



**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

**COMMENTS AND RECOMMENDATIONS OF THE  
DEPARTMENT OF COMMERCE  
ENERGY FACILITY PERMITTING STAFF**

**DOCKET No. E002/TL-10-1026**

Meeting Date: November 29, 2011.....Agenda Item # \_\_\_

Company: Xcel Energy

Docket No: **E002/TL-10-1026**

**In the Matter of the Route Permit Application for the St. Cloud Loop 115 kV  
Transmission Line Project in Sauk Rapids, Minnesota.**

Issue(s): Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the 115 kV St. Cloud Loop transmission line project?

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**Relevant Documents**

Route Permit Application ..... March 11, 2011  
Commission Application Acceptance Order ..... April 11, 2011  
Environmental Assessment Scoping Decision..... June 3, 2011  
Environmental Assessment..... September 16, 2011  
Administrative Law Judge's Summary of Public Testimony .....November 10, 2011

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## Documents Attached

- Figure 1 – Overview of Routes
- Exhibit List
- Findings of Fact, Conclusions of Law, and Order
- High-Voltage Transmission Line Route Permit

*Note:* Relevant documents and additional information can be found on eDockets (Docket 10-1026) or the Commission's Energy Facilities Permitting website at: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=31941>.

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## Statement of the Issues

Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the 115 kV St. Cloud Loop transmission line project?

## Introduction and Background

On March 11, 2011, Xcel Energy (applicant) filed a route permit application under the alternative permitting process for a new 115 kV overhead transmission line in Benton County, Minnesota. Xcel Energy would be named as permittee and will construct, own, and operate the proposed 115 kV transmission line.

## Project Purpose

Xcel Energy indicates in its route permit application that the proposed project will improve the reliability of service to customers served from the Mayhew Lake Substation in and near the cities of St. Cloud, Sartell and Sauk Rapids, and the surrounding townships. The proposed project will provide a second power source to the Mayhew Lake Substation, thereby eliminating the incidents where the load cannot be served during an outage of Line 5509 between the Granite City and Mayhew Lake substations. Xcel Energy also explains that with the proposed reconfiguration of 115 kV lines around transmission Structure 39 in this project, the loss of any double-circuit transmission lines between the Granite City, Benton County, Mayhew Lake, and St. Cloud substations will not result in dropping the load at Mayhew Lake Substation or the large industrial customer facility (Verso Paper Corporation) served by these lines.

## Project Description

The proposed project would be located in the northern part of the city of Sauk Rapids and the townships of Minden and Sauk Rapids in Benton County, Minnesota.

As described in the route permit application, Xcel Energy proposes to construct a new 4.7-mile long 115 kV transmission line. The proposed route is divided into two segments. The first segment (new Line 5520) is approximately 4 miles long and would be constructed between the Mayhew Lake Substation and the Granite City Substation. The second segment (extension of existing Line 5509) is approximately 0.7 miles long and would be constructed between the intersection of Line 5509 with Lines 0887 and 0899 and Structure 39 (Figure 1).

Specifically, Xcel Energy proposes the following for the project:

- constructing approximately 4 miles of new 115 kV transmission line (Line 5520) between the Mayhew Lake Substation and the Granite City Substation;
- removing a 1,700 foot segment of existing single-circuit 115 kV transmission line (Line 5509) between the Granite City Substation and its intersection with Lines 0887 and 0899;
- installing approximately 0.7 miles of new 115 kV transmission line to extend existing Line 5509 from its intersection with Lines 0887 and 0899 to Structure 39, installing either a new single-circuit pole or a new double-circuit structure near Structure 39 and connect Line 5509 from Structure 39 to existing Line 0899, thus creating newly designated Line 5509 connecting the Mayhew Lake Substation to the Benton County Substation;
- removing existing Line 0887 jumper at Structure 39 so that Line 0887 is no longer connected to Benton County Substation, and keeping Line 0887 connection between the St. Cloud and Granite City substations;
- disconnecting the existing Line 0899 at Structure 39 to the Benton County Substation and connecting to removed Line 0887 segment from Structure 39 to Benton County Substation, and designating this revised line from Granite City to Benton County substations as Line 0899;
- installing fiber optic ground wire with the new 115 kV line and the remaining segment of Line 0899; and
- modifying the Benton County, Crossroads, Granite City, Mayhew Lake, and St. Cloud and substations to accommodate the above changes, which include changing and/or adding new line termination equipment and/or a ring bus, adding transfer trip and pilot relaying, installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.

Xcel Energy is requesting a 400 foot route width for the entire length of the proposed route, as follows: 200 feet on each side of the proposed alignment from the Mayhew Lake Substation west to the intersection with U.S. Highway 10; a 400 foot route width left-aligned with the eastern edge of the northbound lanes of U.S. Highway 10; 200 feet on either side of the proposed alignment from U.S. Highway 10 heading east along County Ditch 3 to the Granite City Substation; 200 feet on either side of the proposed alignment for the new segment extending Line 5509 at approximately 14th Avenue NE to Structure 39. A 200 foot route width extending from Xcel Energy-owned property at the Mayhew Lake and Granite City substations is also requested.

In a letter dated September 26, 2011, Xcel Energy requested additional route width not included in the route permit or environmental assessment.<sup>1</sup> The additional route width is located just north of the Granite City substation where the Proposed Route heads east from U.S. Highway 10 along County Ditch 3. The additional route width in this area is being requested by Xcel so that the new transmission line could be co-located with an existing distribution line in this area. The additional requested route width is minimal (approximately 1.4 acres in size) and does not appear to create any additional impacts not already evaluated in the EA.<sup>2</sup>

The proposed transmission line will require a right-of-way of 75 feet (37.5 feet on either side of centerline). There are areas along the proposed route where the new transmission line would be located at or very near existing electric distribution or transmission easements. In its application, Xcel Energy indicates that the project may be designed to fit within these existing easements, thereby requiring less right-of-way while still satisfying the needs of the project.<sup>3</sup>

### **Regulatory Process and Procedures**

In Minnesota, no person may construct a high-voltage transmission line without a route permit from the Commission (Minnesota Statute 216E.03, subdivision 2). A high-voltage transmission line is defined as a conductor of electric energy designed for and capable of operation at a voltage of 100 kV or more and is greater than 1,500 feet in length (Minnesota Statute 216E.01, subdivision 4). The project as proposed would consist of approximately 4.7 miles of new 115 kV transmission line and would therefore require a route permit from the Commission.

Because the proposed project transmission line capacity is under 200 kV, is less than ten miles in length and does not cross a state border, a certificate of need is not required (Minnesota Statute 216B.2421, subdivision 2).

The route permit application was reviewed under the alternative permitting process (Minnesota Rule 7850.2800 to 7850.3900) of the Power Plant Siting Act (Minnesota Statute 216E). The alternative permitting process is shorter than the full permitting procedures and does not require the applicant to propose alternative routes to the preferred route, but does require the applicant to disclose rejected route alternatives and an explanation of why they were rejected.

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<sup>1</sup> Ex. 21 (Direct Testimony and Schedules of Joseph Sedarski).

<sup>2</sup> Ex. 21 at Schedule 4 (Direct Testimony and Schedules of Joseph Sedarski).

<sup>3</sup> Ex. 2 at p. 25 (Route Permit Application [RPA]).

### Route Permit Application and Acceptance

In accordance with Minnesota Rule 7850.2800, subpart 2, applicants are required to provide a 10-day advance notice of intent to the Commission before submitting a route permit application. On September 28, 2010, Xcel Energy filed a letter with the Commission indicating its intent to submit a route permit application for the project under the alternative permitting process.

On March 11, 2011, Xcel Energy filed a route permit application under the alternative permitting process for a new 4.7-mile 115 KV transmission line and associated facilities. The project is eligible for consideration under the alternative permitting process as the transmission line voltage would be between 100 and 200 kilovolts (Minnesota Rule 7850.2800, subpart 2B).

### Public Information and Scoping Meeting

EFP staff held a public information and environmental assessment scoping meeting on April 13, 2011, at Sauk Rapids – Rice Middle School in Sauk Rapids, Minnesota, to discuss the project with the public and gather input for the scope of the environmental assessment to be prepared.

A court reporter was present at the public meeting and transcribed questions asked and comments made by the public, as well as responses from EFP staff and Xcel Energy. In total, three people provided oral comments and/or asked questions about the proposed project at the public information and scoping meeting. Topics and issues raised by the public at the meeting included: construction schedule, easements and rights-of-ways, interference (satellite television and wireless internet), vegetation and tree removal practices in the right-of-way, and right-of-way sharing along roads.

The public was provided until May 25, 2011, to submit comments. EFP staff received a total of four comment letters that were reviewed and considered during preparation of the scoping decision.

A comment letter from the Minnesota Department of Natural Resources (DNR) raised the following issues: the timing of vegetation clearing (perform outside of the migratory bird nesting season), installation and locations of bird diverters, avoiding tree/shrub removal in wooded wetland swales, and avoidance of a fen near the Proposed Route. The DNR also indicated a preference for the Proposed Route or the Proposed Route with Route Segment A and avoiding as much tree and vegetation clearing as possible in the areas identified in its letter.<sup>4</sup>

The Minnesota Department of Transportation (Mn/DOT) submitted a comment letter referencing its formal policy and procedures for accommodation of utilities on highway rights-of-way (Utility Accommodation Policy) specifically as it relates to Benton County and the city of Sauk Rapids' plan to revise the interchanges at U.S. Highway 10 and County Road 3 (Golden Spike Road). Mn/DOT also recommended that Xcel contact Benton County for the new right-of-way limits and base the transmission line pole placement on that information.<sup>5</sup>

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<sup>4</sup> Ex. 11 (Scoping Comment Letters).

<sup>5</sup> Ex. 11 (Scoping Comment Letters).

A letter received from the U.S. Fish and Wildlife Service (USFWS) indicated that there are no federally listed species or species proposed for listing and/or designated or proposed critical habitat within the action area of the proposed project. The USFWS also recommended avoiding or minimizing the potential for wetland impacts in the NW 1/4 of the NE 1/4 of Section 14 and the NE 1/4 of SW 1/4 of Section 25.<sup>6</sup>

After the public meeting adjourned, one member of the public verbally suggested an alignment alternative (Douvier Alignment Alternative) that would shift the proposed right-of-way so that it would follow a tree line to potentially reduce the amount vegetation and tree clearing that could be required in that area.<sup>7</sup>

### Scoping Decision

The Department of Commerce found it reasonable to evaluate Xcel Energy's Proposed Route along with the Proposed Route with Alternative Route Segment A (included in the route permit application) and the Proposed Route with the Douvier Alignment (proposed by a member of the public). The scoping decision for the environmental assessment was issued by the deputy commissioner of the Department of Commerce on June 3, 2011.

### Environmental Assessment

An EA must be prepared for all high-voltage transmission projects being reviewed under the alternative permitting process. The procedures EFP staff must follow in preparing the EA are described in Minnesota Rule 7850.3700. The EA contained information on the human and environmental impacts of the proposed project as identified in the scoping decision document. It also addressed required methods to avoid, minimize, and mitigate such impacts for all routes considered. The EA is the only state environmental review document required to be prepared for this project. EFP staff released the EA on September 16, 2011.

### Public Hearing

Minnesota Office of Administrative Hearings, Barbara L. Neilson, Administrative Law Judge (ALJ) presided over the public hearing conducted on September 28, 2011. The public hearing was held at the Sauk Rapids – Rice Middle School in Sauk Rapids, Minnesota. The ALJ provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question/comments in writing. Public comments on the proposed project were accepted by the ALJ until October 11, 2011.

The ALJ's summary of public testimony was filed by the Office of Administrative Hearings November 10, 2011. Judge Neilson's summary provides a summation of comments heard at the hearing and public comment letters received during the comment period.

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<sup>6</sup> Ex. 11 (Scoping Comment Letters).

<sup>7</sup> Ex. 11 (Scoping Comment Letters).

During the public hearing, nine members of the public presented their views regarding the proposed routing for the project. The ALJ received five written comments by the October 11, 2011, submittal deadline. Two late-filed comments were received by the ALJ on October 13, 2011, and November 1, 2011.

### Summary of Oral Comments and Responses

The majority of oral public comments at the public hearing were focused on questions of why the project is needed, and if it is needed, concerns regarding removal of mature trees and other vegetation that will be necessary for the transmission right-of-way and whether property owners would be compensated for easements and removal of vegetation; residences and their proximity to the proposed line along all routes; general public health/safety impacts and environmental impacts associated with the project; fair treatment of township residents; greater use of nuclear power in general; and septic systems.

Ed Dingmann, a landowner in the area of the proposed project, questioned the need of the project.

Ed Dingmann also asked why Xcel Energy did not route the line from the existing Granite City Substation further east along Lake Road and straight to the Verso Paper Mill.

*Xcel representatives explained that this would not effectively meet the purpose of the project.*<sup>8</sup>

Tina and Terry Douvier, landowners in the project area, raised concerns about the Proposed Route with the Douvier Alternative and the Proposed Route with Alternative Route Segment A.

*Xcel representatives indicated that either alternatives would work for Xcel Energy and that the Douvier Alignment would avoid certain impacts but acknowledged it would create others, such as impacts on trees and wetlands.*<sup>9</sup>

Ms. Tina Douvier asked why the new line could not run along the north side of County Road 29 with the existing 115 kV line (Line 5509).

*Joseph Sedarski with Xcel explained that Line 5509 is a radial feed and in order to place both circuits on that line there would need to be one or two outages to Verso Paper Mill. It is Mr. Sedarski's understanding that Verso Paper Mill could not have a lengthy outage because of the needs of the paper mill. Ben Gallay with Xcel also indicated that the work could not safely be done while the line was still energized due to constraints with building an additional circuit and the inability of the paper mill to sustain any sort of outage.*<sup>10</sup>

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<sup>8</sup> Ex. 24 at 14 (ALJ Report).

<sup>9</sup> Ex. 24 at 15 (ALJ Report).

<sup>10</sup> Ex. 24 at 16 (ALJ Report).

Ron Hodel, a landowner on the Proposed Route, near the corner of County Road 29 and Highway 10, expressed concerns about the number of power lines he would have on his east property line and the back of his property.<sup>11</sup>

*If the Proposed Route with the Douvier Alignment or the Proposed Route with Route Alternative A were selected, the transmission line would run along County Road 29 directly in front of Mr. Hodel's property.*

Leo Tauber, a landowner along all routes under consideration, commented that the new line would come within 27 feet of his home. He expressed concern about the health impact of having a line so close to his home and the potential for storm-related damage (i.e. falling structures).

*Joseph Sedarski with Xcel Energy indicated that Xcel would try to avoid placing structures in front of Mr. Tauber's home and would hang the conductors on the road side so that they would be farther from his home. Ben Gally with Xcel Energy addressed the potential for falling structures indicating that the structures would be built to meet or exceed the requirements of the NESC which are based on worst-case weather situations in particular regions.<sup>12</sup>*

Scott Ek with EFP staff asked Xcel representatives whether it was possible to route the transmission line further south behind Mr. Leo Tauber's home rather than running it in the front along County Road 29.

*Xcel indicated they would consider that option and any associated impacts on the owners land. Ms. Tina Douvier commented that more of her land would be taken if the line was to be routed south of Mr. Tauber's home.<sup>13</sup>*

Terry Humbert with Mn/DOT in St. Cloud indicated it would oppose any transmission structures within Mn/DOT's right-of-way. Mr. Humbert along with Robert Kozel (Benton County Public Works) pointed out an area of concern near the Highway 10 and County Road 3 interchange where a future interchange loop is being planned.

Mr. Humbert explained that the transmission alignment as currently proposed would pass over the center of the proposed interchange loop in this area and emphasized that Mn/DOT's policy does not allow for parallel facilities or utilities within freeway right-of-way.<sup>14</sup>

*Mr. Sedarski with Xcel explained that the 400 foot route width requested by Xcel would allow Xcel to construct the proposed transmission line farther east of the proposed interchange loop and avoid placement of transmission structures within Mn/DOT right-of-way in this area.<sup>15</sup>*

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<sup>11</sup> Ex. 24 at 17 (ALJ Report).

<sup>12</sup> Ex. 24 at 18 (ALJ Report).

<sup>13</sup> Ex. 24 at 17 (ALJ Report).

<sup>14</sup> Ex. 24 at 21-23 (ALJ Report).

<sup>15</sup> Ex. 24 at 24 (ALJ Report).

### Summary of Written Comments

- Leo and Linda Tauber submitted written comments reiterating their concerns about the Proposed Route and the close proximity to their home along County Road 29. They also expressed concerns that the proposed project would cause decreased property value, tree and vegetation removal (privacy), transmission line structure failure, noise issues associated with the line, interference issues, and stray voltage.<sup>16</sup>
- Ed Dingmann submitted written comment requesting the proposed transmission structures be located on the west side of the existing poles along Highway 10. He also requested that low growth vegetation be planted as a sound barrier and that he be allowed access to logging material. Mr. Dingmann also proposed two alternative routes in an attempt to alleviate any problems associated with County Road 29. The two proposed routes would not follow Highway 10, but would run north-south or southwest-west from the Mayhew Lake Substation traversing open land and wetlands to connect with Highway 10 south from the County Road 29/Highway 10 interchange.<sup>17</sup>
- Stacy Kotch with Mn/DOT submitted a written comment on October 7, 2011, reiterating concerns expressed by Terry Humbert at the public hearing concerning the planned loop interchange at U.S. Highway 10 and County Road 3. Mn/DOT believes the alignment for the proposed transmission line in this area will need to be shifted east to avoid the area of the proposed interchange project. Mn/DOT's current estimate of the interchange construction project is approximately five years.<sup>18</sup>
- Jamie Schrenzel with the DNR submitted written comment on October 11, 2011, concerning the proposed project. The DNR appreciated the detailed statement in the environmental assessment regarding the Blanding's turtle. The DNR also expressed concern over the possibility of additional right-of-way being required where the new transmission line would follow and be underbuilt with the existing distribution line along U.S. Highway 10, thereby potentially encroaching on areas the DNR previously urged to be avoided.

The DNR suggested that Xcel be encouraged to work with the DNR regarding avian mitigation measures prior to issuance of a permit by the Commission and as early as possible in the development of the project. The DNR also encouraged the use of mechanical vegetation removal in sensitive areas where feasible. Lastly the DNR believes that the Proposed Route with Alternative A would likely result in the fewest environmental impacts.<sup>19</sup>

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<sup>16</sup> Ex. 24 at 29 (ALJ Report); Tauber Letter (eDocket 201111-68209-01).

<sup>17</sup> Ex. 24 at 30 (ALJ Report); Dingmann Letter (eDocket 201111-68208-02).

<sup>18</sup> Ex. 24 at 31 (ALJ Report); Mn/DOT Letter (eDocket 201110-67118-01).

<sup>19</sup> Ex. 24 at 32 (ALJ Report); DNR Letter (eDocket 201111-68209-01).

- Joseph Sedarski with Xcel Energy submitted a letter during the comment period regarding the various alternatives that were suggested at the public hearing and in comment letters. Xcel Energy reiterated that the primary purpose of the project is to provide a second power source to the Mayhew Lake Substation and provide redundant, stable and more reliable electric service to customers served by that substation. Xcel further states in the letter that the Switch Alternative, the Double-Circuit Alternative, and the Tauber Alternative all suggested during the public hearing are not preferable to the proposed project as they do not provide the same redundancy/reliability as the Proposed Route (switch alternative); is not safe and would incur much greater costs and short-term electric outages to the Verso Paper Mill (double-circuit alternative); and would potentially impact more landowners and forested and productive agricultural acreage (Tauber Route Alternative).<sup>20</sup>
- Craig Affeldt with the Minnesota Pollution Control Agency (MPCA) submitted a comment letter dated October 11, 2011. The MPCA suggested that Xcel Energy make efforts prior to construction to determine if any petroleum or other contamination is likely to be encountered during project construction. The MPCA also indicated that a Stormwater Pollution Prevention Plan (SWPPP) must be developed and a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater permit must be acquired before any ground disturbing work takes place.<sup>21</sup>
- Mara Koeller with Xcel Energy submitted a comment letter after the close of the comment period. The letter addressed the announcement by Verso Paper on October 11, 2011, that it would be shutting down two paper machines at its paper mill in Sartell. Xcel indicated that it is their understanding that the bulk electric load at Verso Paper will be unchanged, as the electric load relates to a pulping and paper machine that will remain in operation.<sup>22</sup>

### **Standards for Permit Issuance**

The Power Plant Siting Act sets standards and criteria and outlines the factors to be considered in determining whether to issue a permit for a high-voltage transmission line (Minnesota Statute 216E and Minnesota Rule 7850.4000). The law also allows the Commission to place conditions on high-voltage transmission line permits (Minnesota Statute 216E.03 and Minnesota Rule 7850.4600).

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<sup>20</sup> Ex. 24 at 33 (ALJ Report); Mn/DOT Letter (eDocket 201110-67231-01).

<sup>21</sup> Ex. 24 at 34 (ALJ Report); MPCA Letter (eDocket 201110-68209-01).

<sup>22</sup> Ex. 24 at 35 (ALJ Report); Xcel Energy Letter (eDocket 201111-67931-01).

## **EFP Staff Analysis and Comments**

EFP staff has prepared the attached Findings of Fact, Conclusions of Law, and Order and Route Permit. The findings show that the alternative permitting process has been conducted in accordance with Minnesota Rules 7850.2800 to 7850.3900, identify route impacts and mitigation measures, and make conclusions of law and order. The route permit includes measures to ensure the transmission line is constructed in a safe, reliable manner and that impacts are avoided, minimized or mitigated. Documents that are part of the record in this proceeding are included on the attached exhibit list.

The record supports several specific items that merit consideration relative to the routes under consideration and special conditions in the high-voltage transmission line route permit for the St. Cloud Loop 115 kV transmission line project. These items include:

### Minnesota Department of Transportation

Both Mn/DOT and Benton County have raised concern about a planned loop interchange at U.S. Highway 10 and County Road 3 and the possible need to shift the transmission line east to avoid the area.<sup>23</sup>

#### *EFP Response*

Xcel Energy should continue to consult with Mn/DOT, Benton County and the city of Sauk Rapids regarding the long range plan for an interchange modification at U.S. Highway 10 and County Road 3 to include a loop ramp.<sup>24</sup> Xcel Energy believes there is room within the 400 foot wide route width requested by Xcel Energy to allow the alignment identified in the route permit application to be located a sufficient distance east from the proposed interchange.<sup>25</sup> Xcel Energy indicates they have been discussing this project with Mn/DOT and will continue to work with them to optimally position and manage the transmission rights-of-way when paralleling roadways in order to meet the Utility Accommodation Policy.<sup>26</sup> This issue is addressed in the route permit at Section 3.1, which provides for alignment modifications and route width variations arising from planned infrastructure, and Section 3.2 (Right-of-Way Placement).

### Minnesota Department of Natural Resources

The DNR expressed concern that additional right-of-way might be required where the line would run parallel to U.S. Highway 10, thereby potentially encroaching on areas the DNR previously urged to be avoided.<sup>27</sup>

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<sup>23</sup> Ex. 24 at 31 (ALJ Report); Mn/DOT Letter (eDocket 201110-67118-01).

<sup>24</sup> Ex. 2 at Appendix C.8, City of Sauk Rapids Resolution (RPA).

<sup>25</sup> Ex. 21 (Direct Testimony and Schedules of Joseph Sedarski).

<sup>26</sup> Xcel Energy e-mail, 09/12/11.

<sup>27</sup> Ex. 24 at 32 (ALJ Report); DNR Letter (eDocket 201111-68209-01).

*EFP Response*

There are areas along the routes where the new transmission line would be located at or very near existing electric distribution or transmission easements and roadway rights-of-way. Where the line parallels roads, it is to utilize existing rights-of-way to the maximum extent possible. In addition, approximately 2.7 miles of the total proposed new transmission line along U.S. Highway 10 will be underbuilt with the existing distribution line and utilize its right-of-way.<sup>28</sup> These issues are addressed in the route permit at Section 2.3 (Structures & Conductors), Section 3.2 (Right-of-Way Placement) and section 3.3 (Right-of-Way Width).

The DNR suggested that Xcel work with the DNR regarding avian mitigation measures.

*EFP Response*

EFP staff agrees that consultation between Xcel Energy and DNR on the need, type and placement of swan flight diverters along the approved route, prior to the Xcel Energy's submittal of the final plan and profile to the Commission, is appropriate and has incorporated this requirement into the route permit at Section 5.4 (Avian Mitigation).

The DNR encouraged the use of mechanical vegetation removal in sensitive areas where feasible.

*EFP Response*

Vegetation management in infrequently mowed areas, such as in ditches, along utility access roads, and under power lines, will be done mechanically (chemicals will not be used) and will occur fall through spring (after October 1st and before June 1st), as per the route permit at Section 4.2.5 (Vegetation Removal in the Right-of-Way).

The DNR believes that the Proposed Route with Alternative Route Segment A would likely result in the fewest environmental impacts.

*EFP Response*

None of the routes under consideration would encroach upon the NW 1/4 of the NE 1/4 of Section 14 pointed out by the USFWS and designated by the DNR as an MCBS Site of Moderate Biodiversity. The Proposed Route and the Proposed Route with the Douvier Alignment would be located approximately three tenths of a mile northwest while the Proposed Route with Alternative Route Segment A would be located approximately five tenths of a mile northwest, a difference of 1,050 feet. EFP staff believes the Proposed Route or the Proposed Route with the Douvier Alignment might be more advantageous than Alternative Route Segment A, they it run north of the MCBS site and include a forested area running northeast to southwest that would assist in screening the line, whereas Alternative Route Segment A follows roads that do not provide vegetative screening.

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<sup>28</sup> Xcel Energy, Notice of Application, 03/25/11, eDocket 20114-61774-01.

In addition, Xcel Energy would be required to site the route to avoid tree and shrub removal at the wooded wet swale north and south of Golden Spike Road at the U.S. Highway 10 interchange, where an important wetland corridor exists; attach kestrel nest boxes to power poles, one every one-half mile, along U.S. Highway 10, particularly between Benton Drive and Golden Spike Road, where American kestrels are known to occur; and, in consultation with the DNR, incorporate swan flight diverters every 25 feet along the route staggering them between the lines for trumpeter swans, Canada geese and sandhill cranes, three species identified in this area which are of particular concern.<sup>29</sup> These issues are addressed in the route permit at Section 5.4 (Avian Mitigation).

#### Minnesota Pollution Control Agency

The MPCA suggested that Xcel Energy make efforts to determine if any petroleum or other contamination is likely to be encountered during project construction.

#### *EFP Response*

EFP staff agrees that Xcel Energy should make efforts to identify any contaminated sites as it performs its detailed survey and acquisition work, prior to submittal of the final plan and profile to the Commission. This has been incorporated into the route permit at Section 5.2 (Contamination Survey). Such areas could typically be avoided with pole placements, or, if necessary, the transmission line alignment could be adjusted to avoid the contaminated site.

#### Linda and Leo Tauber

Leo and Linda Tauber submitted written comments reiterating their concerns about the Proposed Route and the close proximity to their home along County Road 29 (approximately 29.5 feet from the anticipated centerline).

#### *EFP Response*

Xcel Energy has been discussing the project with the landowner and Benton County and believes the new pole structures can be placed within the existing County Road 29 right-of-way, as close to the road as is allowable. Conductors will be hang on the road side so that they are further away from the home and the structures can also be designed so that right-of-way width of 75 feet could be reduced along this specific portion of the route, thereby allowing the new pole structures to span the parcel and stay along the County Road 29 roadway.<sup>30</sup> This expectation has been incorporated in the route permit at Section 5.1 (Tauber Property) and is also addressed at Section 4.2.6 (Aesthetics).

The Tauber's also expressed concerns that the proposed project would damage existing trees and vegetation used for privacy.

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<sup>29</sup> RPA, Appendix C.1

<sup>30</sup> Ex. 16 at p. 26 (EA).

*EFP Response*

During preliminary surveys and final design of the transmission line, Xcel Energy has stated that it will consult with landowners and identify concerns where it would be appropriate to apply various types of mitigation with regard to tree and vegetation removal. Vegetation removal is addressed in the route permit at Section 4.2.5 (Vegetation Removal in the Right-of-Way) and Section 4.2.6 (Aesthetics).

Route Comparisons

Xcel Energy's Proposed Route and the two route alternatives (Alternative Route Segment A and the Douvier Alignment) were examined in detail in the EA and at the public hearing. The two alternative routes each utilize a substantial portion of Proposed Route; therefore, the difference in impacts associated with each of the three routes is very slight as indicated in Table 1 below.

**Table 1: Comparison of Routes**

Issue	Proposed Route	Proposed Route with Alternative Route Segment A	Proposed Route with Douvier Alignment
Route length	4.7 miles	4.9 miles	4.7 miles
Structures within 0 to 200 feet of the route centerline <sup>a</sup>	16	17	16
Impacts to agriculture land (includes cultivated crops and hay/pasture land)	8.6 acres	11.0 acres	9.1 acres
Impacts to forested areas	4.4 acres	1.9 acres	3.0 acres
Impacts to wetlands	8.2 acres with 11 wetland crossings	7.3 acres with 10 wetland crossings	9.1 acres with 9 wetland crossings
Use of existing transportation right-of-way <sup>b</sup>	68 percent	84 percent	68 percent
Use of existing electrical utility right-of-way <sup>b</sup>	60 percent	57 percent	60 percent
Cross country/Open space <sup>b</sup>	15 percent	8 percent	15 percent
Construction costs	\$10 million	\$10.1 million	\$10 million

<sup>a</sup> Includes residences, farmsteads, non-residential structures, and commercial buildings

<sup>b</sup> Areas include multiple overlapping rights-of-way.

EFP staff reached its conclusions and recommendations based on the analysis in the EA and the comments received in this record. In weighing the differences of the routes for the proposed project, staff was guided by the state's policy of choosing locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity (Power Plant Siting Act, Minnesota Statute 216E).

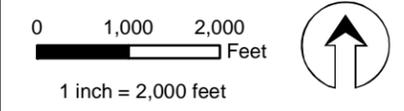
The EFP staff believes that any of the three routes under consideration (the Proposed Route, the Proposed Route with Alternative Route Segment A, and the Proposed Route with the Douvier Alignment) could be permitted by the Commission.

However, based on the above, EFP staff concludes that Xcel Energy's Proposed Route strikes the right balance of minimizing the proliferation of new right-of-way and avoiding impacts to lands slated for future development. The Proposed Route is shorter in total length and also less in total cost when compared to the Proposed Route with Alternative Route Segment A. The Douvier Alignment would have only a modest effect on reducing the need for tree clearing and would slightly increase impacts to wetlands and agriculture lands when compared with the Proposed Route.

### **Commission Decision Options**

- A. Approve and adopt the Findings of Fact, Conclusions of Law and Order for Xcel Energy's St. Cloud Loop 115 kV overhead transmission line which:
  - 1. determines that the environmental assessment and record created at the public hearing address the issues identified in the environmental assessment scoping decision;
  - 2. approves the Proposed Route for the construction of the transmission line; and
  - 3. issues a high-voltage transmission line route permit, with appropriate conditions, to Xcel Energy.
- B. Approve and adopt the Findings of Fact, Conclusions of Law and Order as above while imposing any further permit conditions as deemed appropriate.
- C. Amend the Findings of Fact, Conclusions of Law and Order and route permit as deemed appropriate.
- D. Make some other decision deemed more appropriate.

**EFP Staff Recommendation:** Option A.



-  Structure 39
-  Xcel Substation
-  Proposed Route
-  Route Segment A
-  Proposed Douvier Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line



**Figure 1**  
 Overview of Routes  
 St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
 This information is for review purposes only.



In the Matter of the Route Permit Application  
for the St. Cloud Loop 115 kV Transmission  
Line Project in Sauk Rapids, Minnesota.

**EXHIBIT LIST**  
PUC Docket No. E002/TL-10-1026

Exhibit Number	Date	Description	eDocket No.
1.	09/28/2010	Notice of Intent to File Application Pursuant to Alternative Permitting Process	<a href="#">20109-54924-01</a>
2.	03/11/2011	Route Permit Application	<a href="#">20113-60280-01</a> <a href="#">20113-60280-02</a> <a href="#">20113-60280-03</a> <a href="#">20113-60280-04</a> <a href="#">20113-60280-05</a> <a href="#">20113-60280-06</a> <a href="#">20113-60280-07</a> <a href="#">20113-60280-08</a> <a href="#">20113-60280-09</a>
3.	03/24/2011	Confirmation of Mailing Route Permit Application to State and Federal Agencies and Libraries	<a href="#">20119-66497-01</a>
4.	03/25/2011	Confirmation of Publication and Mailing Notice of a Submittal of an Application for a Route Permit	<a href="#">20114-61774-01</a>
5.	03/25/2011	Notice of Commission Meeting for Route Permit Application Acceptance Decision	<a href="#">20113-60602-05</a>
6.	03/30/2011	Comments and Recommendations of the Energy Facility Permitting Staff on Application Acceptance	<a href="#">20113-60764-01</a>
7.	04/11/2011	Public Utility Commission Order on Application Acceptance	<a href="#">20114-61145-01</a> <a href="#">20114-61145-02</a>
8.	04/13/11	Notice of Public Information and Scoping Meeting	<a href="#">20114-61280-01</a>

Exhibit Number	Date	Description	eDocket No.
9.	04/27/2011	Published Notice of Public Information and Scoping Meeting	<a href="#">20115-62842-01</a>
10.	05/11/2011	Xcel's Response to Public Utility Commission's Questions Regarding Fiber Optic Cable	<a href="#">20115-62456-01</a>
11.	06/02/2011	Public Scoping Comments	<a href="#">20116-63199-02</a>
12.	06/02/2011	Transcribed Comments from Public Information and Scoping Meeting	<a href="#">20116-63199-01</a>
13.	06/03/2011	Environmental Assessment Scoping Decision	<a href="#">20116-63333-01</a>
14.	09/14/2011	Notice of Public Hearing and Availability of Environmental Assessment and Affidavit of Mailing	<a href="#">20119-66383-01</a>
15.	09/14/2011	Notice of Public Hearing and Availability of Environmental Assessment - Certified Mail	<a href="#">20119-66585-01</a> <a href="#">20119-66642-01</a>
16.	09/16/2011	Environmental Assessment	<a href="#">20119-66435-01</a>
17.	09/18/2011	Published Notice of Public Hearing and Availability of Environmental Assessment and Affidavit	<a href="#">20119-66586-01</a>
18.	09/19/2011	Notice of Public Hearing and Availability of Environmental Assessment as Published in <i>EQB Monitor</i>	<a href="#">20119-66587-01</a>
19.	09/19/2011	Confirmation of Mailing Environmental Assessment to State and Federal Agencies	<a href="#">20119-66469-01</a>
20.	09/19/2011	Confirmation of Mailing Environmental Assessment to Library	<a href="#">20119-66683-01</a>
21.	09/26/2011	Direct Testimony and Schedules of Joseph Sedarski	<a href="#">20119-66633-01</a>

Exhibit Number	Date	Description	eDocket No.
22.	09/23/2011	Notice of Public Hearing and Availability of Environmental Assessment and Affidavit of Mailing (Mailed by Xcel Energy)	<a href="#">20119-66663-01</a>
23.	11/10/2011	Public Hearing Transcript	<a href="#">201111-68253-01</a>
24.	11/10/2011	Administrative Law Judge (ALJ) Summary of Public Testimony	<a href="#">201111-68268-01</a>
25.	11/17/2011	Notice of Commission Meeting for Route Permit Decision	<a href="#">201111-68414-01</a>

**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

Ellen Anderson  
David Boyd  
J. Dennis O'Brien  
Phyllis Reha  
Betsy Wergin

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the Route Permit Application for the St. Cloud Loop 115 kV Transmission Line Project in Sauk Rapids, Minnesota.	<b>ISSUE DATE:</b>  <b>DOCKET NO. E002/TL-10-1026</b>  <b>FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER ISSUING A ROUTE PERMIT TO XCEL ENERGY FOR A 115 KILOVOLT TRANSMISSION LINE AND ASSOCIATED FACILITIES</b>
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The above matter came before the Minnesota Public Utilities Commission on April 7, 2011, acting on an application by Xcel Energy for a route permit to construct a new 4.7-mile long 115 kV overhead transmission line in the northern part of the city of Sauk Rapids and the townships of Minden and Sauk Rapids in Benton County, Minnesota.

A public hearing was held on September 28, 2011, at Sauk Rapids-Rice Middle School in Sauk Rapids, Minnesota. The hearing was presided over by Judge Barbara L. Neilson, Administrative Law Judge (ALJ) for the Minnesota Office of Administrative Hearings (OAH). The hearing continued until all persons who desired to speak had done so. The comment period closed on October 11, 2011, at 4:30 p.m.

**STATEMENT OF ISSUE**

Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the 115 kV St. Cloud Loop transmission line project?

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

## **FINDINGS OF FACT**

### **Applicant**

1. Xcel Energy (applicant) is a Minnesota corporation with its headquarters in Minneapolis, Minnesota. Xcel Energy is a wholly owned subsidiary of Xcel Energy Inc., a utility holding company with its headquarters in Minneapolis.<sup>1</sup>
2. The applicant applied for a high-voltage transmission line route permit to construct a new 115 kV transmission line and upgrades to existing substations. Xcel Energy indicates that the project will improve the reliability of service to customers served from the Mayhew Lake Substation in and near the cities of St. Cloud, Sartell and Sauk Rapids, and the surrounding townships. Xcel Energy also explains that with the reconfiguration of 115 kV lines around Transmission Structure 39 in this project, the loss of any double-circuit transmission lines between the Granite City, Benton County, Mayhew Lake, and St. Cloud substations will not result in dropping the load at Mayhew Lake Substation or the large industrial customer facility (Verso Paper Corporation) served by these lines.<sup>2</sup>

### **Project Description**

3. The St. Cloud Loop 115 kV overhead transmission line project is located in the northern part of the city of Sauk Rapids and the townships of Minden and Sauk Rapids in Benton County, Minnesota.<sup>3</sup>
4. The Proposed Route is 4.7 miles of new overhead 115 kV transmission line that would exit the existing Mayhew Lake Substation, head west along County Road 29 for one-half mile and south-southwest for three-tenths of a mile cross-country to Highway 10. The route would proceed south along the east side of Highway 10 for two and nine-tenths miles, turn east for three tenths of a mile following County Ditch 3 to the existing Granite City Substation. A second segment of new transmission line would connect to existing Line 5509 at 14th Avenue NE and head south-southeast following County Ditch 3 and existing transmission lines in the area for approximately seven-tenths of a mile to existing Transmission Structure 39.<sup>4</sup>

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<sup>1</sup> Exhibit (Ex.) 2 at p. 5 (Route Permit Application [RPA]).

<sup>2</sup> Ex. 2 at p. 10 (RPA).

<sup>3</sup> Ex. 2 at Appendix B, Figure B-1 (RPA).

<sup>4</sup> Ex. 2 at pp. 13-14 (RPA).

5. The project as described in the route permit application would consist of the following:
- constructing approximately 4 miles of new 115 kV transmission line (Line 5520) between the Mayhew Lake Substation and the Granite City Substation;
  - removing a 1,700 foot segment of existing single-circuit 115 kV transmission line (Line 5509) between the Granite City Substation and its intersection with Lines 0887 and 0899;
  - installing approximately 0.7 miles of new 115 kV transmission line to extend existing Line 5509 from its intersection with Lines 0887 and 0899 to Structure 39, installing either a new single-circuit pole or a new double-circuit structure near Structure 39 and connect Line 5509 from Structure 39 to existing Line 0899, thus creating newly designated Line 5509 connecting the Mayhew Lake Substation to the Benton County Substation;
  - removing existing Line 0887 jumper at Structure 39 so that Line 0887 is no longer connected to Benton County Substation, and keeping Line 0887 connection between the St. Cloud and Granite City substations;
  - disconnecting the existing Line 0899 at Structure 39 to the Benton County Substation and connecting to removed Line 0887 segment from Structure 39 to Benton County Substation, and designating this revised line from Granite City to Benton County substations as Line 0899;
  - installing fiber optic ground wire with the new 115 kV line and the remaining segment of Line 0899; and
  - modifying the Benton County, Crossroads, Granite City, Mayhew Lake, and St. Cloud and substations to accommodate the above changes, which include changing and/or adding new line termination equipment and/or a ring bus, adding transfer trip and pilot relaying, installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.
6. As presented in the route permit application, Xcel Energy also identified and analyzed one alternative route (Alternative Route) and two alternative route segments (Route Segment A and Route Segment B).<sup>5</sup> The alternatives were rejected by Xcel Energy as they did not fulfill its objectives or provide any greater advantage with respect to the Proposed Route, pursuant to Minnesota Rule 7850.3100.

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<sup>5</sup> Ex. 2 at pp. 16-20 (RPA).

## Route Width

7. Xcel Energy requests a 400 foot route width for the entire length of the Proposed Route, as follows: 200 feet on each side of the proposed alignment from the Mayhew Lake Substation west one-half mile and south-southwest for three-tenths of a mile cross-country to U.S. Highway 10; a 400 foot route width left-aligned with the eastern edge of the northbound lanes of U.S. Highway 10 for 2.9 miles; 200 feet on either side of the proposed alignment from U.S. Highway 10 heading east along County Ditch 3 to the Granite City Substation for three-tenths of a mile; 200 feet on either side of the proposed alignment for the new segment extending Line 5509 at approximately 14th Avenue NE to Structure 39 for seven-tenths of a mile. A 200 foot route width extending from Xcel Energy-owned property at the Mayhew Lake and Granite City substations is also requested.
8. In a letter dated September 26, 2011, Xcel Energy requested additional route width not included in the route permit or environmental assessment (EA).<sup>6</sup> The additional route width is located just north of the Granite City substation where the Proposed Route heads east from U.S. Highway 10 along County Ditch 3. The additional route width in this area is being requested by Xcel so that the new transmission line could be co-located with an existing distribution line in this area. The additional requested route width is minimal (approximately 1.4 acres in size) and does not appear to create any additional impacts not already evaluated in the EA.<sup>7</sup>

## Right-of-Way

9. Xcel Energy will require a 75 foot right-of-way (37.5 feet on either side of centerline) for the new 115 kV transmission line.<sup>8</sup>
10. The new 115 kV transmission line will be underbuilt with 2.7 miles of existing distribution line. Xcel Energy indicates that the project will be designed to fit within the existing distribution line easements, thereby reducing the amount of new right-of-way that would be required.<sup>9</sup>
11. The route permit application indicates that transmission centerline would be constructed approximately five feet outside road right-of-way where the transmission line would parallel a road. This would allow the transmission line to share a portion of the road right-of-way, resulting in an easement of lesser width to be required from the landowner.<sup>10</sup>

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<sup>6</sup> Ex. 21 (Direct Testimony and Schedules of Joseph Sedarski).

<sup>7</sup> Ex. 21 at Schedule 4 (Direct Testimony and Schedules of Joseph Sedarski).

<sup>8</sup> Ex. 2 at p. 25 (RPA).

<sup>9</sup> Ex. 16 at p. 8 (Environmental Assessment [EA]).

<sup>10</sup> Ex. 16 at p. 8 (EA).

12. The Proposed Route runs parallel with the northbound lanes of U.S. Highway 10 for approximately 2.9 miles. The Minnesota Department of Transportation (Mn/DOT) indicated in its comment letter that this section of U.S. Highway 10 is freeway design and the provisions of the Utility Accommodation Policy relating to freeways are applicable.<sup>11</sup> Along U.S. Highway 10, Xcel Energy has stated it will conform with Mn/DOT's Utility Accommodation Policy so that the transmission structures, davit arms (5 to 10 feet in length) and conductors do not overhang into Mn/DOT right-of-way. Xcel Energy would move the structures over on private easements in order to meet the Policy. Xcel Energy indicates they have been discussing this project with Mn/DOT and will continue to work with them to optimally position and manage the transmission rights-of-way when paralleling roadways in order to meet the Utility Accommodation Policy.<sup>12</sup>

### Structure Types

13. The primary (tangent) structures Xcel Energy proposes to use for the project are single-circuit galvanized steel, weathering steel or wood post structures with braced posts or davit arms. The structures would be approximately 70 feet to 90 feet in height with an average span of 300 feet to 400 feet between structures.<sup>13</sup>
14. Double-circuit structures may be required for the seven tenths mile of new 115 kV transmission line and the existing lines that would extend from approximately 14th Avenue NE to Transmission Structure 39. The double-circuit structures would be galvanized or weathered steel single-poles with davit arms, approximately 75 feet to 105 feet in height with spans of 300 feet to 500 feet.<sup>14</sup>
15. Where the new transmission line will make use of approximately 2.7 miles of existing distribution line easement, the same tangent poles identified in Finding 13 will be used and underbuilt with the existing distribution lines using distribution crossarms.<sup>15</sup>
16. Where angles in the new line are required, Xcel Energy is proposing special angle structures that will be similar in design to the tangent structures identified in Finding 13, and that given the limited right-of-way, guying would not be necessary.
17. H-frame design structures may be used in areas with rugged topography and where longer spans are required. The usual right-of-way required for these types of structures is 75 feet wide.<sup>16</sup>

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<sup>11</sup> Ex. 11 (Scoping Comment Letters).

<sup>12</sup> Xcel Energy e-mail, 09/12/11.

<sup>13</sup> Ex. 16 at p. 12 (EA).

<sup>14</sup> Ex. 2 at p. 9 (RPA).

<sup>15</sup> Ex. 16 at p. 12 (EA).

<sup>16</sup> Ex. 2 at p. 49 (RPA).

## Conductors

18. The three phases of the single-circuit 115kV transmission line will each consist of one single 26/7 kcmil 795 steel supported conductors.<sup>17</sup>
19. A 0.528 inch diameter fiber optic ground wire will be strung above the conductors to prevent damage from lightning strikes.<sup>18</sup> The fiber optic ground wire will also allow substation protection equipment to communicate with equipment at other terminals on the line and to detect faults on the electrical system.<sup>19</sup>

## Substations

20. The project includes changes and modifications to five existing substations (Mayhew Lake, Granite City, Benton County, St. Cloud, and Crossroads substations).<sup>20</sup>
21. The existing Mayhew Lake Substation graded area will be expanded approximately 30,000 square feet (0.7 acres) to the north on Xcel-owned property to allow for the installation of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. The new graded area will be fenced and areas outside the fenced area of the added substation footprint will be graded to direct stormwater to the existing drainage areas on site. Changes also include the addition of three new transmission line structures, modifications to existing structures, and the possible replacement of one old structure with one of the new structures.<sup>21,22</sup>
22. Changes and modifications to the existing Granite City Substation include the installation of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. New dead-end transmission structures will also be required where the new Line 5520 enters into this substation site.<sup>23</sup>
23. Changes and modifications to the existing Benton County, St. Cloud, and Crossroads substations include the replacements or upgrades of relays and communication equipment internal to the control house(s), installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.<sup>24</sup>

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<sup>17</sup> Ex. 16 at p. 12 (EA).

<sup>18</sup> Ex. 16 at p. 12 (EA).

<sup>19</sup> Ex. 10 (Xcel Fiber Optic Cable Letter).

<sup>20</sup> Ex. 2 at p. 21 (RPA).

<sup>21</sup> Ex. 16 at p. 10 (EA).

<sup>22</sup> Ex. 16 at p. 19 (EA).

<sup>23</sup> Ex. 2 at p. 21 (RPA).

<sup>24</sup> Ex. 16 at p. 10 (EA).

## Associated Facilities

24. Jumpers connecting existing lines would be removed and new jumpers would be added to Transmission Structure 39 depending on existing transmission line(s) name re-designations. New single- and/or double-circuit structures would also be constructed near Transmission Structure 39 to support the new transmission line connections and existing line name re-designations.<sup>25</sup>

## Project Schedule

25. Xcel Energy anticipates construction of the project to begin in the fourth quarter of 2011 with a fourth quarter 2012 in-service date. Xcel Energy indicates the schedule is based on information known as of the date of the route permit application filing. The schedule may be subject to revision as further information is developed.<sup>26</sup>

## Project Cost

26. Xcel Energy estimates the total cost of the project, which includes construction costs, cost of structures, insulators, conductors, modifications to existing substations and Transmission Structure 39, labor, and cost of equipment used to construct the new line to be approximately \$10 million (\$10.1 million for Alternative Route Segment A).<sup>27</sup>
27. Xcel Energy indicates its typical annual operating and maintenance costs for 115 kV transmission lines in its Upper Midwest system are approximately \$300 to \$500 per mile of transmission line right-of-way. Costs include inspections typically performed by airplane or helicopter on a regular basis. Inspections of substations and other equipment are generally performed on an annual or semi-annual basis depending on the type of equipment. Maintenance and repairs to substations are performed on an as-needed basis with costs varying from substation to substation.<sup>28</sup>

## Construction

28. Temporary short-term disturbance of soils would likely result from site clearing and excavation activities at structure locations, pulling and tensioning sites, setup areas and during transport of crews, machinery, materials and equipment over access routes primarily along transmission right-of-way.<sup>29</sup>

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<sup>25</sup> Ex. 16 at p. 10 (EA).

<sup>26</sup> Ex. 2 at p. 11 (RPA).

<sup>27</sup> Ex. 16 at p. 11 (EA).

<sup>28</sup> Ex. 2 at p. 11 (RPA).

<sup>29</sup> Ex. 16 at p. 55 (EA).

29. Should construction activities require disturbing more than one acre of soil Xcel Energy will apply for a National Pollutant Discharge Elimination System (NPDES) construction stormwater permit and would prepare a Stormwater Pollution Prevention Plan (SWPPP). Erosion control methods and Best Management Practices (BMPs) pursuant to Minnesota Pollution Control Agency (MPCA) requirements will be utilized to minimize runoff during construction.<sup>30</sup>
30. No long-term erosion or geologic impacts are expected to result from this project. Commonly used temporary and permanent cover practices that can be combined and used in conjunction with each other depending on the specifics of a site include:
- Utilizing seed to establish temporary and permanent vegetative cover on exposed soil. Mn/DOT and the Minnesota Department of Natural Resources (DNR) have researched various seed mixes and have identified mixes for specific site characteristics and uses.
  - Mulch may be applied to form a temporary and protective cover on exposed soils. Mulch can help retain moisture in the soil to promote vegetative growth, reduce evaporation, insulate the soil, and reduce erosion. A common mulch material used is hay or straw.
  - Erecting or using sediment control fences that are intended to retard flow, filter runoff, and promote the settling of sediment out of runoff via ponding behind the sediment control. Examples include biorolls, sandbags, and silt fences.
  - Using Erosion control blankets and turf reinforcement mats that are typically single or multiple layer sheets made of natural (wood) and/or synthetic materials that provide structural stability to bare surfaces and slopes.
  - Upon completion of construction in a specific area route permit conditions require that contours be graded so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities must be returned to their pre-construction condition.<sup>31</sup>

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<sup>30</sup> Ex. 16 at p. 54 (EA).

<sup>31</sup> Ex. 16 at p. 55 (EA).

## Procedural Summary

31. On September 28, 2010, in accordance with Minnesota Rule 7850.2800, subpart 2, Xcel Energy filed a letter with the Commission noticing their intent to submit a route permit application under the alternative permitting process set forth in Minnesota Statutes 216E.04 and Minnesota Rules 7850.2800 to 7850.3900.<sup>32</sup>
32. On March 11, 2011, Xcel Energy filed a route permit application with the Commission for a new 4.7-mile long 115 kV overhead transmission line in the northern part of the city of Sauk Rapids and the townships of Minden and Sauk Rapids in Benton County, Minnesota.<sup>33</sup>
33. Xcel Energy mailed a Notice of a Submittal of an Application for a Route Permit on March 25, 2011, to those persons whose names are on the general list maintained by the Commission for this purpose, local and regional officials, and property owners in compliance with Minnesota Rule 7850.3300.<sup>34</sup>
34. The Applicant published Notice of a Submittal of an Application for a Route Permit in the *St. Cloud Times* (March 28, 2011) and the *Sauk Rapids Herald* (March 30, 2011) in compliance with Minnesota Rule 7850.3300.<sup>35</sup>
35. On March, 24, 2011, EFP staff mailed copies of the route permit application to state and federal agency representatives and the St. Cloud Public Library.<sup>36</sup>
36. On March 25, 2011, the Commission mailed a Notice of Commission Meeting to consider Xcel Energy's route permit application.<sup>37</sup>
37. In its comments and recommendations, EFP staff recommended that the Commission accept Xcel Energy's route permit application for the project as complete and authorize the EFP staff to process the application under the alternative permitting process pursuant to Minnesota Rules 7850.2800 to 7850.3900, authorize EFP staff to name a public advisor, and determine that based on the available information an advisory task force is not necessary at this time.<sup>38</sup>

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<sup>32</sup> Ex. 1 (Notice of Intent).

<sup>33</sup> Ex. 2 (RPA).

<sup>34</sup> Ex. 4 (Applicant Mailed Notice of Route Permit Application Filing).

<sup>35</sup> Ex. 4 (Applicant Published Notice of Route Permit Application Filing).

<sup>36</sup> Ex. 3 (Confirmation of Mailing Route Permit Application to State/Federal Agencies and Library).

<sup>37</sup> Ex. 5 (Notice of Commission Meeting).

<sup>38</sup> Ex. 6 (Comments and Recommendations of EFP Staff on Application Acceptance).

38. In its April 4, 2011, Order, the Commission accepted the application as complete and determined that the project is eligible for the alternative permitting process of the Power Plant Siting Act, Minnesota Statute 216E.04 and Minnesota Rules 7850.2800 to 7850.3900, authorized the EFP staff to name a public advisor, and determined that an advisory task force was not necessary at that time.<sup>39</sup>
39. On April 13, 2011, EFP staff issued and mailed a Notice of Public Information and Scoping Meeting to those persons whose names are on the project list maintained by the Commission for this purpose in compliance with Minnesota Rule 7850.3500, subpart 1. EFP staff also sent the Notice to designated State and Federal Agency Representatives.<sup>40</sup>
40. The applicant on behalf of EFP staff published the Notice of Public Information and Scoping Meeting in the in the *St. Cloud Times* (April 27, 2011) and the *Sauk Rapids Herald* (April 27, 2011) in compliance with Minnesota Rule 7850.3500, subpart 1.<sup>41</sup>

#### Public Meeting

41. The scoping process is the first step in developing an EA. The Department of Commerce (Department) “shall provide the public with an opportunity to participate in the development of the scope of the EA by holding a public meeting and by soliciting public comments.”<sup>42</sup> During the scoping process, alternative routes may be suggested for evaluation in the EA.<sup>43</sup>
42. In accordance with Minnesota Rule 7850.3500, subpart 1, EFP staff held a public information and scoping meeting on April 13, 2011, at the Sauk Rapids – Rice Middle School in Sauk Rapids, Minnesota.<sup>44</sup>
43. In total, three people provided oral comments and/or asked questions about the proposed project at the public scoping meeting. Topics and issues raised by the public at the meeting included: construction schedule, easements and right-of-ways, interference (satellite television and wireless internet), vegetation and tree removal practices in the right-of-way, and right-of-way sharing along roads.<sup>45</sup>
44. After the public meeting adjourned, one member of the public suggested an alignment alternative that would shift the proposed right-of-way so that it would follow a tree line to potentially reduce the amount vegetation and tree clearing that could be required in that area.

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<sup>39</sup> Ex. 7 (Commission Order on Route Permit Application Acceptance).

<sup>40</sup> Ex. 8 (Mailed Notice of Public Information and Scoping Meeting).

<sup>41</sup> Ex. 9 (Published Notice of Public Information and Scoping Meeting).

<sup>42</sup> Minnesota Rule 7850.3700, subpart 2.

<sup>43</sup> Minnesota Rule 7850.3700, subpart 2B.

<sup>44</sup> Ex. 12 (Transcribed Comments from Public Information and Scoping Meeting).

<sup>45</sup> Ex. 12 (Transcribed Comments from Public Information and Scoping Meeting).

45. The public comment period on the scope of EA closed on May 25, 2011.<sup>46</sup> EFP received four comment letters during the scoping comment period.<sup>47</sup>
46. A comment letter from the DNR raised the following issues: the timing of vegetation clearing (perform outside of the migratory bird nesting season), installation and locations of bird diverters, avoiding tree/shrub removal in wooded wetland swales, and avoidance of a fen near the Proposed Route. The DNR also indicated a preference for the Proposed Route or Alternative Route Segment A and avoiding as much tree and vegetation clearing as possible in the areas identified in its letter.<sup>48</sup>
47. The Mn/DOT submitted a comment letter referencing its formal policy and procedures for accommodation of utilities on highway rights-of-way (Utility Accommodation Policy) specifically as it relates to Benton County and the city of Sauk Rapids' plan to revise the interchanges at U.S. Highway 10 and County Road 3 (Golden Spike Road). Mn/DOT also recommends contacting Benton County for the new right-of-way limits and base the transmission line pole placement on that information.<sup>49</sup>
48. A letter received from the U.S. Fish and Wildlife Service (USFWS) indicated that there are no federally listed species or species proposed for listing and/or designated or proposed critical habitat within the action area of the proposed project. The USFWS also recommended avoiding or minimizing the potential for wetland impacts in the NW 1/4 of the NE 1/4 of Section 14 and the NE 1/4 of SW 1/4 of Section 25.<sup>50</sup>
49. After the public meeting adjourned, one member of the public verbally suggested an alignment alternative (Douvier Alignment Alternative) that would shift the proposed right-of-way so that it would follow a tree line to potentially reduce the amount vegetation and tree clearing that could be required in that area.<sup>51</sup>
50. The scoping decision document for the EA was signed by the deputy commissioner of the Department of Commerce on June 3, 2011, filed with the Commission and made available to the public as provided in Minnesota Rule 7850.3700, subpart 3, on June 6, 2011.<sup>52</sup>

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<sup>46</sup> Ex. 13 (EA Scoping Decision).

<sup>47</sup> Ex. 11 (Scoping Comment Letters).

<sup>48</sup> Ex. 11 (Scoping Comment Letters).

<sup>49</sup> Ex. 11 (Scoping Comment Letters).

<sup>50</sup> Ex. 11 (Scoping Comment Letters).

<sup>51</sup> Ex. 11 (Scoping Comment Letters).

<sup>52</sup> Ex. 13 (EA Scoping Decision).

## Environmental Assessment

51. The EA was filed with the Commission and made available on September 16, 2011.<sup>53</sup> The EA was prepared in accordance with Minnesota Rule 7850.3700, and contained all the information required.
52. Pursuant to Minnesota Rule 7850.3700, subpart 6, EFP staff published combined Notice of Public Hearing and Availability of EA in the *EQB Monitor* (September 19, 2011).<sup>54</sup>
53. On September 15, 2011, EFP staff mailed a combined Notice of Public Hearing and Availability of EA to those persons whose names are on the project contact list and to local and regional officials in compliance with Minnesota Rule 7850.3700, subpart 6.<sup>55</sup>
54. On September 23, 2011, Xcel Energy, on behalf of the EFP, mailed the combined Notice of Public Hearing and Availability of EA to property owners located within the proposed project.<sup>56</sup>
55. Xcel Energy, on behalf of EFP staff, published a combined Notice of Public Hearing and Availability of EA in the *St. Cloud Times* (September 18, 2011).<sup>57</sup>
56. On September 16, 2011, the EA was provided to the public agencies with authority to permit or approve the proposed project and was also posted to the Commission's EFP website in accordance with Minnesota Rules 7850.3700, subpart 6.<sup>58</sup> A hard copy of the EA was also sent to the St. Cloud Public Library for public review purposes.<sup>59</sup>

## Public Hearing

57. On September 15, 2011, EFP staff mailed a combined Notice of Public Hearing and Availability of EA to those persons whose names are on the project contact list and to local and regional officials in compliance with Minnesota Statute 216E.03, subdivision 6.<sup>60</sup>
58. On September 23, 2011, Xcel Energy, on behalf of the EFP, mailed the combined Notice of Public Hearing and Availability of EA to property owners located within the proposed project.<sup>61</sup>

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<sup>53</sup> Ex. 16 (EA).

<sup>54</sup> Ex. 18 (*EQB Monitor* Notice of Public Hearing and Availability of EA).

<sup>55</sup> Ex. 14 (Mailed Notice of Public Hearing and Availability of EA).

<sup>56</sup> Ex. 22 (Mailed Notice of Public Hearing and Availability of EA).

<sup>57</sup> Ex. 17 (Published Notice of Public Hearing and Availability of EA).

<sup>58</sup> Ex. 19 (Confirmation of EA Submittal to State and Federal Agencies).

<sup>59</sup> Ex. 20 (Confirmation of EA Submittal to the St. Cloud Public Library).

<sup>60</sup> Ex. 14 (Mailed Notice of Public Hearing and Availability of EA).

<sup>61</sup> Ex. 22 (Mailed Notice of Public Hearing and Availability of EA).

59. On September 15, 2011, EFP staff sent via certified mail, a combined Notice of Public Hearing and Availability of EA to chief executives of the regional development commissions, counties, organized towns, townships, and incorporated municipalities in accordance with Minnesota Statute 216E.03, subdivision 6.<sup>62</sup>
60. Pursuant to Minnesota Statute 216E.03, subdivision 6, Xcel Energy, on behalf of EFP staff, published a combined Notice of Public Hearing and Availability of EA in the *St. Cloud Times* (September 18, 2011).<sup>63</sup>
61. Minnesota Office of Administrative Hearings, Barbara L. Nielson, Administrative Law Judge (ALJ) presided over the public hearing conducted on September 28, 2011. The public hearing was held at the Sauk Rapids – Rice Middle School in Sauk Rapids, Minnesota. The ALJ provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question/comments in writing.<sup>64</sup>
62. According to the ALJ Summary of Public Testimony, approximately 30 members of the public attended the public hearing. All persons who desired to speak were afforded a full opportunity to make a statement on the record.<sup>65</sup>
63. Pursuant to Minnesota Rule 7850.3800, subpart 3A, EFP state permit manager Scott Ek and public advisor Raymond Kirsch, were at the public hearing and described the alternative route permitting process, the proposed project, and introduced the EA and other relevant documents for the record.
64. Representatives from Xcel Energy present at the hearing included: Joseph Sedarski, Senior Permitting Analyst; Ben Galloway, Transmission Engineer; Srinivas Vemuri, Transmission Planning; Payal Parikh, Substation Engineer; Brian Mielke, Land Agent; Mara Koeller, General Counsel. Val Herring from the law firm of Briggs & Morgan appeared at the public hearing on behalf of Xcel Energy in this matter.
65. Michael Kaluzniak, Planning Director, was at the public hearing on behalf of the Minnesota Public Utilities Commission.
66. Public comments on the proposed project were accepted by the ALJ until October 11, 2011.<sup>66</sup>
67. The public hearing transcript was filed by the Office of Administrative Hearings designated court reporter on November 10, 2011.<sup>67</sup>

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<sup>62</sup> Ex. 15 (Certified Notice of Public Hearing and Availability of EA).

<sup>63</sup> Ex. 17 (Published Notice of Public Hearing and Availability of EA).

<sup>64</sup> Ex. 23 (Public Hearing Transcript).

<sup>65</sup> Ex. 24 (Administrative Law Judge Summary of Public Testimony [ALJ Report]).

<sup>66</sup> Ex. 22 (Mailed Notice of Public Hearing and Availability of EA).

<sup>67</sup> Ex. 23 (Public Hearing Transcript).

68. The ALJ filed the Summary of Public Testimony on November 10, 2011.<sup>68</sup>
69. During the public hearing, nine members of the public presented their views regarding the proposed routing for the project.<sup>69</sup> The ALJ received five written comments by the October 11, 2011, submittal deadline. Two late-filed comments were received by the ALJ on October 13, 2011, and November 1, 2011.<sup>70</sup>

#### Summary of Oral Comments

70. Ed Dingmann, a landowner in the area of the proposed project, questioned the need of the project.<sup>71</sup>
71. Ed Dingmann asked why Xcel did not route the line from the existing Granite City Substation further east along Lake Road and straight to the Verso Paper Mill. Xcel representatives explained that this would not effectively met the purpose of the project.<sup>72</sup>
72. Tina and Terry Douvier, landowners in the project area, raised concerns about the Proposed Route using the Douvier Alternative and the Proposed Route using Alternative A. Xcel representatives indicated that either alternatives would work for Xcel and that the Douvier Alignment would avoid certain impacts but acknowledged it would create others, such as impacts on trees and wetlands.<sup>73</sup>
73. The Douvier Alignment was verbally suggested by Mr. Terry Douvier to EFP staff after conclusion of the public information and scoping meeting for this project.<sup>74</sup>
74. Ms. Tina Douvier asked why the new line could not run along the north side of County Road 29 with the existing 115 kV line (Line 5509). Joseph Sedarski with Xcel explained that Line 5509 is a radial feed and in order to place both circuits on that line there would need to be one or two outages to Verso Paper Mill. It is Mr. Sedarski's understanding that Verso Paper Mill could not have a lengthy outage because of the needs of the paper mill. Ben Gallay with Xcel also indicated that the work could not safely be done while the line was still energized due to constraints with building an additional circuit and the inability of the paper mill to sustain any sort of outage.<sup>75</sup>

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<sup>68</sup> Ex. 24 (ALJ Report).

<sup>69</sup> Ex. 24 (ALJ Report).

<sup>70</sup> Ex. 24 (ALJ Report).

<sup>71</sup> Ex. 24 at 13 (ALJ Report).

<sup>72</sup> Ex. 24 at 14 (ALJ Report).

<sup>73</sup> Ex. 24 at 15 (ALJ Report).

<sup>74</sup> Ex. 11 (Scoping Comment Letters).

<sup>75</sup> Ex. 24 at 16 (ALJ Report).

75. Ron Hodel, a landowner on the Proposed Route, near the corner of County Road 29 and Highway 10, expressed concerns about the number of power lines he would have on his east property line and the back of his property.<sup>76</sup>
76. Leo Tauber, a landowner along the all routes under consideration, commented that the new line would come within 27 feet of his home. He expressed concern about the health impact of having a line so close to his home and the potential for storm-related damage (falling structures). Joseph Sedarski with Xcel Energy indicated that Xcel would try to avoid placing structures in front of Mr. Tauber's home and would hang the conductors on the road side so that they would be farther from his home. Ben Gallay addressed the potential for falling structures indicating that the structures would be built to meet or exceed the requirements of the National Electric Safety Code (NESC) which are based on worst-case weather situations in particular regions.<sup>77</sup>
77. Mr. Tauber also asked Xcel Energy why the existing Mayhew Lake Substation was originally placed next to a wildlife area and lowlands.<sup>78</sup>
78. Scott Ek with EFP staff asked Xcel whether it was possible to route the transmission line further south behind Mr. Leo Tauber's home rather than running it along the front. Xcel indicated they would consider that option and any associated impacts on the owners land. Ms. Tina Douvier commented that more of her land would be taken if the line was to be routed south of Mr. Tauber's home.<sup>79</sup>
79. Terry Humbert with Mn/DOT in St. Cloud indicated Mn/DOT would oppose any transmission structures within Mn/DOT's right-of-way. Mr. Humbert along with Robert Kozel (Benton County Public Works) pointed out an area of concern near the Highway 10 and County State Aid Highway 3 interchange where a future interchange loop is being planned. Mr. Humbert explained that the transmission alignment as currently proposed would pass over the center of the proposed interchange loop in this area and emphasized that Mn/DOT's policy does not allow for parallel facilities or utilities within freeway right-of-way.<sup>80</sup> Mr. Sedarski with Xcel explained that the 400 foot route width requested by Xcel would allow Xcel to construct the proposed transmission line farther east of the proposed interchange loop and avoid placement within Mn/DOT right-of-way in this area.<sup>81</sup>
80. Other subjects raised during the public hearing included: fair treatment of township residents, greater use of nuclear power, tree and vegetation removal, and septic systems.<sup>82</sup>

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<sup>76</sup> Ex. 24 at 17 (ALJ Report).

<sup>77</sup> Ex. 24 at 18 (ALJ Report).

<sup>78</sup> Ex. 24 at 17 (ALJ Report).

<sup>79</sup> Ex. 24 at 17 (ALJ Report).

<sup>80</sup> Ex. 24 at 21-23 (ALJ Report).

<sup>81</sup> Ex. 24 at 24 (ALJ Report).

<sup>82</sup> Ex. 24 at 25-28 (ALJ Report).

## Summary of Written Comments

81. Leo and Linda Tauber submitted written comments reiterating their concerns about the Proposed Route and the close proximity to their home along County Road 29. They also expressed concerns that the proposed project would cause decreased property value, tree and vegetation removal (privacy), transmission line structure failure, noise issues associated with the line, interference issues, and stray voltage.<sup>83</sup>
82. Ed Dingmann submitted written comment requesting the proposed transmission structures be located on the west side of the existing poles along U.S. Highway 10. He also requested that low growth vegetation be planted as a sound barrier and that he be allowed access to logging material. Mr. Dingmann also proposed to alternative routes in an attempt to alleviate any problems associated with County Road 29. The two proposed routes would not follow U.S. Highway 10, but would run north-south or southwest-west from the Mayhew Lake Substation traversing open land and wetlands to connect with Highway 10 south from the County Road 29/U.S. Highway 10 interchange.<sup>84</sup>
83. Stacy Kotch with Mn/DOT submitted a written comment reiterating concerns expressed by Terry Humbert at the public hearing concerning the planned loop interchange at U.S. Highway 10 and County Road 3. Mn/DOT believes the alignment for the proposed transmission line in this area will need to be shifted east to avoid the area of the proposed interchange project. Mn/DOT's current estimate of the interchange construction project is approximately five years.<sup>85</sup>
84. Jamie Schrenzel with the DNR submitted written comment concerning the proposed project. The DNR appreciated the detailed statement in the EA regarding the Blanding's turtle. The DNR also expressed concern over the possibility of additional right-of-way being required where the new transmission line would follow and be underbuilt with the existing distribution line along U.S. Highway 10, thereby potentially encroaching on areas the DNR previously urged to be avoided. The DNR suggested that Xcel be encouraged to work with the DNR regarding avian mitigation measures prior to issuance of a permit by the Commission and as early as possible in the development of the project. The DNR also encouraged the use of mechanical vegetation removal in sensitive areas where feasible. Lastly the DNR believes that the Proposed Route with Alternative A would likely result in the fewest environmental impacts.<sup>86</sup>

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<sup>83</sup> Ex. 24 at 29 (ALJ Report); Tauber Letter (eDocket 201111-68209-01).

<sup>84</sup> Ex. 24 at 30 (ALJ Report); Dingmann Letter (eDocket 201111-68208-02).

<sup>85</sup> Ex. 24 at 31 (ALJ Report); Mn/DOT Letter (eDocket 201110-67118-01).

<sup>86</sup> Ex. 24 at 32 (ALJ Report); DNR Letter (eDocket 201111-68209-01).

85. Joeseph Sedarski with Xcel Energy submitted a letter during the comment period regarding the various alternatives that were suggested at the public hearing and in comment letters. Xcel Energy reiterated that the primary purpose of the project is to provide a second power source to the Mayhew Lake Substation and provide redundant, stable and more reliable electric service to customers served by that substation. Xcel further states in the letter that the Switch Alternative, the Double-Circuit Alternative, and the Tauber Alternative all suggested during the public hearing are not preferable to the proposed project as they do not provide the same reliability/redundancy as the proposed project (switch alternative); is not safe and would incur much greater costs and short-term electric outages to the Verso Paper Mill (double-circuit alternative); and would potentially impact more landowners and forested and productive agricultural acreage (Tauber Route Alternative).<sup>87</sup>
86. Craig Affeldt with the MPCA submitted a comment letter after the close of the comment period. The MPCA suggested that Xcel Energy make efforts prior to construction to determine if any petroleum or other contamination is likely to be encountered during project construction. The MPCA also indicated that a Stormwater Pollution Prevention Plan (SWPPP) must be developed and a National Pollutant Discharge Elimination System (NPDES) /State Disposal System (SDS) Construction Stormwater permit must be acquired before any ground disturbing work takes place.<sup>88</sup>
87. Mara Koeller with Xcel Energy submitted a comment letter after the close of the comment period. The letter addressed the announcement by Verso Paper on October 11, 2011, that it would be shutting down to paper machines at its paper mill in Sartell. Xcel indicated that it is their understanding that the bulk electric load at Verso Paper will be unchanged, as the electric load relates to a pulping and paper machine that will remain in operation.<sup>89</sup>

### **Environmental Assessment of Routes**

88. All routes analyzed in the EA have human and environmental impacts, some of which are unavoidable if the project is permitted and built. None of the routes evaluated are expected to cause an irreversible or irretrievable commitment of resources.
89. The EA evaluated the Xcel Energy's Proposed Route (Finding 4) along with one alternative route segment (Route Segment A) and one alignment alternative (Douvier Alignment Alternative).<sup>90</sup>

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<sup>87</sup> Ex. 24 at 33 (ALJ Report); Mn/DOT Letter (eDocket 201110-67231-01).

<sup>88</sup> Ex. 24 at 34 (ALJ Report); Mn/DOT Letter (eDocket 201110-68209-01).

<sup>89</sup> Ex. 24 at 35 (ALJ Report); Mn/DOT Letter (eDocket 201111-67931-01).

<sup>90</sup> Ex. 16 at p. 7 (EA).

90. The Proposed Route with Alternative Route Segment A is approximately five-tenths of a mile long and would connect with the Proposed Route approximately five-tenths of a mile west of the Mayhew Lake Substation and run west along County Road 29 for three-tenths of a mile to U.S. Highway 10. The route then proceeds approximately two-tenths of a mile southeast traversing scattered forest land along the U.S. Highway 10 interchange road before reconnecting with the Proposed Route. The total length of the Proposed Route with Route Segment A is approximately 4.9 miles.
91. The Proposed Route with the Douvier Alignment Alternative consists of shifting the alignment and right-of-way of the proposed transmission line 300 feet north-northwest at a point approximately one-quarter of a mile west from the intersection of County Road 57 and County Road 29 where the route turns directly south and then southwest to U.S. Highway 10 (Section 14 of Sauk Rapids Township). The alignment was provided by a citizen as an attempt to reduce the need for additional tree clearing in that area by follow an existing tree line. The total length of the Proposed Route with Douvier Alignment Alternative is approximately 4.7 miles.
92. The Proposed Route and the Proposed Route with the Douvier Alignment are two-tenths of a mile shorter compared to the Proposed Route with Alternative Route Segment A.

#### Socioeconomic and Cultural Setting

93. Socioeconomic effects would generally be positive providing a more stable and reliable supply of electricity, encouraging economic development, providing for future growth, and increasing the local tax base resulting from the incremental increase in revenues from utility property taxes.<sup>91</sup>
94. Construction of the project should result in small short-term positive economic impacts in the form of increased spending for lodging, meals and other consumer goods and services.<sup>92</sup>
95. Compared to the state and county average, the project location does not have disproportionately high minority or low-income populations. The two townships (Minden and Sauk Rapids) where the majority of the project is located have a slightly higher median household income when compared to the city of Sauk Rapids and the rest of Benton County.<sup>93</sup>
96. No disproportionate impacts on minority or low-income populations are anticipated.<sup>94</sup>

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<sup>91</sup> Ex. 16 at p. 24 (EA).

<sup>92</sup> Ex. 16 at p. 24 (EA).

<sup>93</sup> Ex. 16 at p. 23 (EA).

<sup>94</sup> Ex. 16 at p. 23 (EA).

## Displacement

97. National Electric Safety Code (NESC) and Xcel Energy standards require certain clearances between transmission line facilities and buildings for safe operation of the transmission line. Xcel Energy will acquire a right-of-way for transmission lines that is sufficient to maintain these clearances. Xcel Energy indicates the project will not require displacement of any buildings or residences.<sup>95</sup>
98. The closest structure for all routes is located approximately 29.5 feet from the route centerline. Xcel Energy has been discussing the project with the landowner and Benton County and believes the new pole structures can be placed within the existing County Road 29 right-of-way, as close to the road as is allowable. The structures can also be designed so that right-of-way width of 75 feet could be reduced along this specific portion of the route, thereby allowing the new pole structures to span the parcel and stay along the County Road 29 roadway.<sup>96</sup>
99. For the Proposed Route and the Proposed Route with the Douvier Alignment, there are four farmsteads/dwellings within 0-50 feet of the route centerline, four commercial operations within 51-100 feet of the route centerline, and one farmstead/dwelling and seven commercial operations within 101-200 feet of the route centerline. In total, five farmsteads/dwellings and 11 commercial operations are 0-200 feet from the route centerline.<sup>97</sup>
100. For the Proposed Route with Alternative Route Segment A, there are four farmsteads/dwellings within 0-50 feet of the route centerline, four commercial operations within 51-100 feet of the route centerline, and two farmsteads/dwellings and seven commercial operations within 101-200 feet of the route centerline. In total, six farmsteads/dwellings and 11 commercial operations are 0-200 feet from the route centerline.<sup>98</sup>
101. The Proposed Route and the Proposed Route with the Douvier Alignment have one fewer farmstead/dwelling within 0-200 feet of the route centerline compared to the Proposed Route with Alternative Route Segment A.

## Noise

102. The MPCA has established standards for the regulation of noise levels. The most stringent noise standards are 60 A-weighted decibel (dBA) L<sub>50</sub> during the daytime and 50 dBA L<sub>50</sub> during the nighttime.<sup>99</sup>

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<sup>95</sup> Ex. 2 at p. 44 (RPA).

<sup>96</sup> Ex. 16 at p. 26 (EA).

<sup>97</sup> Ex. 16 at p. 25, Table 6 (EA).

<sup>98</sup> Ex. 16 at p. 25, Table 6 (EA).

<sup>99</sup> Minnesota Rule 7030; Ex. 16 at p. 30, Table 8 (EA).

103. Short-term exceedance of daytime noise standards due to construction would be intermittent and temporary in nature. Construction activities will be limited to daytime working hours, therefore the nighttime noise level standards will not be exceeded.<sup>100</sup>
104. Xcel Energy indicates that there is currently one residence located approximately 640 feet northwest of the existing Mayhew Lake Substation, seven residences located between 1,250 feet to 1,400 feet northeast of the existing Granite City Substation, and one commercial business located approximately 800 feet southeast of existing Transmission Structure 39. Xcel Energy has indicated that there should be no noticeable sound/noise changes at the existing substations associated with the project from the proposed modifications.<sup>101</sup>
105. Xcel Energy does not anticipate that noise generated from the transmission line and associated facilities will exceed 23 dBA L<sub>5</sub>, which is below typical ambient levels and the most stringent Noise Area Classification level of 50 dB(A) L<sub>50</sub> established by the MPCA.<sup>102</sup>

#### Aesthetics

106. The three routes under consideration would primarily be routed along a mix of commercial highway and existing electric system right-of-way, commercial/industrial parks, and businesses. A very small portion of the route would run through or near residential and open space areas.<sup>103</sup>
107. All three routes under consideration will be underbuilt with 2.7 miles of existing distribution line.<sup>104</sup>
108. The new transmission structures would be similar to those already present within the viewshed of the project area. The new transmission structures would be approximately 25 to 30 feet taller depending on topography and would incrementally add to the changing landscape of the area, most notably along the east side of U.S. Highway 10 and along County Road 29.<sup>105</sup>
109. All three routes under consideration will be a new contrast to surrounding land uses, as the line will require new right-of-way through open spaces where no transmission structures currently exist (approximately 0.3 to 0.5 miles of the entire routes).<sup>106</sup>

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<sup>100</sup> Ex. 16 at p. 30 (EA).

<sup>101</sup> Xcel Energy e-mail, 08/31/11.

<sup>102</sup> Ex. 2 at p. 47, Table 13 (RPA).

<sup>103</sup> Ex. 16 at p. 26 (EA).

<sup>104</sup> Ex. 16 at p. 8 (EA).

<sup>105</sup> Ex. 16 at p. 26 (EA).

<sup>106</sup> Ex. 16 at p. 27 (EA).

110. Xcel Energy has stated that it will consult with landowners and identify concerns where it would be appropriate to apply various types of mitigation to enhance positive effects and minimize or eliminate negative effects.<sup>107</sup> Examples of such mitigation include:

- Gaining input from landowners or land management agencies when locating structures, right-of-way, or other areas of potential disturbance, to assist in minimizing visual impacts.
- Following construction BMPs to help prevent any unnecessary destruction of the natural surroundings in the vicinity of the work; tree clearing would be minimized to the extent practicable. Care will be used to preserve the natural landscape.
- New transmission lines will parallel existing transmission lines and other rights-of-way or may be constructed within existing rights-of-way replacing and underbuilding existing distribution lines as proposed along the east side of U.S. Highway 10 or may entail crossing to opposite sides of the road, to the extent that such actions do not violate sound engineering principles or system reliability criteria.
- Structures will be placed at the maximum feasible distance from trails, scenic by-ways, and water crossings, within the limits of structure design.
- Clearing for access would be limited to only those trees necessary to permit the passage of equipment, and will generally correspond to the transmission right-of-way.<sup>108</sup> Landowners will be consulted and compensated for removal of mature yard trees, either through easement negotiations or on a separate basis.
- Certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas. In some instances, planting or maintaining a vegetated screen between the substation or transmission line and sensitive features such as homes or scenic areas may also minimize the visual intrusion from the proposed project.

#### Property Values

111. Any potential impact will be a negotiated settlement in an easement agreement between the Xcel Energy and the landowner.<sup>109</sup>

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<sup>107</sup> Ex. 16 at p. 27 (EA).

<sup>108</sup> Ex. 16 at p. 53 (EA).

<sup>109</sup> Ex. 16 at p. 28 (EA).

## Recreation and Tourism

112. There are a number of community parks and playgrounds associated with residential developments at least one-quarter mile east of the Proposed Route. Mayhew Creek Park and the Sauk Rapids Senior High School are located approximately one-half mile east of the Proposed Route. West of the Proposed Route, and separated by U.S. Highway 10, is the Bob Cross Park and Nature Preserve and the Sauk Rapids Rice Middle School. These areas would not be crossed by any of the routes.<sup>110</sup>
113. There are also a number of existing and planned hiking and biking trails in the vicinity of the project. The proposed project would not cross any of the existing trails in the Sauk Rapids area.<sup>111</sup>
114. Direct impacts on existing recreational opportunities within the proposed project location will be avoided because the Proposed Route will not cross these areas; the Proposed Route is collocated with existing transmission facilities and major public road rights-of-way for the majority of the route.<sup>112</sup>
115. There are future planned trails that would follow County Road 29 and County Road 3 that all routes would potentially cross over.<sup>113</sup>
116. No impacts on tourism and community activities are anticipated from the proposed project.<sup>114</sup>

## Public Services, Utilities, and Transportation

117. Public services and utilities are generally defined as services provided by government entities including hospitals, fire and police departments, schools, roads and highways, public parks, and water supply. Utilities also include private wells, septic systems and other utilities.
118. The applicant would work closely with Mn/DOT to obtain the appropriate permits and ensure minimal disruption to area traffic. Impacts to transportation would be localized and short term.<sup>115</sup>

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<sup>110</sup> Ex. 16 at p. 49 (EA).

<sup>111</sup> Ex. 16 at p. 49 (EA).

<sup>112</sup> Ex. 16 at p. 50 (EA).

<sup>113</sup> Ex. 16 at p. 44 (EA).

<sup>114</sup> Ex. 16 at p. 53 (EA).

<sup>115</sup> Ex. 16 at p. 46 (EA).

119. During the construction phase of the project local motorists may be temporarily inconvenienced by the increase in construction vehicles on the roadways and minimal delays in traffic. Xcel Energy may require temporary traffic control zones in areas where transmission structures would be erected along roadways. The appropriate procedures and preparation needed for the control zone depend upon the space requirements, duration of construction, characteristics, and providing for a safe work zone and a safe route for pedestrians and motorists.<sup>116</sup>
120. Any utilities including pipelines, water wells, septic tanks and propane tank locations would be identified when detailed field survey is performed by the Xcel Energy. Xcel Energy would discuss these and other easement issues with landowners during the acquisition phase.<sup>117</sup>
121. There are three airfields located in the vicinity of the proposed project. The airfields include St. Cloud Municipal, Thens Private Airstrip, Aysta Field. The St. Cloud Municipal Airport was contacted by the applicants and no comments from the airport were received.<sup>118</sup>
122. Construction of any of the routes are not anticipated to directly or indirectly impact the area transportation corridors, airports, emergency infrastructure, or utilities.

#### Public Safety

123. The project would be designed in compliance with local, state, NESC, and Xcel Energy standards for clearance to ground, crossing utilities and buildings, strength of materials, and right-of-way widths, and permit requirements.<sup>119</sup>
124. The transmission line would be equipped with protective devices to safeguard the public if an accident occurs.<sup>120</sup>

#### Electric and Magnetic Fields

125. There are no State of Minnesota or federal standards for occupational or residential exposure to magnetic fields. Florida, New York, and Massachusetts are the only three states in the country that have set standards for magnetic field exposure at the edge of right-of-way (150 milliGauss [mG], 85 mG, 200 mG, respectively).<sup>121</sup>

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<sup>116</sup> Ex. 16 at p. 46 (EA).

<sup>117</sup> Ex. 16 at p. 47 (EA).

<sup>118</sup> Xcel Energy, e-mail, 08/31/11.

<sup>119</sup> Ex. 16 at p. 32 (EA).

<sup>120</sup> Ex. 16 at p. 32 (EA).

<sup>121</sup> Ex. 16 at p. 39 (EA).

126. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has developed occupational and residential guidelines for magnetic field exposure. The exposure guidelines established by the ICNIRP have typically been the guidelines adopted by most countries and organizations (830 mG). They have also concluded that available data regarding potential long-term effects, such as increased risk of cancer, is insufficient to provide a basis for setting exposure restrictions.<sup>122</sup>
127. The maximum estimated magnetic field generated by the proposed transmission line would be 78.34 mG directly below a 115 kV/115 kV double-circuit transmission centerline at 3.28 feet above ground.<sup>123</sup>
128. The highest estimated magnetic field at a distance of 25 feet and 50 feet from the transmission line centerline would be 45.97 mG and 21.23 mG. At 300 feet from the transmission centerline the magnetic field level drops to a maximum of 1.13 mG, well within the average background magnetic field of a typical home (0.5 mG to 4 mG).<sup>124</sup>
129. The Minnesota Environmental Quality Board and the Minnesota Public Utilities Commission have historically recommended an 8 kV/m maximum electric field for transmission lines of 345 kV or greater to prevent potential shock hazards.<sup>125</sup>
130. There are currently no federal guidelines on the strength of electrical fields beneath high-voltage transmission lines.
131. The maximum calculated electric field on the entire length of project, directly beneath transmission centerline at 3.28 feet above ground is estimated to be 0.998 kV/m.<sup>126</sup>
132. The absence of any demonstrated impact by electric field and magnetic field exposure supports the conclusion that there is no demonstrated impact on human health and safety. No adverse effects from electric fields and magnetic fields on health are expected for persons living or working at locations along or near the project.

### Stray Voltage

133. Stray voltage is an extraneous voltage that appears on grounded surfaces in buildings, barns and other structures. Stray voltage is an issue associated with wiring, grounding problems, and electrical distribution lines. Transmission lines do not create stray voltage as they do not directly connect to businesses, residences, or farms.<sup>127</sup>

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<sup>122</sup> Ex. 16 at p. 39 (EA).

<sup>123</sup> Ex. 16 at p. 40 (EA).

<sup>124</sup> Ex. 16 at p. 40 (EA).

<sup>125</sup> *In the Matter of the Petitions of Northern States Power Company d/b/a Xcel Energy and Dairyland Cooperative for Permits to Construct a 115 kV and 161 kV Transmission Line from Taylors Falls to Chisago County. Substation*, Docket No. E-002/TL-06-1677, EA at p. 45 (Aug. 20, 2007); Ex. 16 at p. 32 (EA).

<sup>126</sup> Ex. 2 at p. 34, Table 8, (RPA).

<sup>127</sup> Ex. 16 at p. 42. (EA).

134. The NESC requires that any discharge be less than 5 milliAmperes (mA) to ensure the safety of persons in the proximity of high-voltage transmission lines. In addition, the Commission's electric field limit of 8 kV/m was designed to prevent serious hazard from shocks due to induced voltage under high-voltage transmission lines. Proper grounding of metal objects under and/or adjacent to the transmission line is the best method of avoiding these shocks.<sup>128</sup>
135. As indicated by Xcel Energy, should a customer suspect that stray voltage/neutral-to-earth voltage is a concern on their property, they can call the Xcel Energy stray voltage hotline (651-779-3131) and discuss the situation with an Xcel Energy technician or engineer. If warranted, an on-farm investigation will be scheduled.<sup>129</sup>

### Implantable Devices

136. Implantable medical devices such as pacemakers, defibrillators, neurostimulators, and insulin pumps may be subject to interference from strong electric and magnetic fields. Most of the research on electromagnetic interference and medical devices is related to pacemakers. According to a 2004 Electric Power Research Institute (EPRI) report, implantable cardiac devices are much more sensitive to electric fields than to magnetic fields. In the report, the earliest interference from magnetic fields in pacemakers was observed at 1,000 mG, far greater than the magnetic fields associated with high-voltage transmission lines.<sup>130</sup>
137. Medtronic and Guidant, manufacturers of pacemakers and implantable cardioverter/defibrillators, have indicated that electric fields below 6 kV/m are unlikely to cause interactions affecting operation of modern bipolar devices.<sup>131</sup> Older unipolar designs; however, are more susceptible to interference from electric fields with research suggesting that the earliest evidence of interference occurred in electric fields ranging from 1.2 to 1.7 kV/m.<sup>132</sup> These initial interaction levels are higher than 1.013 kV/m maximum electric field predicted for this project. The risk of interference inhibition of unipolar cardiac pacemakers from high-voltage power lines in everyday life is small.<sup>133</sup>

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<sup>128</sup> Ex. 16 at p. 43 (EA).

<sup>129</sup> Ex. 16 at p. 42 (EA); Ex. 2 at p. 40 (RPA).

<sup>130</sup> Electric Power Research Institute, *Electromagnetic Interference with Implanted Medical Devices*, (March 2004); Ex. 16 at p. 43 (EA).

<sup>131</sup> Brookings DEIS, (October 2009), Section 6.2; Ex. 16 at p. 44 (EA).

<sup>132</sup> Toivonen, L., J. Valjus, M. Hongisto, and M. Ritta. 1991. *The Influence of Elevated 50 Hz Electric and Magnetic Fields on Implanted Cardiac Pacemakers: The Role of the Lead Configuration and Programming of the Sensitivity*. Blackwell Publishing Limited. Helsinki, Finland; Ex. 16 at p. 44 (EA).

<sup>133</sup> Scholten, A., S. Joosten, and J. Silney. 2004. *Unipolar Cardiac Pacemakers in Electromagnetic Fields of High Voltage Overhead lines*. FEMU, University Hospital, Aachen, Germany; Ex. 16 at p. 44 (EA).

## Effects on Land Based Economies

138. The project area land use and land cover consists primarily of large plots of agricultural land (cultivated crops and hay/pasture), industrial and light industrial, commercial/incorporated, residential, and open space (mixed forest and wetlands).<sup>134</sup>
139. Although more than one-third of Benton County is primarily used for agricultural purposes, the project is located outside these areas and is mainly dominated by commercial, industrial, residential, and limited open space areas.<sup>135</sup>
140. The northern portion of each route would run along or near approximately 18.4 acres of U.S. Department of Agriculture designated farmland soils primarily along County Road 29.<sup>136</sup>
141. There are no existing gravel, rock, and aggregate resources are being utilized within the project route itself, no impacts are anticipated.<sup>137</sup>
142. There are no federal, state, or locally designated forests or commercial logging operations located within the project location. There is no forest production located within the project area.<sup>138</sup>
143. A moderately forested area is located at the north end of the proposed route and the alternatives routes just south of where U.S. Highway 10 and County Road 29 intersect. There is also a small wooded swale associated with a developed residential area located to the northeast of the intersection of U.S. Highway 10 and Benton Drive.<sup>139</sup>
144. The Proposed Route, the Proposed Route with Alternative Route Segment A, and the Proposed Route with the Douvier Alignment would impact an estimated 8.6 acres, 11 acres, and 9.1 acres of agricultural land, respectively.<sup>140</sup>
145. The Proposed Route would impact the least amount of agricultural land compared to the Proposed Route with Alternative Route Segment A and the Proposed Route with the Douvier Alignment.<sup>141</sup>

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<sup>134</sup> Ex. 16 at p. 49 (EA).

<sup>135</sup> Ex. 16 at p. 50 (EA).

<sup>136</sup> Ex. 16 at p. 50 (EA).

<sup>137</sup> Ex. 16 at p. 54 (EA).

<sup>138</sup> Ex. 16 at p. 52 (EA).

<sup>139</sup> Ex. 16 at p. 52 (EA).

<sup>140</sup> Ex. 16 at p. 51, Table 18 (EA).

<sup>141</sup> Ex. 16 at p. 51, Table 18 (EA).

## Zoning and Compatibility

146. Approximately 83 percent of the Proposed Route is located within or immediately adjacent to existing utility, road, and highway rights-of-way, as indicated in the route permit application.<sup>142</sup> Future land use plans as indicated by Mn/DOT, the city of Sauk Rapids, and Benton County include interchange modification at County Road 3 and U.S. Highway 10 to include a loop ramp. The planned interchange design may require the transmission line structures to be located further east from the proposed interchange.<sup>143</sup>
147. Mn/DOT's long range plan for an interchange modification at Benton Drive and U.S. Highway 10 to include a loop ramp.<sup>144</sup>
148. The Benton County Board and the city of Sauk Rapids approved separate, but similar, resolutions that were adopted by Xcel Energy and are part of the Proposed Route, as provided in the route permit application. It appears at this time that both Benton County and the city of Sauk Rapids concerns regarding the Proposed Route and the future interchange modifications have been addressed by Xcel Energy.<sup>145</sup> The city of Sauk Rapids in its resolution states:
- The Proposed Route would place less burden on private property owners while maintaining the future economic potential of the U.S. Highway 10 and Country Road 29 corridor while reducing the overall cost of the transmission line project.
  - The city also requests that Xcel Energy work with Benton County on the placement of the proposed lines near the east ramp of U.S. Highway 10 on County Road 3 so that the transmission structures will not need to be relocated when the city, county, and school district reconstruct County Road 3 in the future.
149. The Benton County Board of Commissioners state in its resolution, that the Benton County Board of Commissioners does hereby endorse the route for the St. Cloud Loop Project as proposed by the city of Sauk Rapids (Xcel Energy's Proposed Route).<sup>146</sup>

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<sup>142</sup> Ex. 16 at p. 48 (EA).

<sup>143</sup> Ex. 2 at Appendix C.5 and C.6, City and County Resolutions (RPA).

<sup>144</sup> Ex. 2 at Appendix C.8, 07/13/2010 Mn/DOT Letter (RPA).

<sup>145</sup> Ex. 16 at p. 48-49 (EA).

<sup>146</sup> Ex. 16 at p. 49 (EA).

## Water Resources

150. There are three unnamed small streams that would be crossed by all routes under consideration, none of which are identified on the DNR public waters inventory (PWI). At this time it is not anticipated that a license to cross public waters or a public waters work permit would be required from the DNR, as the project does not affect any PWI features. However, should it be determined by the DNR, Xcel Energy would be required to obtain a permit.<sup>147</sup>
151. Because all streams and ditches would be spanned by transmission structures and no structures will be located within or near these features, no direct impacts to streams and ditches are expected.<sup>148</sup>
152. The Proposed Route would span approximately 0.9 miles of wetlands or 8.2 acres; the Proposed Route with Alternative Route Segment A would cross 0.8 miles of wetlands or 7.3 acres; the Proposed Route using the Douvier Alignment would cross 1.0 mile of wetlands or 9.1 acres of wetlands, all assuming a 75-foot-wide easement and depending on final line design.<sup>149</sup>
153. The transmission line easement will be 75-foot-wide and potential impacts to wetlands will be limited to the area where the structures and line will be constructed and operated. Xcel Energy indicates that transmission line construction would permanently impact approximately 50 square feet per structure (or 0.001 acre). Therefore, wetland impacts are anticipated to be much less than indicated.<sup>150</sup>
154. The Proposed Route with Alternative Route Segment A would span the least amount of wetlands.

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<sup>147</sup> Ex. 16 at p. 48 (EA).

<sup>148</sup> Ex. 16 at p. 48 (EA).

<sup>149</sup> Ex. 16 at pp. 69-71, Table 22 (EA); Xcel Energy e-mail, 09/09/11.

<sup>150</sup> Ex. 2 at p. 59 (RPA).

155. Wetlands crossed by the Proposed and Alternative Routes are jurisdictional to the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Xcel Energy anticipates the Project will be authorized under the USACE's General Permit/Letter of Permission permitting program. Application materials will include information necessary for the USACE to make its jurisdictional determination for impacted wetlands. The joint application will also be subject to DNR and Benton County Soil and Water Conservation District (SWCD) review and regulation under the Minnesota Wetland Conservation Act. According to the Clean Water Act, Section 401 water quality certification is required for activities that may result in a discharge to waters of the United States. The MPCA administers Section 401 water quality certification. If the USACE authorizes the Project under its General Permit program as expected, the MPCA waives its Section 401 Water Quality Certification authority.<sup>151</sup>
156. Recommendations provided by the U.S. Fish and Wildlife Service would be to avoid or minimize wetland impacts in the NW 1/4 of the NE 1/4 of Section 14, Township 36, Range 31 and NE 1/4 of SW 1/4 of Section 25, Township 36, Range 31.<sup>152</sup> These are the same areas DNR identified as a Minnesota County Biological Survey (MCBS) Site of Moderate Biodiversity and a wooded swale utilized by red-tailed hawks, respectively.<sup>153</sup>
157. The anticipated alignment and right-of-way for the all routes are adjacent to and would follow an existing transmission alignment along U.S. Highway 10 and would, therefore, not physically encroach on the MCBS Site and wooded swale identified by the USFWS and DNR.<sup>154</sup>
158. The proposed project is not located within floodplains or floodways mapped by Federal Emergency Management Agency (FEMA). Floodplain resources would not be affected by the project.<sup>155</sup>
159. To minimize the temporary impacts and lessen the permanent impacts to water resources and wetlands Xcel Energy has indicates it would implement the following mitigation measures as they relate to wetlands.
160. The project would be designed to incorporate spacing of structures to span wetlands and waterways to avoid and minimize impacts.

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<sup>151</sup> Ex. 2 at pp. 59-60 (RPA).

<sup>152</sup> Ex. 11 (Scoping Comment Letters).

<sup>153</sup> Ex. 2 at Appendix B, 08/19/2010 & 07/28/2010 DNR Letters (RPA); Ex. 16 at p. 57 (EA).

<sup>154</sup> Ex. 16 at p. 57 (EA).

<sup>155</sup> Ex. 16 at p. 60 (EA).

161. Standard erosion control measures identified in the MPCA Stormwater BMP Manual, such as using silt fencing to minimize impacts on adjacent water resources would be followed. Practices may include containing excavated material, protecting exposed soil, and stabilizing restored soil. Wetland vegetation would be restored following construction.
162. No staging or stringing set up areas will be placed within or adjacent to wetlands or water resources, as practicable. The structures will be assembled on upland areas before they are brought to the site for installation, when practicable.
163. Construction crews will attempt to access wetlands using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.
164. Construction in wetlands would be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) would be used to protect wetland vegetation. Additionally, all-terrain construction vehicles may be used, which are designed to minimize soil impact in damp areas.<sup>156</sup>

#### Archaeological and Historic Resources

165. A Phase Ia background research revealed that no archaeological site or inventoried standing structure are recorded within the immediate project location.<sup>157</sup>
166. Twelve cultural resource sites are located within 0.5 mile of all routes under consideration, including four archaeological sites, one unverified archaeological site lead, and five standing structures.<sup>158</sup>
167. Two properties are listed or eligible for listing on the National or State Registers of Historical Places (NRHP). The NRHP sites include the Leonard Robinson House, which is listed on the NRHP, and the Great Northern Railroad line, which has been determined eligible for listing on the NRHP. The historic character of these two properties would not be affected by any of the routes under consideration, as they are located west of the project area, and not in the immediate vicinity of the Proposed Route or alternate routes.<sup>159</sup>

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<sup>156</sup> Ex. 16 at pp. 59-60 (EA).

<sup>157</sup> Ex. 2 at Appendix E, Phase Ia Literature Review for the Proposed St. Cloud Loop BEN-MHW Project, Benton County, Minnesota, July 1, 2010 (RPA).

<sup>158</sup> Ex. 16 at p. 64 (EA).

<sup>159</sup> Ex. 16 at p. 64 (EA).

168. The potential to impact any undiscovered archaeological site is low to very low because the project is proposed to be located along existing transportation and utility corridors, or it is in areas already disturbed by residential and commercial development. Also, there are no lakes or perennial rivers or streams in the proposed project location, all high potential locations for discovery of prehistoric archaeological sites.<sup>160</sup>
169. The Minnesota State Historic Preservation Office (SHPO) stated that it is premature to conclude that no survey work will be required, and indicated that Xcel Energy should consult with the SHPO once a project route has been finalized.<sup>161</sup>
170. Xcel Energy indicates in the route permit application, avoidance of archaeological and historic architectural properties is the preferred mitigative policy which it follows for all of its transmission line construction projects. Xcel Energy indicated it would consult with the Commission, SHPO and invited consulting parties during their review process to determine what areas may require surveys for the project. Xcel Energy would carry out the appropriate field identification or construction monitoring. If there is an unanticipated discovery of cultural resources during construction, Xcel Energy would stop construction activities and consult with a professional archaeologist and the SHPO to determine the proper course of action.<sup>162</sup>

#### Air Quality

171. Studies designed to monitor the production of ozone under transmission lines have been unable to detect any increase attributable to the transmission line facility, in accordance with state and federal guidelines (0.075 parts per million [ppm] and 0.08 ppm, respectively).<sup>163</sup>
172. Calculations according to the Bonneville Power Administration Corona and Field Effects Program Version 3 for a standard single-circuit 115 kV project predicted a maximum concentration of 0.006 ppm near the conductor and 0.002 ppm at one meter above ground during foul weather or worst case conditions with rain at one inch per hour.<sup>164</sup>
173. Temporary air quality impacts caused by construction vehicle emissions and fugitive dust from right-of-way clearing and construction are expected to occur, but will be temporary and limited.<sup>165</sup>

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<sup>160</sup> Ex. 16 at p. 65 (EA).

<sup>161</sup> Ex. 2 at Appendix E, 08/02/2010 SHPO Letter; Ex. 16 at p. 65 (EA).

<sup>162</sup> Ex. 16 at p. 65 (EA).

<sup>163</sup> Ex. 16 at p. 45, Table 17 (EA).

<sup>164</sup> Ex. 16 at p. 45; United States Department of Energy, Bonneville Power Administration, Corona and Field Effects Program, Version 3.0 (Computer Program), Vancouver, Washington.

<sup>165</sup> Ex. 16 at p. 46 (EA).

174. Temporary impacts due to construction vehicle emissions and fugitive dust would be minimized by using best management practices to reduce dust emissions. Tracking control practices and wetting of roads and temporary roads would be done to control fugitive dust. Proper maintenance of the contractor's equipment would be done to prevent excessive emissions.<sup>166</sup>
175. There would be no anticipated permanent impacts on air quality as a result of the proposed project.

#### Groundwater

176. Depth to static groundwater in the area ranges from approximately 7 feet to 28 feet below land surface (bls). Static groundwater levels in wells that are near lakes, streams and wetlands are typically much closer to land surface (approximately 7 feet bls).<sup>167</sup> Local groundwater sources are most often associated with deeper fractured and weathered Precambrian bedrock.<sup>168</sup>
177. Transmission structures will be either direct-embedded to a depth of 10-15 feet bls or drilled to a depth of 12 feet or more in depth, depending on soil conditions. As such, the placement of the transmission structures would not have an impact on the regional groundwater supply or domestic wells in the area of the project.

#### Flora (Plant life)

178. Vegetation adjacent to the routes include undeveloped open and herbaceous land, open pasture and hay fields, cultivated land containing row crops, and some forest land. Row crops in the area primarily consist of corn and soybeans. Forest lands in the area primarily consist of deciduous forest types. The majority of forest land is associated with streams and residential and commercial landscaping, or with occasional small wooded uplands.<sup>169</sup>
179. Approximately 83 percent of the Proposed Route is located within or immediately adjacent to existing utility, road, and highway rights-of-way. In addition, the majority of the route would cross land zoned primarily for highway, agriculture, commercial, or development purposes.
180. The Proposed Route would impact an estimated 4.4 acres of forested land, the Proposed Route with Alternative Route Segment A would impact an estimated 1.9 acres, and the Proposed Route with the Douvier Alignment would impact an estimated 3.0 acres.<sup>170</sup>

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<sup>166</sup> Ex. 16 at p. 46 (EA).

<sup>167</sup> Ex. 16 at p. 56 (EA); <http://mdh-agua.health.state.mn.us/cwi/cwiViewer.htm>

<sup>168</sup> Ex. 16 at p. 55 (EA); <http://www.dnr.state.mn.us/groundwater/provinces/index.html>

<sup>169</sup> Ex. 16 at p. 60 (EA).

<sup>170</sup> Ex. 16 at p. 53, Table 19 (EA); Xcel Energy e-mail, 09/09/11.

181. The Proposed Route with Proposed Route with Alternative Route Segment A would impact the least amount of forestland acreage.
182. To further minimize the temporary impacts and lessen the permanent impacts the applicant has indicated it would implement the following mitigation measures as they relate to vegetation:
- During detailed design the new transmission line can be placed on the opposite side of the road from residences and to avoid existing trees where possible.
  - Only trees located within the transmission line right-of-way will be removed, or those trees that will affect the safe operation of the line. Trees outside the right-of-way that may need to be removed will primarily include trees that are unstable and could potentially fall into the transmission facilities. After construction, certain low and slow growing species that do not exceed a mature height of 15 feet may be allowed within the right-of-way.
  - Landowners and businesses would be consulted and proposed construction areas may be modified so that tree removal is avoided to the greatest extent possible.
  - Areas disturbed due to construction activities would be restored to preconstruction contours and would be reseeded with a DNR-approved seed mix that is certified to be free of noxious weeds.<sup>171</sup>

#### Fauna (Wildlife)

183. Wetlands, rivers, streams, open areas and cropland in the area provide habitat for raptors, waterfowl, grassland/perching birds, deer, and small mammals that are common to Minnesota.<sup>172</sup>
184. The routes under consideration predominantly run along land utilized for commercial, industrial, or residential use.<sup>173</sup>
185. During construction, wildlife could temporarily be displaced and small amounts of habitat could be lost from the project area. Similar forested and agricultural habitats are found adjacent to the routes. These species would only be displaced a short distance and would not incur population level effects due to construction of the transmission line. No permanent impacts to wildlife populations are anticipated.<sup>174</sup>

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<sup>171</sup> Ex. 16 at p. 61 (EA).

<sup>172</sup> Ex. 16 at p. 61 (EA).

<sup>173</sup> Ex. 16 at p. 61 (EA).

<sup>174</sup> Ex. 16 at p. 61 (EA).

186. The primary impact presented to fauna by transmission lines is the potential for injury and death of migratory birds such as raptors, waterfowl, and other large bird species.<sup>175</sup>
187. Electrocutation can occur when birds with large wingspans come in contact with two conductors or with a conductor and a grounding device. The electrocution of large birds, such as raptors, is more commonly associated with small distribution lines than large transmission lines. The Xcel Energy's transmission line design standards and adherence to standards outlined in the Avian Powerline Action Committee Report would provide for adequate spacing to eliminate the risk of raptor electrocution.<sup>176</sup> Thus, avian electrocution is not a concern related to the project.
188. Avian collisions are also a recognized possibility with the construction and placement of a new transmission line. Collision frequency may increase when a new transmission line is located between feeding and resting areas such as, agricultural fields, wetlands, or open water. All routes under consideration are dominated by existing transportation and utility corridors as well as other infrastructure (e.g., businesses, residences) and, therefore, these species are likely already acclimatized to human development, and existing transmission structures.<sup>177</sup>
189. Xcel Energy is working with the DNR to determine appropriate and applicable mitigation measures to address concerns regarding mitigation measures specific to those avian species identified by the DNR.<sup>178</sup> The DNR in a letter to Xcel Energy suggested the following mitigation to avoid the potential for avian impacts:
- Avoid vegetation clearing to extent possible at the wooded swale near U.S. Highway 10 and Benton Drive where red-tailed hawks are periodically present and provide the final alignments for DNR review and comment. Also, conduct vegetation clearing outside of the migratory bird nesting season between April to July.
  - site the route to avoid tree and shrub removal at the wooded wet swale north and south of Golden Spike Road at the U.S. Highway 10 interchange, where an important wetland corridor exists;
  - attach kestrel nest boxes to power poles, one every ½ mile, along U.S. Highway 10, particularly between Benton Drive and Golden Spike Road, where American kestrels are known to occur; and

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<sup>175</sup> Ex. 16 at p. 62 (EA).

<sup>176</sup> Avian Powerline Interaction Committee (APLIC), *Suggested Practices for Avian Protection on Powerlines: The State of the Art in 2006*, Edison Electric Institute, APLIC, and the California Energy Commission (2006); Ex. 16 at p. 62 (EA).

<sup>177</sup> Ex. 16 at p. 62 (EA).

<sup>178</sup> Ex. 2 at pp. 63-64 (RPA).

- in consultation with the DNR, incorporate swan flight diverters every 25 feet along the route and staggering them between the lines for trumpeter swans, Canada geese and sandhill cranes, three species identified in this area which are of particular concern to the DNR.<sup>179</sup>

#### Rare and Unique Natural Resources

190. There are four records of rare species, one animal assemblage, and one terrestrial community within one mile of all the route under consideration, according to information from the DNR's Natural Heritage Information System. Species include the Blanding's turtle, Northern myotis (bat), Eastern pipistrelle (bat), and cowbane (vascular plant). The Blanding's turtle is listed as threatened at the state level, while the other three species, assemblage, and terrestrial community are listed as special concern or are not listed.<sup>180</sup>
191. The USFWS indicated that there are no federally-listed or proposed species and/or designated or proposed critical habitat within the action area of the proposed project.<sup>181</sup>
192. Recommendations provided by the USFWS would be to avoid or minimize wetland impacts in the NW 1/4 of the NE 1/4 of Section 14, Township 36, Range 31 and NE 1/4 of SW 1/4 of Section 25, Township 36, Range 31.<sup>182</sup> These are the same areas DNR identified as a Minnesota County Biological Survey (MCBS) Site of Moderate Biodiversity and a wooded swale utilized by red-tailed hawks, respectively.<sup>183</sup>
193. The Proposed Route with Alternative A would follow existing transportation rights-of-way and would avoid crossing NW 1/4 of the NE 1/4 of Section 14, Township 36, Range 31.<sup>184</sup> The Proposed Route and the Proposed Route with the Douvier Alignment would utilize land owned by the city that is currently used as a compost site northwest of the MCBS site and would, therefore, not physically encroach upon the site.<sup>185</sup>
194. The anticipated alignment and right-of-way for all routes in the area of NE 1/4 of SW 1/4 of Section 25, Township 36, Range 31 (wooded swale), identified in Finding 192 are adjacent to and would follow an existing transmission alignment along U.S. Highway 10 and would, therefore, not physically encroach upon the site.<sup>186</sup>

<sup>179</sup> Ex. 2 at Appendix C.1, 08/19/11 DNR Letter (RPA).

<sup>180</sup> Ex. 16 at p. 63; Ex. 2 at Appendix C.1, 08/19/11 DNR Letter (RPA).

<sup>181</sup> Ex. 11 (Scoping Comment Letters).

<sup>182</sup> Ex. 16 at p. 57; Ex. 11 (Scoping Comment Letters).

<sup>183</sup> Ex. 2 at Appendix C.1, 08/19/11 DNR Letter (RPA).

<sup>184</sup> Ex. 16 at Figure 4 (EA).

<sup>185</sup> Ex. 2 at Appendix C.1, 08/19/11 DNR Letter (RPA).

<sup>186</sup> Ex. 16 at Figure 9 (EA).

195. Xcel Energy is also working with the DNR to avoid to the extent possible impacts to the MCBS Site of Moderate Biodiversity associated with the native plant community, prairie rich fen, and wet prairie identified in the project area.<sup>187</sup> Mitigation measures include the following:

- Operate within already-disturbed areas;
- minimize vehicular disturbance in the area (allow only vehicles necessary for installation);
- inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of exotic species;
- if possible, do work in autumn or winter, to avoid damaging plants during the growing season;
- reduce runoff by completing the work as rapidly as possible and using erosion control measures such as straw bales or silt fencing;
- re-vegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible; and
- use only invasive-free mulches, topsoils, and seed mixes.

196. To prevent impacts on the Blanding's turtle, to the extent possible and applicable, Xcel Energy intends to adopt the mitigation measures recommended by the DNR, which include, but are not limited to, the following:

- A flyer with an illustration of a Blanding's turtle will be given to all contractors working in the area. Homeowners will also be informed of the presence of Blanding's turtles in the area;
- turtles which are in imminent danger will be moved, by hand, out of harm's way. Turtles which are not in imminent danger will be left undisturbed;
- if a Blanding's turtle nest is in a yard, it will not be disturbed. Silt fencing will be set up to keep turtles out of construction areas. Silt fencing will be removed after the area has been re-vegetated;
- small, vegetated temporary wetlands (Types 2 & 3) will not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer);

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<sup>187</sup> Ex. 16 at p. 64 (EA).

- wetlands will be protected from pollution; use of fertilizers and pesticides will be avoided, and run-off from lawns and streets will be controlled. Erosion will be prevented to keep sediment from reaching wetlands and lakes; and
- vegetation management in infrequently mowed areas, such as in ditches, along utility access roads, and under power lines, will be done mechanically (chemicals will not be used). Work will occur fall through spring (after October 1st and before June 1st).<sup>188</sup>

#### Interference

197. Corona from transmission line conductors can generate electromagnetic “noise” in the radio frequency range. This noise may cause broadband interference at the same frequencies that many communication and media signals are transmitted. This noise can cause interference with the reception of these signals depending on the frequency and strength of the signal. Loose hardware on the transmission line may also cause interference.<sup>189</sup>
198. Digital and satellite television, FM radio, wireless internet and cellular phones are not expected to be impacted by the proposed Project.<sup>190</sup>
199. AM radio frequency interference typically occurs immediately under a transmission line and dissipates rapidly to either side. If radio interference from transmission line corona does occur, satisfactory reception from AM radio stations can be restored by appropriate modification of (or addition to) the receiving antenna system.<sup>191</sup>
200. Corona-generated noise from transmission lines could be a source of interference for global positioning systems (GPS). Any transmission line structure that is placed in an agricultural field would have GPS coordinates that may be added to the farmer’s GPS unit coordinates. However, if the GPS unit is not configured to accept new coordinates, the user would have to manually divert around any structures placed in fields. There are also specialty antennas that can be connected to existing GPS-based systems that will increase reception.<sup>192</sup>

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<sup>188</sup> Ex. 16 at pp. 63-64 (EA).

<sup>189</sup> Ex. 16 at p. 65 (EA).

<sup>190</sup> Ex. 16 at p. 66 (EA).

<sup>191</sup> Ex. 16 at p. 65 (EA).

<sup>192</sup> Ex. 16 at pp. 66-67 (EA).

## **Certificate of Need**

201. Pursuant to Minnesota Statute 216B.243, subdivision 2, “No large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission.” In the case of a high-voltage transmission line, a large energy facility is defined as, (1) any high-voltage transmission line with a capacity of 200 kV or more and greater than 1,500 feet in length, and (2) 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.
202. A certificate of need is not required for any of the routes under consideration, as the transmission line capacity is less than 200 kV, and because the routes are all less than 10 miles in length.

## **Summary of Human and Environmental Impacts and Commitment of Resources**

203. All routes analyzed in the EA have human and environmental impacts, some of which are unavoidable if the project is permitted and built. None of the routes evaluated are expected to cause an irreversible or irretrievable commitment of resources.
204. The Proposed Route and the Proposed Route with the Douvier Alignment are two-tenths of a mile shorter compared to the Proposed Route with Alternative Route Segment A.<sup>193</sup>
205. The Proposed Route and the Proposed Route with the Douvier Alignment will cost \$100,00 less to construct compared to Proposed Route with Alternative Route Segment A.<sup>194</sup>
206. The Proposed Route and the Proposed Route with the Douvier Alignment have one fewer farmstead/dwelling within 0-200 feet of the route centerline compared to the Proposed Route with Alternative Route Segment A.<sup>195</sup>
207. The Proposed Route would impact the least amount of agricultural land compared to the Proposed Route with Alternative Route Segment A and the Proposed Route with the Douvier Alignment.<sup>196</sup>
208. The Proposed Route with Alternative Route Segment A would span the least amount of wetlands.<sup>197</sup>

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<sup>193</sup> Finding 92.

<sup>194</sup> Finding 26.

<sup>195</sup> Finding 101.

<sup>196</sup> Finding 145.

<sup>197</sup> Finding 154.

209. The Proposed Route with Proposed Route with Alternative Route Segment A would impact the least amount of forestland acreage compared to the Proposed Route and the Proposed Route with the Douvier Alignment.<sup>198</sup>
210. The anticipated alignment and right-of-way for the all routes are adjacent to and would follow an existing transmission alignment along U.S. Highway 10 and would, therefore, not physically encroach on the MCBS site and wooded swale identified by the USFWS and DNR.<sup>199</sup>

### **Applicable Statutory Conditions**

211. Minnesota Statute 216B.243, subdivision 2, states that no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission. Minnesota Statute 216B.2421, subdivision 2(3) defines a “large energy facility” as any high voltage transmission line with a capacity of 100 kV or more with more than ten miles of length or that crosses a state line.
212. Minnesota Statute 216E.03, subdivision 7, and Minnesota Rule 7850.4100 provides considerations in designating sites and routes and determining whether to issue a permit for a large electric power generating plant or a high-voltage transmission line.

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<sup>198</sup> Finding 181.

<sup>199</sup> Finding 157.

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

### **CONCLUSIONS OF LAW**

1. Any of the foregoing Findings more properly designated as Conclusions are hereby adopted as such.
2. The Public Utilities Commission has jurisdiction over the subject matter of this proceeding pursuant to Minnesota Statute 216E.03, subdivision 2.
3. The project qualifies for review under the alternative permitting process of Minnesota Statute 216E.04 and Minnesota Rule 7850.2800.
4. The Applicant, the Department of Commerce, and the Public Utilities Commission have complied with all procedural requirements required by law.
5. The Department of Commerce has completed an EA of this project as required by Minnesota Statute 216E.04, subdivision 5, and Minnesota Rule 7850.3700.
6. The Public Utilities Commission has considered all the pertinent factors relative to its determination of whether a route permit should be approved as required by Minnesota Statute 216E.03, subdivision 7, and Minnesota Rule 7850.4100.
7. The conditions included in the route permit are reasonable and appropriate.

Based on the Findings of Fact, Conclusions of Law contained herein and the entire record of this proceeding, the Commission hereby makes the following:

**ORDER**

1. A route permit for the Proposed Route, as requested in the route permit application, is hereby issued to Xcel Energy to construct approximately 4.7 miles of new 115 kV overhead transmission line to be located in the northern part of the city of Sauk Rapids and the townships of Minden and Sauk Rapids in Benton County, Minnesota. This includes modifications and upgrades to existing substations and associated facilities that are part of the project.
  - a. The transmission line exits the existing Mayhew Lake Substation, heads west along County Road 29 for one-half mile and south-southwest for three-tenths of a mile cross-country to U.S. Highway 10. The route proceeds south along the east side of U.S. Highway 10 for two and nine-tenths miles, turns east for three tenths of a mile following County Ditch 3 to the existing Granite City Substation. A second segment of new transmission line will connect to existing Line 5509 at 14th Avenue NE and head south-southeast following County Ditch 3 and existing transmission lines in the area for approximately seven-tenths of a mile to existing Transmission Structure 39.
  - b. The route width for the entire length of the transmission line is 400 feet, 200 feet on each side of the proposed alignment from the Mayhew Lake Substation west to its intersection with U.S. Highway 10; a 400 foot route width left-aligned with the eastern edge of the northbound lanes of U.S. Highway 10; 200 feet on either side of the proposed alignment from U.S. Highway 10 heading east along County Ditch 3 to the Granite City Substation; 200 feet on either side of the proposed alignment for the new segment extending Line 5509 at approximately 14th Avenue NE to Structure 39. A 200 foot route width extending from the existing Xcel Energy-owned Mayhew Lake and Granite City substations including the 1.4 acres of additional route width located north of the Granite City substation.
2. The route permit shall be issued in the form attached hereto, with a map showing the approved route.

Approved and adopted this \_\_\_\_\_ day of \_\_\_\_\_ 2011.

BY ORDER OF THE 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 ASSOCIATED FACILITIES**

**IN BENTON COUNTY**

**ISSUED TO  
XCEL ENERGY  
PUC DOCKET NO. E002/TL-10-1026**

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

**XCEL ENERGY**

Xcel Energy is authorized by this route permit to construct the approximately 4.7 mile long St. Cloud Loop 115 kV transmission line and associated facilities in Benton County, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit, as portrayed on the official route maps, and in compliance with the all other conditions specified in this permit.

Approved and adopted this \_\_\_\_\_ day of November, 2011

BY ORDER OF THE COMMISSION

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Burl W. Haar,  
Executive Secretary

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**FIGURES**

Figure 1 – Overview Proposed Route

Figures 2 – Route Maps

**ATTACHMENTS**

Complaint Handling Procedures for High-Voltage Transmission Lines

Compliance Filing Procedures for Permitted Energy Facilities

## **1 ROUTE PERMIT**

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Xcel Energy (permittee) pursuant to Minnesota Statute 216E.03 and Minnesota Rules 7850. This permit authorizes the permittee to construct approximately 4.7 miles of new 115 kV transmission line and associated facilities in Benton County, Minnesota and as identified in the attached route permit maps, hereby incorporated into this document.

## **2 PROJECT DESCRIPTION**

The permittee is authorized to construct a project comprising a 4.7-mile transmission line and as described in the route permit application and evaluated in the environmental assessment. The approved route is shown on the route permit maps attached to this permit and further designated as described.

The project consists of a new 4.7-mile long 115 kV transmission line and is divided into two segments. The first segment (new Line 5520) is approximately 4 miles long and will be constructed between the Mayhew Lake Substation and the Granite City Substation. The second segment (extension of existing Line 5509) is approximately 0.7 miles long and will be constructed between the intersection of Line 5509 with Lines 0887 and 0899 and Structure 39.

The permittee may construct, modify, and upgrade the following for the project:

- construct approximately 4 miles of new 115 kV transmission line (Line 5520) between the Mayhew Lake Substation and the Granite City Substation;
- remove a 1,700 foot segment of existing single-circuit 115 kV transmission line (Line 5509) between the Granite City Substation and its intersection with Lines 0887 and 0899;
- install approximately 0.7 miles of new 115 kV transmission line to extend existing Line 5509 from its intersection with Lines 0887 and 0899 to Structure 39, install either a new single-circuit pole or a new double-circuit structure near Structure 39 and connect Line 5509 from Structure 39 to existing Line 0899, thus creating newly designated Line 5509 connecting the Mayhew Lake Substation to the Benton County Substation;
- remove existing Line 0887 jumper at Structure 39 so that Line 0887 is no longer connected to Benton County Substation, and keeping Line 0887 connection between the St. Cloud and Granite City substations;
- disconnect the existing Line 0899 at Structure 39 to the Benton County Substation and connecting to removed Line 0887 segment from Structure 39 to Benton County Substation, and designating this revised line from Granite City to Benton County substations as Line 0899;
- install fiber optic ground wire with the new 115 kV line and the remaining segment of Line 0899; and

- modify the Benton County, Crossroads, Granite City, Mayhew Lake, and St. Cloud and substations to accommodate the above changes, which includes changing and/or adding new line termination equipment and/or a ring bus, adding transfer trip and pilot relaying, installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.

## 2.1 Project Location

The 115 kV St. Cloud Loop transmission line project will be located northeast of the city of Sauk Rapids in Benton County, Minnesota. The project would specifically be located in portions of the city of Sauk Rapids and Minden and Sauk Rapids townships

Route	County	Township Name	Township	Range	Sections
Proposed Route	Benton	City of Sauk Rapids	36N	31W	14, 23, 24, 25
Proposed Route	Benton	Sauk Rapids Township	36N	31W	11, 12, 13, 14, 23, 24, 25, 36
Proposed Route	Benton	Minden Township	36N	30W	30, 31

## 2.2 Associated Facilities and Substations

The project would include changes and modifications to five existing substations and existing transmission lines 0887, 0899 and 5509; installation of fiber optic ground wire; and changing existing line designations.

### Mayhew Lake Substation

Changes and modifications at the existing Mayhew Lake Substation include the addition of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. The new structures and equipment will require site grading and expansion of the fenced area (approximately 0.6 acres), foundation installation, steel structure installation, equipment installation, and control room modifications. Changes will also include three new transmission line structures for routing of the proposed transmission line into the substation along with modifications to existing structures including possible removal and replacement of one old structure with one of the newly proposed structures.

### Granite City Substation

Changes and modifications at the existing Granite City Substation include the addition of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. A new dead-end transmission structure(s) will be required where the new transmission line would enter the substation site with a preliminary location in the northeast corner of the substation site.

## Benton County, St. Cloud, and Crossroads Substations

Changes and modifications will include replacements or upgrades of relays and communication equipment internal to the control house(s), installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.

### Transmission Structure 39

Jumpers connecting existing lines will be removed and new jumpers will be added to Structure 39 depending on the proposed transmission line re-designations. New single- and/or double-circuit structures will also be constructed near Structure 39 to support the new transmission line connections and re-designations.

### **2.3 Structures and Conductors**

The primary structure or tangent structure the permittee shall use for the project is a galvanized steel, weathering steel or wood single-pole structure with braced posts or davit arms. The tangent structures will be approximately 70 feet to 90 feet in height with an average span of 300 feet to 400 feet between structures (500 foot maximum). The steel structures will have up to a 5 foot to 8 foot average diameter foundation at ground surface and taper with height.

Approximately 2.7 miles of the new transmission line shall follow and be underbuilt with existing distribution lines along U.S. Highway 10. The permittee shall design the project to fit within these existing easements, thereby requiring less right-of-way while still satisfying the needs of the project. For this segment of the project the permittee shall use the same tangent structures as described above with the addition of a distribution crossarm.

Angle structures will be similar in design to the tangent structures described above. Given the limited right-of-way, guyed structures would likely not be necessary.

Double-circuit structures may be used for approximately 0.7 miles of the route where existing Line 5509 would be extended from its intersection with Lines 0887 and 0899 to Structure 39. A double-circuit structure may also be required to connect the newly extended Line 5509 from Structure 39 to existing Line 0899 that runs to the existing Benton County Substation. The double-circuit structures will be a galvanized or weathered steel single-pole with davit arms approximately 75 to 105 feet in height with spans of 300 to 500 feet.

The phases for the project will be constructed with three single steel supported aluminum conductors (ACSS) which each consist of a single conductor comprised of seven steel core strands surrounded by 26 outer aluminum strands. The separate conductors are 795,000 circular mils or approximately 1.092 to 1.139 inches in diameter. The 115 kV transmission line would be three-phase, 60 Hz (hertz), alternating current line.

Line Type	Conductor	Structure Type	Structure Material	Estimated Foundation Diameter (feet)	Structure Height (feet)	Span Between Structures (feet)
115 kV Single-Circuit	ACSS 795 kcmil 26/7	Single Pole Braced Post or Davit Arm	Galvanized Steel, Weathering Steel, or Wood	5 - 8	70 - 90	300 - 500
115 kV Single-Circuit with Distribution Underbuild	ACSS 795 kcmil 26/7	Single Pole Davit Arm with Distribution Crossarm Underbuild	Galvanized Steel, Weathering Steel or Wood	5 - 8	70 - 90	300 - 500
115 kV Double-Circuit	ACSS 795 kcmil 26/7	Single Pole Davit Arm	Galvanized Steel or Weathering Steel	6 - 8	75 - 105	300 - 500

The transmission line shall be equipped with protective devices to safeguard the public if an accident occurs. A 0.528 inch diameter fiber optic cable will be installed to protect from lightning strikes and allow for communication between substation protection equipment and other terminals.

The transmission line shall be designed to meet or exceed local and state codes, the National Electric Safety Code (NESC), North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearances to ground, clearance to crossing utilities, clearance to buildings, strength of materials, clearances over roadways, right-of-way widths, and permit requirements.

### **3 DESIGNATED ROUTE**

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

The transmission line exits the existing Mayhew Lake Substation, heads west along County Road 29 for one-half mile and south-southwest for three-tenths of a mile cross-country to U.S. Highway 10. The route proceeds south along the east side of U.S. Highway 10 for two and nine-tenths miles, turns east for three tenths of a mile following County Ditch 3 to the existing Granite City Substation. A second segment of new transmission line will connect to existing Line 5509 at 14th Avenue NE and head south-southeast following County Ditch 3 and existing transmission lines in the area for approximately seven-tenths of a mile to existing Transmission Structure 39.

#### **3.1 Route Width and Alignment**

As depicted in the route maps attached to this permit, the designated route will be limited to 400 feet in width for the entire length of the transmission line route, as follows: 200 feet on each side of the proposed alignment from the Mayhew Lake Substation west to its intersection with U.S. Highway 10; a 400 foot route width left-aligned with the eastern edge of the northbound lanes of U.S. Highway 10; 200 feet on either side of the proposed alignment from U.S. Highway 10 heading east along County Ditch 3 to the Granite City Substation; 200 feet on either side of the proposed alignment for the new segment extending Line 5509 at approximately 14th Avenue NE to Structure 39. A 200 foot route width extending from the existing Xcel Energy-owned Mayhew Lake and Granite City substations and 1.4 acres of additional route width located north of the Granite City substation also are authorized. These widths will provide the permittee with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

Consequently, this permit anticipates that the actual right-of-way will generally conform to this alignment unless changes are requested by individual landowners, unforeseen conditions are encountered, or are otherwise provided for by this permit. Any alignment modifications within this designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified and documented in and approved as part of the Plan and Profile submitted pursuant to Section 4.1 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 local government units (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 so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit and shall also be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

### **3.2 Right-of-Way Placement**

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

### **3.3 Right-of-Way Width**

The 115 kV transmission line will be built primarily with single pole structures, which will require a 75-foot right-of-way. Where the transmission line will be underbuilt with 2.7 miles of existing distribution line along U.S. Highway 10, the project shall be designed to fit within the existing distribution line easements, thereby reducing the amount of new right-of-way that would be required.

## **4 GENERAL CONDITIONS**

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

### **4.1 Plan and Profile**

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the permittee 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, transmission structure specifications and locations, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per the permit.

The permittee may not commence construction until the 30 days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the permittee 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.

### **4.2 Construction Practices**

The permittee shall follow those specific construction practices and material specifications described in the Xcel Energy application to the Commission for a route permit, dated March 11, 2011, and as described in the environmental assessment and Findings of Fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

#### **4.2.1 Field Representative**

At least 10 days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, email, 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 permittee may change the field representative at any time upon written notice to the Commission.

#### **4.2.2 Local Governments**

During construction, the permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services occur, these would be temporary and the permittee will work to restore service promptly.

Where any impacts to utilities have the potential to occur, permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

#### 4.2.3 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.

#### 4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minnesota Rule 7030.0200, to ensure nighttime noise level standards will not be exceeded.

#### 4.2.5 Vegetation Removal in the Right-of-Way

The permittee shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences and vegetation in areas such as trail crossings, where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed.

In many cases certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

Vegetation management in infrequently mowed areas, such as in ditches, along utility access roads, and under power lines, shall be done mechanically (chemicals shall not be used). Work in these areas shall occur fall through spring (after October 1st and before June 1st).

#### 4.2.6 Aesthetics

The permittee shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at the maximum feasible distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

#### 4.2.7 Erosion Control

The permittee shall follow standard erosion control measures outlined in Minnesota Pollution Control Agency (MPCA) guidance and best management practices regarding sediment control practice during construction include protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

The permittee shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect sediment control fences (e.g. biorolls, sandbags, and silt fences), apply mulch (e.g. hay or straw) on exposed soils, and/or use erosion control blankets and turf reinforcement mats to provide structural stability to bare surfaces and slopes.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the permittee shall consult with (Mn/DOT) and Minnesota Department of Natural Resources (DNR) to select specific site characteristic seed certified to be free of noxious weeds.

Contours shall be graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities shall be returned to their pre-construction condition.

Where larger areas of one acre or more (substation site) are disturbed or other areas designated by the MPCA, the permittee shall prepare the required Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit from the MPCA.

#### 4.2.8 Wetlands and Water Resources

Structures shall be located to span watercourses, wetlands, and floodplains to the extent practicable and consistent with sound engineering principles. Minimal grading of areas around pole locations may be required to accommodate construction vehicles and equipment.

The permittee shall endeavor to access wetlands and riparian areas using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.

Construction in wetlands and riparian areas shall be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) shall be used to protect wetland vegetation. All-terrain construction vehicles designed to minimize soil impact in damp areas may also be used.

No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. The structures shall be assembled on upland areas before they are brought to the site for installation.

Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area. The permittee shall also utilize erosion control methods identified in Section 4.2.7 (Erosion Control), as warranted. Areas disturbed by construction activities shall be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).

#### 4.2.9 Temporary Work Space

The permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Space shall be selected to limit the removal and impacts to vegetation.

Temporary lay down areas outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas.

#### 4.2.10 Restoration

The permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Practices to restore areas impacted by construction and maintenance activities are also described in Section 4.2.7 of this permit.

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 permittee shall advise the Commission in writing of the completion of such activities. The permittee shall compensate landowners for any yard/landscape, crop, soil compaction, drain tile, or other damages that may occur during construction.

#### 4.2.11 Notice of Permit

The permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

### 4.3 Periodic Status Reports

The permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The permittee need not report more frequently than weekly. At the request of the Commission, the permittee shall report to the Commission on progress regarding finalization of the route and design of structures.

### 4.4 Complaint Procedures

Prior to the start of construction, the permittee 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.

### 4.5 Notification to Landowners

The permittee 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. At the time of first contact, the permittee shall also provide all affected landowners with a copy of the *Landowner Guide to Easements* publication provided by the Department of Commerce.

The permittee shall contact landowners prior to entering the property or conducting maintenance along the route. The permittee shall avoid construction and maintenance practices, particularly the use of fertilizer, herbicides or other pesticides, that are inconsistent with the landowner's or tenant's use of the land (See also, Section 4.2.5).

The permittee 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.

## **4.6 Completion of Construction**

### **4.6.1 Notification to Commission**

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

### **4.6.2 As-Builts**

Within 60 days after completion of construction, the permittee shall submit copies of all the final as-built plans and specifications developed during the project.

### **4.6.3 GPS Data**

Within 60 days after completion of construction, the permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (ArcGIS compatible map files, GPS coordinates, associated database of characteristics, etc.) for all structures associated with the transmission lines, each switch, and each substation connected.

## **4.7 Electrical Performance Standards.**

### **4.7.1 Grounding**

The permittee 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 (mA), 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 mA rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The permittee shall address and rectify any induced current problems that arise during transmission line operation.

### **4.7.2 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.

#### 4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the permittee 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.

### 4.8 Other Requirements.

#### 4.8.1 Applicable Codes

The permittee shall comply with applicable requirements of the NESC 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 shall also meet the NERC reliability standards.

#### 4.8.2 Other Permits

The permittee shall comply with all applicable state rules and statutes. The permittee 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 assessment. The permittee shall submit a copy of such permits to the Commission upon request.

#### 4.8.3 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 permittee 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.

#### 4.8.4 Delay in Construction

If the permittee has 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.

## **5 SPECIAL CONDITIONS**

The permittee shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following Special Conditions.

### **5.1 Tauber Property**

In the vicinity of the Tauber Property, the permittee shall work with Benton County to place new pole structures within the existing County Road 29 right-of-way as close to the road as is allowable, hang conductors on the road side so that they are further away from the home, and otherwise design structures so that right-of-way width of 75 feet can be reduced along this specific portion of the route, allowing the new pole structures to span the parcel and stay along the County Road 29 roadway.

### **5.2 Contamination Survey**

The permittee, in consultation with the MPCA, shall identify any contaminated sites as it performs its detailed survey and acquisition work prior to the submittal of the final plan and profile to the Commission.

### **5.3 Archaeological and Historic Resources**

The permittee shall consult with the Minnesota State Historic Preservation Office (SHPO) once detailed survey and acquisition work has been performed, and prior to the submittal of the final plan and profile to determine the need and extent of survey work that may be required for the project.

The permittee shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. In the event that a resource is encountered, the SHPO should be contacted and consulted; the nature of the resource should be identified; and a determination should be made on the eligibility for listing in the National Register of Historic Places. Where feasible, avoidance of the resource is required.

### **5.4 Avian Mitigation**

The permittee's standard transmission design shall incorporate adequate spacing of conductor(s) and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

The permittee shall site the route to avoid tree and shrub removal at the wooded wet swale north and south of Golden Spike Road at the U.S. Highway 10 interchange, where an important wetland corridor exists; attach kestrel nest boxes to power poles, one every one-half mile, along U.S. Highway 10, particularly between Benton Drive and Golden Spike Road, where American kestrels are known to occur; and in consultation with the DNR, incorporate swan flight diverters every 25 feet along the route staggering them between the lines for trumpeter swans, Canada geese and sandhill cranes, three species identified in areas that are of particular concern.

## **5.5 Blanding's Turtle**

The permittee shall follow measures and recommendations for avoiding and minimizing impacts to Blanding's turtle populations as outlined in the *Minnesota Department of Natural Resources Division of Ecological Resources Environmental Review Fact Sheet Series for Blanding's Turtle* ([http://files.dnr.state.mn.us/natural\\_resources/animals/reptiles\\_amphibians/turtles/blandings\\_turtle/factsheet.pdf](http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf)) . Construction and maintenance personnel shall be made aware of the Blanding's turtle and their habitat during pre-construction meetings.

## **6 PERMIT AMENDMENT**

The permit 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 permittee. The Commission may amend the conditions after affording the permittee and interested persons such process as is required.

## **7 TRANSFER OF PERMIT**

The permittee may request at any time that the Commission transfer this permit to another person or entity. The permittee 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 permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the permittee, the new permittee, and interested persons such process as is required.

## **8 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 Rule 7850.5100 to revoke or suspend the permit.

**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 Minnesota Public Utilities Commission (Commission) under Minnesota 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 route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

**Substantial Complaint:** A written complaint alleging a violation of a specific 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**

The permittees shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:

- Name of complainant, address, phone number, and e-mail address.
- Precise property description or parcel number.
- Name of permittees representative receiving complaint and date of receipt.
- Nature of complaint and the applicable permit conditions(s).
- Activities undertaken to resolve the complaint.
- Final disposition of the complaint.

The permittees shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.

A person presenting the complaint should to the extent possible, include the following information in their communications:

- Name, address, phone number, and e-mail address.
- Date
- Tract or parcel
- Whether the complaint relates to (1) a permit matter, or (2) 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 High-Voltage Transmission Line Permit Compliance, 1-800-657-3794 (voice messages are acceptable), or by e-mail to: [DOC.energypermitcompliance@state.mn.us](mailto:DOC.energypermitcompliance@state.mn.us).

**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, Minnesota 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 Office of Energy Security**

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 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.

### **Permittees Contacts for Complaints**

Complaints shall be sent to:

Joseph G. Sedarski  
Xcel Energy  
414 Nicollet Mall, MP-8  
Minneapolis, MN 55401

Telephone: (612) 330-6435

Email: [joseph.g.sedarski@xcelenergy.com](mailto:joseph.g.sedarski@xcelenergy.com)

**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**

The permittees shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Department of Commerce eDocket system. The eDocket system is located on the Department of Commerce website at:

<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.

All filings must have a cover sheet that includes:

- Date
- Name of submitter/permittee
- Type of permit (site or route)
- Project location
- Project docket number
- Permit section under which the filing is made
- 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 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198.

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

PERMITTEES: Xcel Energy

PERMIT TYPE: 115 kV High-Voltage Transmission Line Route Permit

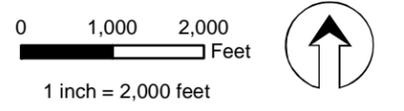
PROJECT LOCATION: Benton County, Minnesota

PUC DOCKET NUMBER: E002/TL-10-1026

Filing Number	Permit Section	Description	Due Date
1.	4.1	Plan and Profile of Right-of-Way	30 days before right-of-way preparation or construction
2.	4.2.1	Contact information for field representative	10 days prior to construction
3.	4.3	Periodic Status Reports	Not more than weekly
4.	4.4	Complaint Procedures	Prior to start of construction
5.	4.5	Notification to Landowners	First contact with the landowners after issuance of permit
6.	4.6.1	Notice of completion and date of placement in service	Three days prior to energizing
7.	4.6	Provide As-built and GPS information (ArcGIS files or similar)	Within 60 days of construction
8.	4.8.2	Other Required Permits	Upon request
9.	5.2	Contamination Survey	Prior to submittal of plan and profile
10.	5.3	Results of State Historic Preservation Office (SHPO) consultation	Prior to submittal of plan and profile

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



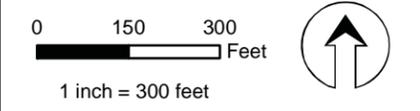
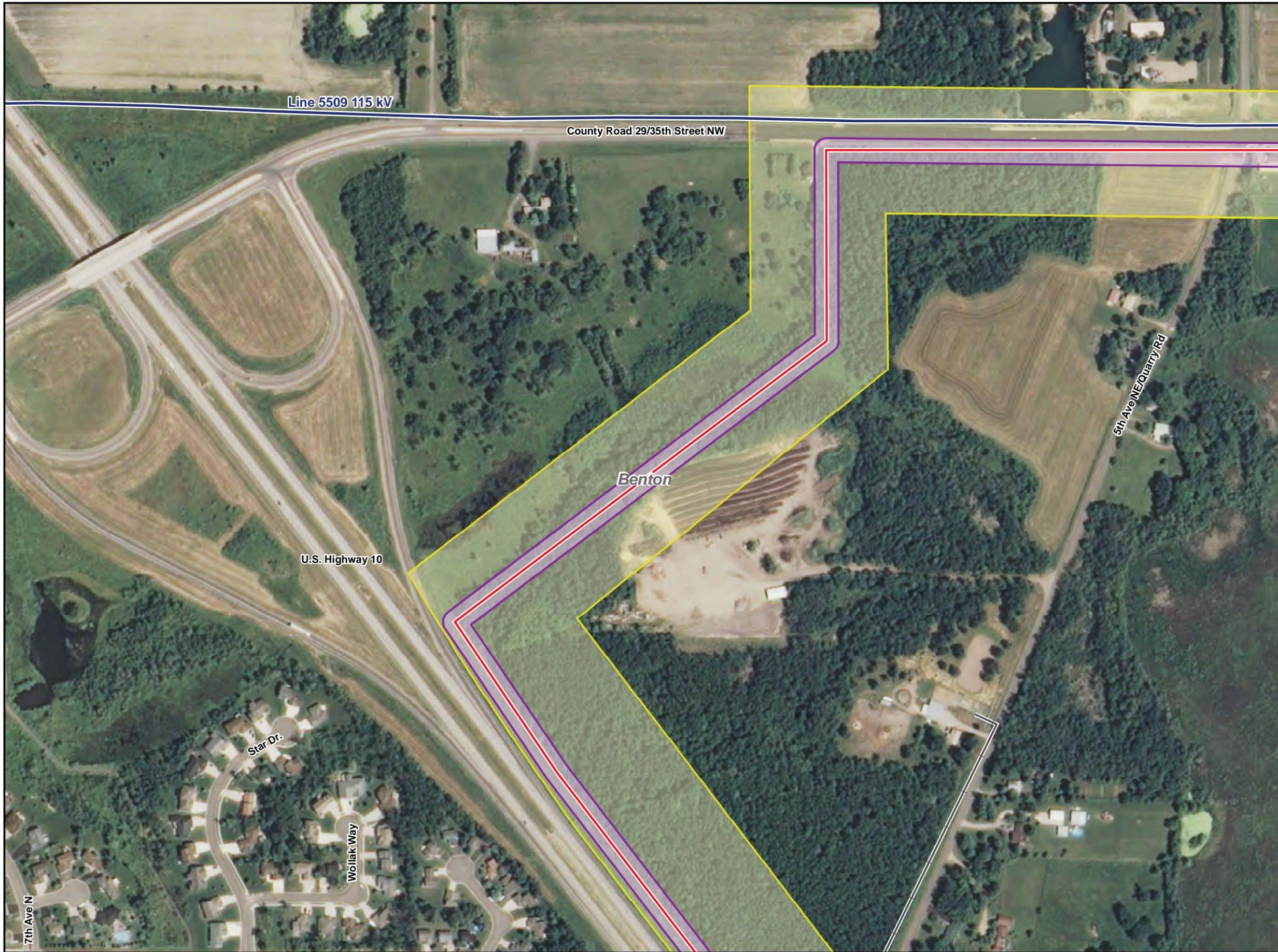
-  Structure 39
-  Xcel Substation
-  Proposed Route
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line



**Figure 1**  
Route Overview  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.





-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width

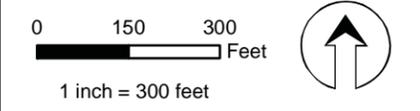


**Figure 3**  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.



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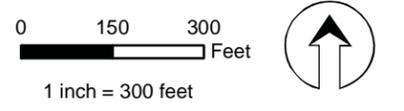
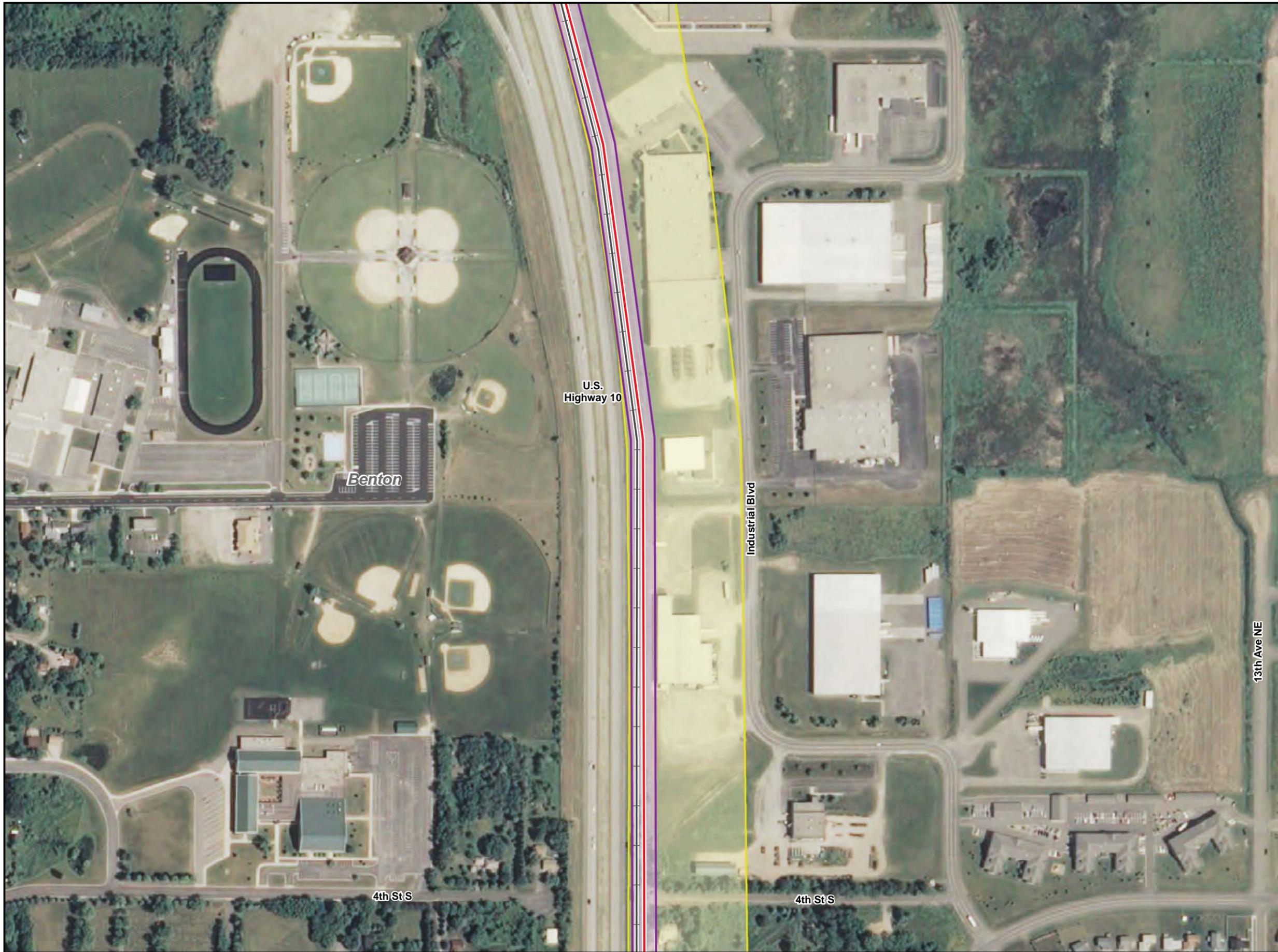


-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width



Figure 5  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.

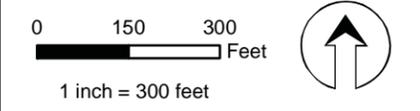
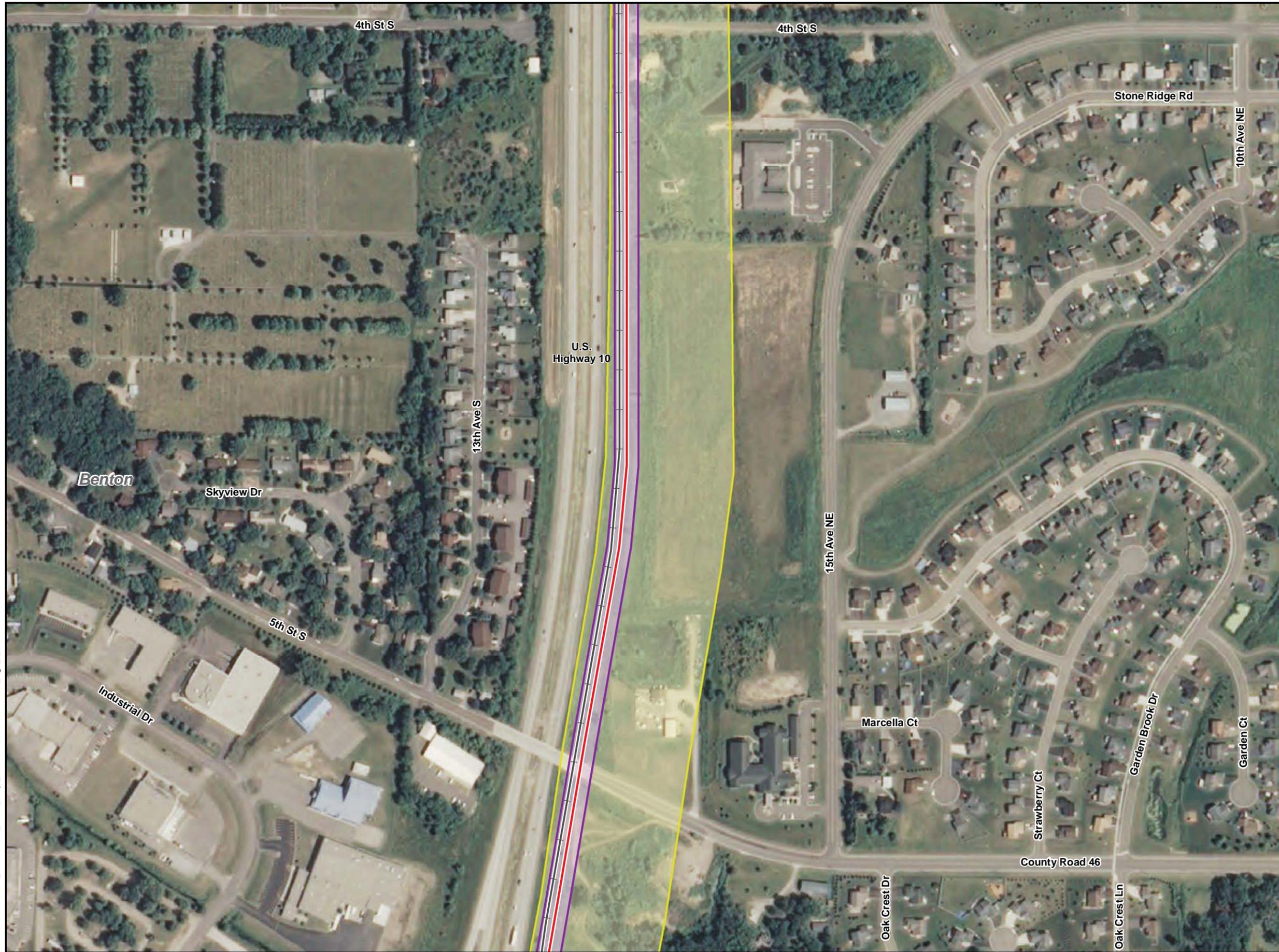


-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width



Figure 6  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.

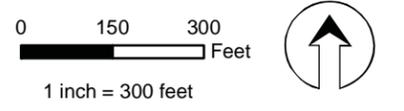
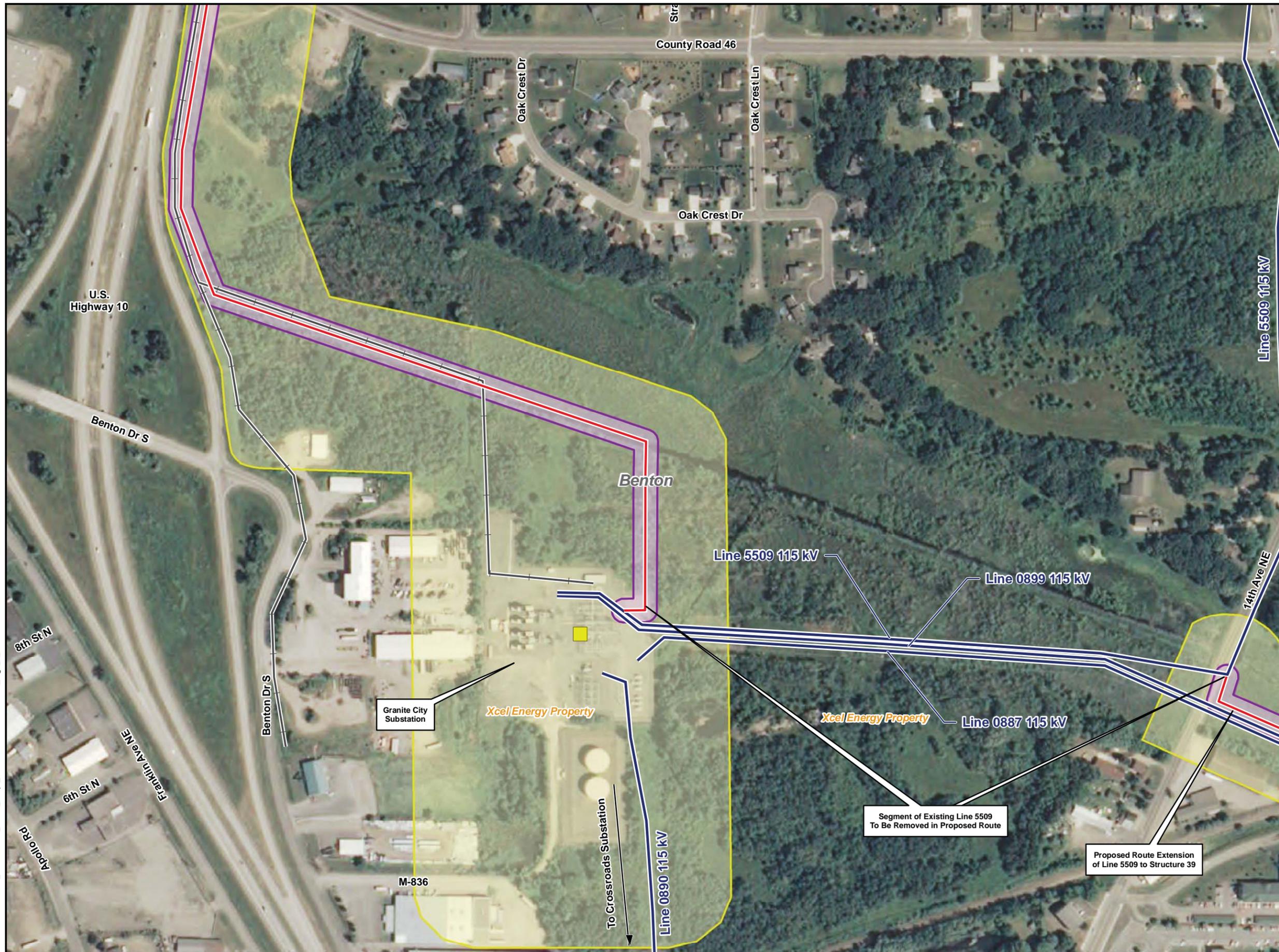


-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width



Figure 7  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.



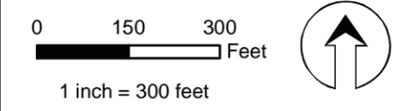
-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width



**Figure 8**  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.

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-  Structure 39
-  Xcel Substation
-  Proposed Route Alignment
-  Existing Xcel Energy Transmission Line
-  Existing Xcel Energy Distribution Line
-  Proposed 75 Foot Right-of-Way
-  Proposed 400 Foot Route Width



Figure 9  
Route Maps  
St. Cloud Loop Project

Source: Aerial Imagery - NAIP FSA 2009  
This information is for review purposes only.