles round trip) per day, with a fuel economy of 3.4 miles per gallon, industry average.

[http://ascpro0.ascweb.org/archives/cd/2012/paper/CPRT221002012.pdf#:~:text=The%20National%20Ready%20Mix%20Concrete%20Associatio](http://ascpro0.ascweb.org/archives/cd/2012/paper/CPRT221002012.pdf#:~:text=The%20National%20Ready%20Mix%20Concrete%20Association%20%28NRMCA%29%20in,average%203.4%20miles%20per%20gallon%20of%20diesel%20fuel.)  
n%20%28NRMCA%29%20in,average%203.4%20miles%20per%20gallon%20of%20diesel%20fuel.

1 short ton =	907,185	grams
1 gal gasoline =	8,887	g CO <sub>2</sub>
1 gal diesel =	10,182	g CO <sub>2</sub>

Commuter Vehicle MPG=	24
Delivery Trucks (Diesel) MPG=	6.5
Concrete Mixer Truck MPG=	3.4

Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Emission Factors for Construction Engines

Equipment	Quantity <sup>a</sup>	Hours per Day	Days per Week	Number of Weeks	Total Hours Used <sup>b</sup>	Max Power (HP)	Load Factor <sup>c</sup>	Loaded Power (HP)	Emission Factors <sup>d,e</sup> (g/hp hr)		
									CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Air Compressor	1	10	6	21	1,260	80	1	80	188.262	0.008	0.002
ATV	4	10	6	56	13,440	20	0.5	10	188.262	0.008	0.002
Backhoe - line	2	10	6	16	1,920	75	0.8	60	188.262	0.008	0.002
Backhoe - substation	1	10	6	8	480	75	0.8	60	188.262	0.008	0.002
Bulldozer - line	2	10	6	16	1,920	250	1	250	188.262	0.008	0.002
Bulldozer - substation	1	10	6	8	480	250	1	250	188.262	0.008	0.002
Compactor - line	1	10	6	16	960	300	1	300	188.262	0.008	0.002
Compactor - substation	1	10	6	8	480	300	1	300	188.262	0.008	0.002
Compactor, Vibratory - line	1	10	6	16	960	100	1	100	188.262	0.008	0.002
Compactor, Vibratory - substation	1	10	6	8	480	100	1	100	188.262	0.008	0.002
Fork Lift - line	1	4	6	21	504	120	1	120	188.262	0.008	0.002
Fork Lift - substation	1	4	6	8	192	120	1	120	188.262	0.008	0.002
Concrete Mixer Truck	2	6	3	8	288	325	1	325	188.262	0.008	0.002
Concrete Pump	1	10	1	2	20	300	1	300	188.262	0.008	0.002
Dump Truck - line	3	10	6	41	7,380	325	0.8	260	188.262	0.008	0.002
Dump Truck - substation	1	10	6	8	480	325	0.8	260	188.262	0.008	0.002
Excavator - line	2	10	6	11	1,320	138	1	138	188.262	0.008	0.002
Excavator - substation	1	10	6	8	480	138	1	138	188.262	0.008	0.002
Front End Loader - line	2	10	6	16	1,920	196	1	196	188.262	0.008	0.002
Front End Loader - substation	1	10	6	8	480	196	1	196	188.262	0.008	0.002
Generator	2	10	6	51	6,120	250	0.5	125	188.262	0.008	0.002
Guided Bore Machine	0	0	0	0	0	150	0.8	120	188.262	0.008	0.002
Light Tower	1	4	6	6	144	50	1	50	188.262	0.008	0.002
Manlift	2	8	6	21	2,016	50	1	50	188.262	0.008	0.002
Pickup Truck	10	6	6	56	20,160	150	0.25	38	188.262	0.008	0.002
Piping Truck	2	10	6	18	2,160	300	1	300	188.262	0.008	0.002
Skid steer loader	8	8	6	41	15,744	50	1	50	188.262	0.008	0.002
Water truck	1	6	6	13	468	100	0.5	50	188.262	0.008	0.002
Welding machine	1	8	6	11	528	35	0.8	28	188.262	0.008	0.002
Grader	2	10	6	11	1,320	35	0.8	28	188.262	0.008	0.002
Large Crane	1	8	2	2	32	15	0.21	3	188.262	0.008	0.002
Medium Crane	4	6	6	16	2,304	450	0.7	315	188.262	0.008	0.002
Fuel Truck	1	2	2	39	156	200	0.59	118	188.262	0.008	0.002
Hydrovac Truck	1	4	3	16	192	200	0.59	118	188.262	0.008	0.002
Road Bore Machine	0	0	0	0	0	260	0.79	205	188.262	0.008	0.002
6-inch Water Pump	0	0	0	0	0	30	0.69	21	188.262	0.008	0.002
4-inch Water Pump	1	10	6	8	480	10	0.69	7	188.262	0.008	0.002
2-inch Water Pump	0	0	0	0	0	5	0.69	3	188.262	0.008	0.002
Pile Driver	0	0	0	0	0	49	1	49	188.262	0.008	0.002
100 HP Tractor	1	10	3	6	180	100	0.21	100	188.262	0.008	0.002
Semitruck/Trailer	4	10	4	51	8,160	500	0.59	500	188.262	0.008	0.002
Boom Truck	5	8	6	41	9,840	50	1	50	188.262	0.008	0.002
Bucket Truck	6	10	6	31	11,160	50	1	50	188.262	0.008	0.002

<sup>a</sup> Equipment counts based on experience with construction of a similar projects.

<sup>b</sup> Generally assumes work will occur 7 am - 7 pm, Monday through Saturday, for a total of 72 work hours per week over 20 weeks

<sup>c</sup> Load Factors from Appendix A of EPA 420\_P 04 005, Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, USEPA, April 2004.

<sup>d</sup> EPA 420 P 04 009, Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling Compression Ignition, USEPA, April 2004 Tier 2 Engines.

<sup>e</sup> GHG emission factors from Title 40 Subchapter C Part 98 Subpart C Table C-1 and C-2 to Subpart C.

Assumption:

393.5 hp-hr/MMBtu

453.6 g/lb



Dairyland Power Cooperative  
Wabasha Relcoation Project  
Appendix G: Construction Emission Calculations  
Emission Estimates from Construction Engines

Equipment	Potential Emissions (ton/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Air Compressor	20.92	8.5E-04	1.7E-04	20.99
ATV	27.89	1.1E-03	2.3E-04	27.99
Backhoe - line	23.91	9.7E-04	1.9E-04	23.99
Backhoe - substation	5.98	2.4E-04	4.8E-05	6.00
Bulldozer - line	99.61	4.0E-03	8.1E-04	99.95
Bulldozer - substation	24.90	1.0E-03	2.0E-04	24.99
Compactor - line	59.77	2.4E-03	4.8E-04	59.97
Compactor - substation	29.88	1.2E-03	2.4E-04	29.99
Compactor, Vibratory - line	19.92	8.1E-04	1.6E-04	19.99
Compactor, Vibratory - substation	9.96	4.0E-04	8.1E-05	10.00
Fork Lift - line	12.55	5.1E-04	1.0E-04	12.59
Fork Lift - substation	4.78	1.9E-04	3.9E-05	4.80
Concrete Mixer Truck	19.42	7.9E-04	1.6E-04	19.49
Concrete Pump	1.25	5.1E-05	1.0E-05	1.25
Dump Truck - line	398.20	1.6E-02	3.2E-03	399.56
Dump Truck - substation	25.90	1.1E-03	2.1E-04	25.99
Excavator - line	37.80	1.5E-03	3.1E-04	37.93
Excavator - substation	13.75	5.6E-04	1.1E-04	13.79
Front End Loader - line	78.10	3.2E-03	6.3E-04	78.36
Front End Loader - substation	19.52	7.9E-04	1.6E-04	19.59
Generator	158.76	6.4E-03	1.3E-03	159.30
Guided Bore Machine	0.00	0.0E+00	0.0E+00	0.00
Light Tower	1.49	6.1E-05	1.2E-05	1.50
Manlift	20.92	8.5E-04	1.7E-04	20.99
Pickup Truck	156.89	6.4E-03	1.3E-03	157.43
Piping Truck	134.48	5.5E-03	1.1E-03	134.94
Skid steer loader	163.36	6.6E-03	1.3E-03	163.92
Water truck	4.86	2.0E-04	3.9E-05	4.87
Welding machine	3.07	1.2E-04	2.5E-05	3.08
Grader	7.67	3.1E-04	6.2E-05	7.70
Large Crane	0.02	8.5E-07	1.7E-07	0.02
Medium Crane	150.61	6.1E-03	1.2E-03	151.13
Fuel Truck	3.82	1.5E-04	3.1E-05	3.83
Hydrovac Truck	4.70	1.9E-04	3.8E-05	4.72
Road Bore Machine	0.00	0.0E+00	0.0E+00	0.00
6-inch Water Pump	0.00	0.0E+00	0.0E+00	0.00
4-inch Water Pump.	0.69	2.8E-05	5.6E-06	0.69
2-inch Water Pump	0.00	0.0E+00	0.0E+00	0.00
Pile Driver	0.00	0.0E+00	0.0E+00	0.00
100 HP Tractor	3.74	1.5E-04	3.0E-05	3.75
Semitruck/Trailer	846.70	3.4E-02	6.9E-03	849.60
Boom Truck	102.10	4.3E-03	1.1E-03	102.53
Bucket Truck	115.80	4.9E-03	1.2E-03	116.29
<b>TOTAL</b>	<b>2,697.87</b>	<b>1.1E-01</b>	<b>2.2E-02</b>	<b>2,707.20</b>

Global Warming Potentials		
CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
1	25	298

Source: Title 40 Part 98 Table A-1.

# Appendix K

## Unanticipated Discoveries Plan

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# **DAIRYLAND POWER COOPERATIVE**

## **CULTURAL RESOURCES UNANTICIPATED DISCOVERIES PLAN WABASHA RELOCATION PROJECT**

**March 2024**



A Touchstone Energy® Cooperative 

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Appendix A: SHPO and Law Enforcement Contact Information



**CULTURAL RESOURCES UNANTICIPATED DISCOVERIES PLAN  
WABASHA RELOCATION PROJECT**

**I. INTRODUCTION**

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This document outlines the procedures that Dairyland Power Cooperative (Dairyland) will follow to prepare for and address any unanticipated cultural resource discoveries during ground disturbing pre-construction activities and construction of the Wabasha Relocation Project (Project) in Minnesota. Such discoveries include archaeological deposits and human remains. This plan provides step-by-step directions for Dairyland personnel and their contractors to follow in the event that unanticipated discoveries are made during ground-disturbing construction activities associated with the Project. Inadvertent discoveries on state and private land shall comply with applicable state notification standards, federal laws, Title 36 Code of Federal Regulations (CFR) Part 800.13, and the Advisory Council on Historic Preservation’s (ACHP’s) Policy Statement Regarding Treatment of Burial Sites, Human Remains, or Funerary Objects (February 23, 2007).

The requirements of the Unanticipated Discoveries Plan must be incorporated into all construction contracts and must be in keeping with confidentiality restrictions. Dairyland personnel and their contractors shall protect information about historic properties to the extent allowed by Section 304 of the National Historic Preservation Act (54 United States Code (USC) § 307103), 36 CFR Part 800.11(c), and other applicable state and local laws. This will include specifically protecting information on properties of traditional religious and cultural significance to Indian tribes to which the consulting parties may become privy, including protecting location information or information provided by Native American tribes to assist in the identification of such properties. **Copies of this plan must be made available to field personnel onsite.**

**II. WORKFORCE  
EDUCATION**

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Dairyland will be responsible for advising construction personnel and all other contractors involved in earthmoving or other ground disturbing activities on the proper procedures to follow in the event that an unanticipated discovery is made,

1. Stop work immediately if they observe any indications of the presence of cultural materials (artifacts or other man-made features 50 years old or older), animal bone, or suspected human bone.
2. Contact the Dairyland Environmental Lead and Dairyland Field Supervisors assigned to the Project immediately:

Name	Title	Phone Number	Role
TBD			

3. Contact the Dairyland Project Manager as soon as possible:

Name: Sage Williams

Title: Manager, Transmission Operations and Development

Office: 608-791-2993 Mobile: TBD

Email: Sage.Williams@DairylandPower.com

Address: 3200 East Avenue South, La Crosse, WI 54602-0817

4. Comply with the unanticipated discovery procedures outlined in this document.
5. Treat human remains and any associated objects with dignity and respect.

### **III. PROCEDURE WHEN CULTURAL MATERIALS ARE DISCOVERED**

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Cultural materials may include prehistoric man-made objects (e.g., prehistoric pottery or chipped stone tools and flakes), historic-era items (e.g., artifacts that are not prehistoric, but which are more than 50 years old) and features (e.g., foundation walls, wells, privies, cisterns), or other remnants of cultural activity.

In the event that any member of the project work force believes that a cultural resource discovery is encountered, the following plan will be implemented:

1. All work, including vehicular traffic, must immediately stop within a 50-foot radius of the discovery and the Dairyland Project Manager will be immediately notified of the discovery.
2. For all discoveries, work must also stop in the surrounding area where further historic properties, subsurface burial sites, or human remains can reasonably be expected to occur.
3. Stopping work for such discoveries is the responsibility of Project-affiliated personnel who made the discovery, in coordination with other Project workers at the discovery site and supervisors overseeing the on-site work, and in communication with the appropriate representative(s) of Dairyland. Personnel working on site will be directed, informed, and authorized by Dairyland to protect discoveries following the procedures outlined in this Unanticipated Discoveries Plan.
4. Within 24 hours of receiving notification of an inadvertent discovery, the Dairyland Project Manager shall notify the State Historic Preservation Office (SHPO) and appropriate local authorities, and will have the work site inspected to ensure that all work, including vehicular traffic, has ceased, and to protect the area of discovery from looting and vandalism.
5. All archaeologists or other specialists employed in response to inadvertent discoveries will be Secretary of the Interior-qualified and have the knowledge to assess the cultural resources. Dairyland will assess the National Register of Historic Places eligibility of the

archaeological resource in consultation with the relevant SHPO and other stakeholders as appropriate.

6. If the discovery is within the U.S. Army Corps of Engineers Lands (USACE) land or within USACE-permitted areas, the USACE must authorize evaluation of the discovery. The permittee, or its representative, shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer or an approved archaeologist to determine the appropriate actions to take pursuant to the provisions of law and 36 CFR 800.7 (resources discovered during construction) to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of the evaluation. Any decisions as to proper mitigation measures will be made by the authorized officer after consulting the permittee. If the discovery is made where the Project crosses a Minnesota Department of Natural Resources public water, coverage from the USACE pursuant to 33 USC § 1344 Sec. 404 would occur.
7. Work may continue in other areas of the undertaking where no historic properties, burial sites, or human remains are found. If an inadvertent discovery appears to be a consequence of illegal activity such as looting, onsite personnel will contact the appropriate legal authorities immediately if the landowner has not already done so.
8. Work may not resume in the area of the discovery until it has determined that the appropriate state and local protocols have been satisfied and Consulting Partings have been consulted.

#### ***IV. TREATMENT OF HUMAN REMAINS***

At all times, human remains must be treated with the utmost dignity and respect, and in a manner consistent with the ACHP's Policy Statement on the Treatment of Human Remains, Burial Sites and Funerary Objects.

1. Dairyland is committed and will make every effort to protect and preserve all human remains, including cemeteries, prehistoric graves, and isolated skeletal elements, during Project-related construction activities.
2. If a discovery containing human remains is located, treatment of human remains and any related grave goods or burial materials will comply with the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC § 3001 et. seq.) and its implementing regulations (43 CFR Part 10). NAGPRA specifically applies to human remains and related items located on Federal and tribal lands or in the possession or control of any institution or state or local government receiving federal funds (NAGPRA 43 CFR Part 10.1[b][ii]).
3. Dairyland will implement the procedures below immediately upon receipt of notification of the inadvertent discoveries of human remains and objects associated with a human burial. This plan dictates simultaneous initial notification of both the Office of the State Archaeologist (OSA) and Minnesota Indian Affairs Council (MIAC) as follows:

- a) If unmarked human burial or skeletal remains are encountered during construction activities, Dairyland will comply with Minnesota’s “Private Cemeteries Act” (Minnesota Statutes (Minn. Stat.) §307.08) as revised in 2023.
- b) The On-site manager/Contractor shall immediately halt all ground disturbing work within a 100-foot radius from the point of discovery and implement measures to protect the discovery from looting and vandalism. No digging, collecting, or moving human remains or other items shall occur after the initial discovery. Protection measures may include the following:
  - i. Flag the buffer zone around the find spot.
  - ii. Ensure adequate security is in place to keep workers, press, and curiosity seekers away from the find spot until the status of the discovery can be determined.
  - iii. Tarp the find spot.
  - iv. Prohibit photography of the find unless requested by the agency official.
  - v. Have an individual stay at the location to prevent further disturbance until a law enforcement officer arrives.
- c) Dairyland will notify the local law enforcement agency (County Sheriff). As required by Minn. Stat. §307.08, Dairyland will also notify the OSA and MIAC of the find.
  - a. If Native American human remains or funerary objects are discovered during the Project on land administered by a Federal agency, Dairyland will notify the USACE, and the USACE has the responsibility for complying with applicable federal laws.
  - b. The USACE must notify the both the OSA and MIAC simultaneously of all discoveries of Native American human remains or funerary objects.
  - c. The USACE must also notify consulting tribes and may notify tribes that have indicated interest in the Project’s Section 106 process and tribes that have been invited to consult on the Project of all discoveries of Native American human remains or funerary objects. Notifications of such discoveries may not be limited to consulting tribes.
- d) If local law enforcement determines that the remains are not associated with a crime, the Federal or State Agency responsible for the Project shall determine if it is prudent and feasible to avoid disturbing the remains.
- e) If the Federal Agency in consultation with Dairyland determine that disturbance cannot be avoided, the OSA and MIAC will determine acceptable procedures for the removal, treatment and repatriation of the burial or remains. The OSA and MIAC shall ensure that Dairyland implements the plan for removal, treatment and disposition of the burial or remains as authorized by the OSA and MIAC.
- f) If such burials are not American Indian or their ethnic identity cannot be ascertained, as determined by the OSA, they shall be dealt with in accordance with provisions established by the OSA and other appropriate authority.
- g) If such burials are American Indian, as determined by the OSA and MIAC, efforts shall be made to follow procedures as defined in 25 USC § 3001 et seq., and its

implementing regulations, 43 CFR Part 10, within reservation boundaries. For burials outside of reservation boundaries, the procedures defined in 25 USC § 3001 et seq., and its implementing regulations, 43 CFR Part 10, are at the discretion of MIAC.

## Appendix A: SHPO and Law Enforcement Contact Information

Sage Williams

Phone: (608) 791-2993

Email: [Sage.Williams@DairylandPower.com](mailto:Sage.Williams@DairylandPower.com)

Address: 3200 East Avenue South, La Crosse, WI 54602-0817

TBD, USACE Section 404 Project Manager

TBD, USACE Channel & Harbors (USACE-Property)

Will Seuffert, Minnesota Public Utilities Commission

Phone: 651-201-2217

Email: [will.seuffert@state.mn.us](mailto:will.seuffert@state.mn.us)

Address: 121 7th Place E, Suite 350, St. Paul, MN 55101

Amanda Gronhovd, Minnesota State Archaeologist, Office of the State Archaeologist

Phone: (651) 201-2263

Email: [Amanda.gronhovd@state.mn.us](mailto:Amanda.gronhovd@state.mn.us)

Address: 328 W Kellogg Blvd, St. Paul, MN 55102

Sarah Beimers, Environmental Review Program Manager, Minnesota State Historic Preservation Office

Phone: (651) 201-3290

Email: [sarah.beimers@state.mn.us](mailto:sarah.beimers@state.mn.us)

Address: Department of Administration, 50 Sherburne Avenue, Suite 203, St. Paul, MN 55155

Melissa Cerda, Senior Cultural Resources Specialist, Minnesota Indian Affairs Council

Phone: (651) 539-2200

Email: [melissa.cerda@state.mn.us](mailto:melissa.cerda@state.mn.us)

Address: 161 St. Anthony Ave, Ste. 919, St. Paul, MN 55103

Rodney Barsh, Wabasha County Sherriff

Phone: (651) 565-3361

Email: [rbartsh@co.wabasha.mn.us](mailto:rbartsh@co.wabasha.mn.us)

Address: 848 17<sup>th</sup> Street East, Wabasha, MN 55981

Robert Reichard, Wabasha County Medical Examiner

Phone: (507) 284-3880

Address: 200 1<sup>st</sup> St, Rochester, MN 55905



# Appendix L

## Public Outreach Materials

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Dairyland Power Cooperative  
3200 East Avenue South  
P.O. Box 817  
La Crosse, WI 54602

## Wabasha Relocation Project

Join us at our upcoming open house – in person, or online. We need your feedback on relocation of transmission lines in your area. Your feedback will inform the route development process.



### WE WANT TO HEAR FROM YOU

Call: 608-791-2993

Visit: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)

Email: [connect@dairylandtransmissionproject.com](mailto:connect@dairylandtransmissionproject.com)



October 2023

## LEARN MORE ABOUT THE WABASHA RELOCATION PROJECT

The Wabasha Relocation Project will relocate an existing electric transmission line that serves a critical role in providing reliable electric service to homes and businesses in southeast Minnesota.

As a critical services provider, Dairyland Power Cooperative is relocating this existing transmission line on a new right-of-way.

## PUBLIC OPEN HOUSES

Join us for in-person or virtual open houses to learn more and provide your feedback.

### In-person open houses:

Thursday, November 9,  
11 am-1pm **OR** 4-6pm

Self-guided online open house available starting November 2.



### Learn more.

Call: 608-791-2993

Visit: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)

Email: [connect@dairylandtransmissionproject.com](mailto:connect@dairylandtransmissionproject.com)

Additional details and a project map are inside this postcard.

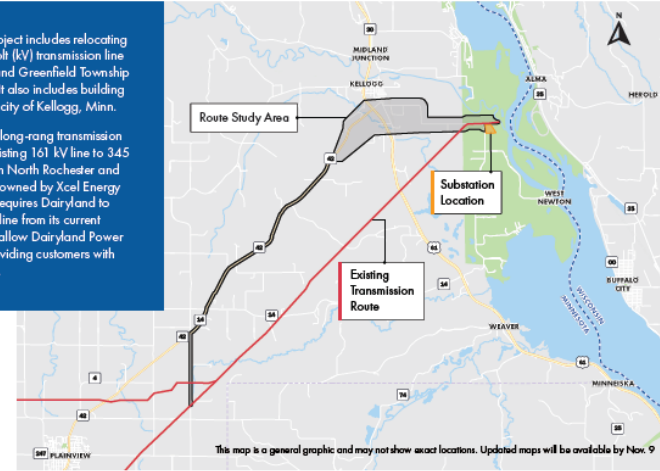


## Postcard

### LEARN MORE ABOUT THE WABASHA RELOCATION PROJECT

The Wabasha Relocation Project includes relocating about 14 miles of 161-kilovolt (kV) transmission line between Plainview, Minn., and Greenfield Township in Wabasha County, Minn. It also includes building a new substation east of the city of Kellogg, Minn.

In 2020, MISO identified a long-rang transmission project that upgrades the existing 161 kV line to 345 kV along a corridor between North Rochester and Alma. The new 345 kV line, owned by Xcel Energy and other project partners, requires Dairyland and other project partners, requires Dairyland to relocate the existing 161 kV line from its current location. The new route will allow Dairyland Power Cooperative to continue providing customers with reliable and resilient energy.



This map is a general graphic and may not show exact locations. Updated maps will be available by Nov. 9

## OPEN HOUSE SCHEDULE



Join us in-person  
Thursday, November 9, 2023  
11 am-1pm **OR** 4-6pm  
Saint Agnes Catholic Church  
125 W. Glasgow Ave.  
Kellogg, MN 55945



Join us online  
Nov. 2 through Nov. 23  
Self-guided online open house,  
[www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)

Provide feedback and learn more:

- ▶ Visit: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)
- ▶ Call: 608-791-2993
- ▶ Email: [connect@dairylandtransmissionproject.com](mailto:connect@dairylandtransmissionproject.com)

## PROJECT TIMELINE

We currently anticipate the following schedule during project development. Stay up to date on any changes to the timeline at [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project).

\* Schedule is subject to change.

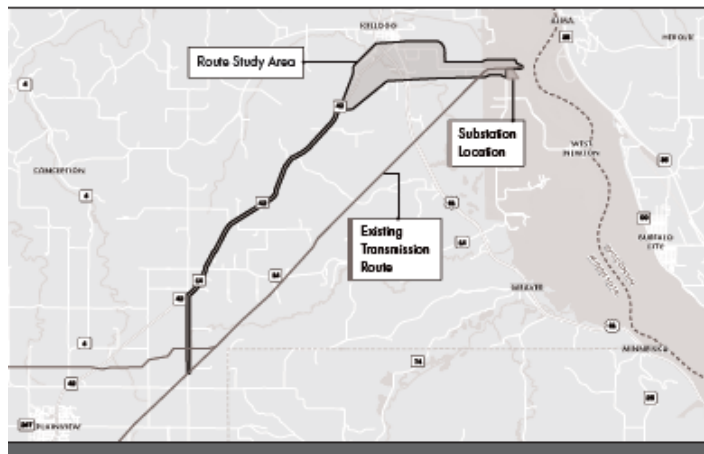
2022	2023	2024 – 2025	2026 – 2027	2028
Project identified by MISO	<ul style="list-style-type: none"> <li>Begin route development process</li> <li>Public and stakeholder outreach</li> <li>Preliminary engineering</li> </ul>	<ul style="list-style-type: none"> <li>Submit Route Permit Application (RPA)</li> <li>Land surveying and design</li> <li>Working with landowners to purchase easements</li> <li>Acquire additional permits</li> </ul>	Construction	In-service and project area restoration

## Newspaper Ad

# Wabasha Relocation Project



The Wabasha Relocation Project includes relocating about 14 miles of 161 kilovolt (kV) transmission line between Plainview, Minn., and Greenfield Township in Wabasha County, Minn. It also includes building a new substation east of the city of Kellogg, Minn.



Join us at our upcoming open house—in person, or online to learn more and provide your feedback on relocation of transmission lines in your area. Your feedback will inform the route development process.

### IN-PERSON PUBLIC OPEN HOUSE



Thursday,  
November 9, 2023  
11 am-1 pm OR 4-6 pm

📍 Saint Agnes Catholic Church  
115 W. Belvidere Ave.  
Kellogg, MN 55945

### SELF-GUIDED ONLINE OPEN HOUSE



Available anytime  
Nov. 2 – Nov. 23



Scan the code or visit:  
[dairylandpower.com/  
wabasha-relocation-project](http://dairylandpower.com/wabasha-relocation-project)

### FOR MORE INFORMATION

[www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)  
[connect@dairylandtransmissionproject.com](mailto:connect@dairylandtransmissionproject.com)  
608-791-2993

# Stakeholder Letter



3200 East Avenue South  
P.O. Box 817  
La Crosse, WI 54602

October 19, 2023

NAME  
TITLE  
ORGANIZATION  
ADDRESS  
CITY, STATE, ZIP CODE

**RE: Wabasha Relocation Project – Upcoming Engagement Opportunities**

Hello [name],

Dairyland Power Cooperative is proposing to relocate about 14 miles of transmission line between Plainview, Minn., and Greenfield Township in Wabasha County, Minn. The Wabasha Relocation Project will relocate an existing electric transmission line that serves a critical role in providing reliable electric service to homes and businesses in southeast Minnesota. You are invited to participate in an open house to share your feedback on the project and proposed route.

### About the Project

The Wabasha Relocation Project includes relocating about 14 miles of 161-kilovolt (kV) transmission line between Plainview, Minn., and Greenfield Township in Wabasha County, Minn. It also includes building a new substation east of the city of Kellogg, Minn.

In 2020, MISO identified a long-range transmission project that upgrades the existing 161 kV line to 345 kV along a corridor between North Rochester and Alma. The new 345 kV line, owned by Xcel Energy and other project partners, requires Dairyland to relocate the existing 161 kV line from its current location on a new right-of-way. The new route will allow Dairyland Power Cooperative to continue providing customers with reliable and resilient energy.

### Open Houses – In Person and Online

Dairyland Power Cooperative is currently gathering information in preparation for filing its route permit application with the Minnesota Public Utilities Commission (PUC), planned for early Winter 2024. Join us for in-person or online open houses to learn more about the project and share your insights:

- **Date:** Thursday, November 9
- **Time:** 11 am-1 pm or 4-6 pm
- **Location:** Saint Agnes Catholic Church (115 W. Belvidere Ave., Kellogg, MN 55945)

There will be no formal presentation. The same information will be on display at both open houses for participants to review at their own pace, and staff will be available to answer questions. Refreshments will be served.

At your convenience, a self-guided online open house will also be available from Nov. 2 through Nov. 23 at [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project). This website will have all of the information available at the in-person open house along with opportunities to provide feedback online.

You can also share your feedback in other ways:

- Visit: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)
- Email: [Connect@DairylandTransmissionProject.com](mailto:Connect@DairylandTransmissionProject.com)
- Call: [608-791-2993](tel:608-791-2993)

All comments received from the in-person and online open houses will be factored into our proposed route.

**At your convenience, please RSVP if you are planning to attend the in-person open house by November 8 at [Connect@DairylandTransmissionProject.com](mailto:Connect@DairylandTransmissionProject.com) with your name, contact information and the meeting time that best aligns with your schedule.** Refreshments will be served, so please let us know in your RSVP if you have food allergies or restrictions. You can also contact us at 608-791-2993.

Sincerely,

[signature]

Sage Williams  
Manager – Transmission Operations and Development  
Dairyland Power Cooperative

## Stakeholder Email

### Dairyland LRTP 4 Stakeholder Email Notice

**Subject: You're Invited! Wabasha Relocation Project – Upcoming Open Houses**

#### WABASHA RELOCATION PROJECT

Greetings,

You're invited to participate in an open house to share your feedback on a proposed transmission line relocation project in your area. This project will allow Dairyland Power Cooperative to continue providing reliable electric service to homes and businesses in southeast Minnesota.

#### About the Project

The Wabasha Relocation Project includes relocating about 14 miles of 161-kilovolt (kV) transmission line between Plainview, Minn., and Greenfield Township in Wabasha County, Minn. It also includes building a new substation east of the city of Kellogg, Minn.

#### In-Person Open House

We are currently gathering information in preparation for filing our route permit application with the Minnesota Public Utilities Commission (PUC), planned for early Winter 2024. Join us for in-person or online open houses to learn more about the project and share your insights:

- **Date:** Thursday, November 9
- **Time:** 11 am-1 pm or 4-6 pm
- **Location:** Saint Agnes Catholic Church (115 W. Belvidere Ave., Kellogg, MN 55945) - [view map](#)

There will be no formal presentation. The same information will be on display at both open houses for participants to review at their own pace, and staff will be available to answer questions.

\*\*RSVP by November 8 at [Connect@DairylandTransmissionProject.com](mailto:Connect@DairylandTransmissionProject.com) with your name, contact information and the meeting time that best aligns with your schedule. Refreshments will be served, so please let us know in your RSVP if you have food allergies or [restrictions](#).\*\*

#### Online Open House

At your convenience, a self-guided online open house will also be available from Nov. 2 through Nov. 23 at [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project).

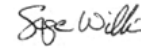
All comments received from the in-person and online open houses will be considered in the route development process.

#### Contact Us

Visit: [www.dairylandpower.com/wabasha-relocation-project](http://www.dairylandpower.com/wabasha-relocation-project)

Email: [Connect@DairylandTransmissionProject.com](mailto:Connect@DairylandTransmissionProject.com)


Call: [608-791-2993](tel:608-791-2993)



Sage Williams  
Manager – Transmission Operations and Development  
Dairyland Power Cooperative



**Social Media Posts**



**Wabasha  
Relocation Project**

JOIN US IN PERSON:

**Nov. 9**  
11 am-1 pm  
or 4-6 pm

OR ONLINE:

**Nov. 2 – 23**



**Wabasha  
Relocation Project**



**Online  
engagement  
available**

THROUGH NOV. 23

## Agency and Tribal Letter



December 18, 2023

NAME  
AGENCY  
ADDRESS  
EMAIL

Re: **In the Matter of the Application of Dairyland Power Cooperative to Relocate an Existing 161-kV Transmission Line in Wabasha County, Minnesota MPUC Docket Nos. ET3/CN-23-504 and ET3/TL23-388**

Dear NAME:

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) and construct a new substation in Wabasha County, Minnesota (the Wabasha Relocation Project, or the Project). The Project starts in Plainview Township, northeast of the Town of Plainview, and traverses northeast through Highland, Watopa, and Greenfield Townships, ending east of the City of Kellogg near the Mississippi River.

The Project is a reroute of approximately 10.4 miles of the existing Dairyland LQ34 161-kV transmission line which is presently located on the existing CapX2020 Hampton-Rochester-LaCrosse 345-kV structures. In July 2020, the Midwest Independent System Operator (MISO) approved a long-range transmission portfolio including a new Wilmarth-North Rochester-Tremval transmission line. This new 345-kV line would utilize the double circuit capability of the CapX2020 system between North Rochester and Alma, Wisconsin. Therefore, Dairyland's existing 161-kV transmission line must be removed from the existing CapX2020 structures and relocated to make room for the new 345-kV circuit on the CapX2020 structures.

The Project would involve installation of 70- to 110-foot-high steel monopoles placed 400 to 800 feet apart within a 100-foot-wide right-of-way, and construction of a new substation east of the City of Kellogg, Minnesota. The enclosed Project Fact Sheet provides additional information on the Project, including a map of the Project area and proposed route.

Dairyland plans to file a joint Certificate of Need and Route Permit application (Application) with the Minnesota Public Utilities Commission (Commission) in March 2024. Dairyland would appreciate any input you may have on the Project and the proposed route. This letter, and any responses received, will be submitted along with Dairyland's Application. There will also be numerous public input opportunities as part of the Commission's Certificate of Need and Route Permit process.

We would welcome the opportunity to meet with you regarding the proposed Project. If you would like to request a meeting, please contact me at 608-791-2993 or [Sage.Williams@Dairylandpower.com](mailto:Sage.Williams@Dairylandpower.com).<sup>1</sup> We also welcome written comments, and I am available to answer any questions you have.

Sincerely,

DAIRYLAND POWER COOPERATIVE

A handwritten signature in black ink that reads "Sage Williams".

Sage Williams  
Manager, Transmission Operations and Development

Encl: Project Fact Sheet

<sup>1</sup> This letter is intended to serve as notice of the opportunity for a pre-application consultation meeting under Minn. Stat. § 216E.03, subd. 3a.

A Touchstone Energy<sup>®</sup> Cooperative The logo for Touchstone Energy, featuring a stylized sun or star symbol with rays in red, orange, and yellow.

3200 East Ave. S. • PO Box 817 • La Crosse, WI 54602-0817 • 608-788-4000 • 608-787-1420 fax • [www.dairylandpower.com](http://www.dairylandpower.com)

Dairyland Power Cooperative is an equal opportunity provider and employer.



Dairyland Power Cooperative  
 Manager, Transmission Operations and Development  
 3200 East Avenue South  
 P.O. Box 817  
 La Crosse, WI 54602-0817

## Wabasha Relocation Project

### Project Overview

Dairyland Power Cooperative (Dairyland) is proposing to relocate approximately 13.3 miles of 161-kilovolt (kV) high voltage transmission line (HVTL) in Wabasha County (the Project). The Project will make room for a second 345-kV circuit to be attached to the existing CapX Hampton-Rochester-LaCrosse (CapX) structures, which extend diagonally northeast from the Town of Plainview to the City of Kellogg, Minnesota. The Project will allow Dairyland to maintain its transmission system, supply the Wabaco Substation, and provide power to the Town of Plainview and neighboring areas. Once the 161-kV transmission line has been relocated to the new right of way, the existing transmission circuit located on the CapX 2020 345-kV structures will be transferred to Xcel Energy. Structures would consist of 70- to 110-foot steel monopoles with spans of 400 to 800 feet apart. Dairyland will seek a 100-foot-wide right-of-way – 50 feet on each side of the centerline.

This Project also includes the construction of a new substation proposed near the City of Kellogg. This substation is required because the new CapX 345-kV circuit across the Mississippi River will eliminate Dairyland's existing 69-kV transmission line crossing and connection to the Alma Station in Wisconsin. The new Kellogg Substation will supply power to Dairyland's existing north-south 69-kV transmission line supplying the Weaver Substation, which provides power to communities within the southeast Minnesota area.

### Permitting and Public Involvement

Dairyland plans to submit a Certificate of Need and Route Permit Application to the Minnesota Public Utilities Commission (Commission) in March 2024. During this process, the public and regulatory agencies will have several opportunities to review and provide input on the Project, including public meetings hosted by the Commission and the Department of Commerce Energy Environmental Review and Analysis (DOC-EERA). DOC-EERA will also prepare an environmental assessment for the Project that will be available for public review. Once the Commission issues a decision, Dairyland will finalize the Project route and obtain any additional permits needed from federal, state, and local agencies.

### Landowner Coordination and Easement Negotiation

After Dairyland submits the Certificate of Need and Route Permit application to the Commission, a representative from Dairyland will contact property owners to discuss access to the Proposed Route and the process for acquisition of easements. Dairyland will continue to engage with landowners throughout the permitting process to answer any questions they may have regarding the easement process or the Project, including those with respect to construction or operation of the transmission line.

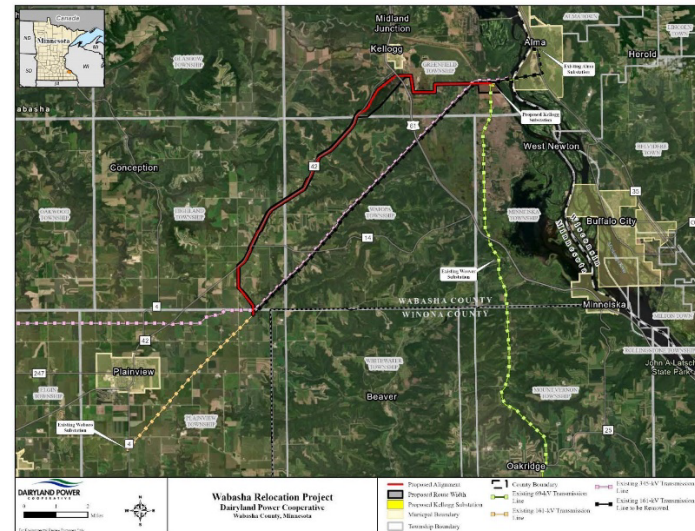
### About Dairyland

Dairyland is a Touchstone Energy Cooperative formed in December 1941 and based in La Crosse, Wisconsin. Dairyland provides wholesale electrical requirements to more than 700,000 people through its 24 distribution cooperatives and 27 municipals in a four-state area including Wisconsin, Minnesota, Iowa, and Illinois.



Dairyland Power Cooperative  
 Manager, Transmission Operations and Development  
 3200 East Avenue South  
 P.O. Box 817  
 La Crosse, WI 54602-0817

Project Schedule	
Timeframe	Project Phase/Activity
November 2023	Notifications and Open Houses
Winter 2024 – Summer 2025	Certificate of Need and Route Permit
Summer/Fall 2025	Survey/Design
Winter 2025 – Fall 2025	Easements/Additional Permits
Spring 2026 – Summer 2027	Construction
Summer 2028	Energyization



Dairyland Representatives	
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