

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David Boyd  
J. Dennis O'Brien  
Phyllis Reha  
Thomas Pugh  
Betsy Wergin

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

Bryan Adams  
Nashwauk Public Utilities Commission  
301 Central Avenue  
Nashwauk, Minnesota 55769

SERVICE DATE: August 2, 2010

DOCKET NO. E-280/TL-09-512

In the Matter of the Application for a HVTL Route Permit for the Essar Steel Transmission Project

The above entitled matter has been considered by the Commission and the following disposition made:

**Approved and adopted the Findings of Fact, Conclusions of Law and Order for the Minnesota Power and Nashwauk Public Utilities Commission's Essar Steel HVTL project which:**

1. **Determines that the environmental impact statement and record created at the public hearing address the issues identified in the EIS Scoping Decision;**
2. **Designates the four (Route 1, 2, 3, and 4) proposed routes and two substation locations (Essar Steel Mine and Essar Steel Plant) as the routes/sites for the construction/implementation of the Essar Steel HVTL project and associated facilities; and**
3. **Issue a HVTL Route Permit, with appropriate conditions, to MP and NPUC.**

The Commission agrees with and adopts the recommendations of the Department of Commerce which are attached and hereby incorporated in the Order.

BY ORDER OF THE COMMISSION



Burl W. Haar  
Executive Secretary



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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS AND RECOMMENDATIONS OF THE  
MINNESOTA OFFICE OF ENERGY SECURITY  
ENERGY FACILITY PERMITTING STAFF

DOCKET NO. E280/TL-09-512

Meeting Date: July 29, 2010.....\* Agenda Item # 11

Company: Nashwauk Public Utilities Commission/Minnesota Power

Docket No. PUC Docket Number: E280/TL-09-512  
**In the Matter of the Application for a HVTL Route Permit for the  
Essar Steel Transmission Project.**

Issue(s): Should the Commission find that the Environmental Impact Statement and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a HVTL Route Permit identifying specific routes and permit conditions for the proposed Essar Steel HVTL project?

DOC Staff: William Cole Storm.....651-296-9535

**Relevant Documents (in Commission Packet).**

- Route Permit Application.....dated June 2009.
- OES Scoping Decision.....dated October 26, 2009.
- Final EIS.....dated May 2010.
- ALJ Report.....dated June 3, 2010.

The enclosed materials are work papers of the Department of Commerce (Department) Office of Energy Security (OES) Energy Facility Permitting (EFP) staff. They are intended for use by the Public Utilities Commission (Commission) and are based on information already in the record unless otherwise noted. This document can be made available in alternative formats; i.e. large print or audio tape by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

## **Documents Attached.**

1. Site map illustrating the four study areas in which the routes will be located.
2. Proposed Findings of Fact, Conclusions, Order.
3. Proposed HVTL Route Permit.

(Note: Relevant documents and additional information can be found on eDockets (E280/TL-09-512) or the PUC Energy Facilities Permitting website

<http://energyfacilities.puc.state.mn.us/Docket.html?id=24526>

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## **Statement of the Issue**

Should the Commission find that the Environmental Impact Statement (EIS) and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a high voltage transmission line (HVTL) route permit identifying specific routes and permit conditions for the proposed Essar Steel HVTL project?

## **Introduction and Background**

Minnesota Statutes 216E.03, subd. 2, provides that no person may construct a high voltage transmission line without a route permit from the Commission. An HVTL is defined as a transmission line of 100 kV or more and greater than 1,500 feet in length in Minnesota Statutes 216E.01, subd. 4. The proposed transmission lines are HVTLs and therefore a route permit is required prior to construction. The application was submitted pursuant to the provisions of the Full Permitting Process outlined in Minnesota Rules 7849.5200 to 7849.5340.

Commission rules establish the requirements for submitting and processing a permit application. The applicant must identify in the application the preferred route for the transmission line and one alternative route. As part of the permitting process, the EFP staff prepares an environmental impact statement (EIS) on the project, and a contested case hearing conducted by an administrative law judge is held. The Commission has up to one year from the time the application is accepted to complete the process and make a decision on the permit.

Minnesota Statute 216B.243, subdivision 2, states that no Large Energy Facility shall be sited or constructed in Minnesota without issuance of a certificate of need by the Commission. The Essar Steel Transmission project meets the definition of a Large Energy Facility under Minn. Stat. 216B.2421, subd. 2. However, the applicant has stated that the proposed project meets the exemption criteria for construction of a high voltage transmission line that serves the demand of a single customer at a single location (Minn. Stat. § 216B.243, subd. 8, item 2). The single customer for this proposed project would be Essar Steel Minnesota (ESM). All four proposed 230 kV transmission lines would terminate at the two proposed 230 kV substations located at the ESM site. Therefore, if the Commission concurs with this position, a Certificate of Need would not be required for the proposed project.

### ***Procedural History***

On June 1, 2009, Nashwauk Public Utilities Commission (NPUC) and Minnesota Power (MP) submitted a high voltage transmission line (HVTL) Route Permit Application to the Commission for the proposed Essar Steel Transmission Project.

The EFP staff submitted its Comments and Recommendations to the Commission on June 21, 2009, concerning the completeness of the route permit application. Staff recommended 1) that the Commission accept the application as complete, 2) authorize the EFP to name a public advisor, and 3) authorize OES EFP staff to establish an advisory task force with the proposed structure and charge for the task force.

On June 25, 2009, the Commission considered the completeness of the HVTL Route Permit Application at its regularly scheduled meeting. The Commission Order, dated June 29, 2009, adopted the recommendations of the EFP. A subsequent Order, dated July 14, 2009, referred this matter to the Office of Administrative Hearings for a contested case proceeding, including the public hearing required as part of the review of the route permit application.

On Wednesday, July 29, 2009, the EFP held a public information/scoping meeting at the Taconite Community Center. The meeting started at 6:00 pm. The purpose of the meeting was to provide information to the public about the proposed project, to answer questions, and to allow the public an opportunity to suggest alternatives and impacts that should be considered during preparation of the environmental review document. Written comments were due no later than Friday, August 14, 2009.

Approximately 65 people attended the public information and scoping meeting; fourteen individuals took the opportunity to speak on the record. A court reporter was present to document oral statements. Fifteen written comments were received.

The major areas of concern expressed during the public comment period included: compatibility with existing and future land use plans (including farming and mining); health and safety issues; cost of the project and who pays; and questions concerning easement acquisition (including buy the farm provisions).

The EFP assembled an Advisory Task Force (ATF) for the NPUC/MP Essar Steel HVTL Project. The ATF role was to assist EFP staff in developing the scope of the Environmental Impact Statement (EIS) and in determining specific impacts and issues of local concern that should be assessed in the EIS.

The ATF met three times: Wednesday, August 5, 2009, Wednesday, September 2, 2009, and Wednesday, September 23, 2009. The meetings were held in the Taconite Community Center from 2:00 pm to 5:30 pm. The ATF, through a facilitated process, 1) discussed potential alternative routes and substation locations, 2) discussed potential impacts and possible mitigations, 3) discussed issues of local concern in consideration of the scope of the environmental review document

The ATF released a report on October 21, 2009. Task force members identified impacts and issues to be addressed in the environmental review document; these included impact to real property, potential health and safety issues, and impacts on mining. The task force could not find consensus around any particular route segment alternatives, or recommend any alternative routes outside those proposed; the ATF did recommend adjustments to some of the proposed alignments.

The OES released its EIS Scoping Decision on October 26, 2009. The OES provided a Notice of Scoping Decision to all parties on the project contact list.

The EFP released the draft EIS (DEIS) on February 12, 2010, for public comment. The deadline for comments on the DEIS was March 26, 2010. The EFP issued a Notice of Availability of Draft Environmental Impact Statement and Notice of Public Meeting, in accordance with Minn. R. 7850.2500, subp. 7 and Minn. R. 4410.2600. The notice announced the availability of the DEIS for public review and comment, as well as the public meeting to be held on March 10, 2010, at the Taconite Community Center. The notice also provided the deadline for submission of written comments on the DEIS.

The public meeting was held as provided for in the Notice of Availability of Draft Environmental Impact Statement and Notice of Public Meeting.

The DEIS meeting was attended by approximately 14 individuals, 5 of whom took the opportunity to speak on the record. OES staff led the presentation and presided over the public meeting. The public was encouraged to provide oral comments at the public meeting and to submit written comments to the EFP by March 26, 2010. A court reporter was present at the public meeting to ensure that all oral comments were recorded accurately.

There were three written comment letters submitted by the public, and there were two written comment letters submitted by public agencies, the Minnesota Department of Transportation (MNDOT) and the Minnesota Department of Natural Resources (MDNR). Additionally there was a written comment letter submitted by the Applicants.

Concerns expressed in the public comments on the DEIS included the affect of the HVTL alignment on real property, health and safety issues, and the treatment of EMF impacts.

None of the proposed routes would run parallel to a Minnesota's trunk highway (TH) close enough to occupy a portion of the highway right-of-way (ROW). However, there is potential for some routes (Route 1A and Route 3) to cross over trunk highways, requiring a Utility Permit from the MNDOT. The Department of Transportation's comment letter laid out MNDOT's policies on ROW encroachment and utility permits.

The Department of Natural Resources comments on the DEIS included several comments on the potential affect of the HVTL on natural resources; these included: Mineral Resources, a conifer stand utilized as a deer winter cover area, the crossing of lakes and streams, avian impacts, and potential impacts to rare, threatened or endangered plant species.

OES issued a Notice of Public Hearings on March 15, 2010, and provided the Notice to all individuals on the project contact list. The notice of the public hearings was published on March 28, 2010, in the *Hibbing Daily Tribune* and *Mesabi Daily News*; and on March 25, 2010, in the *Scenic Range News Forum*. Notice of the public hearings was also published in the *EQB Monitor* on March 8, 2010.

A combined public hearing and evidentiary hearing was held on April 7, 2010, at the Taconite Community Center.

The final EIS was released on May 19, 2010. In preparing the Final EIS, the EFP staff considered all comments to the extent practicable. Based on the comments received on the Draft EIS, EFP prepared responses and modified the EIS where appropriate. The EIS was also revised based on EFP's internal technical and editorial review of the DEIS (i.e., changes made to the EIS that were not in response to a comment received).

On June 3, 2010, the ALJ released his report; the ALJ recommended that the Commission issue a HVTL Route Permit to Minnesota Power and Nashwauk Public Utilities Commission for the construction of the proposed 230 kV transmission lines and associated substations. The ALJ also found the final EIS to be adequate, and prepared in compliance with Minnesota Rules 7850.1000 to 7850.5600.

#### ***Project Description***

NPUC and MP propose to construct four 230 kV transmission lines and two 230 kV substations. The purpose of the project is to supply reliable electric power to a single source entity - Essar Steel Minnesota (ESM). ESM has obtained state approvals to reactivate the former Butler Taconite mine by developing new facilities, including a taconite pellet plant and steel production plant. The Essar taconite pellet facility is expected to commence initial operation by early 2011, with initial steel plant operation planned for early 2014, at which time the projected demand would be approximately 300 megawatts. Although not committed to, ESM has site approvals for a second steel slab melt line, which would increase the ESM facilities' total electric power requirements to approximately 500-550 megawatts if constructed and at full operation.

The four routes would require approximately 37 miles of new transmission lines (See **Study Area Maps**).

#### **Study Area 1 – Shannon end of 94 Line to Essar Steel Plant Substation**

Study Area 1 is bordered by MP's 230 kV Boswell to Shannon 94 Line (94 Line) to the north and the Steel property to the south. The east boundary is two miles east of Minnesota Trunk Highway (TH) 65 and the west boundary is two miles west of TH 65. The proposed transmission line would cross over rugged northern Minnesota forestland. TH 65 and a number of county and secondary roads cross the study area; no other major linear infrastructure (transmission lines, pipelines or railroads) are present. The transmission line routes within this study area would be approximately eight miles long.

### **Study Area 2 – Boswell end of 94 Line to Essar Mine Substation**

Study Area 2 is bordered by the 94 Line on the north and west. The southern border is MP's 115 kV Boswell to Nashwauk 28 Line (28 Line) and the eastern border is the ESM property. The proposed transmission line would cross over rugged northern Minnesota forestland. There are a number of county and secondary roads within the study area. The 28 Line is the only other infrastructure right-of-way present. The transmission line routes within this study area would be approximately 10 miles long.

### **Study Area 3 – Blackberry Substation to Essar Steel Plant Substation**

Study Area 3 is bordered by the City of Nashwauk on the northeast, 28 Line on the north and CSAH 10 to the west. The Blackberry Substation is located at the southern border and MP's 115 kV 62 and 63 Lines are located on the eastern border. The proposed transmission line would cross over rugged northern Minnesota forestland. U.S. Highway 169 travels east/west within the study area. There are a number of county and secondary roads, transmission lines, and gas pipelines within this study area. The transmission line routes within this study area would be approximately 15-18 miles long.

### **Study Area 4 – Essar Mine Substation to Essar Steel Plant Substation**

Study Area 4 is located entirely within ESM property and would connect the two new substations. The ESM plant utility right-of-way, including a new railroad and several secondary roads are located within the study area. The transmission line routes within this study area would be approximately three miles long.

### **Essar Mine Substation**

The Essar Mine Substation would occupy approximately 1.4 acres of land. This substation would be on the western side of the ESM property. The substation would be connected to the 94 Line, via Route 2 or 2A, and would also be connected to the Essar Steel Plant Substation via Route 4 or 4A.

### **Essar Steel Plant Substation**

The Essar Steel Plant Substation would occupy 4.5 acres of land. This substation would be located on the northern portion of the ESM property. The substation would be connected to the Shannon end of the 94 Line, the Blackberry Substation, and the Essar Mine Substation.

## **EFP Staff Analysis and Comments**

EFP staff has reviewed MP and NPUC's application for a HVTL Route Permit and the record. The proposed HVTL project was examined in detail in the EIS and at the public hearings. The proposed HVTL project is suitable for construction and operation at the proposed routes relative to the factors to be considered under Minnesota Rule 7850.4100.

The record supports several specific items that merit consideration relative to special conditions in the HVTL Route Permit for the Essar Steel HVTL project. These items include:

- Deer Wintering Area. Route 2, a 1.6 mile north-south portion west of Riley Lake passes through an area identified by the Minnesota Department of Natural Resources (MDNR)

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as an important deer wintering area. The applicants shall work with representatives of the MDNR (Ecological Services) to select an alignment and/or overhead construction design within Route 2 that minimizes the impact to this resource (See HVTL Route Permit, Section IV.K.1);

- **Botanical Survey.** Known locations of state-listed threatened/endangered plants have been identified within the Study Area 3. These species (i.e., *Botrychium oneidense* and *Platanthera flava* var. *herbiola*) may also occur within the proposed Route 3 if suitable habitat exists. The applicants shall work with representatives of the MDNR (Ecological Services) to determine the need for botanical surveys on the anticipated alignment within Route 3 (See HVTL Route Permit, Section IV.K.2);
- **Mineral Resources.** Route 3, the proposed HVTL crosses the Biwabik Formation and has potential to impact State Trust minerals for which the MDNR has fiduciary responsibility to manage. The applicants shall work with representatives of the MDNR (Division of Lands and Minerals) to determine the most appropriate alignment and/or language (License to Cross Public Lands) to protect these resources (See HVTL Route Permit, Section IV.K.3);

Based on the analysis above, EFP staff makes the following recommendation.

## **Commission Decision Options**

**A. Approve and adopt the Findings of Fact, Conclusions of Law and Order for the Minnesota Power and Nashwauk Public Utilities Commission’s Essar Steel HVTL project (PUC Docket No. E280/TL-09-512) which:**

1. Determines that the environmental impact statement and record created at the public hearing address the issues identified in the EIS Scoping Decision;
2. Designates the four (Route 1, 2, 3, and 4) proposed routes and two substation locations (Essar Steel Mine and Essar Steel Plant) as the routes/sites for the construction/implementation of the Essar Steel HVTL project and associated facilities; and
3. Issue a HVTL Route Permit, with appropriate conditions, to MP and NPUC.

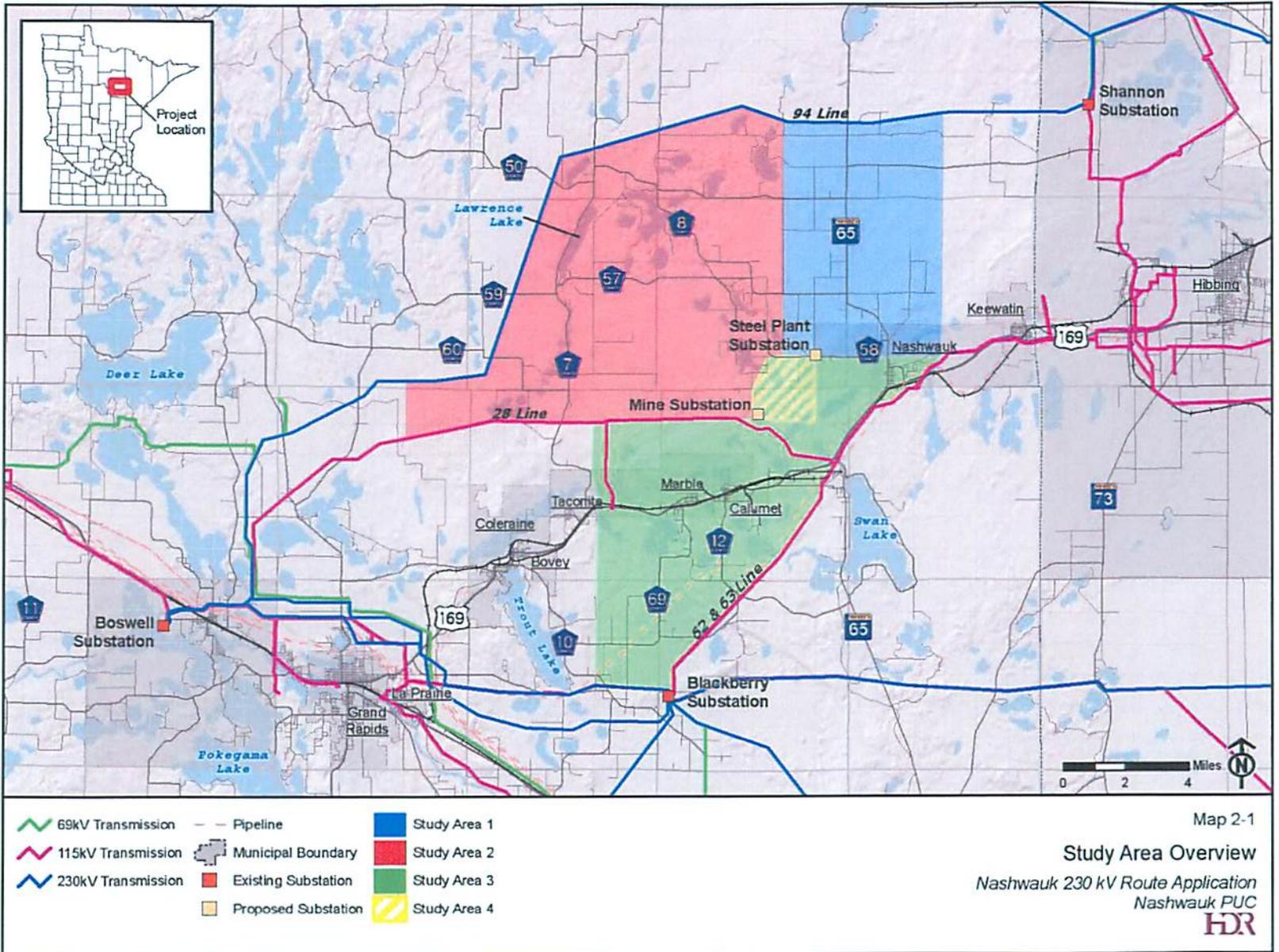
**B. Approve and adopt the Findings of Fact, Conclusions and Order as above while modifying the permit conditions as deemed appropriate.**

**C. Amend the Findings of Fact, Conclusions and Order and Route Permit as deemed appropriate.**

**D. Make some other decision deemed more appropriate.**

***EFP Staff Recommendation:*** Staff recommends Option A.

Map 2-1: Study Area Overview



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David Boyd  
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Chair  
Commissioner  
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In the Matter of the Application by  
Minnesota Power and Nashwauk  
Public Utilities Commission for a  
HVTL Route Permit for the Essar  
Steel 230 kV HVTL in Itasca County.

ISSUE DATE: August 2, 2010

DOCKET NO. E280/TL-09-512

**FINDINGS OF FACT, CONCLUSIONS,  
AND ORDER ISSUING HVTL ROUTE  
PERMIT FOR THE ESSAR STEEL  
HVTL PROJECT**

The above-captioned matter came before the Minnesota Public Utilities Commission (the Commission) on July 29, 2010, acting on an application by Minnesota Power (MP) and Nashwauk Public Utilities Commission (NPUC) for a high voltage transmission line (HVTL) Route Permit to construct four 230 kV HVTLs to service the Essar steel mine and plant in Itasca County Minnesota.

**STATEMENT OF ISSUE**

Should the Commission find that the Environmental Impact Statement and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a HVTL Route Permit identifying specific routes and permit conditions for the proposed Essar Steel HVTL project?

Based upon all of the proceedings herein, the Commission makes the following:

**FINDINGS OF FACT**

1. The Findings of Fact of the Administrative Law Judge in his report dated June 3, 2010, are adopted in their entirety, with the following additional items:

(#57.1) The MDNR (Ecological Services) has identified an area within Route 2, west of O'Reilly Lake that serves as an important deer wintering area. The 1.6 mile portion of Route 2, which runs north-south between the 94 Line and the 28 Line, passes through a stand of conifers that is used by deer for winter cover.

(#59.1) Known locations of state-listed threatened/endangered plants have been identified within the study areas of the proposed routes. These species (i.e., *Botrychium oneidense* and *Platanthera flava* var. *herbiola*) may also occur within the proposed routes if suitable habitat exists.

(#59.2) Portions of proposed Route 3 cross the Biwabik Formation and have potential to impact State-owned minerals for which the MDNR has fiduciary responsibility to manage. The proposed route covers an area on the Mesabi Iron Formation of approximately 1.5 square miles. Although the footprint (i.e., ROW) of the power line itself will not require the entire proposed surface area of the proposed route, it will require a surface area buffer. The underlying mineral resources are encumbered by both the surface area impacted by the overhead HVTLs and infrastructure, as well as the necessary setback buffer area. The setback buffer areas are necessary to protect the power line from blast fly rock and mining equipment.

2. The applicant has agreed to the inclusion of reasonable conditions in the Route Permit.

Based on these Findings of Fact, the Commission makes the following:

### CONCLUSIONS OF LAW

1. The Conclusions of Law of the Administrative Law Judge in his report dated June 3, 2010, are adopted in their entirety.
2. The Commission has the statutory authority to impose reasonable conditions in the site permits it issues.

Based upon the foregoing Findings of Fact and Conclusions of Law, the Commission makes the following:

### ORDER

1. The Commission hereby issues a Route Permit to Minnesota Power and Nashwauk Public Utilities Commission for construction of four 230 kV HVTLs and two substations in Itasca County Minnesota.
2. The HVTL Route Permit shall be issued in the form attached hereto, including the description of the facilities, the description of the routes, and the inclusion of certain conditions.

Approved and adopted this 2nd day of August, 2010

STATE OF MINNESOTA  
Public Utilities Commission



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Burl W. Haar,  
Executive Secretary

**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION**

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH  
VOLTAGE TRANSMISSION LINE AND SUBSTATION**

**IN ITASCA COUNTY**

**ISSUED TO  
MINNESOTA POWER AND NASHWAUK PUBLIC UTILITIES  
COMMISSION**

**PUC DOCKET No. E280/TL-09-512**

In accordance with the requirements of Minnesota Statutes Chapter 216E.03 and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

**MINNESOTA POWER AND NASHWAUK PUBLIC UTILITIES COMMISSION**

Minnesota Power (MP) and Nashwauk Public Utilities Commission (NPUC) are authorized by this route permit to construct approximately 37 miles of new 230 kilovolt (kV) high voltage transmission lines (HVTL) and two new substations in Itasca County in the State of Minnesota.

The transmission line and substation project shall be built within the routes identified in this permit and as portrayed on the attached, official route maps, and in compliance with the conditions specified in this permit.

Approved and adopted this 2nd day of August, 2010

BY ORDER OF THE COMMISSION



Burl W. Haar,  
Executive Secretary

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## **I. ROUTE PERMIT**

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to MP and NPUC (Permittees) pursuant to Minnesota Statutes Chapter 216E.03 and Minnesota Rules Chapter 7850. This permit authorizes the Permittees to build approximately 37 miles of 230 kV transmission line, two new substations and modification of an existing substation in Itasca County.

## **II. PROJECT DESCRIPTION**

Permittees are authorized to construct a project comprising Blackberry Substation modifications, four new HVTLs and two new Substations as described in the Application and detailed below:

1. Route 1. Route 1 taps into the existing 230 kV Boswell to Shannon 94 Line (94 Line Shannon End) approximately 0.75 miles west of State Highway 65. This route then travels 7.5 miles south to the 230 kV Essar Steel Plant Substation. The anticipated alignment is along the western quarter section line of the following: T58N, R23W, Sections 24, 25, and 36; T57N, R23W, Sections 1, 12, 13, 24, and 25. The route width is 3,000 feet.
2. Route 2. Route 2 taps into the existing 230 kV Boswell to Shannon 94 Line (94 Line Boswell End) approximately 1 mile south of where the 94 Line crosses CSAH 60 (T57N, R24W, Section 31). The route then travels south for 1.6 miles to the existing 115 kV 28 Line through Section 6 of T56N, R24W. The route turns east, with an anticipated alignment along the south side of the existing 115 kV 28 Line for 8.4 miles through Sections 6, 5, 4, 3, 2, and 1 of T56N, R24W, and Sections 6, 5, and 4 of T56N, R23W. At this point the route breaks from the 28 Line and continues northeast and then east for 0.75 mile to the 230 kV Essar Mine Substation in Section 3 of T56N, R23W. The route width is 500 feet wide, along existing transmission line right-of-way and 1,500 feet at the west and east sections of the route where no existing right-of-way exist.
3. Route 3. Route 3 would begin at the existing Minnesota Power 230 kV Blackberry Substation (T55N, R23W, Section 19) and travel northeast along the two existing Minnesota Power 115 kV HVTL (63 line and 62 Line). The anticipated alignment is along the west side of the existing Minnesota Power 115 kV 63 Line for 11.4 miles. The existing 115 kV 62 line, located to the west of 63 Line, will be dismantled. The new 230 kV transmission line will then be constructed within the former 62 Line right-of-way. The route follows the 63 Line northeast through Sections 19, 18, 17, 9, 8, 4, and 3 of T55N, R23W, and Sections 34, 35, 27, 26, 24, 23, 13, 12, 7, and 6 of T56N, R22W. The route then turns northwest for 1.9 miles, crossing U.S. Highway 169 and the Hawkins mine, to CSAH 58. The route continues west with the anticipated alignment located along the south side of CSAH 58 for 0.3 mile to a point west of the cemetery. The route crosses CSAH 58 and continues west along the north side of the

highway for 0.8 mile to the Essar Steel Plant Substation. The route passes through Section 31 of T57N, R22W, and Sections 36 and 25 of T57N, P23W, in the section between U.S. Highway 169 and the 230 kV Essar Steel Plant Substation. The route width is 500 feet when following existing transmission lines and 3,500 feet in all other locations.

4. Route 4. Route 4 begins at the proposed 230 kV Essar Mine Substation and travels northeast for approximately 2.5 miles with the anticipated alignment located along the west side of proposed ESML railroad, underground utilities and haul road right-of-way to CSAH 58. At CSAH 58, the route heads east for 0.35 mile with the anticipated alignment located along the north side of the CSAH 58 to the 230 kV Essar Steel Plant Substation. The route extends through Sections 2 and 3 of T56N, P23W and Sections 36, 35, 34, 26, and 25 of T57N, P23W. The route width is 3,000 feet.
5. Essar Steel Mine Substation. The Essar Steel Mine substation will require approximately 1.4 acres of land. The Mine substation would be connected to the Boswell end of the 94 Line via Route 2 and the proposed Plant substation via Route 4. The fenced substation area will be approximately 350 feet by 300 feet and require an access road. Approximately three acres of land will be cleared and graded to construct the proposed steel plant substation. After site grading, a perimeter fence will be installed and construction of the substation will begin.
6. Essar Steel Plant Substation. The Essar Steel Plant substation will require approximately 4.5 acres of land northeast of the intersection of CSAH 58 and Hilltop Road on the north edge of the steel plant operations area. The Plant substation will be connected to the Shannon end of the 94 Line via Route 1; the Blackberry substation via Route 3; and the proposed Mine substation via Route 4. The fenced substation area will be approximately 600 feet by 500 feet and require an access road. Approximately seven acres of land will be cleared and graded to construct the proposed steel plant substation. After site grading, a perimeter fence would be installed and construction of the substation will begin.
7. Blackberry Substation Expansion. The expansion of the Blackberry substation will be on Minnesota Power owned property and within the existing substation fence line. The required modifications include a new 230 kV line exit and a new 230 kV circuit breaker and associated relay, controls and communications. This would involve installing a 230 kV dead end line entrance structure, 230 kV circuit breaker and associated foundations, and 230 kV switches. A new control panel would be installed within the existing substation control house as well as associated control and communications cables.

### **III. DESIGNATED ROUTE**

The approved route is shown on the aerial photos attached to this permit and further designated as follows:

**A. Route Width and Alignment.** The width of the designated routes ranges from 500 feet to 3,000 feet and is indicated on the attached aerial photos. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below. This width will provide the Permittee with the flexibility to do minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions.

The designated route identifies an anticipated alignment that minimizes the overall potential impacts relating to the factors identified in Minn. Rule 7850.4100 and which was evaluated in the environmental review and permitting processes. As such, this permit anticipates that the actual right-of-way will generally conform to this alignment unless changes are requested by individual landowners or unforeseen conditions are encountered, or are otherwise provided for by this permit. Any alignment modifications within this designated route shall be located to have comparable overall impacts relative to the factors in Minn. Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified (i.e., highlight or otherwise specified) in and approved as part of the Plan and Profile submitted pursuant to Part IV.A. of this permit.

Route width variations outside the designated route may be allowed for the Permittee to overcome potential site specific constraints. These constraints may arise from any of the following:

1. Unforeseen circumstances encountered during the detailed engineering and design process.
2. Federal or state agency requirements.
3. Existing infrastructure within the transmission line route, including but not limited to roadways, railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.
4. Planned infrastructure improvements identified by state agencies and LGUs and made part of the evidentiary record during the contested case proceeding for this permit.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside the designated route shall be located to have comparable overall impacts relative to the factors in Minn. Rule 7850.4100 as does the alignment identified in this permit and also shall be specifically identified (i.e., highlight or otherwise specified) in and approved as part of the Plan and Profile submitted pursuant to Part IV.A. of this permit.

**B. Right-of-Way Placement.** Where the transmission line route parallels existing highway rights-of-way, the transmission line ROW shall occupy and utilize the existing highway right-of-way to the maximum extent possible, consistent with the criteria in Minn. Rule 7850.4100, the other requirements of this permit and the requirements for highways under the jurisdiction of the Minnesota Department of Transportation in accordance with Mn/DOT rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

**C. Right-of-Way Width.** The 230 kV transmission line will be built primarily with two-pole H-frame structures, which will typically require a 130 feet ROW. H-frame structures will range in height from 60 to 90 feet and will be placed between 600 to 1,000 feet apart. Permittees shall locate the poles as close to property division lines as reasonably possible.

#### **IV. PERMIT CONDITIONS**

The Permittees shall comply with the following conditions during construction of the transmission line and associated facilities and the life of this permit.

**A. Plan and Profile.** At least 20 calendar days before right-of-way preparation for construction begins, the Permittees shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line.

The Permittees may not commence construction until the 20 days has expired or until the Commission has advised the Permittees in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittees intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the Permittees shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

#### **B. Construction Practices.**

**1. Application.** The Permittees shall follow those specific construction practices and material specifications described in the Minnesota Power and Nashwauk Public Utilities Commission Application to the Public Utilities Commission for a Route Permit, dated April 8, 2009, and as described in the environmental impact statement and findings of fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

**2. Field Representative.** At least 10 days prior to commencing construction, the Permittees shall advise the Commission in writing of the person or persons designated to be the field representative for the Permittees with the responsibility to oversee compliance with the conditions of this permit during construction. The field representative's address, phone number, and emergency phone number shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The Permittees may change the field representative at any time upon written notice to the Commission.

**3. Local Governments.** The Permittees shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

**4. Cleanup.** All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

**5. Vegetation Removal in the Right-of-Way.** The Permittees shall minimize the number of trees to be removed in selecting the right-of-way. As part of construction, low growing brush or tree species are allowable within and at the outer limits of the easement area. Taller tree species that endanger the safe and reliable operation of the transmission facility need to be removed. To the extent practical, low growing vegetation that will not pose a threat to the transmission facility or impede construction should remain in the easement area.

**6. Erosion Control.** The Permittees shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect silt fences, and/or use erosion control blankets in non-agricultural areas that were disturbed where structures are installed. All areas disturbed during construction of the facilities will be returned to their pre-construction condition.

**7. Temporary Work Space.** The Permittees shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way.

**8. Restoration.** The Permittees shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other private lands affected by construction of the transmission line. Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line. Within 60 days after completion of all restoration activities, the Permittees shall advise the Commission in writing of the completion of such activities. The Permittees shall compensate landowners for any yard/landscape, crop damage, soil compaction, or other that may occur during construction.

**9. Notice of Permit.** The Permittees shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

**C. Periodic Status Reports.** Upon request, the Permittees shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittees need not report more frequently than quarterly.

**D. Complaint Procedure.** Prior to the start of construction, the Permittees shall submit to the Commission, the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

**E. Notification to Landowners.** The Permittees shall provide all affected landowners with a copy of this permit and the complaints procedures at the time of the first contact with the landowners after issuance of this permit.

The Permittees shall contact landowners prior to entering the property or conducting maintenance along the route and avoid maintenance practices, particularly the use of fertilizer, herbicides, or pesticides, inconsistent with the landowner's or tenant's use of the land.

The Permittees shall work with landowners to locate the high voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

**F. Completion of Construction.**

1. **Notification to Commission.** At least three days before the line is to be placed into service, the Permittees shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

2. **As-Builts.** Upon request of the Commission, the Permittees shall submit copies of all the final as-built plans and specifications developed during the project.

3. **GPS Data.** Within 60 days after completion of construction, the Permittees shall submit to the Commission, in the format requested by the Commission, geo-spatial information (GIS compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines, each switch, and each substation connected.

**G. Electrical Performance Standards.**

1. **Grounding.** The Permittees shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes, root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short circuit current between ground and the object so as not to exceed one milliamperes rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the National Electric Safety Code.

2. **Electric Field.** The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above

ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

**3. Interference with Communication Devices.** If interference with radio or television, satellite or other communication devices is caused by the presence or operation of the transmission line, the Permittees shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

#### **H. Other Requirements.**

**1. Applicable Codes.** The Permittees shall comply with applicable requirements of the National Electric Safety Code including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way widths, erecting power poles, and stringing of transmission line conductors. The transmission line facility will also meet the North American Electric Reliability Corporation's (NERC) reliability standards

**2. Other Permits.** The Permittees shall comply with all applicable state rules and statutes. The Permittees shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the route permit application and the environmental impact statement. The Permittees shall submit a copy of such permits to the Commission upon request.

**3. Pre-emption.** Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the Permittees and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

**J. Delay in Construction.** If the Permittees have not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

#### **K. Special Conditions.**

**1. Threatened and Endangered Species.** The permittee shall design the final alignment to avoid impacts to known locations of threatened, endangered or special concern species to the extent practicable and mitigate for impacts that cannot be avoided.

Known occurrences of state-listed threatened or endangered species, as identified in the Natural Heritage Information System or as identified during final alignment

selection, must be avoided unless otherwise allowed by a Minnesota Department of Natural Resources (MDNR) Special Takings Permit.

Known locations of state-listed threatened/endangered plants (specifically, *Botrychium oneidense* and *Platanthera flava* var. *herbiola*) have been identified within the project area. These species may also occur within the designated routes if suitable habitat exists. The permittee, in consultation with the MDNR (Ecological Services), will determine the need for botanical surveys (pre-construction) on the anticipated alignment. In the areas along the anticipated alignment where these species are known to exist or where the alignment passes through habitats where these species are likely to exist, field surveys may be required. Habitats and survey times are as follows:

*Botrychium oneidense* – anytime before the leaves fall in the autumn – In Minnesota, *B. oneidense* occurs in forests of *Acer saccharum* (sugar maple), *Betula alleghaniensis* (yellow birch), *Fraxinus nigra* (black ash), *Quercus rubra* (northern red oak), and *Tilia americana* (basswood). It occasionally occurs with *Acer rubrum* (red maple), *Fraxinus pennsylvanica* (green ash), *Populus* spp. (aspen), *Pinus* spp. (pine), *Quercus macrocarpa* (bur oak), and *Thuja occidentalis* (northern white cedar). Within the forest, *B. oneidense* usually grows in moist loam in low areas, swamp edges, or between the high and low water marks of vernal pools. It most often occurs as a few scattered plants, but as many as 100 plants have been observed at one location. It often occurs with other *Botrychium* species, most notably *B. multifidum* (leathery grapefern).

*Platanthera flava* var. *herbiola* – late June through August – *Platanthera flava* var. *herbiola* prefers wet prairies and meadows, swales in mesic prairies, or the sandy or peaty habitats along the edges of marshes, swamps, or lakeshores. These habitats are in full sun or in the partial shade of scattered shrubs such as *Salix* spp. (willows) and *Cornus* spp. (dogwoods). Only high quality habitats that show little if any impact from human activities seem to be suitable for this orchid. Degraded habitats with a substantial number of non-native species will not support this very rare plant.

The permittee may be required to shift the alignment to avoid impacts to these species. In the event that impacts can not be avoided, the applicants would be required to obtain a takings permit from the MDNR for impacts to the species.

2. Mineral Resources. Several of the HVTL routes cross or encroach on the Biwabik Formation and have the potential to impact state owned minerals for which the MDNR has fiduciary responsibility to manage. The applicants shall work with representatives of the MDNR (Division of Lands and Minerals) to determine the most appropriate alignment to minimize the impact on these resources.

3. Deer Wintering Grounds. Within Route 2, the 1.6 mile, north-south portion west of Riley Lake passes through an area identified by the Minnesota Department of Natural Resources as an important deer wintering area (i.e., conifer stands). The applicants shall work with representatives of the MDNR (Ecological Services) to select an alignment and/or overhead construction design within this segment of Route 2 that minimizes the impact to this resource to the extent practicable.

## **V. PERMIT AMENDMENT**

The permit conditions in Section IV may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittees. The Commission may amend the conditions after affording the Permittees and interested persons such process as is required.

## **VI. TRANSFER OF PERMIT**

The Permittees may request at any time that the Commission transfer this permit to another person or entity. The Permittees shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittees can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittees, the new Permittees, and interested persons such process as is required.

## **VII. REVOCATION OR SUSPENSION OF THE PERMIT**

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rules part 7850.5100 to revoke or suspend the permit.

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**MINNESOTA PUBLIC UTILITIES COMMISSION  
COMPLIANCE FILING PROCEDURE  
FOR PERMITTED ENERGY FACILITIES**

**1. Purpose**

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

**2. Scope and Applicability**

This procedure encompasses all compliance filings required by permit.

**3. Definitions**

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

**4. Responsibilities**

A) The Permittees shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: <https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the website. Permittees must register on the website to eFile documents.

B) All filings must have a cover sheet that includes:

- 1) Date
- 2) Name of submitter / Permittees
- 3) Type of Permit (Site or Route)
- 4) Project Location
- 5) Project Docket Number
- 6) Permit Section Under Which the Filing is Made
- 7) Short Description of the Filing

Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7<sup>th</sup> Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7<sup>th</sup> Place East, Suite 500, St. Paul, MN, 55101-2198.

## PERMIT COMPLIANCE FILINGS<sup>1</sup>

**PERMITTEES:** Minnesota Power & Nashwauk Public Utilities  
Commission  
**PERMIT TYPE:** HVTL Route Permit  
**PROJECT LOCATION:** Itasca counties  
**PUC DOCKET NUMBER:** E280/TL-09-512

<b>Filing Number</b>	<b>Permit Section</b>	<b>Description</b>	<b>Due Date</b>
1	Section IV.B.2	Contact information for field representative	10 days prior to construction
2			
3	Section IV.A.	Plan and profile of right-of-way	20 days before ROW preparation or construction
4	Section IV.F	Notice of completion and date of placement in service	Three days prior to energizing
5	Section IV.F.3	Provide As-built and GPS information	Within 60 days of construction
6	Section IV.K.1	Provide documentation of consultation with MDNR, plant survey data if required, and any modification to the anticipated alignment as a result of this consultation.	Prior to submittal of the Plan and profile of right-of-way (Item 3)
7	Section IV.K.2	Provide documentation of consultation with MDNR and any modification to the anticipated alignment as a result of this consultation.	Prior to submittal of the Plan and profile of right-of-way (Item 3)
8	Section IV.K.3	Provide documentation of consultation with MDNR and any modification to the anticipated alignment and or construction design as a result of this consultation.	Prior to submittal of the Plan and profile of right-of-way (Item 3)

<sup>1</sup> This compilation of permit compliance filings is provided for the convenience of the permittees and the PUC. However, it is not a substitute for the permit; the language of the permit controls.

**MINNESOTA PUBLIC UTILITIES COMMISSION  
COMPLAINT HANDLING PROCEDURES FOR  
HIGH VOLTAGE TRANSMISSION LINES**

**A. Purpose:**

To establish a uniform and timely method of reporting complaints received by the Permittees concerning Permit conditions for site preparation, construction, cleanup and restoration, operation and resolution of such complaints.

**B. Scope:**

This document describes Complaint reporting procedures and frequency.

**C. Applicability:**

The procedures shall be used for all complaints received by the Permittees and all complaints received by the Commission under Minn. Rule 7829.1500 or 7829.1700 relevant to this Permit.

**D. Definitions:**

Complaint: A verbal or written statement presented to the Permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other HVTL and associated facilities route permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written Complaint alleging a violation of a specific Route Permit condition that, if substantiated, could result in Permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A Complaint which, despite the good faith efforts of the Permittees and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

**E. Complaint Documentation and Processing:**

1. The Permittees shall document all Complaints by maintaining a record of all applicable information concerning the Complaint, including the following:

- a. Name of complainant, address, phone number, and e-mail address.
  - b. Precise property description or parcel number.
  - c. Name of Permittees representative receiving Complaint and date of receipt.
  - d. Nature of Complaint and the applicable Route Permit conditions(s).
  - e. Activities undertaken to resolve the Complaint.
  - f. Final disposition of the Complaint.
2. The Permittees shall designate an individual to summarize Complaints for substantial to the Commission. This person's name, phone number and e-mail address shall accompany all complaint submittals.
  3. A Person presenting the Complaint should to the extent possible, include the following information in their communications:
    - a. Name, address, phone number, and e-mail address.
    - b. Date
    - c. Tract or parcel
    - d. Whether the complaint relates to (1) a Route Permit matter, (2) a HVTL and associated facility issue, or (3) a compliance issue.

**F. Reporting Requirements:**

The Permittees shall report all complaints to the Commission according to the following schedule:

**Immediate Reports:** All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to HVTL Permit Compliance, 1-800-657-3794, or by e-mail to: [DOC.energypermitcompliance@state.mn.us](mailto:DOC.energypermitcompliance@state.mn.us), or. Voice messages are acceptable.

**Monthly Reports:** By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be Filed to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no Complaints were received during the preceding month, the Permittees shall submit (eFile) a summary indicating that no complaints were received.

**G. Complaints Received by the Commission or OES:**

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the Permittees.

**H. Commission Process for Unresolved Complaints:**

**Initial Screening:** Commission staff shall perform an initial evaluation of unresolved Complaints submitted to the Commission. Complaints raising substantial HVTL Route Permit issues shall be processed and resolved by the Commission. Staff shall notify Permittees and appropriate person(s) if it determines that the Complaint is a Substantial Complaint. With respect to such Complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the Staff notification. Staff shall present Briefing Papers to the Commission, which shall resolve the Complaint within twenty days of submission of the Briefing Papers.

**I. Permittees Contacts for Complaints:**

**Mailing Address:** Complaints filed by mail shall be sent to:

**ATTN:** Mr. Bryan Adams  
Nashwauk Public Utilities Commission  
301 Central Avenue  
Nashwauk, MN 55769

**Tel:** (218) 885-1210

**Email:** [badams.nashwauk@mcsbi.com](mailto:badams.nashwauk@mcsbi.com)

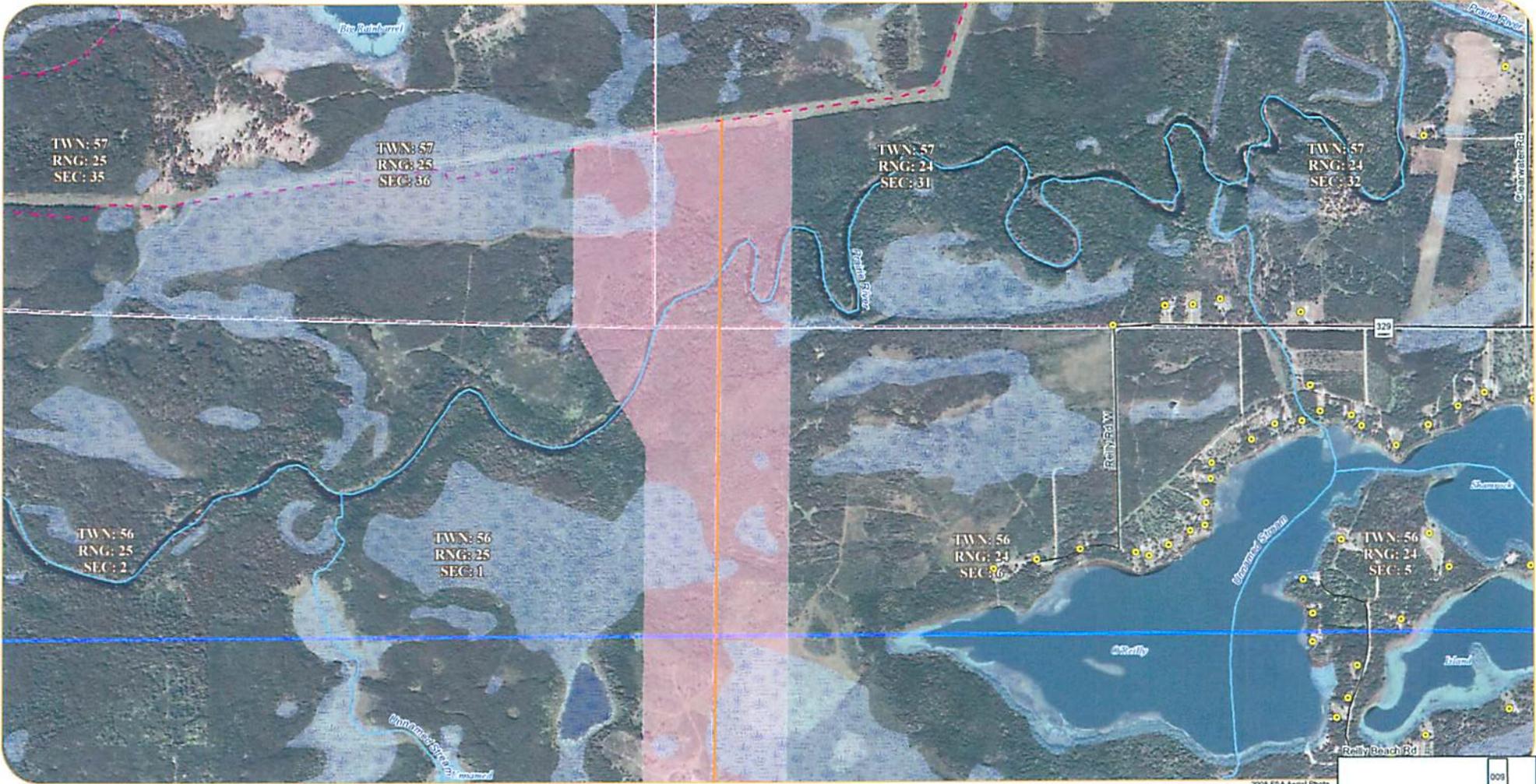
**Mailing Address:** Complaints filed by mail shall be sent to:

**ATTN:** Mr. Jim Atkinson  
Supervisor, Environmental Siting and Permitting  
Minnesota Power/ALLETTE, Inc.  
30 West Superior Street  
Duluth, MN 55802

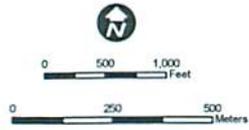
**Tel:** (218) 355-3561

**Email:** [jbatkinson@allette.com](mailto:jbatkinson@allette.com)

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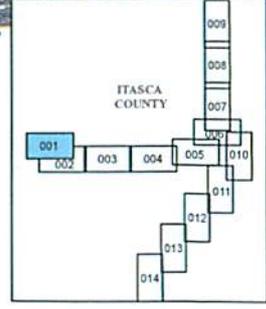


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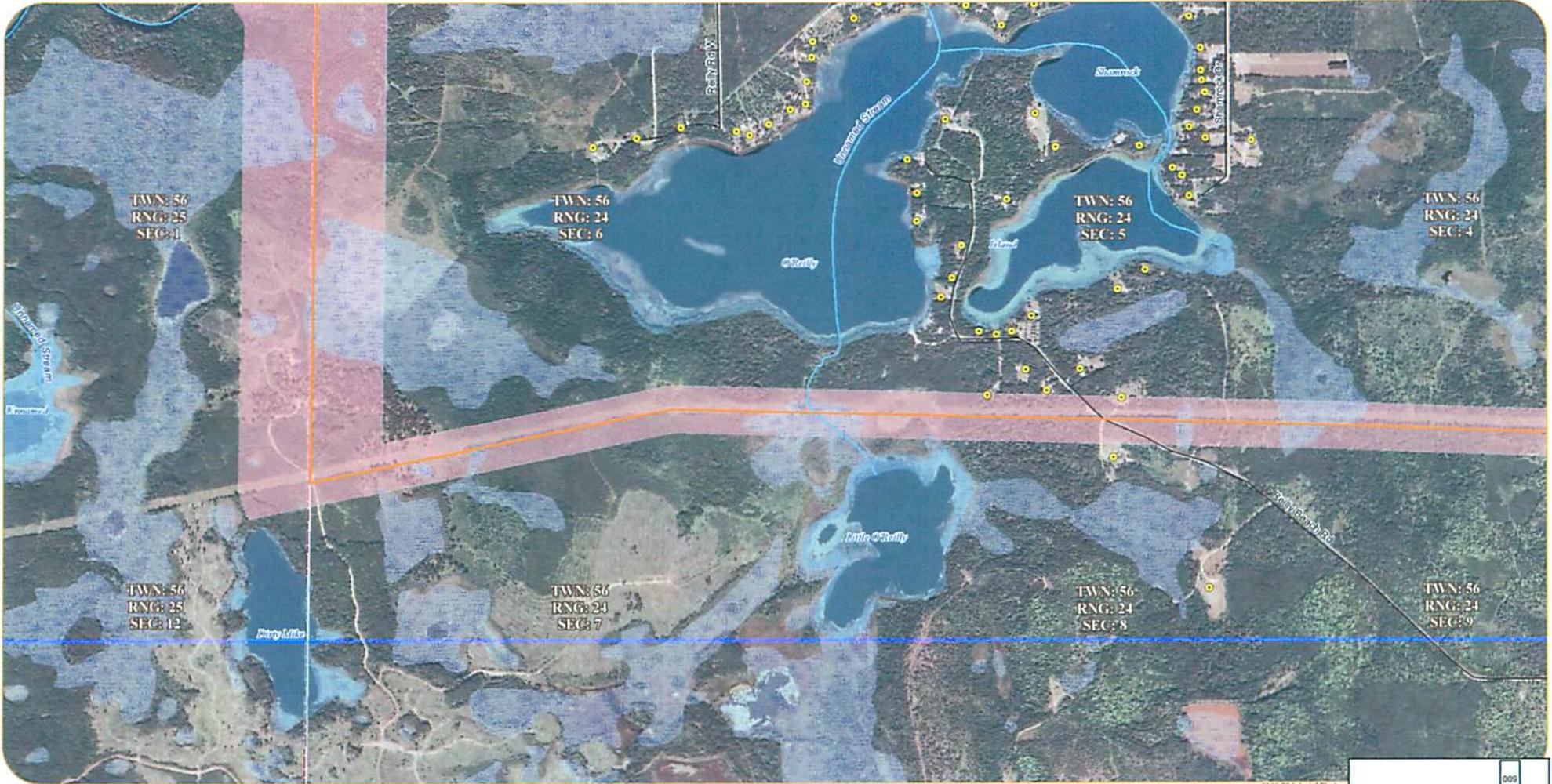


- Route 1
- Route 2
- Route 3
- Route 4
- Proposed Route Centerline
- Wetland (NWI)
- DNR Public Waters
- PWI Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

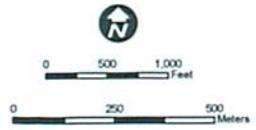
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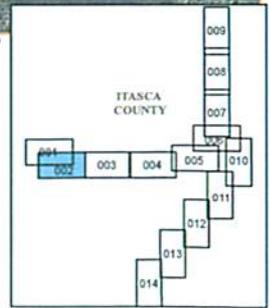


2008 FSA Aerial Photo



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- Trout Streams
- State Parks
- Residences
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- Proposed Substations
- Snowmobile Trail

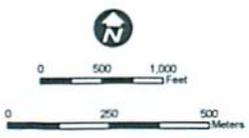
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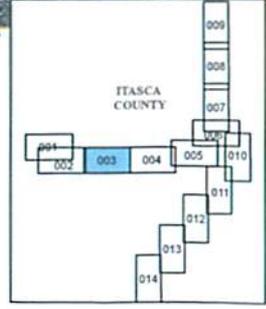


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| Route 2 | Wetland (NWI)             | State Parks          |
| Route 3 | DNR Public Waters         | Residences           |
| Route 4 | PWI Stream/River          | Existing Substations |
|         | Trout Streams             | Proposed Substations |

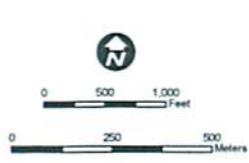
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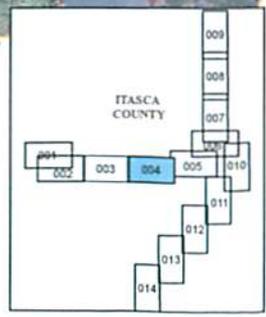


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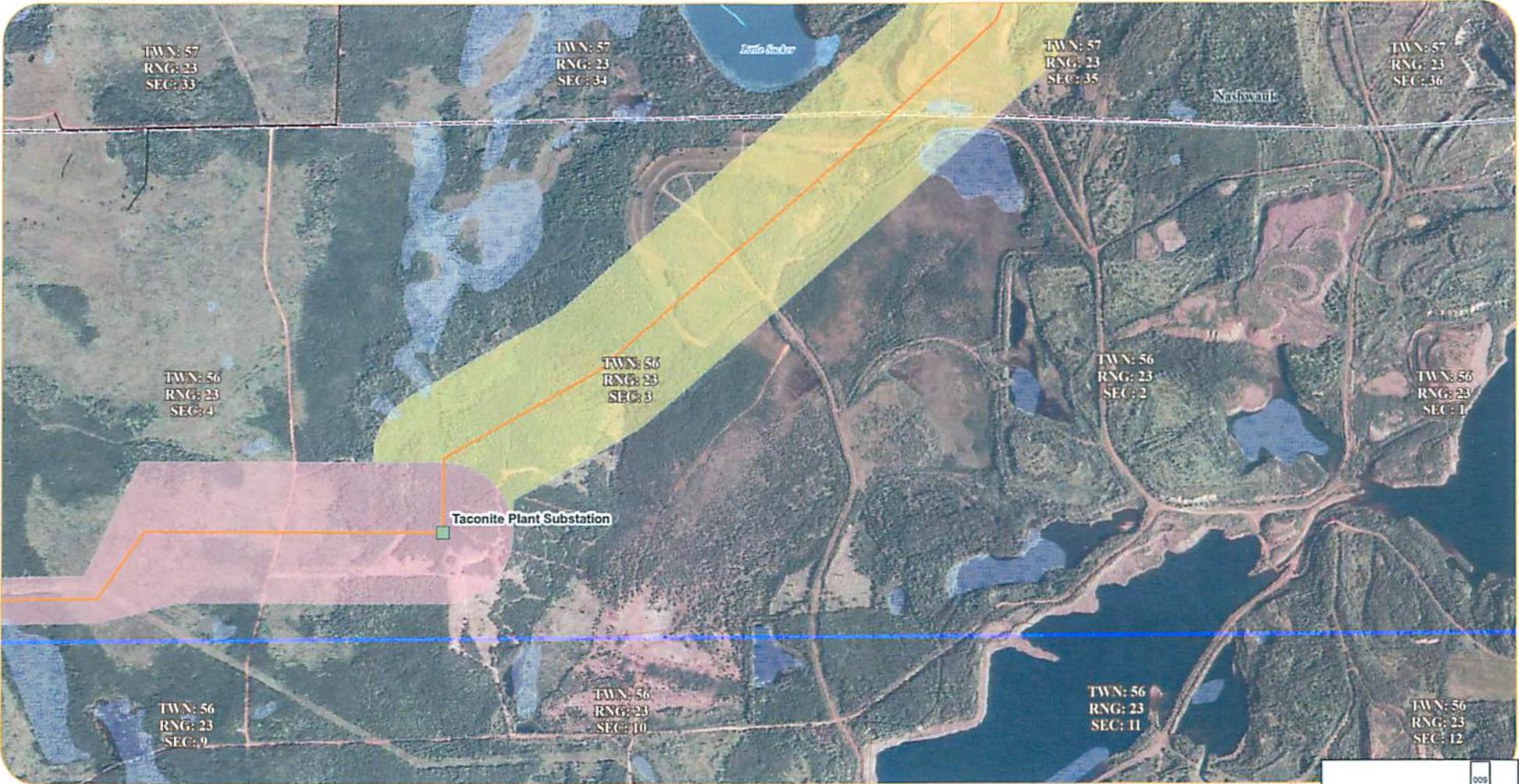


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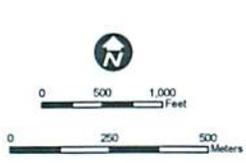
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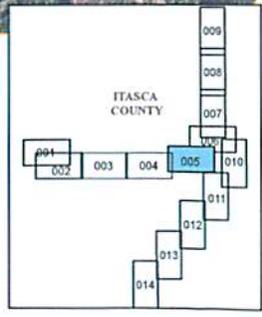


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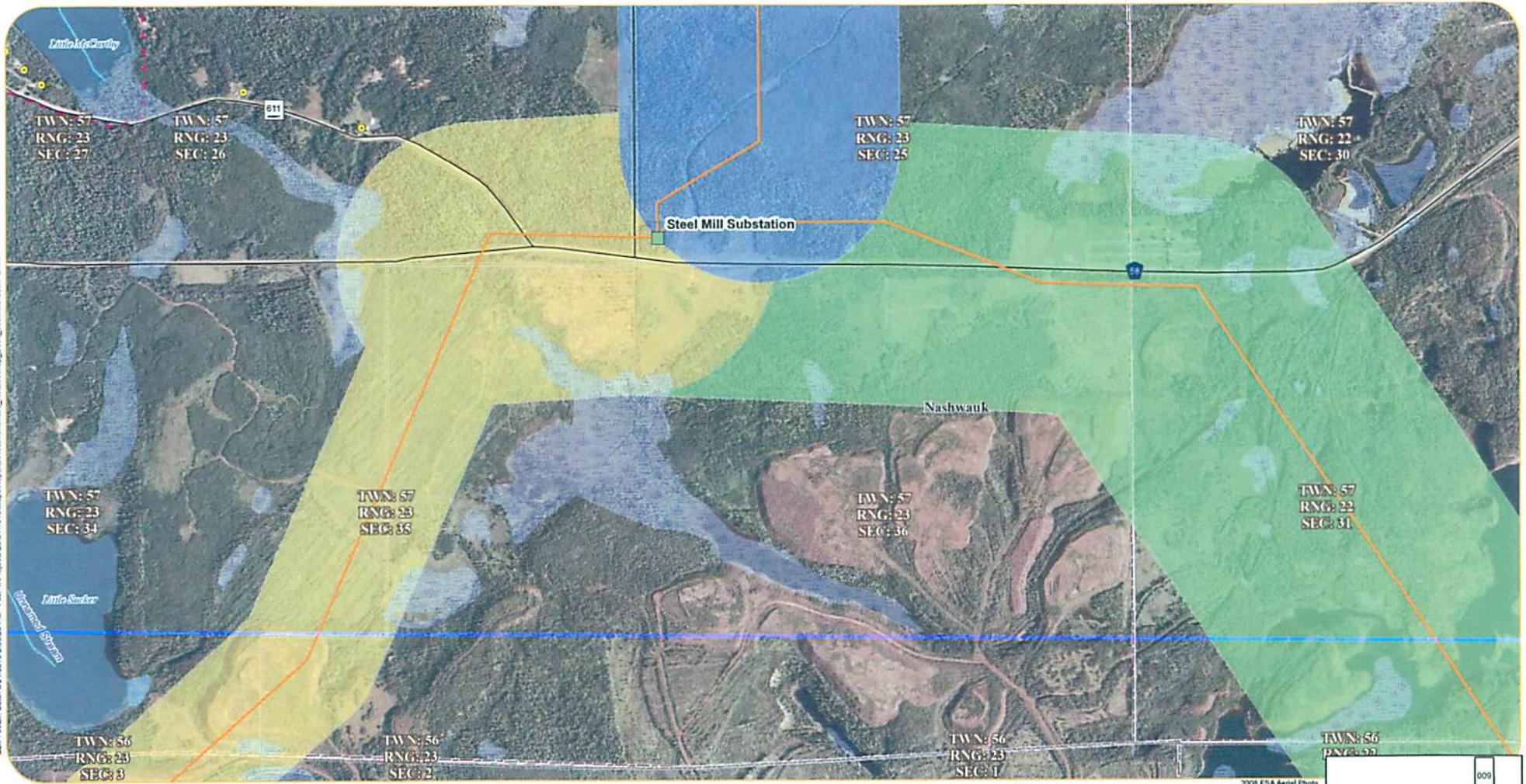


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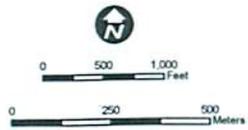
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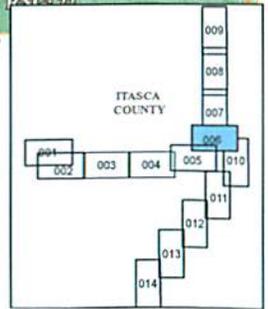


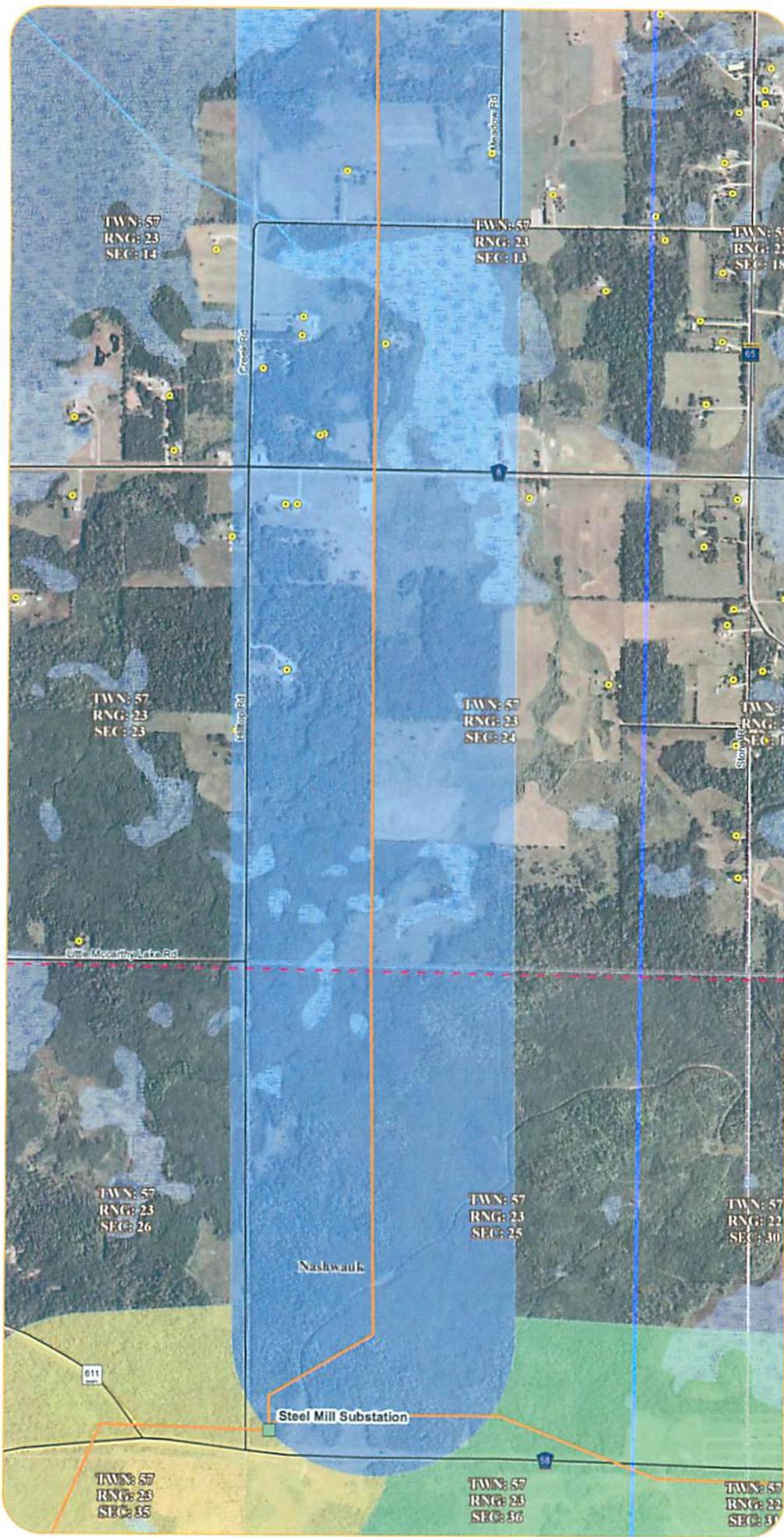
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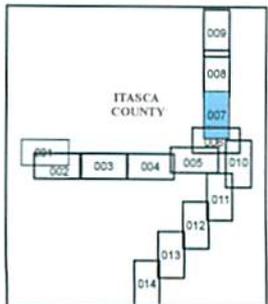
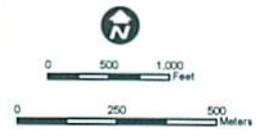
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 & Minnesota Power (Essar Steel Project)  
 Nashauk, Minnesota

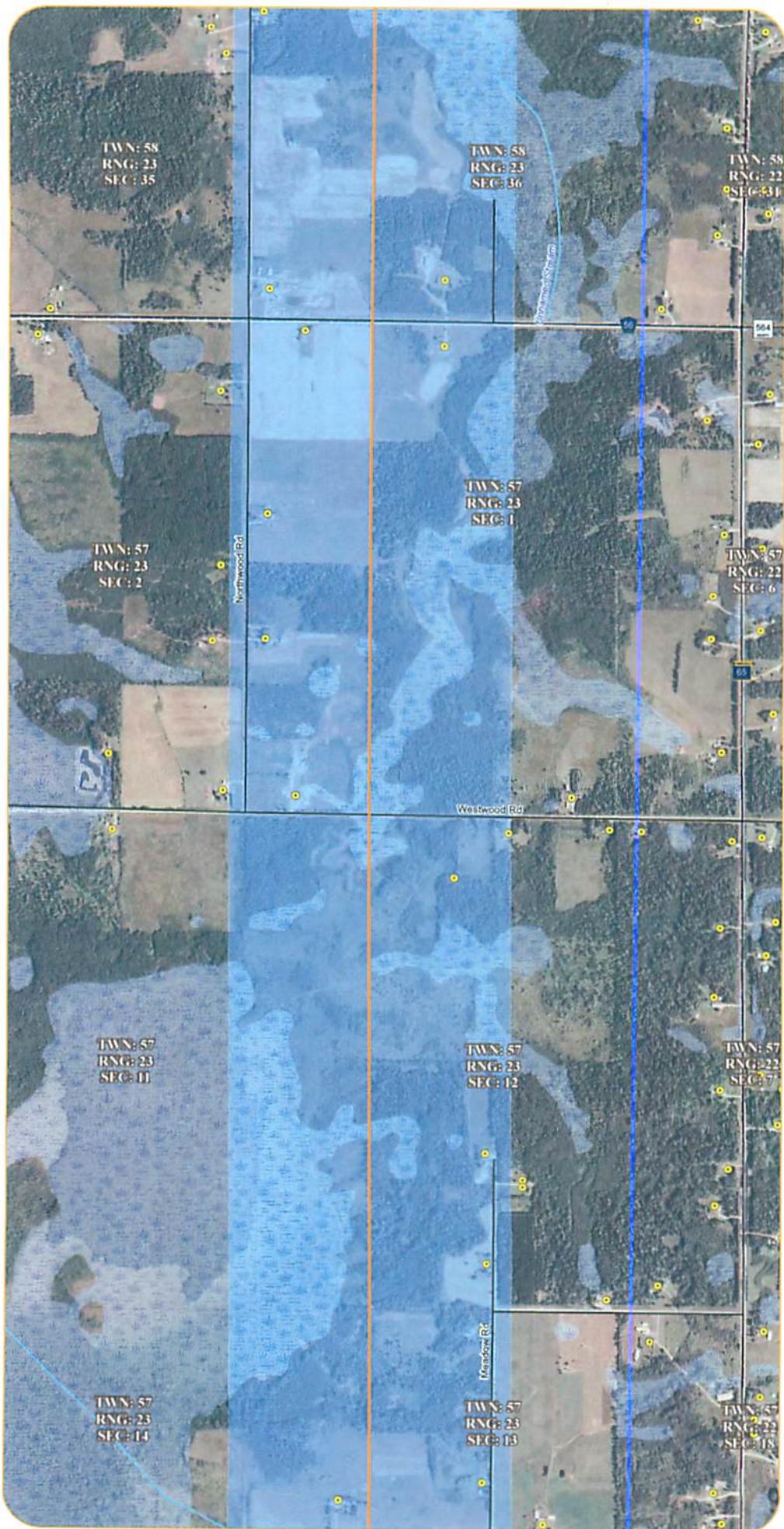




- Route 1
- Route 2
- Route 3
- Route 4
- Proposed Route Centerline
- Wetland (NWI)
- DNR Public Waters
- PW Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

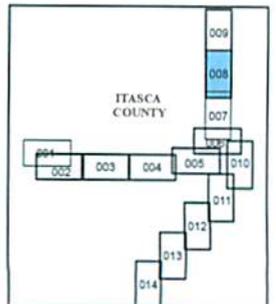
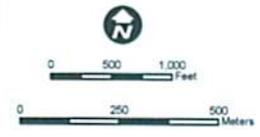
Map - 007  
 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota

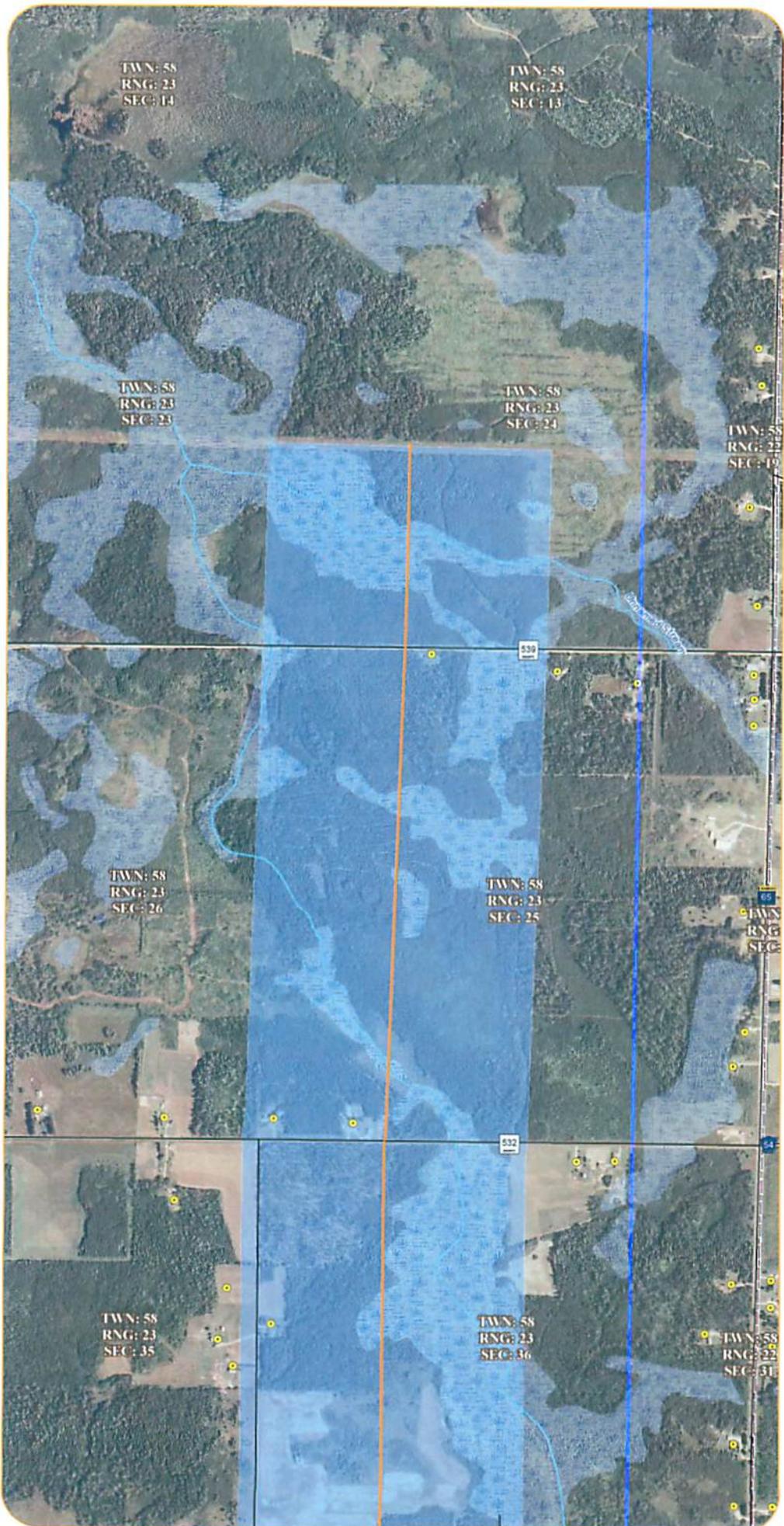




- Route 1
- Route 2
- Route 3
- Route 4
- Proposed Route Centerline
- Wetland (NWI)
- DNR Public Waters
- PW Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

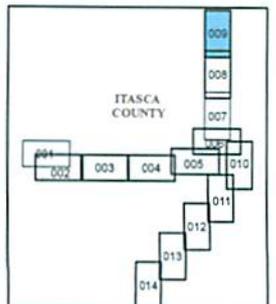
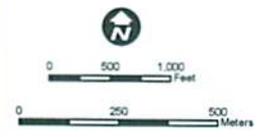
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 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota





- Route 1
- Route 2
- Route 3
- Route 4
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- Wetland (NWI)
- DNR Public Waters
- PW Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

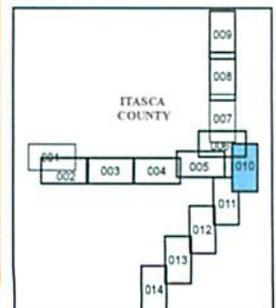
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 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota





- Route 1
- Route 2
- Route 3
- Route 4
- Proposed Route Centerline
- Wetland (NWI)
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- PWS Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

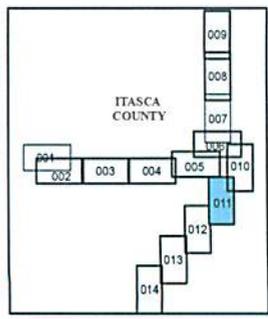
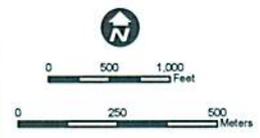
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 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota





- Route 1
- Route 2
- Route 3
- Route 4
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- PWI Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

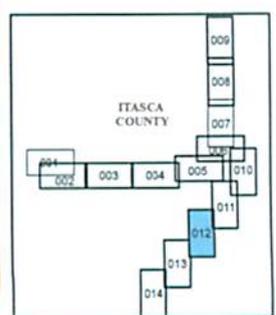
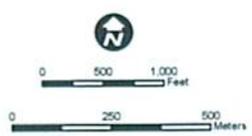
Map - 011  
 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota





- Route 1
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- Snowmobile Trail
- State Parks
- Residences
- Existing Substations
- Proposed Substations

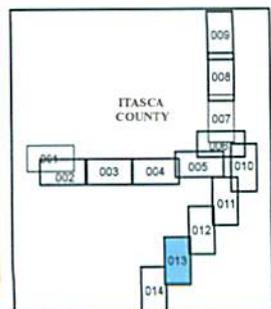
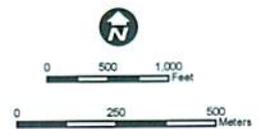
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 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota

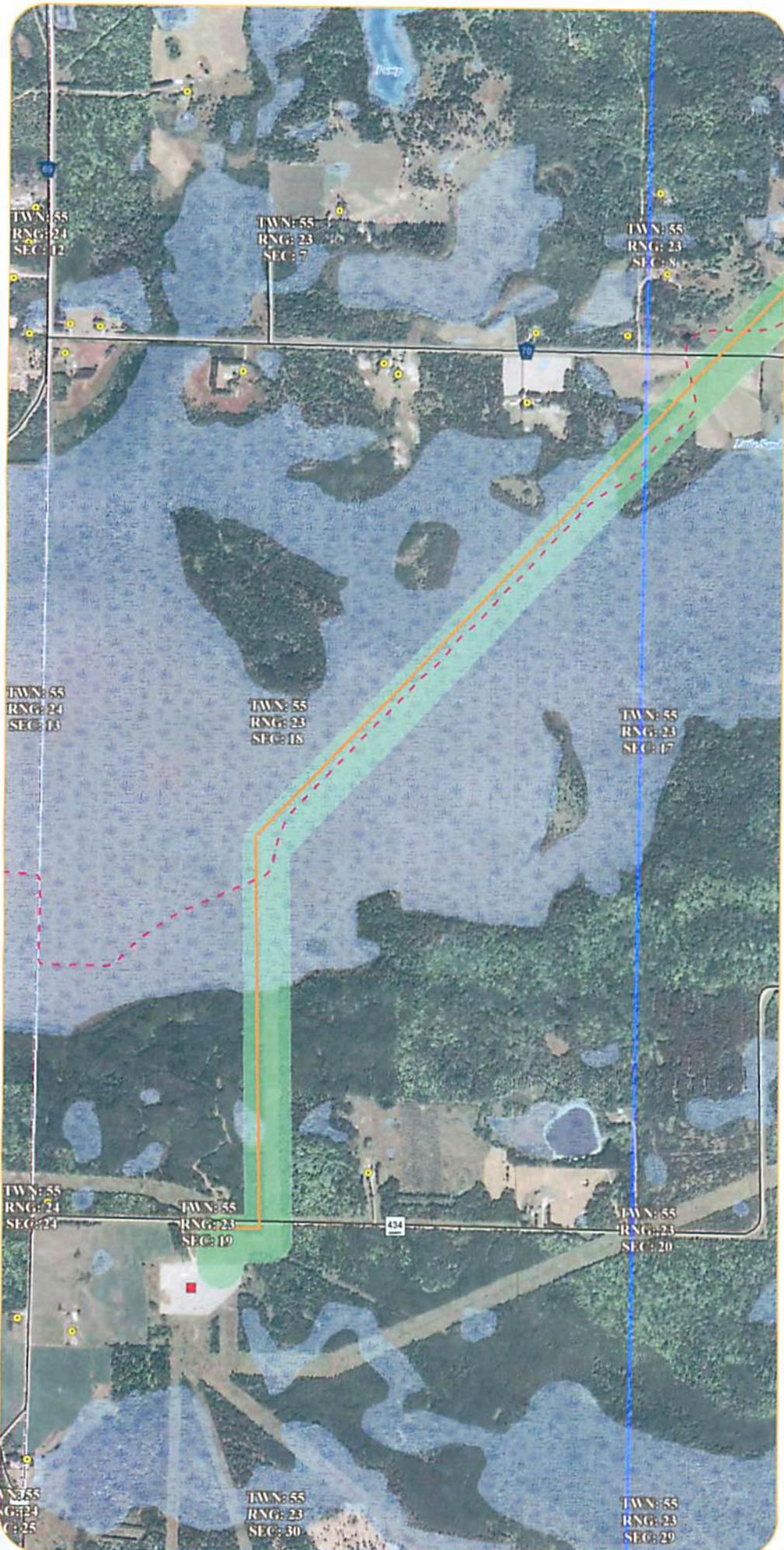




- Route 1
- Route 2
- Route 3
- Route 4
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- Wetland (NW)
- DNR Public Waters
- PW Stream/River
- Trout Streams
- Snowmobile Trail
- State Parks
- Residences
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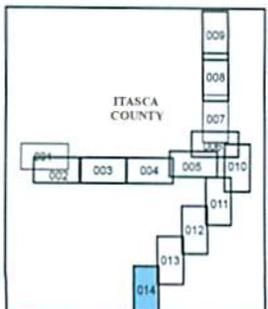
Map - 013  
 Recommended Routes  
 Nashwauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashwauk, Minnesota





- Route 1
- Route 2
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- Route 4
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- Existing Substations
- Proposed Substations

Map - 014  
 Recommended Routes  
 Nashauk Public Utilities  
 Commission & Minnesota  
 Power (Essar Steel Project)  
 Nashauk, Minnesota





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Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500  Saint Paul, MN 551012198	Electronic Service	Yes	OFF_SL_9-512_CC-SL
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_9-512_CC-SL
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Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620  St. Paul, MN 551640620	Paper Service	Yes	OFF_SL_9-512_CC-SL
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