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December 5, 2014

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: Comments and Recommendations of Department of Commerce
Alternative Routes
Energy Environmental Review and Analysis Staff
Docket No. E015/TL-14-21

Dear Dr. Haar,

In compliance with the Commission's Order of July 2, 2014, the Minnesota Department of Commerce (DOC) Energy Environmental Review and Analysis (EERA) staff is providing the Commission with a summary of the Public Information and Scoping meetings and the recommended route alternatives to facilitate Commission input to the Commissioner of Department of Commerce on the scope of the environmental impact statement.

Minnesota Power, in partnership with Manitoba Hydro, proposes to construct a high voltage transmission line (HVTL) from the International border that would terminate at the Blackberry Substation in Itasca County.

The Great Northern Transmission Line project includes the construction of a new 500 kV transmission line in Minnesota from the United States/Canadian border to the Minnesota Power Blackberry Substation near Grand Rapids, Minnesota. The 500 kV Line will be approximately 235-270 miles in length, subject to final route approval by the Commission, and will be constructed on a 200 foot wide right-of-way. The line will provide 750 MW of transfer capability. The Minnesota counties likely to be impacted by the construction of the 500 kV Line (depending on final route selection) include: Beltrami, Itasca, Koochiching, Lake of the Woods, and Roseau.

EERA staff is available to answer any questions the Commission may have.

Sincerely,

William Cole Storm, DOC EERA Staff



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**COMMENTS AND RECOMMENDATIONS OF
MINNESOTA DEPARTMENT OF COMMERCE
ENERGY ENVIRONMENTAL REVIEW & ANALYSIS STAFF**

DOCKET No. E015/TL-14-21

Date: December 5, 2014

EERA Staff: William Cole Storm.....651-539-1844

In the Matter of the Application of Minnesota Power for a Route Permit for the Great Northern High-Voltage Transmission Line Project in Roseau, Lake of the Woods, Beltrami, Koochiching and Itasca Counties, Minnesota

Issues Addressed: These comments and recommendations discuss the environmental impact statement (EIS) scoping process, the route and alignment alternatives proposed during the scoping process, and those alternatives which Department of Commerce, Energy Environmental Review and Analysis (DOC-EERA) staff intends to recommend for inclusion in the scope of the EIS.

Documents Attached: (1) Scoping Summary Report, (2) Silver Creek WMA Alignment Modification Map

Additional documents and information can be found on eDockets: <https://www.edockets.state.mn.us/EFiling/search.jsp> (14-21) and on the Department's energy facilities permitting website: <http://mn.gov/commerce/energyfacilities/Docket.html?Id=33847>.

This document can be made available in alternative formats (i.e., large print or audio) by calling 651-539-1530 (voice).

Introduction and Background

On April 15, 2014, Minnesota Power filed a route permit application for an approximately 220-mile long, 500 kilovolt (kV) transmission line that would cross the international border in Roseau County, and depending on final route, would cut across Beltrami, Koochiching and Lake of the Woods counties and terminate at the Blackberry Substation near Grand Rapids in Itasca County.¹ The project also includes a substation upgrade and other associated facilities.

¹ Minnesota Power Application to the Minnesota Public Utilities Commission for a Route Permit, Great Northern Transmission Project and Associated Facilities in Beltrami, Itasca, Koochiching, Lake of the Woods, and Roseau Counties, April 15, 2014, eDockets No. 20144-98339-01 to -10, 341-01 to -10, and 342-01 to -04. [herein after Route Permit Application].

On July 2, 2014, the Minnesota Public Utilities Commission (Commission) accepted the application as complete and requested that DOC-EERA staff present route alternatives for review and consideration by the Commission.² Following input from the Commission, the Deputy Commissioner of the DOC will finalize and issue the scoping decision for the EIS.³

Project Purpose and Description

As stated by Minnesota Power, the primary objective of the project is to provide increased, reliable access to Manitoba hydropower. Minnesota Power states in its certificate of need (CN) application that the project will allow delivery of the combined 383 megawatts (MW) (250 MW PPA and the 133 MW Renewable Optimization Agreements) of hydropower and wind storage energy products. The total capacity of the proposed transmission line, however, is approximately 750 MW. Therefore, the project would also provide hydropower capacity to other utilities in the region, in addition to that needed by Minnesota Power.

Minnesota Power also states that the project not only increases access to Manitoba hydropower, but facilitates an innovative wind storage provision in their power purchase agreement (PPA) that allows them to sell excess wind energy to Manitoba Hydro when their wind production is high. This in turn would allow Manitoba Hydro to reduce the flow of water through their hydropower plants during high wind periods, in effect storing wind energy by increasing the water stored behind those plants. The water stored during this process can be used later to generate electricity to be scheduled to Minnesota when wind energy production is low. Minnesota Power states that these arrangements optimize the use of both wind-generated energy and hydropower, benefitting Minnesota Power's customers, and also enhancing overall grid reliability in the region.

Minnesota Power is requesting a route width that is 1,000 to 3,000 feet wide, with structures that would range from approximately 100 to 150 feet tall. The Great Northern Transmission Line (GNTL) project will be constructed on a 200 foot wide right-of-way (ROW). Minnesota Power currently estimates between 4 to 5 structures per mile of transmission line. A variety of structure types (self-supporting suspension, guyed delta suspension, and guyed-V suspension) may be used along the route.

Minnesota Power anticipates that construction on the project will begin in the fall of 2016, with an in-service date of mid-year 2020.

Regulatory Process and Procedures

In Minnesota, no person may construct a high voltage transmission line (HVTL) without a route permit from the Commission (Minnesota Statute 216E.03). 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 greater than 1,500 feet in length (Minnesota Statute 216E.01). Minnesota Power's proposed project will consist of approximately 220 miles of new 500 kV transmission line and therefore requires a route permit from the Commission.⁴ Through a separate Certificate of Need (CN) process, the Commission must also determine whether there is a need for a transmission line, and establish the size, type and required end points of the proposed project. Minnesota Power filed its CN application for the proposed GNTL project with the Commission on October 22, 2013, and

² Commission Order Finding Application Complete, Authorizing Advisory Task Force, and Requesting Draft Route Alternatives, July 2, 2014, eDockets Number 20147-101165-01 [hereinafter Commission Application Completeness Order].

³ Minnesota Rule 7850.2500.

⁴ Minnesota Power's proposed project, as a large energy facility, also requires a certificate of need from the Commission (see docket number E015/CN-12-1126). These comments and recommendations do not address the certificate of need.

anticipates a decision by May 2015.

Applications for HVTL route permits are subject to environmental review conducted by DOC-EERA staff.⁵ Minnesota Power's proposed project does not qualify for alternative review and thus must proceed under the full permitting process.⁶ The full permitting process requires the preparation of an EIS. An EIS is a document which describes the potential human and environmental impacts of a proposed project and potential mitigative measures.

After providing opportunity for public comment on the scope of the EIS, the DOC determines the scope of EIS.⁷ Minnesota Statute 216E.03 anticipates that the Commission will have opportunity to comment on those route alternatives proposed during the scoping process and to provide input to the DOC-EERA on which routes to include in the scope of the EIS.⁸ The Commission has requested that the DOC-EERA present these route alternatives to the Commission to facilitate the Commission's input.⁹ The DOC-EERA is to study and evaluate any site or route the Commission "deems necessary that was proposed in a manner consistent with rules concerning the form, content, and timeliness of proposals for alternate sites and routes."¹⁰

The project also requires a Presidential permit from the U.S. Department of Energy (DOE). Pursuant to the National Environmental Policy Act of 1969 (NEPA), when considering an application for a Presidential permit the Department of Energy (DOE) must take into account possible environmental impacts of the proposed facility. DOE has determined that an EIS is the appropriate level of environmental review. Therefore, an EIS will be prepared in compliance with NEPA and DOE's implementing regulations, 10 CFR Part 1021.

In order to avoid duplication, DOE and the DOC-EERA will prepare a single EIS to comply with environmental review requirements under NEPA and the Power Plant Siting Act. DOE will act as federal joint lead agency with DOC-EERA acting as state joint lead agency per 40 CFR 1501.5(b).

DOE and DOC-EERA have implemented a joint planning and scoping process to encourage agency and public involvement in the review of the proposed project, and to identify the range of reasonable alternatives. The public outreach process is designed to facilitate public discussion of the scope of appropriate issues and alternatives to be addressed in the EIS.

Scoping Process

Commission staff and DOC-EERA staff, along with the DOE, held eight joint public information and environmental impact statement scoping meetings between July 16 and 24, 2014, across the study area at the locations identified below.

⁵ Minnesota Statute 216E.03, Subd. 5.

⁶ Minnesota Statute 216E.04, Subd. 2 (describing those projects which qualify for alternative review).

⁷ Minnesota Rule 7850.2500, Subp. 2.

⁸ Minnesota Statute 216E.03, Subd. 5.

⁹ Commission Application Completeness Order.

¹⁰ Minnesota Statute 216E.03, Subd. 5.

Meeting Date and Time	Location	Number of Attendees
July 16, 2014, 11:00 AM	Roseau Civic Center, Roseau, Minnesota	22
July 16, 2014, 6:00 PM	Lake of the Woods School, Baudette, Minnesota	6
July 17, 2014, 11:00 AM	Littlefork Community Center, Littlefork, Minnesota	12
July 17, 2014, 6:00 PM	AmericInn, International Falls, Minnesota	4
July 23, 2014, 11:00 AM	Kelliher Public School, Kelliher, Minnesota	7
July 23, 2014, 6:00 PM	Bigfork School, Bigfork, Minnesota	17
July 24, 2014, 11:00 AM	Sawmill Inn, Grand Rapids, Minnesota	19
July 24, 2014, 6:00 PM	Sawmill Inn, Grand Rapids, Minnesota	20

The meetings provided the public with the opportunity to learn more about the proposed project and to provide comments on potential environmental issues associated with the project and to put forth alternative routes for consideration. A total of 46 people gave oral comments at the meetings, and their comments were transcribed by a court stenographer.¹¹

A comment period, ending on August 15, 2014, provided the public an opportunity to submit comments to DOC-EERA/DOE staff on issues and route alternatives for consideration in the scope of the EIS. DOC-EERA and DOE received scoping comments in the form of 122 written letters, emails, or website submittals from private citizens, government agencies, and nongovernmental organizations. Written public comment letters can be found in eDockets (docket No. 14-21), and are also contained in whole and abridged in the *Scoping Summary Report*.

In its July 2, 2014, Order accepting the Route Permit Application as complete, the Commission authorized the formation (structure and charge) of an advisory task force (ATF). Subsequently the Commission concluded that for this docket an alternative approach to the ATF for gathering public input was necessary.¹² The Commission amended its previous order to remove the ATF structure and charge, and approved instead the workgroup process. The purpose of the Workgroup was primarily to provide an additional opportunity for local government representatives to discuss their concerns, develop potential alternative route segments, review potential zoning conflicts, and ensure local input necessary for informed decision-making.

The *Scoping Summary Report* describes the public scoping process for the EIS that the DOE (DOE/EIS-0499) and DOC-EERA are preparing for the GNTL project. The purpose of the *Scoping Summary Report* is to describe the scoping process; the report contains information on the manner of public notification, venues, dates and times in which the scoping meetings were held, comments received, information on the Workgroup efforts, and requested alternative route segments/alignment modifications.¹³ The *Scoping Summary Report* was released on November 13, 2014.

There were 33 alternative route segment (including 5 border crossing alternatives) and 9 alignment modification requests received through the scoping process.

¹¹ Oral Comments from Public Information and EIS Scoping Meetings, July 16-24, 2014, eDockets Number 20148-102461-01 to 20148-102461-07, [hereinafter Oral Comments].

¹² Commission Order Authorizing Formation of a Working Group. eDockets Number 20149-103259-01

¹³ Scoping Summary Report, November x, 2014. eDockets Numbers 201411-104621-01 to 10, 104622-01 to 09, 104623-01 to 10, 104624-01 to 08, 104625-01 to 07, and 104625-01 to 03..

Minnesota Rule 7850.2500, Subpart 3, requires that the Applicant be afforded the opportunity to respond to each request that an alternative be included in the EIS. On November 14, 2014, Minnesota Power filed its response to the suggested alternatives.¹⁴

EERA Staff Analysis and Comments

The scoping process for environmental review in Minnesota is designed to identify and analyze “only those potentially significant issues relevant to the proposed project” and alternatives to the project.¹⁵ With respect to route alternatives, the DOC-EERA is charged with including those alternatives which will “assist in the [Commission’s] decision on the permit application.”¹⁶

When route alternatives are proposed during the scoping process DOC-EERA staff analyzes these alternatives using five criteria:

- 1) Was the alternative submitted within the scoping period, i.e., prior to the end of the public comment period for scoping?
- 2) Does the alternative contain “an explanation of why the site or route should be included in the [environmental review document]”?¹⁷ The DOC-EERA staff interprets this text to require that route alternatives – to be included in the scope of the environmental review document – must mitigate a potential impact of the proposed project, and this mitigation must be, in general terms, explained by the proposer of the route alternative.¹⁸ The proposer need not provide extensive supporting data for their alternative, but must provide enough explanation such that it is fairly clear the potential impact(s) being mitigated by the route alternative.
- 3) Is the alternative outside of areas prohibited in Minnesota Rule 7850.4300, e.g., state and national parks?
- 4) Does the alternative meet the applicant’s stated need for the project?
- 5) Is the alternative feasible?

The DOC-EERA staff has used the above the criteria to review and analyze the route and alignment alternatives proposed during the scoping process. Criteria 1 through 3 are procedural requirements of rule which must be met for alternatives to be considered; items 4 and 5 address whether the alternative would assist the Commission in making its final determination.¹⁹

The last criterion, feasibility, integrates the concepts of cost, engineering design and system reliability. The alternative must meet certain technological requirements (codes and standards), must achieve and maintain a consistent power delivery (i.e., reliability), and must provide for an efficient use of resources (i.e., cost).

¹⁴ Minnesota Power Response to Alternatives, November 14, 2014. eDockets Numbers 201411-104659-01 to 02.

¹⁵ Minnesota Rule 4410.2100, Subp. 1.

¹⁶ Minnesota Rule 7850.2500, Subp. 3.

¹⁷ Id.

¹⁸ As an example, if a proposed transmission line proceeds past 10 residences and a citizen suggests route alternative A, which also proceeds past 10 residences but in another location, it is not clear how alternative A mitigates potential impacts of the project.

¹⁹ Minn. Rule 7850.3700, Subpart 2, Item B

Each route and alignment alternative proposed during the scoping process is discussed below, along with DOC-EERA staff analysis and comment, in a north-to-south fashion – from the border crossing in Roseau County to the terminus at the Blackberry Substation in Itasca County.

At this stage in the HVTL Route Permit application review process, *scoping of the environmental review document*, the key factors in determining which alternatives should be carried forward for evaluation in the EIS, outside of meeting the procedural requirements of rule, are feasibility and whether the alternative can meet the stated need.

The DOC-EERA staff believes that it is premature to attempt to evaluate the merits (i.e., weighting one factor against another) of a given alternative route, beyond feasibility and need (i.e., fatal flaw analysis) at this early stage; the merits of the various options should not be determined until the record is fully developed.

Staff believes that some alternative route segments may be able to be eliminated through consolidation with other alternative route segments if multiple suggested alternatives are addressing (thus mitigating) the same impacts.

International Boundary Alternative Route Segment (*Scoping Summary Report*, Appendix F, Figure 1)

The International Boundary Alternative Route Segment follows the U.S. - Canadian border east from Minnesota Power's proposed crossing at Piney Creek to intersect either the existing 500 kV or 230 kV transmission lines.

The proponent's rationale is that much of the border is already cleared of trees and a route along this boundary would minimize the amount of developed land impacted by new ROW.

Applicant Response

Minnesota Power states that this alternative would cross the Pine Creek Peatland Scientific and Natural Area (SNA). Additionally, Minnesota Power states that the clearing along the border is not wide enough to accommodate the project.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

Minnesota Department of Natural Resources Response

The Minnesota Department of Natural Resources (DNR), responding to the *Scoping Summary Report*, filed correspondence concerning the development of transmission lines through SNA lands.²⁰ The DNR provided a description and purpose of the SNA legislation, specifically peatland SNAs, and concluded that any alternative routes which would cross SNAs lands would be prohibited.

EERA Analysis and Comment

The International Boundary Alternative Route Segment satisfies the first two procedural requirements; however, this alternative passes through the Pine Creek Peatland, a SNA. The Pine Creek Peatland is the U.S. portion of a much larger peatland that extends north into Canada. It exhibits Minnesota's best developed spring fen as well as several rare plants.

²⁰ Minnesota Department of Natural Resources letter dated November 26, 2014. eDocket number 201411-105005-01.

This alternative would violate criterion #3, in which no HVTL may be routed through an SNA unless the transmission line would not materially damage or impair the purpose for which the area was designated and no feasible and prudent alternative exists (Minn. Rule 7850.4300, Subpart 2).

Minnesota Power's proposed route offers a feasible and prudent alternative to the International Boundary Alternative Route Segment. DOC-EERA has determined that the International Boundary Alternative Route Segment has failed to meet the screening criteria (criterion #3).

For this reason, DOC-EERA staff does not intend to recommend that the International Boundary Alternative Route Segment be carried forward for evaluation in the EIS.

Pine Creek Border Crossing Alternative Route Segment (*Scoping Summary Report*, Appendix F, Figure 2)

This alternative crosses the border just west of Piney Creek, with the alternative route paralleling 320th Avenue as it runs south along the quarter-sections of Sections 27 and 34 in T164N, Range 41W and continuing through Section 3 of T163N, Range 41W where it joins Minnesota Power's proposed route.

The proponent's rationale is that this route alternative segment would avoid impacts to the Roseau River Wildlife Management Area (WMA) and the surrounding "greenfield" in that area.

Applicant Response

Minnesota Power, in its response, states that the alternative does not align with the agreed-upon border crossing location decided by Minnesota Power and Manitoba Hydro. Minnesota Power stated that the agreed-upon border crossing (Latitude 49 00 00.00N, Longitude 95 54 50.49W) was selected due to constraints by aboriginal community interests and environmental impacts present on the Manitoba side of the border.

In addition, Minnesota Power believes the alternative would have greater impacts on residences (NW corner of 320th Avenue and 390th Street) and agricultural practices.

Minnesota Power recommends against including this Alternative Route Segment in the Scoping Decision.

EERA Analysis and Comment

The Pine Creek Border Crossing Alternative Route Segment satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

The question of weighting the potential impacts of one alternative against another (i.e., agricultural practices and human settlement vs natural resources/greenfield) goes to the comparative merits of each alternative. These determinations should not be made until the record is complete.

Minnesota Power argues, in effect, that this crossing is not feasible since the two end points must connect to deliver the power. While Minnesota Power has stated that the agreed upon crossing point is necessary to avoid constraints (aboriginal community interests and environmental impacts) on the Manitoba side of the border, the record to date does not provide any specific information regarding these constraints. Testimony in the CN docket indicates that following a final round of public engagement and environmental review early next year, Manitoba Hydro will be finalizing the route selection and completing the regulatory submissions in the summer of 2015.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Pine Creek Border Crossing Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position regarding the border crossing can be more fully explored and documented through the EIS process.

Hwy 310 Border Crossing Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 3*)

This alternative crosses the border east of the Sprague Creek Peatland SNA and follows State Highway 310 until it joins Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would minimize impacts to the Piney-Pine Creek Airport, agricultural land, and avoids private property and developed areas.

Applicant Response

As with other border crossing alternatives proposed during scoping, Minnesota Power states that the Highway 310 Border Crossing does not align with the location agreed to with Manitoba Hydro. Minnesota Power stated that the agreed upon border crossing was selected due to constraints by aboriginal community interests and environmental impacts present on the Manitoba side of the border.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Highway 310 Border Crossing Alternative Route Segment satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

While Minnesota Power has stated that the agreed-upon border crossing location is necessary to avoid constraints (aboriginal community interests and environmental impacts) on the Manitoba side of the border, the record to date contains little supporting information regarding these constraints.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Highway 310 Border Crossing Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position regarding the border crossing can be more fully explored and documented through the EIS process.

500kV Border Crossing Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 6*)

The 500 kV Border Crossing follows the existing 500 kV transmission line from the international border until it joins Minnesota Power's proposed route.

The proponent's rationale is that this route alternative segment would minimize impacts to state forest land by paralleling the existing 500 kV transmission line.

Applicant Response

As with other border crossing options proposed during scoping Minnesota Power states that this option does not align with border crossing location agreed upon with Manitoba Hydro. Again, Minnesota Power stated that the agreed upon border crossing was selected due to constraints by aboriginal community interests and environmental impacts present on the Manitoba side of the border. In addition, Minnesota Power highlights reliability concerns associated with placing three HTVLs in one area. These concerns may speak to feasibility

(criterion #5) or the ability of this alternative route segment to meet the need for the project (criterion #4) (reliable delivery of power).

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The 500 kV Border Crossing Alternative Route Segment satisfies the three procedural requirements.

While Minnesota Power has stated that the agreed-upon border crossing location is necessary to avoid constraints (aboriginal community interests and environmental impacts) on the Manitoba side of the border, the record to date is lean on the specifics of these constraints.

In addition, Minnesota Power highlights reliability concerns associated with placing three HTVLs in one area. However, the record to date does not include specifics by which to assess the extent or severity of potential reliability impacts nor does the record provide references to reliability related rules or guidance that may address the feasibility of placing of three HVTLs in one area.

Based on the information in the record to date, DOC-EERA staff will be recommending that the 500kV Border Crossing Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position regarding the border crossing and reliability can be more fully explored and documented through the EIS process.

230kV Border Crossing Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 7*)

The 230kV Border Crossing is an alternative crossing location from that proposed by Minnesota Power. This alternative follows the existing 230 kV transmission line from the international border until it joins Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would minimize impacts to state forest land by paralleling the existing 230 kV transmission line.

Applicant Response

Minnesota Power, in its response, states that the alternative does not align with the agreed-upon border crossing location decided by Minnesota Power and Manitoba Hydro. Minnesota Power stated that the agreed-upon border crossing location (Latitude 49 00 00.00N, Longitude 95 54 50.49W) was selected due to constraints by aboriginal community interests and environmental impacts present on the Manitoba side of the border.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The 230kV Border Crossing satisfies the three procedural requirements. In addition, the analysis is the same for this crossing as for the proposed crossing that would run parallel to the existing 500 kV transmission line.

Based on the information in the record to date, DOC-EERA staff will be recommending that the 230kV Border Crossing Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position regarding the border crossing can be more fully explored and documented through the EIS process.

Roseau Lake WMA Alternative Route Segment 1 (*Scoping Summary Report, Appendix F, Figure 4*)

The Roseau Lake WMA Alternative Route Segment 1 avoids crossing the Roseau Lake and Cedar Bend wildlife management areas (WMAs). This alternative follows MN-89 south, crosses MN-11, stair-steps its way south to CR-126, then continues north and east to join Minnesota Power's proposed route.

The proponent's rationale is that this route alternative segment would avoid impacts to the Roseau Lake and Cedar Bend WMAs by not crossing either of them.

Applicant Response

Minnesota Power states that this alternative contradicts the Workgroup recommendation to route the project "as much as possible on public land, minimizing impact to human settlement and private property use." In addition, Minnesota Power states that the greater line length and increased number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Roseau Lake WMA Alternative Route Segment 1 satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this modification and potential impacts on feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts. Without additional information developed for the record on the details underlying Minnesota Power's position regarding feasibility impacts, further study of these issues in the EIS is recommended.

With respect to the issues raised, regarding private land use and potential impacts to human settlement, agricultural land use, and air traffic, these issues speak to merit but do not speak to project need (criterion #4) or feasibility of the alternative (criterion #5). Since this proposal does avoid impacts to two state wildlife management areas, an assessment of impacts to human settlement, including air traffic and agricultural land use, is integral to analyzing the merit of the project and alternatives to the project and DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

DOC-EERA will be recommending that the Roseau Lake WMA Alternative Route Segment 1 be carried forward for evaluation in the EIS.

Roseau Lake WMA Alternative Route Segment 2 (*Scoping Summary Report, Appendix F, Figure 5*)

This proposal also avoids crossing the Roseau Lake WMA by first following MN-89 south, and then continues east on the south side of the Roseau Lake WMA to 360th Street, and east to the intersection with Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would avoid impacts to the Roseau Lake WMA by not crossing it.

Applicant Response

Minnesota Power, in its response, states that this alternative contradicts the Workgroup recommendation to route the project “as much as possible on public land, minimizing impact to human settlement and private property use.” In addition, Minnesota Power states that the greater line length and increased number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Roseau Lake WMA Alternative Route Segment 2 satisfies the three procedural requirements and would meet the applicant’s need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this modification and potential impacts on feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts. Without additional information developed for the record on the details underlying Minnesota Power’s position regarding feasibility impacts, further study of these issues in the EIS is recommended.

With respect to the issues raised regarding private land use and impacts to human settlement, impacts to agricultural land use, and potential impacts to waterfowl, these issues speak to merit but do not speak to project need (criterion #4) or feasibility (criterion #5). An assessment of impacts to human settlement and wildlife is integral to analyzing the merit of the project and alternatives to the project and EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

DOC-EERA will be recommending that the Roseau Lake WMA Alternative Route Segment 2 be carried forward for evaluation in the EIS.

Cedar Bend WMA Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 8*)

The Cedar Bend WMA Alternative Route Segment mitigates crossing the Cedar Bend WMA. This alternative follows the existing 230 kV transmission line from where it intersects Minnesota Power’s proposed route, and then turns southeast to continue along the existing 230kV transmission line.

The proponent’s rationale is that this alternative route segment would avoid impacts to the Cedar Bend WMA by paralleling the existing 230 kV transmission line.

Applicant Response

Minnesota Power, in its response, states that this alternative contradicts the Workgroup recommendation to route the project “as much as possible on public land, minimizing impact to human settlement and private property use.”

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Cedar Bend WMA Alternative Route Segment satisfies the three procedural requirements and would meet the applicant’s need (criterion #4).

Minnesota Power raised issues regarding private land use and impacts to human settlement as well as impacts to agricultural land use, however, these issues speak to merit but do not speak to project need (criterion #4) or feasibility (criterion #5). An assessment of impacts to human settlement and agriculture is integral to analyzing the merit of the project and alternatives to the project. DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

DOC-EERA will be recommending that the Cedar Bend WMA Alternative Route Segment be carried forward for evaluation in the EIS.

Beltrami WMA Alternative Route Segment 1 North (*Scoping Summary Report*, Appendix F, Figure 9a)

The Beltrami WMA Alternative Route Segment 1 North mitigates impacts to U.S. Fish and Wildlife Service (USFWS) parcels. This alternative crosses the existing 500 kV transmission line south of CSAH 2 and angles to the southeast but north of USFWS parcels. The alternative then follows the north side of the existing 500 kV transmission line (Minnesota Power's proposed route) until the existing 500 kV line turns to the southeast where it connects with Beltrami WMA Alternative Route Segment 1 South, described below.

The proponent's rationale is that this route alternative segment would avoid impacts to USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat. In addition, the increased number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²¹ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 1 North satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alternative route segment and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts. Without additional information developed for the record on the details underlying Minnesota Power's position regarding feasibility impacts, further study of these issues in the EIS is recommended.

Minnesota Power raised issues regarding proximity to homes and habitat fragmentation; however these issues are linked to the merits of the project. An assessment of impacts to human settlement and natural resources is

²¹ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

integral to analyzing the merit of the project and alternatives to the project and DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

DOC-EERA will be recommending that the Beltrami WMA Alternative Route Segment 1 North be carried forward for evaluation in the EIS.

Beltrami WMA Alternative Route Segment 1 South (*Scoping Summary Report*, Appendix F, Figure 9b)

Beltrami WMA Alternative Route Segment 1 South mitigates impacts to USFWS parcels. The Beltrami WMA Alternative Route Segment 1 South extends from Beltrami WMA Alternative Route Segment 1 North where the existing 500 kV line turns to the southeast. From this point, the alternative crosses to the south side of the existing 230 kV transmission line and continues southeast to join Minnesota Power's proposed Blue Route and thereby passes to the east of USFWS parcels.

The proponent's rationale is that this route alternative segment would avoid impacts to USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat. In addition, the increased number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²² In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 1 South satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alternative route segment and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

Minnesota Power raised issues regarding proximity to homes and habitat fragmentation; however these issues are linked to the merits of the project. An assessment of impacts to human settlement and natural resources is integral to analyzing the merit of the project and alternatives to the project and DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

²² US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

Based on the information in the record to date, DOC-EERA staff will be recommending that the Beltrami WMA Alternative Route Segment 1 South be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Beltrami WMA Alternative Route Segment 2 (*Scoping Summary Report*, Appendix F, Figure 10)

The Beltrami WMA Alternative Route Segment 2 mitigates impacts to USFWS parcels. This alternative diverges from Minnesota Power's proposed route that parallels the existing 500kV transmission line, goes south around USFWS parcels, then goes north to join Minnesota Power's proposed route.

The proponent's rationale is that this route alternative segment would avoid impacts to USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat. In addition, the increased number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²³ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 2 satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this modification and potential impacts on feasibility of the project (criterion #5). In this instance, another alternative (Beltrami WMA Alternative Route Segment 1) mitigates the same impacts mitigated by this alternative. In addition, the Beltrami WMA Alternative Route Segment 1 has fewer issues regarding the feasibility concerns (e.g., length and angle structures) that were stated by Minnesota Power. However, after consultation with the Service concerning this alternative and Beltrami WMA Alternative Route Segment 1, the Service maintains that requests to cross Service lands can only be considered after all other alternatives are fully examined.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Beltrami WMA Alternative Route Segment 2 be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Beltrami WMA Alternative Route Segment 3 (*Scoping Summary Report*, Appendix F, Figure 11)

The Beltrami WMA Alternative Route Segment 3 mitigates impacts to USFWS parcels.

²³ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

This alternative diverges from Minnesota Power's proposed route that parallels the existing 500 kV transmission line, goes south and east around USFWS parcels, and then joins with Minnesota Power's proposed route.

The proponent's rationale is that this route alternative segment would avoid impacts to USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat. In addition, the increased number of angle structures created by this Alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²⁴ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 3 satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alternative and potential impact affecting the feasibility (criterion #5). In this instance, the proposed alternative - Beltrami WMA Alternative Route Segment 1 South - mitigates the same impacts mitigated by this alternative. In addition, the Beltrami WMA Alternative Route Segment 1 South alternative appears to raise relatively fewer of the feasibility concerns (e.g., length and angle structures) that were stated by Minnesota Power. However, after consultation with the Service concerning this alternative and Beltrami WMA Alternative Route Segment 1, the Service maintains that requests to cross Service lands can only be considered after all other alternatives are fully examined.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Beltrami WMA Alternative Route Segment 3 be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Beltrami WMA Alternative Route Segment 4 (*Scoping Summary Report*, Appendix F, Figure 12)

The Beltrami WMA Alternative Route Segment 4 mitigates impacts to USFWS parcels. This alternative diverges east from Minnesota Power's proposed route that parallels the existing 500 kV transmission line north the USFWS parcels, and connects with the Beltrami WMA Alternative Route Segment 1 on the south side of the existing 230 kV transmission line.

The proponent's rationale is that this alternative route segment would avoid impacts to USFWS parcels.

²⁴ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²⁵ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 4 satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

While the Beltrami WMA Alternative Route Segment 1 could mitigate the same impacts, Beltrami WMA Alternative Route Segment 4 provides an independent opportunity (when combined with Beltrami WMA Alternative Route Segment 5) to minimize impacts to Service parcels in the case that Beltrami WMA Alternative Route Segment 1 is not part of the permitted route.

Minnesota Power raised issues regarding habitat fragmentation; however these issues are linked to the merits of the project. An assessment of impacts to natural resources is integral to analyzing the merit of the project and alternatives to the project and DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Beltrami WMA Alternative Route Segment 4 be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Beltrami WMA Alternative Route Segment 5 (*Scoping Summary Report*, Appendix F, Figure 13)

The Beltrami WMA Alternative Route Segment 5 mitigates impacts to USFWS parcels. This alternative connects Beltrami WMA Alternative Route Segments 1 and 4, which parallel the existing 230 kV transmission line, south to join Minnesota Power's proposed Blue/Orange route. This alternative retains the viability of Minnesota Power's proposed Orange Route if Beltrami WMA Alternative Route Segments 1 or 4 are selected.

The proponent's rationale is that this alternative route segment would avoid impacts to USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

²⁵ Ibid

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²⁶ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 5 satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

While the Beltrami WMA Alternative Route Segment 1 could mitigate the same impacts, the Beltrami WMA Alternative Route Segment 5 serves a unique function in that it maintains the integrity of both the proposed Orange Route and Blue Route if Beltrami WMA Alternative Route Segment 1 was included as part of the permitted route. Additionally, Beltrami WMA Alternative Route Segment 5 provides an opportunity (when combined with Beltrami WMA Alternative Route Segment 4) to minimize impacts to USFWS parcels in the case that Beltrami WMA Alternative Route Segment 1 is not part of the permitted route.

Minnesota Power raised issues regarding habitat fragmentation, however these issues are linked to the merits of the project. An assessment of impacts to natural resources is integral to analyzing the merit of the project and alternatives to the project, however EERA believes that it is premature to attempt to evaluate the merits of a given route alternative at the scoping stage of the process.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Beltrami WMA Alternative Route Segment 5 be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Williams Alternative Route Segment 1 (*Scoping Summary Report*, Appendix F, Figure 14)

The Williams Alternative Route Segment 1 avoids impacts to private property and state land. This alternative diverges from Minnesota Power's proposed route that parallels the existing 500 kV transmission line and then turns east towards the existing 230 kV transmission line.

The proponent's rationale is that this alternative route segment would avoid impacts to private property and state land.

Applicant Response

Minnesota Power, in its response, states that this alternative would avoid one private landholder at the expense of others, without mitigating adverse effects. In addition, this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

²⁶ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

EERA Analysis and Comment

The Williams Alternative Route Segment 1 satisfies procedural requirements #1 and #3 as well as the feasibility requirement (criterion #5).

Minnesota Power raised issues regarding impacts to private land and impacts to habitat, however these issues speak to merit but do not speak to project need (criterion #4), so it is DOC-EERA's determination that criterion #4 is met as well.

This alternative was also proposed to mitigate impacts to private land use. While the alternative may avoid impacts to one landowner's private land, it shifts these impacts to other private land, thereby failing to achieve any overall mitigation of impacts to private land use. As the proposed alternative fails to achieve its stated purpose of mitigating impacts to private land use, it has failed to meet criterion #2. Impacts to this landowner's private land could be mitigated through an alignment modification. The landowner may choose to advocate for an alignment modification during the public hearing for the route permit for this project. In addition, it should be noted that other proposed alternatives (Beltrami WMA Alternative Route Segment 1 South and Beltrami WMA Alternative Route Segment 5) could provide an opportunity to mitigate impacts to the parcel that the Williams Alternative Routes Segment 2 was proposed to avoid.

DOC-EERA does not intend to recommend that Williams Alternative Route Segment 1 be included in the scope of the EIS.

Williams Alternative Route Segment 2 (*Scoping Summary Report, Appendix F, Figure 15*)

The Williams Alternative Route Segment 2 avoids impacts to private property and state land. Similar to Williams Alternative Route Segment 1, this alternative diverges from Minnesota Power's proposed route that parallels the existing 500 kV transmission line and then turns east towards the existing 230 kV transmission line.

The proponent's rationale is that this alternative route segment would avoid impacts to private property and state land.

Applicant Response

Minnesota Power, in its response, states that this alternative would avoid one private landholder at the expense of others, without mitigating adverse effects. In addition, this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased fragmentation of comparable habitat.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Williams Alternative Route Segment 2 satisfies procedural requirements #1 and #3 as well as the feasibility requirement (criterion #5).

Minnesota Power raised issues regarding impacts to private land and impacts to habitat, however these issues speak to merit but do not speak to project need (criterion #4), so it is DOC-EERA's determination that criterion #4 is met as well.

This alternative route segment was also proposed to mitigate impacts to private land use. While the alternative may avoid impacts to one landowner's private land, it shifts these impacts to other private land, thereby failing

to achieve any overall mitigation of impacts to private land use. As the alternative fails to achieve its stated purpose of mitigating impacts to private land use, it has failed to meet criterion #2. Impacts to this landowner's private land could be mitigated through an alignment modification. The landowner may choose to advocate for an alignment modification during the public hearing for the route permit for this project. In addition, it should be noted that other proposed alternatives (Beltrami WMA Alternative Route Segment 1 South and Beltrami WMA Alternative Route Segment 5) could provide an opportunity mitigate impacts to the parcel that the Williams Alternative Routes Segment 2 was proposed to avoid.

DOC-EERA does not intend to recommend that Williams Alternative Route Segment 2 be included in the scope of the EIS.

Beltrami WMA Alternative Route Segment 6 (*Scoping Summary Report, Appendix F, Figure 16*)

The Beltrami WMA Alternative Route Segment 6 mitigates impacts to state forest land. This alternative diverges from the Beltrami WMA Segment 1 to run east along the existing 230kV transmission line corridor before it joins Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would avoid additional habitat fragmentation on state forest land.

Applicant Response

Minnesota Power, in its response, states that this alternative contradicts the Workgroup recommendation to route the project "as much as possible on public land, minimizing impact to human settlement and private property use." In addition, the possible involvement of a Native American tribe raises cost and feasibility questions.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 6 satisfies the three procedural requirements.

With respect to the issues raised regarding private land use and impacts to human settlement, these issues speak to merit but do not speak to project need (criterion #4) so it is DOC-EERA's determination that criterion #4 is met as well. DOC-EERA acknowledges however, that potential impacts to tribal land limit the feasibility and permissibility of this route (criterion #5).

DOC-EERA does not intend to recommend that Beltrami WMA Alternative Route Segment 6 be included in the scope of the EIS.

Williams Alternative Route Segment 3 (*Scoping Summary Report, Appendix F, Figure 17*)

The Williams Alternative Route Segment 3 mitigates impacts to private property. This alternative diverges from Minnesota Power's proposed Orange Route and runs east towards Minnesota Power's proposed Blue Route.

The proponent's rationale is that this alternative route segment would avoid impacts to private property.

Applicant Response

Minnesota Power, in its response, states that this alternative would avoid one private landholder at the expense of others, without mitigating adverse effects. In addition, the possible involvement of a Native American tribe raises cost and feasibility questions.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Williams Alternative Route Segment 3 satisfies procedural requirements #1 and #3 and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges, however, that potential impact to tribal land limits the feasibility and permissibility of this alternative (criterion #5). In addition, this alternative was proposed for the purpose of mitigating impacts to private land use. While the alternative may avoid impacts to one landowner's private land, it shifts these impacts to other private land, thereby failing to achieve any overall mitigation of impacts to private land use. As the alternative fails to achieve its stated purpose of mitigating impacts to private land use, it has failed to meet criterion #2. Impacts to this landowner's private land could be mitigated through an alignment modification. The landowner may choose to advocate for an alignment modification during the public hearing for the route permit for this project. In addition, it should be noted that other proposed alternatives (Beltrami WMA Alternative Route Segment 1 South and Beltrami WMA Alternative Route Segment 6) could provide an opportunity mitigate impacts to the parcel that the Williams Alternative Routes Segment 3 was proposed to avoid.

DOC-EERA does not intend to recommend that Williams Alternative Route Segment 3 be included in the scope of the EIS.

Beltrami WMA Alternative Route Segment 7 (*Scoping Summary Report*, Appendix F, Figure 18)

The Beltrami WMA Alternative Route Segment 7 mitigates impacts to USFWS parcels. This alternative diverges from the proposed route to create an "L" shape around a USFWS parcel to avoid it.

The proponent's rationale is that this alternative route segment would avoid impacts to USFWS land.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased disturbance and fragmentation of comparable habitat. In addition, the increased length and number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²⁷ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the

²⁷ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 7 satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this modification and potential impacts on feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts. Without additional information developed for the record on the details underlying Minnesota Power's position regarding feasibility impacts, further study of these issues in the EIS is recommended.

Minnesota Power raised issues regarding habitat fragmentation, however these issues are linked to the merits of the project. An assessment of impacts to natural resources is integral to analyzing the merit of the project and alternatives to the project; however, DOC-EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

DOC-EERA will be recommending that the Beltrami WMA Alternative Route Segment 7 be carried forward for evaluation in the EIS.

Beltrami WMA Alternative Route Segment 8 (*Scoping Summary Report*, Appendix F, Figure 19)

The Beltrami WMA Alternative Route Segment 8 mitigates impacts to USFWS parcels. This alternative diverges from the proposed route to create an "L" shape around three USFWS parcels to avoid them.

The proponent's rationale is that this alternative route segment would avoid impacts to USFWS land.

Applicant Response

Minnesota Power, in its response, states that this alternative would likely have greater environmental impacts than the proposed route, primarily due to increased disturbance and fragmentation of comparable habitat. In addition, the increased length and number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands.²⁸ In its November 26, 2014, letter the Service reviewed/reconsidered those alternatives which it sponsored during the scoping comment period and determined that each alternative should be carried forward for evaluation in the EIS. The Service stated that ROW requests to cross Service interest lands can only be considered after all other alternatives are fully evaluated.

EERA Analysis and Comment

The Beltrami WMA Alternative Route Segment 8 satisfies the three procedural requirements and would meet

²⁸ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alternative and potential impact affecting the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential issues affecting the feasibility impacts.

Minnesota Power raised issues regarding habitat fragmentation; however, these issues are linked to the merits of the project. An assessment of impacts to natural resources is integral to analyzing the merit of the project and alternatives to the project. EERA believes that it is premature to attempt to evaluate the merits of an alternative route segment at the scoping stage of the process.

There is an outstanding question of whether there is adequate room between the USFWS parcel (T159 R33 S24) and the existing 500 kV HVTL for placement of the proposed 500 kV HVTL alignment (ROW) outside of said parcel. Pending the outcome of a ground survey to assess whether impacts to the USFWS parcel (T159 R33 S24) could be avoided by the Minnesota Power's proposed route/alignment, DOC-EERA will be recommending that the Beltrami WMA Alternative Route Segment 8 be carried forward for evaluation in the EIS. However, if ground survey results indicate that the USFWS parcel can be avoided, this alternative will not be fully evaluated in the EIS.

North Black River Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 20*)

The North Black River Alternative Route Segment mitigates impacts to an area of recent and historical metallic mineral deposits, leasing, and exploration. This alternative diverges from Minnesota Power's proposed route and continues along the existing 230 kV transmission line north and east before it joins Minnesota Power's proposed route further east.

The proponent's rationale is that this alternative route segment would avoid impacts to potential mineral resources.

Applicant Response

Minnesota Power, in its response, states that while this alternative would parallel the existing 230 kV transmission line for nine additional miles, it would also increase the impact to four additional homesteads located near the existing line.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The North Black River Alternative Route Segment satisfies procedural requirements #1 and #3 and would meet the feasibility requirement (criterion #5).

Minnesota Power raised issues regarding impacts to human settlement, however, these issues speak to merit but do not speak to project need (criterion #4) so it is EERA's determination that criterion #4 is met as well. This alternative route segment was proposed for the purpose of mitigating impacts to mineral rights. Information regarding mineral rights indicates that there are historic leases and boreholes directly on the Applicant's anticipated alignment, primarily located on the north end of this segment.

DOC-EERA will be recommending that the North Black River Alternative Route Segment be carried forward for evaluation in the EIS. However, if the review of the MnDNR data does not confirm the presence of mineral

rights and potential impacts (fails criterion #2), or indicates that these impacts can be addressed by an alignment modification to Minnesota Power's proposed Blue Route, this alternative will not be fully evaluated in the EIS.

Silver Creek WMA Alignment Modification (See attached Figure: Silver Creek WMA Alignment Modification)

The Silver Creek WMA Alignment Modification mitigates impacts to the Silver Creek WMA and USFWS Gilrud Farmers Home Administration (FmHA) parcels. The modification shifts the anticipated alignment approximately 150 feet south from Minnesota Power's proposed route, creating a new ROW corridor that is separate from the existing 230 kV transmission line ROW corridor.

This alignment modification would avoid impacts to WMA or USFWS parcels.

Applicant Response

No comment was received from Minnesota Power because the alignment modification was added after Minnesota Power's comment letter was received.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the *Scoping Summary Report* submitted correspondence concerning the development of transmission lines through Service interest lands. In its November 26, 2014,²⁹ letter the Service recommended that the proposed ROW be shifted south to avoid any impacts to Service interest lands (T160 N, R 30, Section 27). The Service acknowledges that this shift may result in the creation of a new ROW and fragmented lands between the alternative alignment and the existing 500 kV HVTL ROW, but believes this is preferable to expanding the existing ROW on Service interest lands.

EERA Analysis and Comment

The Silver Creek WMA Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

DOC-EERA will be recommending that the Silver Creek WMA Alignment Modification be carried forward for evaluation in the EIS. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Airstrip Alignment Modification (*Scoping Summary Report*, Appendix F, Figure 21)

The Airstrip Alignment Modification mitigates impacts to a private airstrip. This modification is located approximately 725 feet west of Minnesota Power's proposed C2 Route Alternative. This modification increases the distance between the private airstrip and the anticipated centerline of Minnesota Power's proposed Route Alternative C2.

The proponent's rationale is that this alignment modification would avoid impacts to the private airstrip.

Applicant Response

Minnesota Power, in its response, states that this modification could mitigate a potential impact on a private airstrip, but that the overall environmental effects would be negligible. The greater number of angle structures created by this modification raises cost and feasibility concerns.

²⁹ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

Minnesota Power also believes that a more detailed engineering review and adjustment is necessary before consideration of this modification. Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Airstrip Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alignment modification and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

DOC-EERA will be recommending that the Airstrip Alignment Modification be carried forward for evaluation in the EIS. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Mizpah Alignment Modification (*Scoping Summary Report, Appendix F, Figure 22*)

The Mizpah Alignment Modification mitigates impacts to private property. This modification shifts the anticipated alignment further to the north from Minnesota Power's proposed route to limit ROW impacts to public lands.

The proponent's rationale is that this alignment modification would limit ROW impacts to public lands.

Applicant Response

Minnesota Power, in its response, states that this modification would avoid one private landholder at the expense of others, without mitigating adverse effects.

Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Mizpah Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

DOC-EERA will be recommending that the Mizpah Alignment Modification be carried forward for evaluation in the EIS. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Northome Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 23*)

The Northome Alternative Route Segment mitigates impacts to private property and to USFWS parcels (T151 N, R28, Sections 34 and 35). This alternative moves the route approximately 3,000 feet south from Minnesota Power's proposed alignment and away from the proponent's private property and from USFWS FmHA parcels.

The proponent's rationale is that this alignment modification would limit ROW impacts to private lands and USFWS parcels.

Applicant Response

Minnesota Power, in its response, states that this alternative would avoid one private landholder at the expense of others, without mitigating adverse effects.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

US Fish and Wildlife Service Response

The US Fish and Wildlife Service (Service) responding to the Scoping Summary Report submitted correspondence concerning the development of transmission lines through Service interest lands. In its November 26, 2014,³⁰ letter the Service recommended that the proposed ROW be shifted south to avoid any impacts to Service interest lands (T151 N, R28, Sections 34 and 35). The Service acknowledges that a ground survey is necessary to determine if the Applicant's proposed alignment would impact Service interest lands.

EERA Analysis and Comment

The Northome Alternative Route Segment satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

A ground survey would be necessary to assess whether impacts to the USFWS parcels (T151 N, R28, Sections 34 and 35) could be avoided by the Minnesota Power's proposed route/alignment

DOC-EERA staff will be recommending that the Northome Alternative Route Segment be carried forward for evaluation in the EIS. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit. However, if ground survey results indicate that the USFWS parcels can be avoided, this alternative will not be fully evaluated in the EIS.

Cutfoot Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 24*)

The Cutfoot Alternative Route Segment mitigates impacts to private property and stands of cedar trees. This alternative moves the route to the southwest from Minnesota Power's proposed route and shifts impacts from private land onto state, county, and corporate lands.

The proponent's rationale is that this alternate route segment would avoid impacts to private lands.

Applicant Response

Minnesota Power in its response, states that with this alternative the change in environmental effects would be negligible. In addition, this alternative also contradicts the Workgroup recommendation to route the project "as much as possible on public land, minimizing impact to human settlement and private property use."

Minnesota Power also believes that a more detailed engineering review and adjustment is necessary before consideration of this alternative.

EERA Analysis and Comment

The Cutfoot Alternative Route Segment satisfies the three procedural requirements.

³⁰ US Department of the Interior – Fish and Wildlife Service letter dated November 26, 2014. eDocket number 201412-105102-01

Minnesota Power raised issues regarding private land use and impacts to human settlement; however these issues speak to merit but do not speak to project need (criterion #4) so it is DOC-EERA's determination that criterion #4 is met as well.

While Minnesota Power has indicated that they believe that a more detailed engineering review and adjustment is necessary before consideration of this alternative, which may be related to issues of feasibility, the record to date does not provide engineering details that might inform a decision regarding the feasibility of this alternative.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Cutfoot Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Gravel Pit Alignment Modification (*Scoping Summary Report, Appendix F, Figure 25*)

The Gravel Pit Alignment Modification mitigates impacts to private land. This modification moves the alignment approximately 750 feet to the east of Minnesota Power's proposed alignment. The move places the entire ROW onto public and corporate lands and away from the proponent's gravel pit operation.

The proponent's rationale is that this alignment modification would avoid impacts to private land.

Applicant Response

Minnesota Power in its response, states that with this modification, the change in environmental effects would be negligible. In addition, the greater number of angle structures created by this modification raises cost and feasibility concerns.

Minnesota Power also believes that a more detailed engineering review and adjustment is necessary before consideration of this modification. Minnesota Powers also states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Gravel Pit Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this modification and potential impacts on the feasibility (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential issues affecting the feasibility.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Gravel Pit Alignment Modification be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Effie Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 26*)

The Effie Alternative Route Segment mitigates impacts to new corridor habitat. This alternative diverges from Minnesota Power's proposed blue route, parallels the existing 230 kV and 500 kV transmission lines located

east of Minnesota Power's proposed routes, and joins Minnesota Power's proposed Orange Route.

The proponent's rationale is that this alignment modification would minimize impacts associated with new corridors.

Applicant Response

Minnesota Power, in a response memo to the MnDNR on September 27, 2013, summarized the negative environmental impacts associated with this alternative. In addition, there are other concerns with this alternative, such as the considerable engineering challenges and operational and maintenance issues.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Effie Alternative Route Segment satisfies the three procedural requirements.

DOC-EERA acknowledges the increased complexity and cost of this alternative route segment and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

In addition, Minnesota Power highlights reliability concerns associated with placing three HVTLs in one area. This concern may speak to feasibility (criterion #5) or the ability of this alternative route segment to meet the need for the project (criterion #4) (reliable delivery of power). However, the record to date does not include specifics by which to assess the extent or severity of potential reliability impacts nor does the record provide reliability based rules or guidance that may address the feasibility of placing of three HVTLs in one area. Furthermore, Minnesota statute (Statute 216E.03, subpart 7, (e)) requires the Commission to make specific findings that it has considered locating a route for a HVTL on an existing HVTL route, and to the extent that available routing opportunities along existing transmission corridors are not used, the Commission must state their reasons for not following existing HVTL routes. The EIS provides a vehicle for developing a more robust record around the opportunity for following existing transmission corridor via the Effie Alternative Route Segment.

With respect to the human settlement and natural resource impacts identified by Minnesota Power, these issues are linked to the merits of the project. An assessment of impacts to human settlement and natural resources is integral to analyzing the merit of the project and alternatives to the project. DOC-EERA believes that it is premature to attempt to evaluate the merits of a given route alternative at the scoping stage of the process. Without more information developed for the record on the details underlying the feasibility and reliability issues suggested by Minnesota Power, further study of these issues in the EIS is recommended.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Effie Alternative Route Segment be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Bass Lake Alignment Modification (*Scoping Summary Report*, Appendix F, Figure 28)

The Bass Lake Alignment Modification mitigates impacts to the Bass Lake Park and Campground. This modification moves Minnesota Power's proposed alignment approximately 750 feet southwest. The modification would mitigate potential visual impacts to the park and campground, while balancing the potential increase of visual impacts to the Larson Lake Campground further to the southwest.

The proponent's rationale is that this alignment modification would minimize impacts to parks and campgrounds.

Applicant Response

Minnesota Power in its response, states that this modification increases the distance from one recreation area at the expense of another recreation area. In addition, the larger number of angle structures created by this modification raises cost and feasibility concerns.

Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Bass Lake Alignment Modification satisfies the three procedural requirements.

Minnesota Power raised issues regarding impacts to recreation, however, these issues speak to merit but do not speak to project need (criterion #4) so it is EERA's determination that criterion #4 is met as well.

DOC-EERA acknowledges the increased complexity and cost of this alignment modification and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Bass Lake Alignment Modification be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Wilson Lake Alignment Modification (*Scoping Summary Report, Appendix F, Figure 29*)

The Wilson Lake Alignment Modification mitigates impacts to private property and stands of cedar trees by moving Minnesota Power's proposed alignment approximately 500 feet to the east.

The proponent's rationale is that this alignment modification would minimize impacts associated private land.

Applicant Response

Minnesota Power in its response, states that the overall change in environmental effects from this modification would be negligible and no impacts are being mitigated. The larger number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Wilson Lake Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alignment modification and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Wilson Lake Alignment Modification be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

East Bear Lake Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 27*)

The East Bear Lake Alternative Route Segment mitigates impacts to the Bear-Wolf Peatland, a MnDNR-designated preliminary Site of Biodiversity Significance. This alternative diverges from Minnesota Power's proposed route, follows the existing 230kV and 500kV transmission line for approximately 4 miles, and then joins Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would avoid impacts to the Bear-Wolf Peatland.

Applicant Response

Minnesota Power, in its response, states that the larger number of angle structures created by this alternative raises cost and feasibility concerns. Minnesota Power also believes that a more detailed engineering review and adjustment is necessary before consideration of this alternative.

Minnesota Power also recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The East Bear Lake Alternative Route Segment satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

Although Minnesota Power has raised feasibility concerns and recommended engineering review, the record to date is not adequate to support a determination that this route does not meet the feasibility requirement (criterion #5).

DOC-EERA will be recommending that the East Bear Lake Alternative Route Segment be carried forward for evaluation in the EIS.

Highway 65 Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 30*)

The Highway 65 Alternative Route Segment mitigates impacts to home owners in Balsam, Lawrence, and Nashwauk townships. This alternative would diverge east from Minnesota Power's proposed Orange Route north of Kennedy Lake, and turn south to follow the 230kV transmission line west of MN Highway 65 to Nashwauk. Upon reaching Nashwauk, the alternative would follow other existing corridors to the west and join Minnesota Power's proposed Blue/Orange Route.

The proponent's rationale is that this alternative route segment would avoid impacts to home owners in Balsam, Lawrence, and Nashwauk townships.

Applicant Response

Minnesota Power, in its response, states that paralleling the 230 kV transmission line would potentially require condemnation of many homes located along the route. In addition the larger number of angle structures created by this alternative raises cost and feasibility concerns.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Highway 65 Alternative Route Segment satisfies procedural requirements #1 and #3.

Minnesota Power raised issues regarding impacts to human settlement, however, these issues speak to merit but do not speak to project need (criterion #4), so it is DOC-EERA's determination that criterion #4 is met as well.

While Minnesota Power has indicated feasibility concerns with this alternative (criterion #5), the information currently in the record is not adequate to provide an understanding of the extent or severity of potential issues affecting the feasibility of the alternative.

This alternative route segment was proposed for the purpose to mitigate impacts to human settlement and private land use. As proposed, the alternative does not result in mitigation of human settlement impacts, instead it represents a geographic shift in human settlement impacts, so the alternative fails to mitigate a potential impact of the project (criterion #2).

DOC-EERA does not intend to recommend that the Highway 65 Alternative Route Segment be included in the scope of the EIS.

Grass Lake Alignment Modification (*Scoping Summary Report, Appendix F, Figure 31*)

The Grass Lake Alignment Modification mitigates impacts to private property and Grass Lake. The modification moves Minnesota Power's proposed alignment approximately 900 feet east onto public and corporate lands, while splitting the distance between private residences on Grass and Bray Lakes.

The proponent's rationale is that this alignment modification would avoid impacts to private land.

Applicant Response

Minnesota Power, in its response, states that this modification increases the distance from one landowner at the expense of other landowners. In addition, the larger number of angle structures created by this modification raises cost and feasibility concerns.

Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Grass Lake Alignment Modification satisfies the three procedural requirements.

With respect to the issues raised by Minnesota Power regarding impacts to private land owners, these issues speak to merit but do not speak to project need (criterion #4) so it is EERA's determination that criterion #4 is met as well.

DOC-EERA acknowledges the increased complexity and cost of this alignment modification and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Grass Lake Alignment Modification be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Dead Man's Pond Alignment Modification (*Scoping Summary Report, Appendix F, Figure 32*)

The Dead Man's Pond Alignment Modification would mitigate impacts to developed private property by moving Minnesota Power's proposed alignment approximately 1,000 feet west across Dead Man's Pond and undeveloped land.

The proponent's rationale is that this alignment modification would avoid impacts to private (developed) land.

Applicant Response

Minnesota Power, in its response, states that this modification avoids the property of one landowner at the expense of others. In addition, this modification would cross Dead Man's Pond, increasing the potential for habitat impacts.

Minnesota Powers states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Dead Man's Pond alignment modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

With respect to Minnesota Power's comment regarding private land and habitat impacts, these impacts are linked to the merits of the project. An assessment of impacts to land use and habitat is integral to analyzing the merit of the project and alternatives to the project. DOC-EERA staff believe that it is premature to attempt to evaluate the merits of a given route alternative at the scoping stage of the process.

DOC-EERA will be recommending that the Dead Man's Pond Alignment Modification be carried forward for evaluation in the EIS. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

Dead Man's Pond Alternative Route Segment (*Scoping Summary Report, Appendix F, Figure 33*)

The Dead Man's Pond Alternative Route Segment would mitigate impacts to private property. This alternative moves Minnesota Power's proposed route west of Dead Man's Pond onto public and corporate land and away from the proponent's private property. The alternative attempts to balance the distance between homeowners on Nashwauk Lake and along CSAH 57.

The proponent's rationale is that this alternative route segment would avoid impacts to private land.

Applicant Response

Minnesota Power, in its response, states that this alternative avoids the property of one landowner at the expense of others. In addition, this alternative could have greater environmental impacts because it is closer to Nashwauk Lake.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Dead Man's Pond Alternative Route Segment satisfies the three procedural requirements and would meet the feasibility requirement (criterion #5).

With respect to the issues raised by Minnesota Power regarding impacts to private land owners, these issues speak to merit but do not speak to project need (criterion #4); thus it is DOC-EERA's determination that criterion #4 is met as well.

Minnesota Power also raised issues regarding environmental impacts; however, environmental impacts are linked to the merits of the project. An assessment of impacts to the environment is integral to analyzing the merit of the project and alternatives to the project. DOC-EERA believes that it is premature to attempt to evaluate the merits of a given route alternative at the scoping stage of the process.

DOC-EERA will be recommending that the Dead Man's Pond Alternative Route Segment be carried forward for evaluation in the EIS.

Balsam Alternative Route Segment 1 (*Scoping Summary Report*, Appendix F, Figure 34)

The Balsam Alternative Route Segment 1 mitigates impacts to the Balsam Township area. This alternative diverges from Minnesota Power's proposed Yellow Route to follow the abandoned Minnesota Power 230 kV transmission line, then joins Minnesota Power's proposed Blue/Yellow Route.

The proponent's rationale is that this alternative route segment would avoid impacts to the Balsam Township area.

Applicant Response

Minnesota Power, in its response, states that because the abandoned 230 kV transmission line corridor has been transitioned out of a utility use, it is not appropriate for consideration. In addition, this alternative is not consistent with the recommendations of MnDNR and mining stakeholders regarding putting the route through iron formations.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Balsam Alternative Route Segment 1 satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

Minnesota Power states that the abandoned 230 kV corridor is not appropriate for consideration. With respect to Minnesota Power's comment regarding impacts to mining interests, impacts to land-based economies, including mining, are linked to the merits of the project. An assessment of impacts to land-based economies is

integral to analyzing the merit of the project and alternatives to the project. DOC-EERA believes that it is premature to attempt to evaluate the merits of a given route alternative at the scoping stage of the process.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Balsam Alternative Route Segment 1 be carried forward for evaluation in the EIS. The details underlying Minnesota Power's position can be more fully explored and documented through the EIS process.

Balsam Alternative Route Segment 2 (*Scoping Summary Report, Appendix F, Figure 35*)

The Balsam Alternative Route Segment 2 mitigates impacts to the Balsam Township area. This alternative diverges from Minnesota Power's proposed Yellow Route, follows the abandoned Minnesota Power 230 kV transmission line, and turns east just south of O'Reilly and Island Lakes to parallel an existing 115 kV and 230 kV transmission line corridor, before it joins Minnesota Power's proposed route.

The proponent's rationale is that this alternative route segment would avoid impacts to the Balsam Township area. The alternative also provides an additional option for re-joining Balsam Alternative Route Segment 1 to Minnesota Power's proposed Blue/Orange Route.

Applicant Response

Minnesota Power, in its response, states that because the abandoned 230 kV transmission line corridor has been transitioned out of a utility use, it is not appropriate for consideration. In addition, this alternative is 5.6 miles longer than the proposed route and would impact more homes.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Balsam Alternative Route Segment 2 satisfies the three procedural requirements and would meet the feasibility requirement (criterion #5).

Minnesota Power raised issues regarding impacts to communities, however, these issues relate to merit but do not speak to project need (criterion #4), thus it is DOC-EERA's determination that criterion #4 is met as well.

However, another alternative route segment - Balsam Alternative Route Segment 1 - mitigates the same impacts mitigated by this alternative. Balsam Alternative Route Segment 1 mitigates impacts to human settlement (particularly in the Balsam Township area) while minimizing collateral impacts to human settlement.

DOC-EERA does not intend to recommend that the Balsam Alternative Route Segment 2 be included in the scope of the EIS.

Balsam Alternative Route Segment 3 (*Scoping Summary Report, Appendix F, Figure 36*)

The Balsam Alternative Route Segment 3 mitigates impacts to the Reiley/Island/Shamrock Lakes area. This alternative diverges from Minnesota Power's proposed route, follows the abandoned Minnesota Power 230 kV transmission line, turns southeast to avoid the Reiley/Island/Shamrock Lakes area, and then joins with Minnesota Power's proposed route near Big Diamond Lake.

The proponent's rationale is that this alternative route segment would avoid impacts to the Reiley/Island/Shamrock Lakes area.

Applicant Response

Minnesota Power, in its response, states that because the abandoned 230 kV transmission line corridor has been transitioned out of a utility use, it is not appropriate for consideration. In addition, this alternative is not consistent with the recommendations of MnDNR and mining stakeholders regarding locating the route through iron formations.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Balsam Alternative Route Segment 3 satisfies the three procedural requirements and the feasibility requirement (criterion #5).

Minnesota Power raised issues regarding impacts to communities; however, these issues relate to merit but do not speak to project need (criterion #4), thus it is DOC-EERA's determination that criterion #4 is met as well. However, the Balsam Alternative Route Segment 1 mitigates the same impacts mitigated by this alternative. Balsam Alternative Route Segment 1 mitigates impacts to human settlement (particularly in the Balsam Township area) while minimizing collateral impacts to human settlement.

DOC-EERA does not intend to recommend that the Balsam Alternative Route Segment 3 be included in the scope of the EIS.

Trout Lake Alignment Modification (*Scoping Summary Report, Appendix F, Figure 37*)

The Trout Lake Alignment Modification would mitigate impacts to private property by moving Minnesota Power's proposed alignment further east onto corporate land.

The proponent's rationale is that this alignment modification would avoid impacts to private land.

Applicant Response

Minnesota Power, in its response, states that the larger number of angle structures created by this modification raises cost and feasibility concerns.

Minnesota Power also believes that a more detailed engineering review and adjustment is necessary before consideration of this modification. Minnesota Powers also states that such minor adjustments could be proposed during the Route Permit process and need not be included in the Scoping Decision.

EERA Analysis and Comment

The Trout Lake Alignment Modification satisfies the three procedural requirements and would meet the applicant's need (criterion #4).

DOC-EERA acknowledges the increased complexity and cost of this alignment modification and potential impacts on the feasibility of the project (criterion #5). The information currently in the record, however, is not adequate to provide an understanding of the extent or severity of potential feasibility impacts.

In addition, Minnesota Power has indicated that they believe that a more detailed engineering review and adjustment is necessary before consideration of this alternative, which may be related to issues of feasibility. However, the record to date does not provide engineering details that might inform a decision regarding the feasibility of this route.

Based on the information in the record to date, DOC-EERA staff will be recommending that the Trout Lake Alignment Modification be carried forward for evaluation in the EIS. The details underlying Minnesota Power's positions regarding feasibility and cost can be more fully explored and documented through the EIS process. This evaluation will provide an analysis to support the Commission's determination of whether the alignment modification should be stated as a condition in the route permit.

East Bear Lake Extended Alternative Route Segment (*Scoping Summary Report*, Appendix F, Figures 39a/39b)

The East Bear Lake Extended Alternative Route Segment would combine Minnesota Power's proposed Orange Route and Blue Route with the East Bear Lake Alternative Route Segment (discussed previously). This alternative would mitigate impacts to the Bear-Wolf Peatland. It would also minimize impacts to human settlement by avoiding the Balsam and Lawrence Township areas.

The proponent's rationale is that this alternative route segment would avoid impacts to the Bear-Wolf Peatland and minimize impacts to human settlement.

Applicant Response

Minnesota Power, in its response, indicates that this alternative will raise the same reliability and feasibility concerns raised states cited in their response to the Effie Alternative Route Segment, increasing overall length of the line, requiring the placement of three HVTLs in along a single corridor, and requiring additional angle structures.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

East Bear Lake Extended Alternative Route Segment satisfies the procedural requirements #1 and #3 and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

However, the alternative is a combination of Minnesota Power's proposed route and the East Bear Lake Alternative Route Segment, and in combination, they mitigate the same impacts mitigated by the East Bear Lake Alternative Route Segment. As such, each portion of this proposed route has been recommended for inclusion in the EIS. The potential impacts will be documented in the EIS, providing the necessary information to assess the impacts associated with the combination of route segments proposed here. The alternative would essentially result in a duplication of the analysis already recommended for the EIS.

DOC-EERA does not intend to recommend that the East Bear Lake Extended Alternative Route Segment be included in the scope of the EIS.

Effie Extended Alternative Route Segment (*Scoping Summary Report*, Appendix F, Figures 38a/38b)

The Effie Extended Alternative Route Segment would combine Minnesota Power's proposed Orange Route and Blue Route with the Effie Alternative Route Segment (discussed previously). This alternative would mitigate impacts to the Bear-Wolf Peatland and mitigate habitat fragmentation impacts by increasing the amount of shared corridor with the existing 500kV and 230kV lines.

The proponent's rationale is that this alternative route segment would avoid impacts to the Bear-Wolf Peatland and minimize habitat fragmentation.

Applicant Response

Minnesota Power, in its response, indicates that this alternative will raise the same reliability and feasibility concerns cited in their response to the Effie Alternative Route Segment.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

EERA Analysis and Comment

The Effie Extended Alternative Route Segment satisfies the three procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

However, the alternative is a combination of Minnesota Power's proposed route and the Effie Alternative Route Segment, and in combination, they mitigate the same impacts mitigated by the Effie Extended Alternative Route Segment. As such, each portion of this proposed route has been recommended for inclusion in the EIS. The potential impacts will be documented in the EIS, providing the necessary information to assess the impacts associated with the combination of route segments proposed here. The alternative would essentially result in a duplication of the analysis already recommended for the EIS.

DOC-EERA does not intend to recommend that the Effie Bear Lake Extended Alternative Route Segment be included in the scope of the EIS.

Peatlands Alternative Route Segment (*Scoping Summary Report, Appendix F, Figures 40a/40b*)

The Peatlands Alternative Route Segment would diverge from Minnesota Power's proposed Yellow Route, parallel the existing 500 kV line through the Red Lake Peatland SNA in Beltrami County, and join Minnesota Power's proposed Blue Route. This alternative mitigates the visual impacts to the Big Bog State Recreation Area Boardwalk.

The proponent's rationale is that this alternative route segment would minimize impacts to the Big Bog State Recreation Area Boardwalk.

Applicant Response

Minnesota Power, in its response, indicates that this alternative would not be allowed under Minnesota rules that restrict routing of HVTLs through state or national parks or state SNAs.

Minnesota Power recommends against including this alternative route segment in the Scoping Decision.

Minnesota Department of Natural Resources Response

The Minnesota Department of Natural Resources (DNR), responding to the *Scoping Summary Report*, filed correspondence concerning the development of transmission lines through SNA lands.³¹ The DNR provided a description and purpose of the SNA legislation, specifically peatland SNAs, and concluded that any alternative routes which would cross SNAs lands would be prohibited.

EERA Analysis and Comment

The Peatlands Alternative Route Segment satisfies the first two procedural requirements and would meet the applicant's need (criterion #4) and the feasibility requirement (criterion #5).

³¹ Minnesota Department of Natural Resources letter dated November 26, 2014. eDocket number 201411-105005-01.

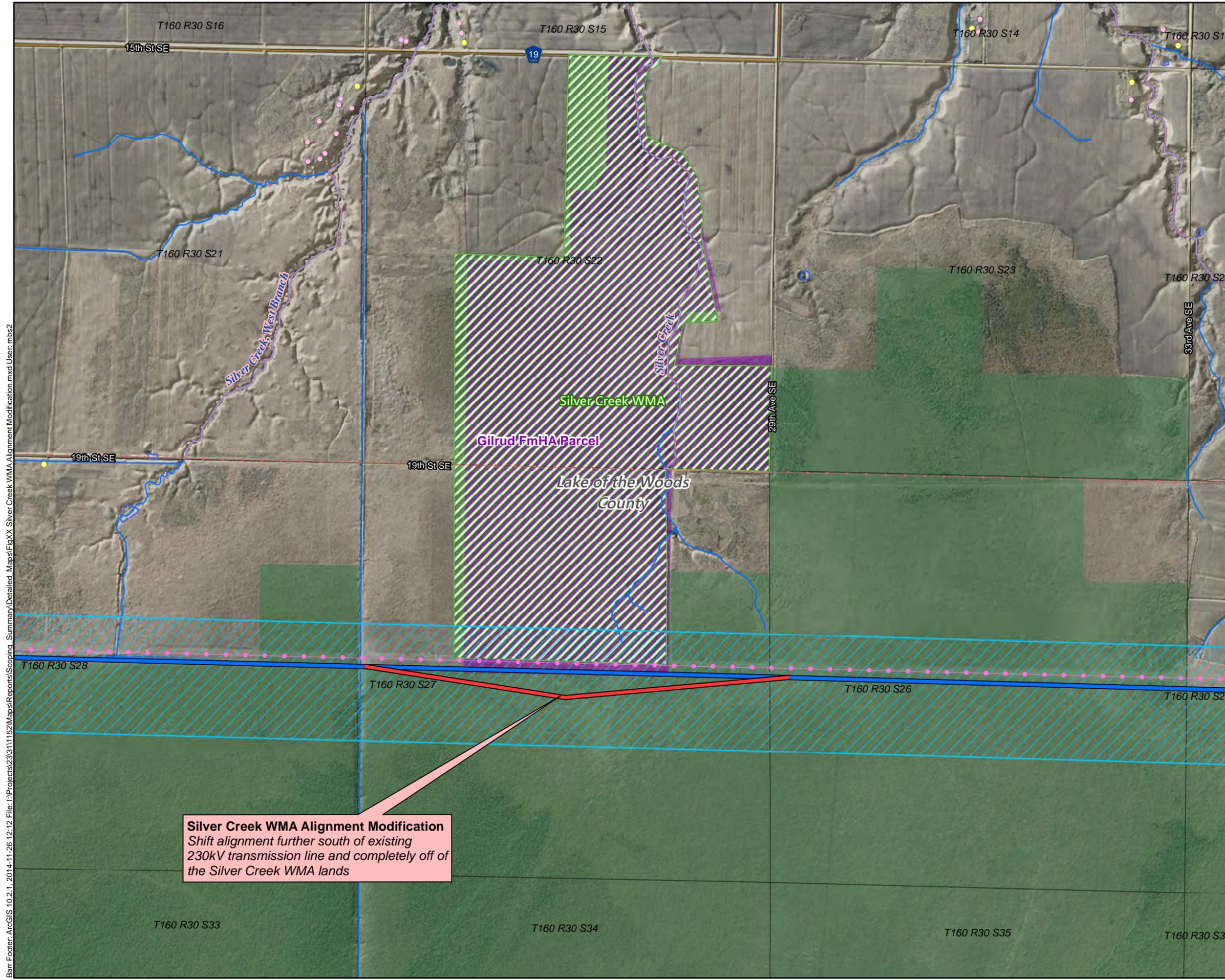
However, the alternative crosses the Red Lake Peatlands SNA and would violate criterion #3, in which no HVTL may be routed through state SNAs unless the transmission line would not materially damage or impair the purpose for which the area was designated and no feasible and prudent alternative exists (Minn. Rule 7850.4300, Subpart 2). Minnesota Power's proposed route offers a feasible and prudent alternative to the Peatland Alternative Route Segment. Therefore, this alternative route segment has failed to meet the screening criteria (criterion #3).

DOC-EERA does not intend to recommend that the Peatlands Alternative Route Segment be included in the scope of the EIS.

Of the 33 alternative route segments submitted during the scoping process, EERA will be recommending that all but 11 be carried forward into the *Scoping Decision* and evaluated in the EIS; those excluded include the following:

- International Boundary Alternative Route Segment (Scoping Summary Report, Appendix F, Figure 1)
- Williams Alternative Route Segment 1 (Scoping Summary Report, Appendix F, Figure 14)
- Williams Alternative Route Segment 2 (Scoping Summary Report, Appendix F, Figure 15)
- Beltrami WMA Alternative Route Segment 6 (Scoping Summary Report, Appendix F, Figure 16)
- Williams Alternative Route Segment 3 (Scoping Summary Report, Appendix F, Figure 17)
- Highway 65 Alternative Route Segment (Scoping Summary Report, Appendix F, Figure 30)
- Balsam Alternative Route Segment 2 (Scoping Summary Report, Appendix F, Figure 35)
- Balsam Alternative Route Segment 3 (Scoping Summary Report, Appendix F, Figure 36)
- East Bear Lake Extended Alternative Route Segment (Scoping Summary Report, Appendix F, Figures 39a/39b)
- Effie Extended Alternative Route Segment (Scoping Summary Report, Appendix F, Figures 39a/38b)
- Peatlands Alternative Route Segment (Scoping Summary Report, Appendix F, Figures 40a/40b)

EERA will be recommending that all 9 of the requested alignment modifications be carried forward.



Silver Creek WMA Alignment Modification
 Shift alignment further south of existing 230kV transmission line and completely off of the Silver Creek WMA lands

- Residence
- Non-Residential Structure
- ~ PWI Watercourse
- Wildlife Management Area
- Non-Private Land Ownership (Assumed)
- State Land
- USFWS Land Interest
- Existing Transmission Lines
- ~ 69 or 115 kV
- ~ 230 kV
- Scoping Process
- ~ Alignment Modification
- Proposed Routes
- ~ Proposed Blue Alignment
- Proposed Blue Route

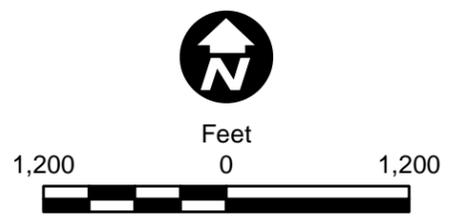


Figure 1

SILVER CREEK WMA ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Summary Report

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