Appendix A

Letters from Public Agencies, Draft EA Comments and Responses, and Applicant's Contacts with Public Agencies

Appendix A-1

Letters from Public Agencies

OAH 8-2500-19094-2

MPUC Docket No. PL9/CN-07-464 (Certificate of Need)
MPUC Docket No. PL9/PPL-07-360 (Route)

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Certificate of Need for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project

and

In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Route Permit for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project

SUMMARY OF TESTIMONY AT THE PUBLIC HEARINGS, FINDINGS OF FACT, CONCLUSIONS AND RECOMMENDATIONS

Proceedings in the evidentiary and public hearings for the consolidated Certificate of Need and Route Permit dockets came before Administrative Law Judge Eric L. Lipman. Joint public hearings for both the Certificate of Need Docket and the Route Permit Docket were held in Clearwater, Kittson, Marshall, Red Lake, Pennington and Polk counties on November 27 and 28, 2007 and on January 17, 2008. An evidentiary hearing on the Certificate of Need Docket was held on January 22, 2008.

STATEMENT OF THE ISSUES

1. Has Enbridge Pipelines (Southern Lights) LLC ("Enbridge" or "Applicant") met the criteria set forth in Minnesota Statutes § 216B.243 and Minnesota Rules Chapter 7853 for a Certificate of Need for a crude oil pipeline?

The Administrative Law Judge concludes that the Applicant's has demonstrated the need for the proposed facilities.

2. Whether the Applicant has met the criteria for issuance of a oil pipeline routing permit (Routing Permit) set forth in Minn. Stat. § 216G.02, subd. 3, and Minn. R. 7852.1900, subp. 3?

The Administrative Law Judge concludes that the Applicant's application meets those criteria, and recommends that the Routing Permit be issued, subject to the conditions specified below.

3. Whether any of the proposed route alternatives minimize the human and environmental impacts associated with the proposed pipeline to a greater extent than the Applicant's Preferred Route?

The Administrative Law Judge concludes that the Applicant's Revised Preferred Route and Alignment minimizes the human and environmental impacts of pipeline installation, and recommends that the Minnesota Public Utilities issue a Routing Permit for Revised Preferred Route and Alignment, with the modifications discussed below.

Overview of the Proposed LSr Project

The proposed LSr Project includes the installation of a 313 mile pipeline between Cromer, Manitoba and Clearbrook, Minnesota. The last 108 miles of this pipeline will cross Minnesota in a diagonal fashion through portions of Kittson, Marshall, Pennington, Red Lake, Polk and Clearwater counties.

The LSr project is designed to transport "light" and "medium sour" crude oil from western Canada to the United States. The LSr Project will interconnect with the "Lakehead" Pipeline System and Minnesota Pipe Line ("MinnCan") system at the Enbridge facilities in Clearbrook, Minnesota.

If approved and constructed, the LSr Project will have an annualized capacity to transport 186,000 barrels of crude oil each day. With the addition of additional pumping infrastructure, which is not planned at this time, the capacity of a completed line could be increased to an average of 300,000 barrels of crude oil each day.

Enbridge asserts that demand for crude oil transportation on the Lakehead System has already increased steadily – from 1.35 million barrels-per-day in 2003 to 1.63 million barrels-per-day at the end of 2006.[1] Moreover, it argues that these increases in demand are part of larger upswing in national demand – demand that will peak at one-third more overall consumption of oil by 2030.[2]

Enbridge argues that the existing Lakehead System will be unable to meet this demand without expansion of its light-crude transportation capacity, generally,[3] and in particular, the proposed LSr project.

The Lakehead System is only pipeline system that now connects Western Canadian oil production with the states of the Upper Midwest. Further, Enbridge notes

[1] Ex. 200, § 7853.0240 at 1.

[2] Ex. 200, § 7853.0240 at 2.

[3] Ex. 200, § 7853.0240 at 5; *see also,* Exhibit D, Chart 6 to Ex. 200.

that the Lakehead System is the shortest pipeline route to connect to connect this production to Minnesota's refinery markets.

While acknowledging that the physical impacts of its proposed routing fall particularly upon those who live and work along the existing pipeline corridor, the Applicant maintains that the benefits to the energy system, and the wider region as a whole, makes the proposed upgrades to the existing route the best among the possible alternatives. The Applicant asserts that the LSr Project is needed to relieve "bottleneck" pressures that occur in the current pipeline system and to improve the "long-haul capacity of crude oil into the Midwest."[4]

The Commission will issue Orders on the Application for Certification of Need and the Routing Permit submitted by the Applicant after examination of this Report, the hearing transcripts, the filings submitted by the public, and all of the filings and arguments submitted by the Applicant, the Minnesota Department of Commerce, the Minnesota Center on Environmental Advocacy and other persons and entities interested in this matter.

Based on the evidence in the hearing record, the Administrative Law Judge makes the following:

SUMMARY OF TESTIMONY AT THE PUBLIC HEARINGS

Pursuant to Minn. R. 7852.1700 and 7853.0200, the Administrative Law Judge conducted public hearings to elicit public comment regarding the need for, and routing of a crude oil pipeline from a state border crossing at a point in Kittson, County 2 miles northeast from Bowesmont, North Dakota to Clearbrook, Minnesota.

Over the course of six public hearings 20 members of the public offered testimony.[5] Additionally, 12 sets of written comments were submitted before the close of the post-hearing comment period on February 8, 2008.

At the outset of the public hearings the Administrative Law Judge made introductory remarks, followed by short presentations from Bret Eknes of the Commission's staff, Karen Finstad Hammel, as counsel to the Minnesota Department of Commerce's Office of Energy Security, and a presentation from the Applicant. Following these presentations, members of the public asked questions of the panel members and shared their reactions to the material presented.

A summary of the testimony rendered at these evening hearings follows below:

[4] *See, e.g.,* Ex. 200, § 7853.0240 at 7; *accord,* Ex. 1 at § 4415.0170 at 1.

[5] *See,* Summary of Written Comments, *infra*.

Kittson County Hearing – Kennedy, Minnesota

Remarks by Mr. Robert Patton, Land Use and Environmental Review Coordinator with the Minnesota Department of Agriculture: Mr. Patton testified as to the features of the Agricultural Mitigation Plan, the trench digging practices that will best help to preserve topsoil on farms in the Red River Valley and the role that Agricultural Monitors will play in ensuring compliance with the Agricultural Mitigation Plan.[6]

Remarks by Mr. Thomas Dowdle, Town Clerk of Davis Township: Mr. Dowdle decried what he considered to be the Applicant's poor earlier history of post-construction remediation of township roads. Mr. Dowdle had been urged by a Town Supervisor to attend the public hearing and to express these concerns.[7] By way of a reply, representatives of Enbridge declared that poor remediation practice should not occur and pledged both to investigate the circumstances of the prior experience in Davis Township and that any road remediation on the LSr Project would satisfy Township officials.[8]

Remarks by Mr. Kelly Bengtson, of the Kittson County Highway Department: Mr. Bengston echoed the earlier concerns of Mr. Dowdle, emphasizing that having local roads in good working condition was important to agricultural areas at harvest time. Additionally, Mr. Bengston inquired of the panel as to the process for obtaining pipeline water crossing permits and the panel's prediction of the likely impact of the proposed pipeline on gasoline prices.[9]

Marshall County Hearing – Argyle, Minnesota

Remarks by Mr. Lon Aune, the Marshall County Engineer: Mr. Aune was complimentary of Enbridge's efforts to contact local officials and to engage in early planning with those officials on matters relating to the pipeline project. His testimony was principally to highlight matters which he believed Enbridge staff already understood – principally, the importance of maintaining road access to adjacent farms for agricultural workers, the benefits of early notice to county officials of area construction work and the benefit of beginning any boring under paved roads from a point outside of the road right-of-way.[10]

Remarks by Mr. Clifford McGregor, a landowner in Viking Township: Mr. McGregor testified as to the particular topography of his land, suggesting that the proposed alignment across his property might both be more difficult, and unduly disruptive to valuable gravel deposits, than locations that are east of the proposed

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[6] Kittson County Public Hearing Transcript, at 46-52. For the benefit of the members of the public in each locality, Mr. Patton generously made similar presentations at each of the public hearings.

[7] *Id.*, at 52-55.

[8] *Id.*, at 57-60.

[9] *Id.*, at 54-56.

[10] Marshall County Public Hearing Transcript, at 32-35.

alignment.[11] By way of reply, Paul Meneghini of Enbridge testified that the alignment was proposed to avoid a nearby calcareous fen, but that Enbridge staff would reexamine the topography of that location.[12]

Remarks by Mr. David Clark, a Marshall County Resident: Mr. Clark inquired into whether the accommodations his family had urged at Milepost 823 had been incorporated into the Applicant's proposed route. Assured that these features were a part of the Applicant's plan, he testified that he would "approve that route that they have proposed."[13]

Red Lake County Hearing – Oklee, Minnesota

Remarks by Ms. Iona Berry, a landowner in Oklee, Minnesota: Ms. Berry expressed her concern that the proposed routing of the LSr pipeline traveled far too close the homestead on the property and the family water supply. Likewise, Ms. Berry expressed consternation with the remediation efforts Enbridge contractors had made of the property following an earlier pipeline installation.[14] The Berry property is located at Mile Post 886.5.

By way of reply Enbridge staff indicated due to the proximity of a railway line near this site, an existing shelter bed of trees and the Berry home, the Applicant proposes to "neck down" the separation between various pipelines to approximately 15 feet between pipes, in this location.[15] Similarly, Enbridge also indicated that its construction space would be reduced from approximately 140 feet to approximately 80 feet at this location.[16] Enbridge also noted its intention to install exclusion fencing so as to cabin any construction activity to the portions of the property that are covered by the easement agreement.[17]

Remarks by Mr. Cortland Kleven, the Red Lake County Engineer: Mr. Kleven was complimentary of Enbridge's efforts to contact local officials and to engage in early planning with those officials on matters relating to the pipeline project. His testimony focused upon the importance of transporting heavy loads by way of the higher-capacity trunk highways, the County's close adherence to MnDOT "spring load restrictions" on overload permits, and the benefits of early notice to county officials of area construction work.[18]

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[11] *Id.*, at 36-41.

[12] *Id.*, at 38.

[13] *Id.*, at 42-45.

[14] Red Lake County Public Hearing Transcript, at 26-36.

[15] *Id.*, at 28-29 and 59.

[16] *Id.*, at 30.

[17] *Id.*, at 35.

[18] *Id.*, at 37-41.

Remarks by Mr. Leroy Carriere, a landowner in Brooks, Minnesota: Mr. Carriere made remarks on the importance of careful installation practice adjacent to agricultural tile systems and inquired about the expansion plans Enbridge has for its Portal line – a separate pipeline system from the LSr project.[19]

Remarks by Mr. Brent Strand, Red Lake County Commissioner: Commissioner Strand urged that any final release forms sent by Enbridge to landowners clearly state the contractual terms and be marked in such a way that these materials can be easily identified when they arrive by way of first class mail.[20]

Pennington County Hearing – Thief River Falls, Minnesota

Remarks by Mr. Joel Kezar, a Pennington County landowner: In addition to some written remarks that were received as Exhibit A,[21] Mr. Kezar expressed concern about the proliferation of pipelines across his property in recent years, and particularly to the south of the current configuration of pipelines, toward his home; the impact that pipeline installation has upon the shelterbed of trees around his home; and the impact pipeline installation will have upon his property's value.[22]

By way of reply Enbridge staff indicated at the hearing that its plans – similar to that on the Berry property – were that the pipelines would "neck down" in the construction right-of-way on the Kezar farm. Further, construction staff would both preview with the Kezars the number of trees to be removed in the easement area as well as fence the perimeter of the construction zone so as to limit the impacts of the pipeline installation.[23] The record also includes a later, February 7, 2008 letter, in which Enbridge and the Kezars jointly urge a route alternative that runs west of the Kezar home.

Remarks by Mr. Mike Flaagan, Pennington County Engineer: Mr. Flaagan was complimentary of the work that Enbridge's local maintenance contractor had completed within the last year and yet had a number of inquiries of the Applicant's panel as to the impacts the LSr Project would have on local roads. Moreover, Mr. Flaagan highlighted that the County is exploring both placing restrictions on the maximum number of "open cuts" that may be made in roadways and requiring a performance bond to secure satisfactory completion of road repairs.[24]

Remarks by Mr. Mark Thune, a Pennington County landowner: Mr. Thune inquired about the proposed alignment of the LSr pipeline as it crosses the Red Lake

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[19] *Id.*, at 42-51.

[20] *Id.*, at 51-55.

[21] *See,* Exhibit A to Pennington County Public Hearing Transcript.

[22] Pennington County Public Hearing Transcript, at 26-36.

[23] *See, id.,* at 36-37.

[24] *Id.*, at 92-98.

River and further expressed his concerns over the impact that pipeline installation will have upon the values of properties adjacent or near to the pipeline.[25]

Polk County Hearing – Gully, Minnesota

Remarks by Mr. Cory Carlson, owner of Carlson Flying Service, an aerial application company: Mr. Carlson expressed concern that the proposed alignment of the pipeline, at Mile Post 896, along the northern portion of his property, would oblige burdensome relocation of existing buildings and significant restrictions on his company's ability to expand operations.[26]

By way of reply Enbridge staff indicated that at this point of Mile Post 896, there are a number of other developments that the Applicant hoped to avoid – including a nearby railroad crossing – such that it preferred to again "neck down" the distance between proposed pipelines and to reduce workspace immediately adjacent to the Carlson home and hangar facilities.[27]

Remarks by Mr. John Gunvalson, a landowner in Gonvick Township: Mr. Gunvalson indicated that the current location of the culvert on his property does not line up with the creek on his property.[28] The result is that significant rainfalls run directly across his field and wash away topsoil.[29] Mr. Gunvalson suggested that by relocating the culvert to the north side of the pipeline, during the construction process for the LSr pipeline, this problem would be eliminated.[30]

By way of reply Enbridge staff indicated that relocating this culvert could be accomplished, if the necessary permits could be obtained from the authorities who have jurisdiction over the ditch.[31]

Remarks by Mr. Wayne Brekke, a landowner in Gully, Minnesota: Mr. Brekke highlighted some possible errors in the legal description accompanying the easement documents he received.[32]

Clearwater County Hearing – Clearbrook, Minnesota

Remarks by Mr. Charles Aakre, a landowner in Clearbrook, Minnesota: Mr. Aakre, who owns a parcel at Mile Post 908, made several inquiries regarding the

[25] Pennington County Public Hearing Transcript, at 26-36.

[26] Polk County Public Hearing Transcript, at 26-32.

[27] *Id.*, at 37-38; *see also,* Ex. 13

[28] Polk County Public Hearing Transcript, at 44-45.

[29] *Id.*, at 45.

[30] *Id.*, at 47.

[31] *Id.*, at 46-48. Enbridge subsequently advised OAH that permits will be required from Pine Lake Township and the Red Lake Watershed District for this work.

[32] *Id.*, at 47.

Applicant's construction remediation practices and the inspection regimens in place to assure that property is properly remediated.[33]

Remarks by Mr. Hiram Gustafson, a resident of Clearbrook, Minnesota: Mr. Gustafson, a former employee of Enbridge of 30 years, expressed concerns that landowners might not be properly apprised of the rights (and the value of those rights) that are transferred to Enbridge under easement agreements. Mr. Gustafson noted that it was his continuing concerns over the moral dimensions of the easement agreement process that spurred him to retire from Enbridge and to leave his position as a right-of-way agent for the company.[34] Believing that it would highlight his point, Mr. Gustafson urged a comparison of the relative property tax burdens between the company, and landowners along the pipeline route, over a 30 year period.[35]

By way of reply, Enbridge representatives restated their company's commitment to landowner satisfaction and to the payment of market value for the property rights that are obtained by way of the pipeline easements.[36] Further, Enbridge witness Mark Sitek noted that Enbridge currently pays approximately $10 million each year in property taxes in Minnesota – a figure that will more than double if the LSr and Alberta Clipper Projects are approved.[37]

Remarks by Mr. James V. Thompson, a resident of Clearbrook County: Mr. Thompson, a neighbor of Mr. Aakre, expressed concern about the disparities in bargaining power between Enbridge and individual landowners as to the terms of easement agreements and the later route permit process.[38]

Remarks by Mr. Curt Amundson, a landowner in Clearbrook, Minnesota: Mr. Amundson, who owns a parcel at Mile Post 911, inquired as to the company's practices for guarding against the spread of noxious weeds during the pipeline installation process.[39]

Remarks by Mr. Dan Sauve, the Clearwater County Engineer: Mr. Sauvre testified that spotted knapweed and leafy spurge, plants that appear on the noxious weed list, is "a major problem in this county." He urged that instances of these weeds be identified and vigorous measures be taken against their spread during pipeline construction.[40]

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[33] Clearwater County Public Hearing Transcript, at 27-35.

[34] *Id.*, at 35-45.

[35] *Id.*, at 44.

[36] *Id.*, at 35-45.

[37] *Id.*, at 43.

[38] *See, id.*, at 44-70.

[39] *Id.*, at 71-75.

[40] *Id.*, at 76.

SUMMARY OF THE WRITTEN COMMENTS

Five sets of written comments were received by the Administrative Law Judge before the close of the post-hearing comment period. A summary of the written comments follows below:

Mr. George Berbee of Cohasset, Minnesota, wrote to express concern over the breadth of the proposed 500 route width – a matter that he regards as adding to unnecessarily large spacing between adjacent pipelines and having the effect of unreasonably foreclosing other, later development opportunities for landowners. He wrote to "illustrate the problem" and "bring this issue to the attention of all people involved before a precedent is set."

Mr. Donald Berry of Oklee, Minnesota, wrote to express concern over the scope of health and safety risks that he is asked to endure under the proposed alignment. Additionally, Mr. Berry describes how certain remediation-related pledges to him were not fulfilled following the installation of an earlier pipeline.

Mr. Donovan Dyrdal of Thief River Falls, Minnesota, submitted a copy of comments that he earlier had sent to officials of the U.S. Department of State in the parallel Presidential International Border Crossing Permit proceedings. In those comments he detailed how the installation of an earlier set of pipelines has impeded his ability to obtain proper drainage on the adjacent land. Asserting that "Enbridge has not kept its word in the spirit of the original contracts," Mr. Dyrdal submits that remediation costs that should be borne by the consumers of petroleum products have, in fact, been unfairly placed on to host landowners along the pipeline route.

Mr. Glenn Johnson of Warren, Minnesota, wrote to urge Enbridge to bury the proposed pipeline deeper alongside his property in River Falls Township. Mr. Johnson commented that a lower depth would better shield the installed pipeline from later being struck by tillage or ditch digging equipment.

Mr. Jeff Nelson of Stephen, Minnesota, submitted two letters, each of which detail earlier lapses in Enbridge's remediation efforts. While Mr. Nelson is complimentary of Enbridge's remediation work following a pipeline installation in 1995, he notes that the company's failure to properly restore land following a 1998 installation wrongfully pressed these remediation costs on to the township and local landowners.

Ms. Alice Peterson of Argyle, Minnesota, submitted three letters in which she questioned the relative burdens and benefits of the proposed pipeline. In each, Ms. Peterson expressed skepticism that the burdens which accompany a new line – in terms of safety risks, impacts to shelterbeds and impacts to topsoil – were justifiable in relation to what she believes to be potentially modest benefits – in terms of stability in oil prices or job opportunities for Marshall County residents.

Written Comments from the Minnesota Center on Environmental Advocacy: Before MCEA was granted intervenor status in the parallel Alberta Clipper proceeding,

and *amicus curiae* status in the LSr proceeding,[41] it made several submissions of written in December of 2007 and January of 2008. The record includes filings that address state regulatory issues as well as complete copies of the materials that MCEA submitted to reviewing authorities at the United States Department of State.[42] At the core of this detailed set of materials, MCEA argues that, in the context of the network of Enbridge pipelines, the proposed projects "have no reason to be built if [oil from the tar sands region of Western Canada is] not going to be refined and burned in the U.S."[43] The prospect that tar sands synthetic crude oil will be refined and burned in the United States is particularly worrisome to MCEA. MCEA asserts that the process for extracting tar sands oil results in far higher amounts "fugitive emissions" of greenhouse gases being released, in comparison to processes for producing conventional crude oil.[44] Accordingly, MCEA argues that development of tar sands oil will worsen the Midwest's record on the production of greenhouse gasses, counter regional efforts to naturally sequester carbon and undermine our state's goals to reduce greenhouse gas emissions. Concludes MCEA, the "magnitude of the environmental impact and damage from exploitation of the tar sands cannot be overstated."

Written Comments from the Minnesota Department of Agriculture: In written comments, Robert Patton, Land Use and Environmental Review Coordinator of the Department's Agricultural Development and Financial Assistance Division, noted that while Department officials and Enbridge staff "were able to agree on nearly all of the changes to the [Agriculture Mitigation Plan]," there was "one provision about which we were unable to come agreement." Mr. Patton explained that Section 25 of the AMP provides that later "global changes to the AMP that are requested by Enbridge, the Landowners, the Tenants or the Agriculture Monitors must be reviewed and approved by [the Minnesota Department of Agriculture] …." While acknowledging the desirability of having flexibility in the AMP to account for later occurring circumstances, the MDA asserts that the rightful authority to approve such modifications lies with the Commission, and not with it.

Written Comments from the Minnesota Department of Natural Resources: In written comments, Matthew Langan, Environmental Planner of the Department's Environmental Review Unit, outlined a number of concerns with respect to the proposed pipeline routing plan. He urged the Commission to impose a rigorous and continuing set of controls over the project so as to mitigate foreseeable impacts to humans and the environment. Specifically, Mr. Langan suggested measures for the "entirety of the pipeline project" relating to seven distinct topics – namely, clear regulatory controls

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[41] *See, Fourth Prehearing Order*, OAH Docket No. 8-2500-19094-2, at 2 (February 11, 2008).

[42] *Compare generally,* Executive Order 13337, 69 Fed. Reg. 25299 (May 5, 2004) (Issuance of Permits With Respect to Certain Energy-Related Facilities and Land Transportation Crossings on the International Boundaries of the United States) ("if the Secretary of State finds that issuance of a permit to the applicant would serve the national interest, the Secretary shall prepare a permit, in such form and with such terms and conditions as the national interest may in the Secretary's judgment require").

[43] *See, MCEA Written Comments*, at 5 (December 14, 2007).

[44] *Id.,* at 6.

regarding combating anthrax, obtaining adjustments in the pipeline center line, crossing of sensitive areas, crossing forested river corridors, undertaking winter construction, proper Horizontal Directional Drill practice and avoiding spills of Bentonite into nearby streams.

Based upon the evidence in the hearing record, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. INTRODUCTION

A. The Parties and Participants

1. The Applicant is Enbridge Pipelines (Southern Lights) L.L.C. (hereinafter referred to as "Applicant" or "Enbridge"), a limited liability company organized under the laws of the state of Delaware.

2. The parent company to Enbridge Pipelines (Southern Lights) L.L.C is Enbridge Energy Company, Inc. Enbridge Energy Company, Inc. is a Delaware corporation and a wholly owned subsidiary of Enbridge Pipelines, Inc. Enbridge Pipelines, Inc. is a corporation that is organized under the laws of Canada.[45]

3. Enbridge has international operations and is involved in the natural gas transmission business. Enbridge's primary U.S. business address is 1100 Louisiana, Suite 3300, Houston, Texas 77002.[46]

4. Enbridge is a common-carrier of crude petroleum. As such, its rates, tariffs and accounting practices are subject to the authority of the Federal Energy Regulatory Commission ("FERC").[47]

5. Together, the affiliates of Enbridge own and operate the largest natural gas distribution network in Canada. Enbridge affiliated companies employ approximately 5,000 people in the United States, Canada, and South America.[48]

B. Procedural History

6. Enbridge filed an Application for a Pipeline Routing Permit for a Crude Oil Pipeline on April 20, 2007 for the LSr Project (the "LSr PRP Application") with the Minnesota Public Utilities Commission ("PUC" or "Commission"). The LSr PRP Application was assigned PUC Docket No. PL9/PPL-07-360.

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[45] Ex. 200, § 7853.0230 at 1.

[46] *Id*.

[47] Ex. 200, § 7853.0530 at 1.

[48] Ex. 200, § 7853.0230 at 1-2.

7. On April 24, 2007 Enbridge filed an Application for a Certificate of Need for a Crude Oil Pipeline for the LSr Project (the "LSr CON Application") with the PUC. The LSr CON Application was assigned PUC Docket No. PL9/CN-07-464.

8. On April 30, 2007 the Commission sought comments on the completeness of the LSr CON Application.

9. Following the receipt of comments on the application, on July 12, 2007, the Commission accepted the LSr CON and PRP Applications.[49]

10. On July 27, 2007 the PUC issued an Order Accepting Application, Initiating Full Review, Referring to Office of Administrative Hearings and Order and Notice of Hearing for the LSr PRP Application under Docket No. PL9/PPL-07-360.[50] Among other items, the Commission referred the LSr PRP Application to the Office of Administrative Hearings ("OAH");[51] directed that a contested case hearing under Minn. Stat. Ch. 14 and Minn. R. Ch. 1405 be held on the LSr PRP Application;[52] and noted the nine-month time frame for consideration of the Application set out in Minn. R. 4415.0045.[53]

11. Also on July 27, 2007 the PUC issued an Order Accepting Application as Substantially Complete, Referring Matter to Office of Administrative Hearings and Issuing Notice and Order for Hearing for the LSr CON Application under Docket No. PL9/CN-07-464.[54] Among other items, the Commission's July 27, 2007 Order, noted that Minn. Stat. § 216B.243, subd. 5 places a 12-month restriction on the time for the PUC to act on the LSr CON Application;[55] directed Enbridge to work with PUC staff to develop notice materials to individuals and entities listed in Minn. R. 7829.2550, subparts 3 and 4;[56] directed any party that wished to make an appearance at the hearing to file a notice of appearance within 20 days of the Order;[57] and directed the DOC to study the issues and indicate its position on the reasonableness of granting a Certificate of Need to Enbridge.[58]

12. On July 27, 2007 the DOC issued a document titled "Notice of Pipeline Routing Permit Application Acceptance and Public Information Meetings on the

[49] Ex. 202 at 2, 7; Ex. 3 at 2, 7.

[50] Ex. 3.

[51] Ex. 3 at 2, 7.

[52] Ex. 3 at 3.

[53] *Id*.

[54] Ex. 202.

[55] Ex. 202 at 6.

[56] Ex. 202 at 3, 7.

[57] Ex. 202 at 7.

[58] *Id*.

Enbridge Pipeline Projects." This nine-page notice document provided an overview of the LSr Project, described some of the Commission's procedures for reviewing the application and listed the dates, times, and locations of twelve public information meetings.[59]

13. The official notice and cover letter were sent by certified mail on July 30, 2007 to all landowners along the proposed route that Enbridge was able to identify as being reasonably likely to be affected by the Projects. A map of the proposed route, a cover letter from Enbridge, and Notices of Intent from the United States Department of State ("USDOS") accompanied the mailing to landowners.[60] The same notice documents and copies of the LSr CON and PRP Applications were also mailed to 23 public libraries in communities along the proposed route.[61]

14. On July 30, 2007, similar notice packets were sent to tribal governments, and to the governments of towns, statutory cities, home rule charter cities and counties reasonably likely to be affected by the proposed Projects. The packets were sent in accordance with the Commission's July 27, 2007 Order and the requirements of Minn. R. 7829.2550 (3) (C).[62]

15. Also on July 30, 2007, the *Minnesota Environmental Quality Monitor* published a seven-page document titled "Notice of Pipeline Routing Permit Application Acceptance and Public Information Meetings on the Enbridge Pipeline Projects." This document provided information regarding the nature of the LSr and Alberta Clipper CON and PRP Applications and the opportunities for public involvement in the review process.[63]

16. The official notice and a map depicting the proposed route for the Projects were published in 34 papers of general circulation between August 1 and August 10, 2007.[64]

17. On August 1, a similar packet of information – including the July 27 notice document, a cover letter, a map of the proposed route, the USDOS Notices of Intent, and a CD-ROM of application materials – was sent by certified mail to 126 public officials. The mailings were made pursuant to Minn. R. 4415.0106.[65]

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[59] Ex. 400.

[60] Ex. 401.

[61] Ex. 402.

[62] Ex. 404.

[63] Ex. 502.

[64] Ex. 405.

[65] Ex. 403

18. The first in a series of prehearing conferences was held on August 7, 2007 at the Commission offices; with the LSr, Alberta Clipper, and Southern Lights Diluent Projects all being presented under OAH Docket No. 8-2500-19094-2.[66]

19. Public information meetings were held between August 13 and 23, 2007 in Kittson, Marshall, Pennington, Red Lake, Polk, and Clearwater counties.[67] Staff from the DOC took the leading role in the information meetings, answering questions from landowners, local governmental officials, and other interested parties. Representatives of USDOS were also present at the information meetings and provided information regarding the federal environmental review now underway. A federal environmental review is required for issuance of a Presidential International Border Crossing Permit. Likewise, representatives of Enbridge were present at these meetings and responded to questions regarding the need for the project, its environmental impact, likely routing, and the construction process.

20. On September 14, 2007, Enbridge submitted direct testimony of witnesses Mark Sitek, Denise Hamsher, Paul Meneghini, Tim Andersen, Jerrid Anderson, Paul Eberth, Mike Harris, and Paul Norgren in the LSr CON proceeding.[68]

21. On October 5, 2007, DOC Witnesses Adam J. Heinen and Brian J. Minder filed direct testimony and exhibits in the LSr Certificate of Need proceeding.[69]

22. Enbridge filed its Revised Preferred Route and Alignment on October 10, 2007.[70]

23. The Revised Preferred Route and Alignment requested a 500-foot route width for the LSr Project. In its application materials Enbridge asserted that the requested width would give it needed flexibility to work with landowners and regulatory agencies to find the most advantageous alignment of the LSr Project line within the easement area.

24. Also on October 10, 2007, Enbridge also filed nine route alternatives. Enbridge asserted that these modifications improved the constructability of the project, reduced its impact to the natural environment and addressed a number of concerns raised by landowners.[71]

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[66] First Prehearing Order, OAH Docket No. 8-2500-19094-2 at 1 (August 23, 2007).

[67] Additional public information meetings will be held for the companion Alberta Clipper and Southern Lights Diluent Projects – both of which are proposed to extend southeast of Clearbrook, Minnesota.

[68] Exs. 203, 204, 205, 206.

[69] Exs. 207, 208.

[70] Ex. 5.

[71] Ex. 4.

25. The Commission met on November 1, 2007, to consider the Revised Preferred Route and Alignment and Route Alternatives. The Commission voted to accept both filings at this meeting.

26. On November 5, 2007, the *Minnesota Environmental Quality Monitor* published a seven-page document titled "Notice of Public Meetings and Public Hearings Before the Minnesota Public Utilities Commission Regarding: I. [CON] Applications for the LSr, Alberta Clipper and Southern Lights Diluent Projects . . . II. Applications for [PRP's] for the LSr, Alberta Clipper And Southern Lights Diluent Projects . . . ." This notice discussed the LSr and Alberta Clipper CON and PRP Applications, listed the public hearing details and described how members of the public could participate in the review process.[72]

27. On November 9, 2007, eight Enbridge witnesses filed direct testimony for the LSr PRP Application.[73]

28. On November 9, 2007, Enbridge filed its Comparative Environmental Analysis for the Route Alternatives filed on October 10, 2007.[74] The Comparative Environmental Analysis was approved for release by the DOC.[75] This document compared the Route Alternatives to the route originally described in the LSr PRP Application.[76]

29. Public hearings were held on November 26 and 27, 2007, in Kittson, Marshall, Pennington and Red Lake counties.

30. Meetings in Polk and Clearwater counties, originally scheduled for November 29, were postponed following an explosion at Enbridge's Clearbrook, Minnesota facility on the evening of November 28, 2007. So as to permit an opportunity for senior Enbridge personnel who were members of the applicant panel, and called away to respond to the explosion, to participate in the hearings, the public hearings for Polk and Clearwater counties were rescheduled to January 17, 2008.

31. On November 30, 2007, the PUC issued an Order accepting the Revised Preferred Route and Alignment and Route Alternatives for the LSr Project.

32. On December 21, 2007, Enbridge witness Mark Sitek filed rebuttal testimony in the LSr CON proceedings. This testimony provided the Applicant's response to the testimony of DOC witnesses and corrected information regarding tax benefits to counties that was contained in the LSr Applications.

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[72] Ex. 501.

[73] Exhibits 7, 8, 9, 10.

[74] Ex. 6.

[75] *Transmittal* Letter, Ex. 6 at ii.

[76] *See,* Ex. 6.

33. On January 2, 2008, notice of the rescheduled public hearings in Polk and Clearwater counties was sent via certified mail to landowners in those counties along the proposed pipeline route. Further, local elected officials and government agencies received a revised official notice document, which was also published in six local newspapers of general circulation. The official notice included a revised date for the deadline for the receipt of public comments of 4:30 p.m. on Monday, January 28, 2008.

34. On January 4, 2008, Adam J. Heinen and Brian J. Minder, witnesses for the Department of Commerce, completed the filing of all testimony in the LSr CON matter by filing written surrebuttal testimony. Mr. Heinen's surrebuttal testimony included an updated review of the future economic demand for the type of crude oil that will be transported by the proposed projects.

35. On January 9, 2008, the Minnesota Center for Environmental Advocacy filed a Petition to intervene in all PUC dockets under review in this proceeding.

36. Public hearings were held on January 17, 2007 in Polk and Clearwater counties. A third prehearing conference was also held on that date.

37. The Contested Case Hearing for the LSr CON Application was held on January 22, 2008.

38. Proceedings in the contested case followed oral argument from counsel on the Petition for Intervention from the Minnesota Center for Environmental Advocacy ("MCEA"). Noting that the Petition was filed 107 days after the deadline for intervention as a party in the LSr CON docket, and 34 days after the deadline for intervention in the LSr PRP docket, the Administrative Law Judge ruled that MCEA would be permitted to brief the issues presented by the LSr project applications as *amicus curiae.*[77]

39. A formal order denying MCEA party status in the LSr Project proceedings followed on February 11, 2008.[78]

40. Availing herself of rights extended to all members of the public,[79] counsel for MCEA questioned Department witnesses, Adam J. Heinen and Bryan J. Minder, at the contested case hearing on January 22, 2007.[80]

C. Operational Details of the LSr Project

41. Enbridge and its corporate affiliates operate the longest crude oil and liquids pipeline system in the world. This system originates in Canada and extends into

[77] *See,* Minn. R. 1400.6200 (3)(A) (2007).

[78] *See, Fourth Prehearing Order*, OAH Docket No. 8-2500-19094-2, at 2.

[79] *Compare generally,* Minn. R. 1400.6200 (5) and 1405.0800 (C) (2007).

[80] Transcript of the January 22, 2007 Contested Case Hearing at 31-33, 69

the United States. The Canadian portion of this network of crude oil pipelines is known as the "Enbridge Mainline System."[81]

42. The portion of this system in the United States includes approximately 3,300 miles of pipeline – extending from Neche, North Dakota, around the Great Lakes through the Upper Peninsula and Chicago, terminating at the Canadian border near St. Clair, Michigan. This system is known as the "Lakehead System" and has been in operation since 1950.[82]

43. The proposed LSr Project is an approximately 313 mile long 20-inch outer-diameter crude oil pipeline between Cromer, Manitoba and Clearbrook, Minnesota. Approximately 108 miles of the LSr Project will be located in Minnesota. In Minnesota, the LSr project will cross Kittson, Marshall, Pennington, Red Lake, Polk, and Clearwater counties.[83]

44. The LSr project is designed to transport crude oil from Western Canada to the United States in order to help alleviate forecasted bottlenecks in capacity in the Enbridge Mainline System.[84] The LSr Project will interconnect with the non-affiliated Minnesota Pipe Line (commonly known as the MinnCan Project) at the Clearbrook facility in Clearbrook, Minnesota.[85] The LSr Project will also have the capability of supplying other downstream refineries via its connection with the Lakehead System at Clearbrook, Minnesota.[86]

45. The LSr Pipeline is designed to transport light and medium density crude oil,[87] although the facilities could be used to transport other types of oil.[88]

46. Currently, Enbridge injects segregated batches of light and medium density crude oil from Cromer, Manitoba, through the Enbridge Mainline System.[89] Batch segregation of this type of crude oil is required because the high sulfur content of this product.[90] During the segregation and batch injection process, however, the movement of light density crude oil, and other types of oil, from Alberta to Cromer does

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[81] Ex. 200, § 7853.0230 at 3 n.1.

[82] Ex. 200, § 7853.0230 at 2.

[83] Ex. 200, § 7853.0230 at 2-3.

[84] Ex. 200, § 7853.0240 at 1.

[85] Ex. 200, §§ 7853.0240 at 1; 7853.0510 at 7.

[86] Ex. 200, § 7853.0510 at 7.

[87] Contested Case Hearing Transcript, at 15 (January 28, 2007).

[88] *Id.* at 16.

[89] Ex. 1, § 4415.0170 at 1.

[90] Ex. 200, § 7853.0240 at 1; Ex. 203 at 9.

not occur.[91] And, because those processes are suspended during batch injection, Enbridge argues that the overall capacity of the pipeline system is reduced.[92]

47. Under Enbridge's LSr proposal, transportation of these (now segregated) batches of light and medium density crude oil will occur along their own dedicated pipeline.[93] Further, from the vantage point of other expansion projects that it envisions over the course of the next decade,[94] Enbridge asserts that the LSr Project will help to relieve "bottlenecks" in capacity that it projects for this expanded system.[95]

48. The LSr Project will have an Annual Capacity, defined as the average sustainable rate over a year, of 186,000 barrels-per-day ("bpd"). The maximum capacity of the LSr Project is 300,000 bpd – but the Applicant asserts that such a transport capacity would first require the addition of new pumping stations along the pipeline route. The pumping stations that would be needed to meet this maximum capacity are not planned at this time.[96]

49. The LSr Project will utilize the facilities of two existing pumping stations. The first station is located near Donaldson, Minnesota, approximately 40 miles from the Canadian border. The second pumping station is located in Plummer, Minnesota – at a point 63 miles southeast from the Donaldson Station and 32 miles northwest of the Clearbrook terminal.[97]

50. The total construction cost of the portion of the LSr Project that is located within Minnesota is estimated to be $125.5 million. While the functional life of the pipeline infrastructure is indefinite, the economic life of the project, based upon a regular depreciation schedule, is 25 years.[98]

51. If the project is approved, Enbridge anticipates beginning construction in the spring of 2008, with an expected operational date of December 31, 2008.[99]

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[91] Ex. 1, § 4415.0170 at 1.

[92] *Id*.

[93] Ex. 200, § 7853.0240 at 1; Ex. 203 at 9.

[94] *See,* MPUC Dockets PL9/CN-07-465, PPL-07-361.

[95] Ex. 200, § 7853.0240 at 7.

[96] Ex. 200, § 7853.0230 at 3-5.

[97] Ex. 200. § 7853.0530 at 2.

[98] Ex. 200, § 7853.0540 at 3.

[99] *Id*.

II. CERTIFICATE OF NEED

A. Projections of Future Energy Demand

52. The United States Department of Energy's Energy Information Agency (EIA) projects that worldwide demand for oil will increase over the next 25 years from 83 million barrels-per-day to between 105 and 134 million barrels-per-day by 2030. Global demand will increase petroleum prices as competition for a finite resource increases.[100]

53. According to the Energy Information Administration's 2007 Annual Energy Outlook, oil consumption in the United States will increase by one-third to approximately 27.6 million barrels-per-day by the year 2030.[101]

54. Petroleum demand in the West North Central Region, a group of seven states that includes Minnesota, is likewise projected to rise.[102]

55. The Minnesota State Demographic Center predicts that the population of Minnesota will grow by 20.6 percent from 2005 to 2030, a period of 25 years.[103]

56. Refineries in Minnesota and the surrounding region have announced plans to expand to meet future demand for refined petroleum products. For example, the Pine Bend refinery in Rosemount, Minnesota is expected to complete a 50,000 barrel-per-day expansion of refining capacity in the fall of 2007.[104] Similarly, the Murphy Oil refinery has announced that it is exploring the possibility of expanding its refinery capacity in Superior, Wisconsin.[105]

57. The Enbridge Lakehead System currently supplies approximately 70 to 80 percent of the petroleum refined in Minnesota.[106] Minnesota's two refineries, Flint Hills in Rosemount and Marathon Ashland in St. Paul Park, supply roughly 65 to 70 percent of all the gasoline consumed in Minnesota. These refineries are supplied in part by the recently-expanded Minnesota Pipe Line that connects to the Enbridge Lakehead System at Clearbrook, Minnesota.[107] The Lakehead System also directly supplies all of the oil used by the Murphy Oil refinery at Superior, Wisconsin. The Murphy Oil facility produces between five and ten percent of all gasoline consumed in Minnesota.[108]

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[100] Ex. 208 at 35, 37.

[101] Ex. 200, § 7853.0240 at 2.

[102] Ex. 208 at 19, 21 and 24.

[103] Ex. 208 at 20-21.

[104] Ex. 208 at 15; *compare also,* Ex. 203 at 16.

[105] Ex. 208 at 15.

[106] Ex. 208 at 17, n. 13.

[107] Ex. 208 at 14, n. 5; Ex. 200, § 7853.0510 at 7.

[108] Ex. 208 at 14, n. 5; Ex. 200, § 7853.0510 at 7; Ex. 203 at 10.

Enbridge therefore supplies the products that are used to produce the majority of the gasoline that is consumed in Minnesota.

58. While domestic demand for crude oil is projected to rise, in Minnesota and across the nation,[109] the amount of U.S. onshore production of crude oil is expected to continue its decline in the coming years.[110]

59. The DOC concluded that consumption of petroleum in Minnesota will follow population increases, and in similar amounts, over the same time period – thereby increasing the pressures on the petroleum market in Minnesota.[111] Additionally, following its review of petroleum demand forecasts, population trends, and crude oil production forecasts, the DOC concluded that demand for refined petroleum products in Minnesota and the surrounding region is expected to rise over the economic life of the LSr Project.[112]

B. Projections of the Impact of Conservation Measures on Demand

60. Enbridge does not produce, refine or market oil.[113] Instead, Enbridge is a common carrier of petroleum products.[114] As a common carrier, Enbridge accepts nominations from shippers, subject to the terms of an earlier FERC-approved tariff, to transport crude oil.[115]

61. Enbridge's conservation programs are limited to internal corporate efforts to reduce the amount of resources that its operations consume. As a transportation company, it does not have a conservation program that impacts or influences the broader demand for petroleum products.[116]

62. A "preliminary version" of the climate change action plan required by Minn. Stat. § 216H.02 was submitted to the Legislature on February 1, 2008.[117] In general, the preliminary plan recommends pursuing the hoped-for reductions in greenhouse gas

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[109] *See,* Note 100 *supra*.

[110] Ex 200, § 7853.0240 at 4-6.

[111] Ex. 208 at 20-23.

[112] Ex. 208 at 38; *see also,* Contested Case Hearing Transcript at 69, 86-88 and 98.

[113] Contested Case Hearing Transcript at 25.

[114] Ex. 200, § 7853.0530 at 1-2.

[115] Ex. 200, § 7853.0530 at 1-2; Contested Case Hearing Transcript at 24-25.

[116] Ex. 200, § 7853.0260 at 1.

[117] *See*, Letter of Director Edward Garvey and Commissioner Brad Moore (February 1, 2008) (http://www.state.mn.us/mn/externalDocs/Commerce/Letter_for_preliminary_climate_change_action_plan_020508104727_MPCA-MDC%202-1-08.pdf).

emissions through government encouragement of "clean" and renewable energy technologies.[118]

63. Likewise significant, Rates Analyst Adam J. Heinen expressed the view that even in the event of an increase in Corporate Average Fuel Economy ("CAFE") standards for automobiles, any reductions in consumption that follow from increased fuel efficiency will be outpaced by an increase in overall miles traveled by Minnesotans.[119] Mr. Heinen opined that raising CAFE standards will not reduce demand for the petroleum products transported by the LSr Project.[120]

64. Similarly Rates Analyst Bryan J. Minder expressed the view that potential, future recommendations from the Minnesota Climate Change Advisory Group, the Midwest Governor's Climate Change Group or the Intergovernmental Panel on Climate Change were simply too indefinite to be analyzed under the Department's long-range demand forecasts.[121]

65. The DOC reviewed the impact of alternative fuel sources and technologies as part of its analysis of demand for refined petroleum products.[122] The DOC noted that, at best, adoption of new alternative energy technology would slow the growth in demand for refined petroleum products, but not reduce demand below current levels.[123]

C. Demand Impact of Enbridge's Promotional Activities

66. Enbridge has not undertaken any promotional activities that would increase demand for crude oil supplies to Minnesota or the surrounding region.[124]

D. Projections of Current and Planned Facilities to Meet Demand

67. The Lakehead System is the only pipeline system that now connects Western Canadian oil production with the states of the Upper Midwest. Further, the Lakehead System is the shortest pipeline route to connect this oil production to Minnesota's refinery markets.[125]

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[118] *See*, *Preliminary Climate Change Action Plan,* at 1-2 (February 1, 2008) (http://www.state.mn.us/mn/externalDocs/Commerce/Preliminary_Climate_Change_Action_Plan_020508104330_MN-CCAP%20Final%202-1-08.pdf).

[119] Ex. 211 at 12-13.

[120] Ex. 211 at 13.

[121] Contested Case Hearing Transcript, at 46.

[122] Ex. 208 at 28-30.

[123] Ex. 208 at 30.

[124] Ex. 200, § 7853.0250 at 6.

[125] Ex. 200, § 7853.0540 at 2-4.

68. Enbridge's "Mainline System" is operating at or near its oil transportation capacity.[126]

E. Energy Conservation Measures Employed By Enbridge

69. Electrical power for pumping on the Lakehead System constitutes approximately 35 percent of Enbridge's total operating budget for this system.[127]

70. Responding to the operational significance of reducing the amount of power consumed by the line, Enbridge's Energy Management Department allocates power to pumps on the Enbridge Mainline System,[128] and employs a variety of measures to reduce the amount of energy that its own facilities consume.[129]

F. Comparing the LSr Project to Alternative Methods of Meeting Demand

1. The truck transport alternative

71. Responding to the operational significance of reducing the amount of power consumed by the line, Enbridge's Energy Management Department allocates power to pumps on the Enbridge Mainline System,[130] and employs a variety of measures to reduce the amount of energy that its own facilities consume.[131]

72. The United States Department of Transportation, Pipeline and Hazardous Material Safety Administration determined that, in general, truck transportation of oil is significantly more hazardous than pipeline transportation.[132] For example, the agency projects that transporting crude oil by truck presents a far greater risk – 87.3 times greater – of death than operations which move crude oil by pipelines. Similarly, transporting crude oil by truck is nearly 35 times more likely to result in a fire or an explosion than if this same oil is transported by way of a pipeline.[133]

73. Transporting 186,000 barrels-per-day of crude oil between Cromer, Manitoba and Clearbrook, Minnesota would require a daily, 700-mile round-trip by a fleet of approximately 3,000 trucks.[134]

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[126] Ex. 200, § 7853.0510 at 1.

[127] Ex. 200, § 7853.0260 at 1.

[128] *Id.,* at 1-3.

[129] *Id;* Ex. 205 at 4.

[130] *Id.,* at 1-3.

[131] *Id;* Ex. 205 at 4.

[132] Ex. 200, § 7853.0540 at 9, n. 1.

[133] Ex. 200, § 7853.0250 at 2-3.

[134] Ex. 200, § 7853.0540 at 1 and 5-6.

74. There is genuine doubt that there are sufficient vehicles or drivers available to accomplish such a massive daily caravan.[135]

75. Even if transportation of similar quantities of crude oil were possible by truck, the capital and operating costs of such an enterprise compare poorly with the capital and operating costs associated with transporting crude oil by way of the proposed pipeline. The annual operating cost of the trucking alternative would be approximately $875 million – a figure exceeds the capital costs of the proposed LSr Project.[136]

76. The DOC concurred that truck transportation was a poor alternative to the proposed pipeline due to the higher costs, environmental impacts and increased safety risks associated with transporting this quantity of crude oil by truck.[137]

2. The rail transport alternative

77. Responding to the operational significance of reducing the amount of power consumed by the line, Enbridge's Energy Management Department allocates power to pumps on the Enbridge Mainline System,[138] and employs a variety of measures to reduce the amount of energy that its own facilities consume.[139]

78. Transporting 186,000 barrels-per-day of crude oil between Cromer, Manitoba and Clearbrook, Minnesota by rail car is a proposal that is constrained by real limitations – most particularly the fact that there is no rail service at this time to Clearbrook, Minnesota. Development of this rail service – which would include acquiring land, constructing a rail line and development of terminal facilities in both Cromer, Manitoba and Clearbrook, Minnesota – would require significant capital investment.[140]

79. Even if the underlying facilities were available, transporting 186,000 barrels of oil each day by railway, would require a total of 26 trains, of approximately 110 cars each, to move between Cromer, Manitoba and Clearbrook, Minnesota.[141] In all, Enbridge projects that a railway operation that included 3,120 tank cars would be required.[142]

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[135] Ex. 200, § 7853.0540 at 10.

[136] Ex. 200, § 7853.0540 at 10; *see also,* Ex. 200, § 7853.0540 at 13.

[137] Ex. 208 at 8-9; *compare,* Ex. 200, § 7853.0540 at 10 and 13

[138] *Id.,* at 1-3.

[139] *Id;* Ex. 205 at 4.

[140] Ex. 200, § 7853.0540 at 11.

[141] Ex. 200, § 7853.0540 at 7.

[142] Ex. 200, § 7853.0540 at 11.

80. As with a truck transport alternative, it is likely that the annual operating costs of transporting a similar quantity of crude oil by rail, exceeds the overall capital cost of the proposed LSr Project.[143]

3. Pipeline system alternatives

81. Responding to the operational significance of reducing the amount of power consumed by the line, Enbridge's Energy Management Department allocates power to pumps on the Enbridge Mainline System,[144] and employs a variety of measures to reduce the amount of energy that its own facilities consume.[145]

82. Transporting crude oil by way of alternative pipeline systems – namely, the Enbridge North Dakota System and the proposed Keystone Pipeline system – were also analyzed.

83. Because of the costs and available service dates associated with these alternatives, the DOC concluded that there were not reasonable alternative pipeline systems to the proposed LSr Project.[146]

4. Pipeline route alternatives

84. Enbridge examined alternative routes, but determined that following the route of the existing pipelines in the Lakehead System was the best option.[147]

85. By following along the pipeline existing route, the LSr project pipeline can access and use existing pumping station equipment and consume the least amount of new right-of-way of any construction option.[148]

5. Pipeline design alternatives

86. Enbridge examined the use of various pipe sizes to deliver the proposed capacity of 186,000 barrels-per-day of oil. Among the alternatives considered by Enbridge was deployment of 16, 20 or 24-inch diameter pipe on the LSr Project.[149]

87. In light of the effect that pipeline diameter size had upon such factors as pipeline routing, pump station design, pump station location, system hydraulics and

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[143] *Id.*

[144] *Id.,* at 1-3.

[145] *Id;* Ex. 205 at 4.

[146] Ex. 208 at 9-10; Ex. 200, § 7853.0540 at 2, 7 and 12.

[147] Ex. 200, § 7853.0540 at 2-4.

[148] *Id*.

[149] Ex. 200, § 7853.0540 at 3.

project costs,[150] Enbridge concluded that a 20-inch diameter pipe was the best choice for the LSr Project.[151]

88. A 24-inch pipeline design was less favored, because this option added a considerable amount (approximately $37 million) to the overall project costs, would require construction of larger pump stations and was not well matched to the forecasts of the amount of crude oil that would be transported along the pipeline.[152]

89. Likewise, Enbridge's analysts did not favor a 16-inch pipeline design, because of the comparatively higher operating costs, need for additional pumping power and lack of expandability associated that would be associated with such a design.[153]

90. The DOC concurs in Enbridge's assessment that a 20-inch pipeline design is more suitable than either a 24-inch or 16-inch design alternative.[154]

G. Comparing the LSr Project to a No-Build Alternative

1. Operational impacts of the LSr project compared to a no-build alternative

91. The key impact of not building the LSr project is that oil transportation "bottlenecks" in the current system, between Cromer, Manitoba and Clearbrook, Minnesota, will continue, and presumably worsen, as demands for petroleum products increase.[155]

92. As noted above, the LSr Project will eliminate the need to halt the Enbridge Mainline System so as to inject light and medium crude oil into the pipeline.[156] Without this stopping and starting, Enbridge asserts that the Enbridge Mainline System will operate at its full annual capacity[157] and recapture the long-haul capacity that is otherwise lost during the batch injection process.[158]

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[150] *Id.,* at 8.

[151] *Id.,* at 4.

[152] Ex. 200, § 7853.0540 at 13, 15; *compare also,* Ex. 200, § 7853.0230 at 3.

[153] Ex. 200, § 7853.0540 at 15.

[154] Ex. 208 at 9-12.

[155] Ex. 200, § 7853.0540 at 9; Ex. 207 at 8.

[156] *Id*.

[157] *Id*.

[158] *Id*.

93. Enbridge projects that the net increase in system capacity achieved (over both systems) by completing the LSr project would be 219,000 barrels-per-day.[159]

2. Socio-economic impact of the LSr project compared to a no-build alternative

94. The total cost of the LSr Project is estimated at $125.5 million.[160] Enbridge estimates that nearly 1,000 workers will be required for construction-related tasks along the LSr Project route during the six-month pipeline construction period.[161] Because both local workers will be hired and new workers will relocate to the communities along the pipeline route,[162] Enbridge argues that both local communities and area suppliers will enjoy new revenues from an approved project.[163]

95. The LSr project is expected to result an estimated incremental initial tax value of approximately $3.4 million dollars.[164] Based upon the number of pipeline miles, and the presence of any associated infrastructure, within a particular county, distribution of the incremental increase in taxes will vary among the counties along the LSr Project route.[165]

3. Environmental impacts of the LSr project compared to a no-build alternative

a. Addressing specific environmental impacts and risks

96. Throughout its application materials Enbridge concedes that installation of the proposed pipeline will necessitate some disruption of the natural environment, however Enbridge argues that these impacts will be mitigated by pre-construction planning and close oversight during and after the construction phase.

97. For example, the Environmental Mitigation Plan proposed by the Applicant includes a series of testing and inspection regimes – including Hydrostatic testing of discharge water for the presence of contaminants,[166] and filtering techniques so as to limit discharge of solids into local streams, rivers and lakes.[167]

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[159] *Id*.

[160] Ex. 200, § 7853.0230 at 3.

[161] Ex. 1, Tab C at 3-3.

[162] *Id*.

[163] *Id*.

[164] Ex. 209 at 5.

[165] Ex. 207 at 17.

[166] Ex. 200, § 7853.0620 at 1; Ex. 200, § 7853.0630 at 6-7; Ex. 1, Appendix B at 23.

[167] Ex. 200, § 7853.0620 at 1; Ex. 1, Appendix B at 22.

98. These features of the Enbridge Environmental Mitigation Plan are bolstered by the requirements of the accompanying Water Appropriation Permit from the Minnesota DNR and the NPDES Construction Stormwater General Permit, the NPDES Hydrostatic Test Water Discharge Individual Permit and the Construction Dewatering Discharge Permit issued by the Minnesota Pollution Control Agency.[168]

99. Daily operation of the completed LSr Project will generate no noise along the pipeline path in the approved right-of-way.[169] There is some noise that is generated by operating the pipeline pump stations. Enbridge pledges to keep this noise level below 40 decibels (when measured at a distance of fifty feet from the pumping station structure) or to any other minimum set by state law.[170]

100. Because the pipeline pumps are powered by electricity, and operate as closed systems, under normal operating conditions the LSr Project will not contribute to local emissions into the air.[171]

101. While petroleum spills are possible during the construction phase – primarily as a result of mishandling petroleum during the refueling of construction vehicles or equipment – Enbridge has a Spill Prevention, Containment and Control Plan to mitigate this risk. For example, among the practices outlined in this plan is that construction equipment will be refueled at least 100 feet from streams or other bodies of water.[172]

102. In order to assure compliance with Enbridge's various environmental plans and conditions imposed by state agencies, Enbridge has retained a team of inspectors to review the progress of pipeline construction and the overall system following the completion of the construction phase.[173] These inspectors will work alongside, and share information with, inspectors who are gauging compliance with the Agriculture Mitigation Plan ("AMP").[174]

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[168] Ex. 200, § 7853.0230 at 7-8.

[169] Ex. 200, § 7853.0620 at 4.

[170] *Id*.

[171] Ex. 200, § 7853.0620 at 3.

[172] Ex. 200, § 7853.0630 at 6; Ex. 1, Appendix C at 23; *compare also,* Ex. 1, Appendix F (Petroleum-Contaminated Soil Management Plan).

[173] Ex. 200, § 7853.0630 at 7.

[174] Testimony of Bob Patton, Minnesota Department of Agriculture, Red Lake County Public Hearing Transcript, at 21.

b. Addressing specific impacts and risks to agricultural land

103. The route of the Proposed LSr Project crosses 97.1 miles of agricultural land.[175]

104. While Enbridge argues that most of the existing right-of-way will not be impacted by the addition of the proposed LSr project pipeline,[176] and that any agricultural land disturbed during construction is likely to return to productive use soon after construction,[177] installation of a new pipeline in agricultural areas will necessarily result in disruption to soils and crops.

105. Enbridge will reimburse landowners for construction-related crop damage based upon market rate price of the item that is destroyed.[178]

106. The Enbridge AMP addresses methods of preserving agricultural land during construction – including proper methods of topsoil stripping and segregation, weed control and prevention of erosion.[179] Further, Enbridge pledges in the Agriculture Mitigation Plan to have these practices separately inspected by independent Agricultural Monitors.[180] While the salaries of these monitors will be paid by Enbridge, the Monitors will report their findings to the Minnesota Department of Agriculture.[181]

c. Addressing the risks of a petroleum spill

107. While acknowledging if the LSr pipeline is installed, there is a risk that the pipeline might leak petroleum at some time in the future, Enbridge argues that this risk is minimal due to the improvement in pipeline safety records, across the industry,[182] and the measures it undertakes to prevent spills, specifically.

108. The design, construction and any later operation of the LSr Project is subject to oversight by the United States Department of Transportation, Pipeline and Hazardous Material Safety Administration.[183]

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[175] Ex. 209 at 3.

[176] *Id*.

[177] *Testimony of Bob Patton*, Kittson County Public Hearing Transcript, at 51.

[178] *Testimony of Mike Harris*, Clearwater County, Public Hearing Transcript, at 42.

[179] Ex. 1, Appendix E; *see also, Testimony of Bob Patton*, Marshall County Public Hearing Transcript, at 30-31.

[180] Ex. 1, Appendix E, *see also,* Minn. Stat. § 216E.10 (3)(b) (2006).

[181] *Testimony of Bob Patton*, Marshall County Public Hearing Transcript, at 30-31.

[182] Ex. 200, § 7853.0250 at 3.

[183] *See,* 49 C.F.R. Part 195 (2007); Ex. 200, § 7853.0270 at 2.

109. Under federal regulations, all materials that are used in pipeline construction are inspected for integrity before leaving the factory. Additionally, these items are transported according to special specifications, protected from corrosion during transit and re-tested following installation.[184]

110. Enbridge pledges to design and construct the LSr Project according to industry standards for pipe, pipe coating, valves and other materials.[185] Moreover, Enbridge declares that it will subject all field-welded joints to x-ray inspection – an inspection practice that exceeds the requirements of the current regulations.[186]

111. The completed system will be hydrostatically tested prior to being placed in service.[187] Additionally, Enbridge has a series of systems to inspect, test and verify the integrity of the pipeline following installation.[188]

112. In compliance with federal regulations,[189] Enbridge undertakes periodic preventive maintenance activities. Moreover, the procedures that the Applicant used during the inspection process have been reviewed by the Federal and State regulators.[190] The Minnesota Office of Pipeline Safety frequently monitors maintenance work during onsite inspections.[191]

113. Enbridge patrols the pipeline route by air, at two week intervals, for a total of 26 times per year.[192]

114. Enbridge operates and manages the Lakehead System from a central control center in Edmonton, Alberta.[193] While a computerized system is used to ensure that the pipelines are operating properly, the control center is staffed at all times to monitor pipeline performance, initiate shutdown procedures (if necessary) and respond to any emergency conditions.[194]

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[184] *See, e.g.,* 49 C.F.R. §§ 192.303 – 192.325 (2007); 49 C.F.R. § 195.112 (2007).

[185] Ex. 200, § 7853.0270 at 1.

[186] *Id*.

[187] *Id*.

[188] Ex. 200, § 7853.0270 at 1-6; *Testimony of Mark Sitek*, Red Lake County Public Hearing Transcript, at 64-65.

[189] Ex. 200, § 7853.0270 at 1; *compare*, *e.g.,* 49 C.F.R. § 192.935 (2007); 49 C.F.R. § 192.937 (2007).

[190] Ex. 200, § 7853.0270 at 4.

[191] *See,* Testimony of Denise Hamsher, Red Lake County Public Hearing Transcript, at 67.

[192] Ex. 200, § 7853.0270 at 3.

[193] Ex. 200, § 7853.0270 at 2-3.

[194] *Id*.

115. All Enbridge operations personnel are trained in emergency response, and response crews are stationed in both Thief River Falls and Bemidji, Minnesota.[195]

116. Federal regulators have approved Enbridge's emergency response plans; plans that will be amended to include provisions and mapping for the proposed LSr pipeline if it is approved.[196]

117. Transporting petroleum through a pipeline, presents fewer safety risks for long-distance shipping than transporting petroleum by truck, rail, barge or tank ship.[197]

118. Enbridge considered, but rejected a No- Build Alternative – concluding that no action on the LSr pipeline would spur price spikes for refined petroleum products, negatively impact regional employment opportunities and increase the nation's reliance on less-secure sources for crude oil.[198]

119. The DOC concluded that the socioeconomic benefits of constructing the LSr Project outweigh the potential effects on the natural environment.[199] Moreover, DOC concluded that Enbridge plans for, and responds well, to pipeline emergencies that occur.[200]

120. The DOC concluded that Enbridge's examination of alternatives and conclusions that there was no reasonable alternative to the LSr Project satisfies the rule and was reasonable.[201]

H. The Impact Of The LSr Project On Future Development

121. The LSr Project will contribute to future development in Minnesota.[202]

122. Enbridge asserts that the proposed LSr pipeline will provide the resources that are needed in order for Minnesota's refineries to expand, as well as meet an increasing demand for refined products,[203] while making a minimal draw upon regional electric, water or transportation resources.[204]

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[195] *Testimony of Mark Sitek*, Red Lake County Public Hearing Transcript, at 65-66.

[196] *Testimony of Denise Hamsher*, Red Lake County Public Hearing Transcript, at 67.

[197] Ex. 200, § 7853.0250 at 2-3; Ex. 207 at 21-22; Ex. 210 at 8-9.

[198] Ex. 200, § 7853.0540 at 4 and 9.

[199] Ex. 207 at 20.

[200] Ex. 207 at 15.

[201] Ex. 208 at 7.

[202] Ex. 200, § 7853.0250 at 6; Ex. 207 at 20.

[203] Ex. 207 at 20-21; Ex. 200, § 7853.0240 at 3.

[204] *See* Ex. 200, § 7853.0640 at 1-8.

I. Conclusions of the Parties and Participants as to Enbridge's CON Application

123. The DOC concluded that Enbridge should be granted a Certificate of Need for the LSr Project.[205]

124. MCEA argued that the hearing record does not establish that the proposed pipeline project is a superior alternative to receipt of petroleum products from potentially less expensive sources or that the overall consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate.[206]

III. PIPELINE ROUTING PERMIT

A. Consultation with Stakeholders, Agencies and the Public

125. Environmental analysis, land surveys and consultations with landowners on the project began in late 2006 and have continued to be refined through the present day.[207]

126. Drawing upon the information it developed from consultations with landowners, and the results of the DOC-led public information meetings, Enbridge filed its Revised Preferred Route and Alignment[208] and LSr Project Route Alternatives on October 10, 2007.[209] The Revised Preferred Route and Alignment Maps sought approval of a 500 foot route width, centered on the proposed 20-inch LSr pipeline.[210]

127. As part of its application materials, Enbridge identified site-specific construction methods and attendant workspace needs along the project route north and west of Clearbrook, Minnesota.[211]

128. While some commentators expressed concern about the breadth of the route requested in Enbridge's application,[212] the Applicant argues that a 500 foot route width will permit it to harmonize and balance a number of different construction-related objectives.

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[205] Ex. 207 at 38.

[206] *See, e.g.,* MCEA Post-Hearing Reply Comments at 10 (February 8, 2008).

[207] *See, Testimony of Paul Meneghini*, Red Lake County Public Hearing Transcript, at 16.

[208] Ex. 5.

[209] Ex. 4.

[210] Ex. 8, at 8.

[211] Ex. 6, at 2.

[212] *See, e.g.,* Written Comments of G. Berbee and A. Peterson.

129. Pointing to the results of the land surveys and various informational meetings, Enbridge contends that a broad route width will provide it the flexibility to accommodate site-specific routing requests from landowners, address unforeseen construction conditions,[213] reduce the impacts to environmentally sensitive areas and areas of human settlement,[214] and implement federally-required pipeline design features.[215]

130. Likewise, a broad permit route will enable the Applicant to harmonize the requirements of three levels of related government permits – those from the U.S. Army Corps of Engineers, the Minnesota Department of Natural Resources and Pollution Control Agency, and County governments.[216]

B. Enbridge's Proposed Route Alternatives

131. In most locations along the proposed pipeline route the LSr Project will require 50 feet of additional permanent easement space and 50 feet of temporary workspace immediately adjacent to the new permanent easement space.[217]

132. The 50 feet of new permanent easement space is required to provide a 25-foot safety buffer on both sides of the LSR Project pipeline.[218] The LSr Project will be located 25 feet from the nearest existing pipeline within Enbridge's current pipeline easement space and 25 feet from the edge of the new permanent easement space.[219]

133. The 50 feet of additional temporary workspace is needed for construction-related activities such as stringing and bending pipe, storing excavated material, moving equipment.[220]

134. Further, in limited areas, additional temporary workspaces will also be required. At points that are near water crossings or road crossings, or in any location that requires a bore or directional drill in order to install the pipeline, additional

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[213] *See*, Ex. 6, at 2-3.

[214] Ex. 8, at 8.

[215] *Id*. at p. 9; *compare also,* 49 C.F.R. Part 195 (2007).

[216] Ex. 200, § 7853.0230 at 7-9; *see also, Testimony of Paul Meneghini*, Kittson County Public Hearing Transcript, at 58-59; *Testimony of Cortland Kleven*, Kittson County Public Hearing Transcript, at 37-38 and 57-58.

[217] Ex. 2.

[218] Ex. 2.

[219] Ex. 2.

[220] *See*, Ex. 1, Tab C, Figures 1.2-1 and 1.3-1.

temporary workspace has been requested.[221] A list of these areas is set forth in the Revised Preferred Route and Alignment for the LSr Project.[222]

C. Enbridge's Proposed Route Alternatives

135. Enbridge filed nine route alternatives in order to address environmental and constructability issues that were raised as to the originally-proposed LSr Project alignment.[223] Those nine Route Alternatives are:

Route Alternative 1: Coulee Crossing Alternative, Mile Post 805-4.[224]

136. The coulee crossing alternative shifts the point at which the pipeline would cross a small, frequently dry, streambed approximately 50 feet southwest from the location originally identified in the LSR PRP Application.[225] The alternative minimizes the environmental impact to the unnamed coulee and improves constructability of the project.[226]

Route Alternative 2: Donaldson Station Alternative, Mile Post 814.0.[227]

137. This alternative deviates from the existing right-of-way southwest of Donaldson Station and crosses under Minnesota Highway 11. The alternative route passes between an existing electrical substation and an abandoned residence, then turns east, crossing under a county road to re-enter the existing right-of-way along existing pipelines.[228] This alternative reduces congestion with existing utilities and pipelines in this area of the Donaldson Station. Further, as initially proposed, there would be insufficient space between the Donaldson Station property, and Minnesota Highway 11, to safely install the pipeline.[229]

Route Alternative 3: Farmstead Alternative, Mile Post 822.9.[230]

138. This alternative turns south of the existing right-of-way at point that is west of a group of farm buildings and the associated shelter belt.[231] The alternative was

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[221] Ex. 5; Ex. 1, Tab C at 1-3; Ex. 1, Tab C, Appendix A.

[222] Ex. 5.

[223] Ex. 8, at 10.

[224] Ex. 4, Tab 1.

[225] Ex. 9, at 9.

[226] *Id*.

[227] Ex. 4, Tab 2.

[228] Ex. 9, at 10-11.

[229] *Id*. at 11.

[230] Ex. 4, Tab 3.

[231] Ex. 10, at 9.

developed at the request of the landowner, so as to minimize the impact on the landowner's structures and shelter belt.[232]

Route Alternative 4: Farmstead Alternative, Mile Post 831.3.[233]

139. This alternative crosses under the existing pipeline at a point northwest of farmstead buildings and tree shelter belts located at Mile Post 831.3.[234] The LSr pipeline would then run along the north side of the existing right-of-way and then cross under the right-of-way at a point southeast of the Farmstead buildings and shelter belt.[235] Because there is insufficient space between the south side of the existing right-of-way, and the farmstead that is located at Mile Post 831.3, this alternative was developed to reduce impact to the farmstead property.[236]

Route Alternative 5: Revised Middle River Alternative, Mile Post 836.0.[237]

140. This alternative will employ a horizontal directional drill to cross under a private driveway, the Middle River and County Road 4.[238] Because of the close proximity of the driveway, river crossing and the county road at this location, the horizontal directional drill method is a superior alternative to traditional methods of construction a pipeline path.[239]

Route Alternative 6: Snake River Alternative, Mile Post 843.1.[240]

141. At Mile Post 843.1, the proposed LSr Project pipeline will parallel the southern-most existing pipeline in Enbridge's right-of-way at a distance of approximately 25 feet.[241] This alternative minimizes the amount of tree clearing required in this location, because the proposed pathway runs into a clear, workspace area that was established during the installation of a pipeline in 1984.[242] Further, this alternative also reduces the length of the proposed pipeline by approximately 300 feet.

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[232] *Id*.

[233] Ex. 4, Tab 4.

[234] Ex. 10, at 9.

[235] *Id*.

[236] *Id*.

[237] Ex. 4, Tab 5.

[238] Ex. 8, at 11.

[239] *Id*.

[240] Ex. 4, Tab 6.

[241] Ex. 8, at 11.

[242] *Id*.

Route Alternative 7: Fen Avoidance Alternative, Mile Post 853.5.[243]

142. For this alternative, the proposed LSr Project pipeline will cross under existing pipelines within the Enbridge right-of-way at a point near 60th Street N.W. in Viking, Minnesota, and run parallel to the northern-most existing pipeline at a distance of approximately 25 feet. Approximately 2,700 feet southeast of the initial crossing point, the pipeline would cross back under the existing pipelines, and continue to the southwest, parallel to the existing right-of-way.[244] Environmental survey work conducted by Enbridge revealed a sensitive wetland with the characteristics of a calcareous fen. Constructing the pipeline as initially proposed would adversely impact the fen and relocating the pipeline as proposed in this alternative will minimize that impact.[245]

Route Alternative 8: Red Lake River Alternative, Mile Post 864.2.[246]

143. For this alternative, the proposed LSr Project pipeline will cross under existing pipelines within the Enbridge right-of-way at Mile Post 864.2. This alternative has the effect of altering the location of the Horizontal Directional Drill (HDD) crossing of the Red Lake River.[247] The alternative was proposed so as to avoid existing structures on the southeast side of the HDD river crossing.[248]

Route Alternative 9: Railroad Crossing Alternative, Mile Post 896.0.[249]

144. This alternative alters the point at which the project crosses from the north side of the existing right-of-way to the south side of the existing right-of-way. This alternative improves the constructability of the proposed pipeline by avoid existing utility poles and providing a larger area for temporary workspace to affect the railroad crossing at Mile Post 896.[250]

145. As memorialized in an Order dated November 30, 2007, the PUC accepted all nine route alternatives.[251]

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[243] Ex. 4, Tab 7.

[244] Ex. 8, at 12.

[245] *Id*.

[246] Ex. 4, Tab 8.

[247] Ex. 9, at 11.

[248] *Id*., at 11-12.

[249] Ex. 4, Tab 9.

[250] Ex. 9, at 11.

[251] *See, In the Matter of the Application of Enbridge Energy for a Route Permit - Southern Lights Pipeline*, Docket No. PL-9/PPL-07-360, Order Accepting Items and Extending Deadlines (Nov. 30, 2007) (https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=4854127).

D. Enbridge's Assessment Pipeline Route Selection Under Minn. R. 7852.1900

1. Impact upon human settlement, existence and density of populated areas, existing and planned future land use, and management plans

146. The LSr PRP Application includes an Environment Assessment Supplement which details areas of human settlement, and the population density of those areas, along the proposed route. Municipalities located within one mile of the route are identified in Table 3.1-2.[252]

147. In Table 4.3.5-1 of the Application, Enbridge has identified 198 structures (residences and commercial buildings) located within 500 feet of the construction work area.[253] Possible construction impacts are noted in the application materials and Enbridge has outlined a series of steps to control dust near residences.[254] Further, Enbridge declares that construction activity will generally be limited to daylight hours so as to limit the noise level impacts that are associated with construction.[255]

148. The points at which the proposed route intersects a public road – something that occurs 134 times along the proposed route – are identified by jurisdiction[256] and by milepost[257] in the application materials. Similarly, the application materials detail the number and location of rail crossings.[258]

149. Current land use along the proposed route is identified and classified as open land, forest lands, agricultural lands, developed lands or wetlands-open water.[259] Tellingly, the amount of "developed land" that is affected by pipeline construction is .7 percent of the total land affected by the project. [260]

150. Data from the Minnesota Geological Survey and the Minnesota Department of Health's water well information database, reveals only one domestic well within 200 feet of the pipeline route.[261]

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[252] Ex. 1, Tab C, at 3-3.

[253] Ex. 1, Tab C, Table 4.3.5-1.

[254] Ex. 1, Tab C, Section 4.3.5.

[255] *Id.*

[256] Ex. 1, Tab C, Table 4.3.6-1.

[257] Ex. 1, Tab D, Appendix D.

[258] Ex. 1, Tab C, Table 4.3.6-2.

[259] Ex. 1, Section 4415.0140, at 2.

[260] Ex. 1, Tab C, Table 4.2-1.

[261] Ex. 1, Tab C, Section 8.3.3.

151. Enbridge continues to search for the location of additional, non-registered wells, if any, within 200 feet of the pipeline route.[262]

152. During public hearings, an Enbridge representative confirmed that if cased wells are later discovered within the 150 foot setback area along the pipeline route, Enbridge will, at its expense, either adjust the location of the pipeline or relocate the well to a different part of the property outside of the setback area.[263]

153. Enbridge's survey and easement processes include providing landowners with a pre-printed checklist of important features and characteristics of the landowner's property – including the location of wells. Enbridge uses such individualized checklists when conferring with landowners and making alignment and work space decisions along the pipeline route.[264]

2. Impact upon the natural environment, public and designated lands; including, natural areas, wildlife habitat, water and recreational lands[265]

154. Enbridge has assembled a thorough catalogue of the typography, soils, habitats, ecological systems and water resources traversed by the LSr pipeline route. [266]

155. The proposed pipeline route crosses two state-designated canoe and boating routes[267] and comes within ½ of a mile of a state wildlife management area.[268] Any impacts upon water crossings can be mitigated by implementation of the EMP.[269]

156. Vegetation cover will be removed from the right-of-way and temporary workspace areas during construction, but restored following the completion of construction.[270]

157. Similarly, Enbridge representatives testified that they recognize the aesthetic value and sheltering benefits ornamental trees; and pledged that the Applicant

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[262] *Id; Testimony of Michael Harris*, Pennington County Public Hearing Transcript, at 39-40; *compare also, Testimony of Paul Meneghini*, Pennington County Public Hearing Transcript, at 40-41.

[263] *Testimony of Michael Harris*, Pennington County Public Hearing Transcript, at 40.

[264] *See*, Ex. 12; Marshall County Public Hearing Transcript, at 25-26.

[265] Minn. R. 7852.1900 (3)(B) (2007).

[266] Ex. 1, Section 4415.0145; Ex. 1, Tab C, Sections 2, 5, 6, 7, 8, 9 and 11.

[267] Ex. 1, Tab C, Section 11.1.

[268] Ex.1, Tab C, Section 11.1.2.

[269] Ex. 1, Tab D, Appendix B at 10-13.

[270] Ex. 1, Section 4415.0145, at 4; Ex. 1, Tab D, Appendix B, Section 7.7, at 28.

will hire consultants, if necessary, to accurately appraise the value of any trees taken during the construction process.[271]

158. Installation of the pipeline will occur below ground, generally, at a depth of 10 feet. For most of the pipeline route, this depth is above the water table.[272]

159. Enbridge has detailed the measures it will use to prevent groundwater contamination and disruption to water resources in the accompanying Spill Prevention, Contaminant and Control Plan and the Environmental Mitigation Plan.[273]

3. Impact upon lands of historical, archeological or cultural significance[274]

160. Enbridge's review of files from the Minnesota State Historic Preservation Office has revealed one site of archeological significance within the proposed construction corridor.[275] Any routing permit issued by the Commission should condition installation on measures to avoid, minimize or mitigate adverse impacts to this site.[276]

4. Impact upon economies within the route including agricultural, commercial or industrial, forestry, recreational and mining operations[277]

161. Approximately 1,177 acres of agricultural land, 44 acres of timber and 9.8 acres of developed land (including both residential and commercial properties), will be disturbed during construction and installation of the LSr pipeline.[278]

162. Under the accompany mitigation plans, Enbridge has pledged to compensate (or provide other value) to landowners for damage caused by construction activity, installation-related crop loses, damage to drainage systems, clearing of otherwise merchantable timber or impacts to gravel deposits.[279]

163. The impact of pipeline construction upon roads and transportation resources is likely to be minimal. Construction disturbances at open-cut road crossings

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[271] *Testimony of Michael Harris*, Pennington County Public Hearing Transcript, at 40; *see also, id.* 43-51.

[272] Ex. 1, Section 4415.0145, at 5.

[273] Ex. 1, Section 4415.0145, at 5; Ex. 1, Tab C, Section 9; Ex. 1, Tab D, Appendix C.

[274] Minn. R. 7852.1900 (3)(C) (2007).

[275] Ex. 1, Section 4415.0145, at 7; Ex. 1, Tab C, Section 10.1.

[276] Ex. 1, Section 4415.0145, at 7.

[277] Minn. R. 7852.1900 (3)(D) (2007).

[278] Ex. 1, Tab C, Sections 3.2.4, 4.2 and 4.3.

[279] Ex. 1, Tab C, Section 3.2.4; Ex. 1, Tab C, Section 4; Ex. 1, Tab D, Appendix E; *see also, Testimony of Paul Meneghini*, Marshall County Public Hearing Transcript,, at 43-44; *Testimony of Jerrid Anderson*, Red Lake County Public Hearing Transcript, at 43-44

will typically be limited to one day. Further, Enbridge pledges that, with the exception of brief periods during the process of laying the new pipeline, it will maintain at least one traffic lane, or establish a detour, on the roads where construction activities occur.[280]

164. Additionally, during the public hearing hearing in Oklee, Minnesota, representatives of Enbridge pledged, that to the extent feasible, heavy construction-related loads will be transported on state trunk highways rather than on lower capacity county highways and townships roads. [281] Likewise, Enbridge stated that it will provide highway officials in the affected counties a 30-day advance notice of the start of construction.[282]

5. Pipeline cost and accessibility[283]

165. In 2006 U.S. dollars, Enbridge has estimated the cost of the Minnesota portion of the LSr project to be $125.5 million.[284]

166. Access to the pipeline right-of-way will be from either public roadways or approved access roads.[285]

6. Use of existing right-of-way and right-of-way sharing or paralleling[286]

167. With the exception of a few discreet instances, where the site-specific conditions made placement of the pipeline in the existing right-of-way inappropriate,[287] Enbridge has proposed to use the south-western edge of the right-of-way as the pathway for most of the LSr project.[288] Enbridge proposes to leverage "co-location" on the existing right-of-way throughout its suggested route.

7. Impact upon natural resources and features[289]

168. The topography of the proposed pipeline route is characterized by gently rolling till plains.[290]

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[280] Ex. 1, Tab C, Section 4.3.6, pp. 4-6.

[281] Red Lake County Public Hearing Transcript, at 37-41.

[282] *Id.* at 39.

[283] Minn. R. 7852.1900 (3)(E) (2007).

[284] Ex. 1, Section 4415.0115, subp. 4, D.(3), at 2; *see also,* Ex. 200, Section 7853.0230.

[285] Ex. 1, Tab D, Appendix B, Section 2.1, p. 3.

[286] Minn. R. 7852.1900 (3)(F) (2007).

[287] Ex. 1, Tab C, Section 2.3.1, p. 2-3.

[288] *Id.*

[289] Minn. R. 7852.1900 (3)(G) (2007).

[290] Ex. 1, Tab C, Section 5.1.

169. The elevation of the LSr pipeline route varies from a low point of 766 feet above sea level in Kittson County to a high point of 1,369 feet above sea level in Clearwater County.[291]

8. The extent to which human or environmental effects are subject to mitigation by regulatory control and by application of the permit conditions for pipeline right-of-way preparation, construction, cleanup, and restoration practices[292]

170. If approved for a pipeline routing permit, the LSr Project will be subject to a pyramiding series of regulatory controls – beginning with the Commission's requirements and continuing with further restrictions regulating road crossings, water crossings, water discharge, protection of endangered species and protection of sites of historical significance.[293]

171. Enbridge has also developed substantial environmental and impact mitigation plans as part of the Environmental Assessment Supplement to the LSr PRP Application.[294] Compliance with these mitigation plans[295] should be a condition of a routing permit issues for the LSr Project.

172. Likewise, imposition of the fourteen permit conditions set forth in Minn. R. 7853.3600, to the LSr Pipeline Routing Permit, will provide still further protection against adverse impacts to humans or the environment.[296]

9. Consideration of cumulative potential effects of related or anticipated future pipeline construction[297]

173. The Revised Preferred Route and Alignment filed by Enbridge on October 10, 2007 describes a 500 foot route width that will accommodate either, or both, of the LSr and Alberta Clipper pipelines, if approved by the Commission.[298]

174. The proposed routes of the LSr and Alberta Clipper Projects are adjacent and parallel.[299]

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[291] *Id.*

[292] *See,* Minn. R. 7852.1900 (H) and 7852.3600 (2007).

[293] *See,* Ex. 200, Section 7853.0230 at 7-9; Ex. 207 at 23-24.

[294] Ex. 1, Tab C, Appendices B, C, E, F and G.

[295] Ex. 1, Tab C, Appendix B at 26-29 and 31; Ex. 1, Tab C, Appendix E at 59.

[296] Minn. R. 7852.3600 (A) – (N) (2007). Enbridge requests that the "thirteenth and fourteenth conditions," relating the preservation of trees, shelterbelts and natural conditions, not be imposed "in a manner that would interfere with the safe operation, inspection, and maintenance of the LSr Project or compliance with federal pipeline safety regulations…." This request is reasonable and consonant with the underlying rule. *Compare,* Minn. R. 7852.3600 (M) and (N) (2007).

[297] Minn. R. Minn. R. 7852.1900 (3)(I) (2007).

[298] Ex. 5; Ex. 6 at 1.

175. Enbridge states that beyond the proposed LSr and Alberta Clipper Projects, it does not currently have plans for pipeline construction in Minnesota.

10. Consideration of the relevant applicable policies, rules and regulations of other state and federal agencies, and local government land use laws including ordinances adopted under Minn. Stat. § 299J.05, relating to the location, design, construction or operation of the proposed pipeline and associated facilities[300]

176. Construction of the LSr pipeline will require consultation with federal, state and local government agencies. Specifically, Enbridge has identified 31 permits, licenses or plans that must be obtained, approved and filed prior to undertaking project-related construction.[301]

177. The record does not support a finding that Enbridge cannot – or will not – abide by federal, state or local requirements relating to the construction of the proposed pipeline.[302]

CONCLUSIONS

I. ANALYSIS OF THE NEED FOR THE PROPOSED FACILITY

1. The Public Utilities Commission and Administrative Law Judge have jurisdiction to consider Enbridge's application for a Certificate of Need and a Routing Permit. Minn. Stat. §§ 14.50 and 216B.243.

2. Minn. Stat. § 216B.243 governs certificates of need for large energy facilities, including crude oil pipelines.

3. Minnesota Rules Part 7853 governs the application process and Minn. R. 7853.0130 sets for the showing that must be made in order for issuance of a Certificate of Need to be proper.

4. Under Minn. R. 7853.0130, the Certificate of Need application, alongside accompanying comments and filings, is assessed according to a four-factor test. Those factors are:

(a) the probable result of denial would adversely affect the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;

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[299] *Compare*, Exhibits 5 and 115.

[300] Minn. R. Minn. R. 7852.1900 (3)(J) (2007).

[301] Ex. 1, Section 4415.0165, at 1-2.

[302] *Compare generally,* Ex. 207 at 23-24.

(b) a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant;

(c) the consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate; and

(d) it has not been demonstrated on the record that the design, construction, or operation of the proposed facility will fail to comply with those relevant policies, rules, and regulations of other state and federal agencies and local governments.[303]

A. The Future Adequacy, Reliability, or Efficiency of Energy Supply to the Applicant, to the Applicant's Customers, or to the People of Minnesota and Neighboring States

5. Petroleum demand in the West North Central Region, a group of seven states include Minnesota, is expected to rise.[304] Specifically, crude oil is in demand because it can be refined into various products that are sought-after in the marketplace; including, gasoline, diesel fuel, aviation fuel, heating oil and asphalt.[305]

6. While the Minnesota Legislature has established a schedule of emission reductions as state goals,[306] the methods by which Minnesota will reach these lower emission levels has yet to be determined. The Legislature has directed certain members of the Governor's Cabinet to develop and submit a "climate change action plan" for the Legislature's review – presumably, so that it may direct the emission reduction process through additional legislation.[307]

7. The demand for crude oil supplies in Minnesota (and the surrounding region) is not the result of promotional activities undertaken by Enbridge; but rather market demands from domestic oil shippers and refineries.[308]

8. The Enbridge Mainline System is currently operating at or near capacity.[309]

9. No existing or planned facilities can meet the future demand without a Certificate of Need.

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[303] Minn. R. 7853.0130 (A), (B), (C) and (D) (2007).

[304] Ex. 208 at 19 - 24.

[305] Ex. 208 at 18.

[306] *See*, Minn. Stat. § 216H.02 (1) (2006).

[307] *See,* Minn. Stat. § 216H.02 (2) (2006).

[308] Ex. 200, § 7853.0250 at 6.

[309] Ex. 200, § 7853.0510 at 1.

10. The net result of the LSr Project will be an increase in system capacity of 219,000 barrels-per-day. The 186,000 barrels-per-day LSr Project will eliminate the need to halt the system between the upstream portion of the Enbridge Mainline System in Alberta and Cromer, Manitoba to inject the light and medium crudes into the system.[310] If Enbridge were permitted to transport the now-segregated batches of light and medium density crude oil, along a dedicated pipeline, additional capacity would be realized for all grades of crude oil that are moved on the Enbridge Mainline System.[311] This additional capacity would relieve bottlenecks in the current system.

11. The best conclusion from the record is that a denial of the LSr CON Application would "constrain petroleum supply to Minnesota and surrounding regional markets, leading to higher petroleum prices . . . [which would] adversely affect the future adequacy, reliability, and efficiency of energy supply to the applicant, the applicant's customers, and to the people of Minnesota and neighboring states."[312]

B. A More Reasonable and Prudent Alternative to the Proposed Facility-Pipeline has Not Been Demonstrated By a Preponderance of the Evidence on the Record By Third Parties or Other Persons or Entities

12. Minn. R. 7853.0540 requires an applicant for a certificate of need to provide information regarding alternatives to the proposed project that were considered. Enbridge examined six alternatives to the LSr Project.[313]

13. No pipeline alternatives were introduced or established by any other person or party.

14. The alternatives considered were no action, trucking, rail transportation, pipeline system alternatives, alternative routes and alternative pipeline designs.

15. Because no action would tend to "constrain petroleum supply to Minnesota and surrounding regional markets, leading to higher petroleum prices," the no-action alternative is not a more reasonable and prudent alternative.

16. Enbridge reasonably concluded that the Minnesota portion of the highway system between Cromer, Manitoba and Clearbrook, Minnesota could not easily or well accommodate a fleet approximately 3,000 transport trucks each day.[314]

17. Due to the associated costs, environmental disruption and reduced safety, transportation of 186,000 barrels of oil per day by truck is not a reasonable alternative to the LSr Project.

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[310] Ex. 1 at § 4415.0170 at 1.

[311] Ex. 200, § 7853.0240 at 1; Ex. 203 at 9.

[312] Ex. 208 at 38.

[313] Ex. 200, § 7853.0540 at 1-15.

[314] Ex. 200, § 7853.0540 at 5-6, 10; Ex. 208 at 8-9.

18. Due to the associated costs, environmental disruption and reduced safety, transportation of 186,000 barrels of oil per day by rail is not a reasonable alternative to the LSr Project.[315]

19. The Keystone Pipeline is not a feasible alternative to the proposed LSr project because it does not connect to refinery markets in Minnesota, Wisconsin and Greater Chicago that would be served by the proposed LSr Project.[316]

20. Because following the route of the existing Lakehead System permits Enbridge to use existing pumping station equipment, and requires the least amount of additional new right-of-way, it is a reasonable option and the best alternative.[317]

C. The Consequences to Society of Granting the Certificate of Need are More Favorable than the Consequences of Denying the Certificate

21. The primary benefit of the LSr Project to Minnesota and the surrounding region is improved access to crude oil supplies. The proposed pipeline will fortify the claims of consumers of petroleum products – whether they are a refinery[318] or a later purchaser of refined products – against broader disruptions in the oil market.[319]

22. The LSr Project will allow the upstream portion of the Enbridge Mainline System to operate at its full annual capacity.[320] This increased crude oil transportation capacity will result in a more stable supply to refineries in Minnesota and the surrounding region.

23. The LSr Project will provide numerous socioeconomic benefits – including increased crude oil supplies, increased tax revenue and significant investments that will spur employment and spending in local communities.

24. Approval of the LSr CON Application will result in significant socioeconomic benefits over both the short and long terms.

25. The negative environmental consequences, such as disruption to cropland, damage during construction and potential oil spills can be mitigated (and in many cases fully remediated), through observance of the various plans accompanying the Enbridge Application.

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315 Ex. 208 at 8-9.

316 Ex. 200, § 7853.0540 at 2.

317 Ex. 200, § 7853.0540 at 2-4; Ex. 208 at 12.

318 Ex. 207 at 20-21; Ex. 200, § 7853.0240 at 3.

319 Ex. 200, § 7853.0240 at 6-7; Ex. 207 at 20-21; Ex. 208 at 34-37; *see also* Testimony of Adam J. Heinen, Contested Case Hearing Transcript at 58, 95 and 101-105.

320 Ex. 1 at § 4415.0170 at 1.

26. The socioeconomic benefits of constructing the LSr Project outweigh the effects of pipeline construction upon the natural environment.[321]

27. Denial of the LSr CON Application will result in a loss of the potential socioeconomic benefits and would "adversely affect the future adequacy, reliability and efficiency of energy supply to Enbridge's customers, the people of Minnesota, and surrounding states."[322]

D. The Design, Construction, and Operation of the Proposed Facility Will Comply with the Relevant Policies, Rules and Regulations of All Other Applicable Agencies and Governments

28. There is no indication in the record that the design, construction or operation of the LSr Project will fail to comply with the relevant policies, rules, and regulations of other state and federal agencies and local governments.[323]

E. Conclusion Regarding A Certificate Of Need For The LSr Project

29. The Public Utilities Commission should grant a certificate of need to Enbridge Pipelines (Southern Lights) L.L.C. and Enbridge Energy, Limited Partnership for the LSr Project.

II. ANALYSIS OF THE PROPOSED ROUTING

A. Regulatory Analysis

30. Minnesota Statutes Chapter 216G governs the routing of crude oil pipelines.

31. A pipeline may not be constructed in Minnesota without a Pipeline Routing Permit issued by the PUC.[324] Minnesota Rules Chapter 7852 provides the detailed requirements that an applicant must meet to receive a Pipeline Routing Permit.

32. Environmental review is a part of the Pipeline Routing Permit process. Under the rules of the Environmental Quality Board (EQB), "any pipeline reviewed under Chapter 4415[325] automatically satisfies EAW and EIS requirements."[326]

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[321] *See, e.g.,* Ex. 207 at 20-23.

[322] Ex. 207 at 8.

[323] *Compare,* Minn. R. 7853.0130 (D) (2007) with Ex. Ex. 207 at 24.

[324] Minn. Stat. § 216G.01 (2) (2006).

[325] The Environmental Quality Board formerly governed the pipeline routing process through Minnesota Rules Chapter 4415. Chapter 4415 was subsequently renumbered without substantive changes to Chapter 7852.

33. Under Minn. R. 7852.1900, the pipeline route application, alongside accompanying comments and filings, is assessed according to a ten-factor test. Those factors are:

(a) Human settlement, existence and density of populated areas, existing and planned future use, and management areas;[327]

(b) The natural environment, public and designated lands, including, but not limited to, natural areas, wildlife habitat, water and recreational lands;[328]

(c) Lands of historical, archeological, and culture significance;[329]

(d) Economies within the route, including agricultural, commercial or industrial, forestry, recreational and mining operations;[330]

(e) Pipeline cost and accessibility;[331]

(f) Use of existing rights-of-way and right-of-way sharing or paralleling;[332]

(g) Natural resources and features;[333]

(h) The extent to which human or environmental affects are subject to mitigation by regulatory control and by application of the permit conditions contained in Part 7852.3400 for pipeline right-of-way preparation, construction, clean up, and restoration practices;[334]

(i) Cumulative potential effects of related or anticipated future pipeline construction;[335] and,

(j) The relevant applicable policies, rules, and regulations of other state and federal agencies, and local government land use laws including ordinances adopted under Minn. Stat. § 299J.05, relating to the location,

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[326] *Guide to Minnesota Environmental Review Rules*, at 20 (http://www.eqb.state.mn.us/documents/rulguid3.pdf).

[327] Minn. R. 7852.1900 (3)(A) (2007).

[328] Minn. R. 7852.1900 (3)(B) (2007).

[329] Minn. R. 7852.1900 (3)(C) (2007).

[330] Minn. R. 7852.1900 (3)(D) (2007).

[331] Minn. R. 7852.1900 (3)(E) (2007).

[332] Minn. R. 7852.1900 (3)(F) (2007).

[333] Minn. R. 7852.1900 (3)(G) (2007).

[334] Minn. R. 7852.1900 (3)(H) (2007).

[335] Minn. R. 7852.1900 (3)(I) (2007).

design, construction, or operation of the proposed pipeline and associated facilities.[336]

34. Enbridge has carefully planned its proposed pipeline so as to minimize the impacts to human settlements, densely-populated areas and both existing and planned future land uses.

35. Enbridge has carefully planned its proposed pipeline so as to minimize the impacts to the natural environment, public lands and designated lands – including natural areas, wildlife habitat, water, and recreational lands.

36. Enbridge has carefully planned its proposed pipeline so as to minimize the impacts to lands of historical, archeological and cultural significance.

37. Enbridge has carefully planned its proposed pipeline so as to minimize the impacts to agricultural, commercial, industrial, forestry, recreational or mining operations.

38. Enbridge has carefully planned its proposed pipeline so as to minimize costs, consistent with an accessible and safely-operated pipeline.

39. Enbridge has carefully planned its proposed pipeline so as to maximize the use of existing right-of-way and right-of-way sharing or paralleling.

40. Enbridge has carefully planned its proposed pipeline so as to minimize the impacts to natural resources and naturally-occurring features.

41. As the Applicant acknowledges in its submissions, the benefits of the proposed projects can be maximized, and its adverse impacts reduced, by application of certain regulatory controls – including the permit conditions contained in Minn. R. 7852.3600 relating to pipeline right-of-way preparation, construction, cleanup and restoration practice.[337]

42. As noted above, Enbridge states that beyond the proposed LSr and Alberta Clipper Projects, it does not have plans for pipeline construction in Minnesota, nor is there other pipeline infrastructure that it could access so as to meet the stated need.

43. Enbridge has carefully planned its proposed pipeline so as to detail and meet the requirements of applicable policies, rules and regulations of local, state and federal agencies – including ordinances adopted under Minn. Stat. § 299J.05 that relate to the location, design, construction or operation of pipeline facilities.

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[336] Minn. R. 7852.1900 (3)(J) (2007).

[337] *Compare also,* Ex. 1, Section 7852.3000; Ex. 200, Section 7853.0230; Ex. 207 at 23-24.

44. The record of this proceeding demonstrates that Enbridge has satisfied the criteria set forth in Minn. Stat. § 216B.243 and Minn. R. 7853.0130.

45. No party or person has demonstrated by a preponderance of the evidence that there is a more reasonable and prudent alternative to the proposed pipeline.

46. The Applicant has conducted an appropriate environmental assessment consistent with Minn. R. 4415.0115 to 4415.0170 and met the requirements for alternative environmental review in Minn. R. 4410.3600

B. Width of the Stipulations of LSr Pipeline Routing Permit

47. Enbridge has addressed all the criteria set forth by Minn. R. 7852.1900.

48. The Commission should grant a Pipeline Routing Permit for the LSr Project. The permit should authorize construction and operation of the LSr Project within the Revised Preferred Route and Alignment and Route Alternatives.

49. The 500 foot wide Revised Preferred Route and Alignment is necessary to provide Enbridge with flexibility to place project infrastructure in the most appropriate manner and to minimize impacts upon landowners and the environment.[338]

50. Further a 500 foot wide route and alignment width is needed to permit safe and efficient operation of equipment if construction methods must be changed due to unforeseen developments.[339]

51. Any Pipeline Routing Permit issued to Enbridge should include the route alternatives listed above, as they are responsive to site-specific environmental concerns, landowner requests or pipeline constructability issues.

C. Stipulations of LSr Pipeline Routing Permit

52. While there is no evidence in the record to suggest that applicable regulatory requirements will not be met during the construction and operation of the LSr Project, compliance with such policies, rules and regulations should be made an explicit permit condition for the LSr Project.[340]

53. The Routing Permit should require Enbridge to attain all required local, state and federal permits and licenses, to comply with the terms of those permits or license, and to comply with all applicable rules and regulations.

54. Specifically, the Routing Permit should require Enbridge to comply with the:

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[338] Ex. 9, at 6-7; *see also,* Ex. 8 at 8.

[339] *Id*.

[340] *See generally,* Ex. 207 at 23-24.

(a) permit conditions listed in Minn. R. 7852.3600;

(b) permits listed in Ex. 200, § 7853.0230, as issued by the relevant regulatory agency or local authority;

(c) mitigation measures developed for the Berry, Carlson, Gunvalson and Kezar properties;

(d) Enbridge Environmental Mitigation Plan;[341]

(e) Enbridge Spill Prevention, Containment and Control Plan;[342]

(f) Enbridge Agriculture Mitigation Plan, as approved by the Minnesota Department of Agriculture;[343]

(g) Enbridge Petroleum-Contaminated Soil Management Plan;[344]

(h) Enbridge Drilling Mud Containment, Response, and Notification Plan.[345]

55. The Routing Permit should require Enbridge to confer with the Minnesota Historical Society prior to commencing construction at "Site 21MA39" to determine what mitigation measures can be made to preserve this archeological site. Moreover, the Commission should specify that Enbridge may not excavate at this site until so authorized by the Historical Society.[346]

56. With regard to depth of cover, Enbridge should be permitted to seek the waivers allowed by Minnesota Law in subdivisions 2 and 3 of Minn. Stat. § 216G.07.

57. The Routing Permit should require Enbridge to assume any additional costs of development that may be the result of installing roads, driveways and utilities that must cross the right-of-way.

58. The Routing Permit should require Enbridge to cooperate with all entities that have existing easements or infrastructure within the route to ensure minimal disturbance to existing or planned developments.

59. Any Finding of Fact that is more properly characterized as a Conclusion is incorporated here by reference.

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[341] Ex. 1, Tab D, Appendix B.

[342] Ex. 1, Tab D, Appendix C.

[343] Ex. 1, Tab D, Appendix E.

[344] Ex. 1, Tab D, Appendix F.

[345] Ex. 1, Tab D, Appendix G.

[346] Ex. 200, Section 7853.0610 at 7.

Based upon these Findings of Fact and Conclusions, and for the reasons stated in the accompanying Memorandum, the Administrative Law Judge makes the following:

RECOMMENDATIONS

1. Enbridge's Application for a Certificate of Need for a Crude Oil Pipeline known as the LSr Project should be GRANTED.

2. Subject to the conditions set forth in the Conclusions, Enbridge's Application for a Routing Permit for a crude oil pipeline known as the LSr Project, including the Revised Preferred Route and Alignment, should be GRANTED.

Dated: March 24, 2008

/s/ Eric L. Lipman
ERIC L. LIPMAN
Administrative Law Judge

Reported: Shaddix and Associates
Transcript prepared, 10 volumes

NOTICE

Notice is hereby given that, pursuant to Minn. Stat. § 14.61, and the Rules of Practice of the Minnesota Public Utilities Commission ("Commission") and the Office of Administrative Hearings, exceptions to this Report, if any, by any party adversely affected must be filed according to the schedule which the Commission will announce. Exceptions must be specific and stated and numbered separately. Proposed Findings of Fact, Conclusions and Order should be included, and copies thereof shall be served upon all parties. Oral argument before a majority of the Commission will be permitted to all parties adversely affected by the Administrative Law Judge's recommendation who request such argument. Such request must accompany the filed exceptions or reply (if any), and an original and 15 copies of each document should be filed with the Commission.

The Commission will make the final determination of the matter after the expiration of the period for filing exceptions as set forth above, or after oral argument, if one is held.

Further notice is hereby given that the Commission may, at its own discretion, accept or reject the Administrative Law Judge's recommendations and that the recommendations have no legal effect unless expressly adopted by the Commission as its final order.

MEMORANDUM

While the Findings and Conclusions above detail the Administrative Law Judge's analysis in this matter, one point deserves some additional exposition.

A key part of MCEA's opposition to granting a Certificate of Need in favor of the LSr Project, pivots on the meaning of the greenhouse gas control provisions of Minnesota Statutes Chapter 216H. In argument, and its later filings, MCEA asserts that granting the Certificate of Need is at odds with legislative direction to reduce statewide greenhouse gas emissions 15 percent below 2005 levels by 2015, and 80 percent below 2005 levels by 2050.[347] This argument is unavailing.

While the Minnesota Legislature has established the schedule of reductions as "goals," the methods by which our state will reach these lower emission levels has yet to be determined. What Minn. Stat. § 216H.02 does require, is that certain designated members of the Governor's Cabinet develop and submit a "climate change action plan" for the Legislature's review – presumably, so that the Legislature can direct the emission reduction process through additional legislation.[348] A "preliminary version" of the climate change action plan was submitted on February 1, 2008.[349]

Likewise important, none of the features of the preliminary plan suggests that the Certificate of Need requirements set forth in Minn. Stat. §§ 216B.243, subd. (3), have been abandoned, repealed or superseded in any way. Indeed, the preliminary plan recommends pursuing the hoped-for reductions in greenhouse gas emissions through government encouragement of "clean" and renewable energy technologies.[350]

For our purposes, in this case, it suffices to say that government encouragement of renewable energy technologies does not amount to a prohibition of, or restriction upon, the development of oil pipeline facilities. For this reason, until Chapter 216B is modified or repealed by the Legislature, its mutli-factor analysis continues to be the order of the day.

E. L. L.

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[347] *See*, Minn. Stat. § 216H.02 (1) (2006).

[348] *See*, Minn. Stat. § 216H.02 (2) (2006).

[349] *See*, Letter of Director Edward Garvey and Commissioner Brad Moore (February 1, 2008) (http://www.state.mn.us/mn/externalDocs/Commerce/Letter_for_preliminary_climate_change_action_plan_020508104727_MPCA-MDC%202-1-08.pdf).

[350] *See*, *Preliminary Climate Change Action Plan,* at 1-2 (February 1, 2008) (http://www.state.mn.us/mn/externalDocs/Commerce/Preliminary_Climate_Change_Action_Plan_020508104330_MN-CCAP%20Final%202-1-08.pdf).

MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS

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March 24, 2008

Burl W. Haar
Executive Secretary
MN Public Utilities Commission
350 Metro Square Building
121 Seventh Place E
St. Paul, MN 55101

Re: ***In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Certificate of Need for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project*;**
MPUC Docket No. PL-9/CN-07-464

and

***In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Route Permit for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project*;**
MPUC Docket No. PL-9/PPL-07-361
OAH Docket No. 8-2500-19094-2

Dear Parties:

The document listed below has been filed with the E-Docket system and served as specified on the attached service list.

Summary of Testimony at the Public Hearings, Findings of Fact, Conclusions and Recommendation

Sincerely,

/s/ Eric L. Lipman
ERIC L. LIPMAN
Administrative Law Judge

Telephone: (651) 361-7842

ELL:mo
Encl.
cc: All Parties on the Attached Service List

OAH Docket No. 8-2500-19094-2

MPUC Docket No. PL-9/CN-07-464 (Certificate of Need)
MPUC Docket No. PL-9/PPL-07-360 (Route)

MPUC Docket No. PL-9/CN-07-465 (Certificate of Need)
MPUC Docket No. PL-9/PPL-07-361 (Route)

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE PUBLIC UTILITIES COMMISSION

Service List as of March 21, 2008

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STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
ADMINISTRATIVE LAW SECTION
P. O. BOX 64620
ST. PAUL, MINNESOTA 55164-0620

CERTIFICATE OF SERVICE

Case Title: ***In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Certificate of Need for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project*** and ***In the Matter of the Application of Enbridge Pipelines (Southern Lights) LLC for a Route Permit for the Alberta Clipper Pipeline Project and the Southern Lights Crude Oil Pipeline Project***	**OAH Docket No. 8-2500-19094-2** **MPUC Docket No. PL-9/CN-07-464** **MPUC Docket No. PL-9/PPL-07-361**

Mary Osborn certifies that on the 24th day of March, 2008, she served a true and correct copy of the **Summary of Testimony at the Public Hearings, Findings of Fact, Conclusions and Recommendations**; by electronic mail (as indicated on the Service List) to the following individuals:

All Individuals on the Official Service List	

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Enbridge Pipelines (Southern Lights) L.L.C.
Pembina County LP Pipeline
Siting Application

Case No. PU-07-75

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

December 31, 2007

Appearances

Commissioners Susan E. Wefald, Tony Clark, and Kevin Cramer.

Brian R. Bjella, Attorney-at-Law, Fleck, Mather & Strutz, Ltd., 400 East Broadway, Suite 600, Bismarck, North Dakota 58502, on behalf of Enbridge Pipelines (Southern Lights) LLC.

William W. Binek, Chief Counsel, Public Service Commission, 600 East Boulevard, Bismarck, North Dakota 58505, on behalf of the Public Service Commission.

Patrick Fahn, Utility Analyst, Public Service Commission, 600 East Boulevard, Bismarck, North Dakota 58505 on behalf of the Public Service Commission.

Al Wahl, Administrative Law Judge, Office of Administrative Hearings, 1701 North 9th Street, Bismarck, ND 58501-1882, as Procedural Hearing Officer.

Preliminary Statement

On February 22, 2007, Enbridge Pipelines (Southern Lights) L.L.C. (Enbridge SL) filed a Letter of Intent with the Public Service Commission ("Commission"). Enbridge SL proposes to construct 28 miles of 20-inch liquid petroleum pipeline adjacent and parallel to its existing pipelines in Pembina County, North Dakota (LSr Line).

On March 7, 2007, the Commission acknowledged Enbridge SL's Letter of Intent, shortened the waiting period for filing the siting application to one day, and assessed a filing fee of $100,000.00 due upon filing of the application.

On April 16, 2007, Enbridge SL filed an application for a waiver of procedures and time schedules, and consolidated applications for a certificate of corridor compatibility and route permit authorizing the construction of the LSr Line.

On August 22, 2007, the Commission deemed the application of Enbridge SL complete and issued a Notice of Filing and Notice of Hearing scheduling a public hearing for October 2, 2007, at 1:30 p.m. at the Cavalier Law Enforcement Center, Lower Level Meeting Room, Courthouse Drive, Cavalier, North Dakota. The public hearing was held as scheduled in conjunction with Enbridge Energy Limited, Partnership Case No. PU-07-108.

Enbridge SL requests the Commission waive the procedures set forth in North Dakota Century Code §§ 49-22-08 and 49-22-08.1 to allow for single consolidated applications for corridor certificate and route permit for this project. Enbridge SL further requests that the Commission reduce the minimum width of the corridor for this project, from 2.8 miles, required under North Dakota Administrative Code § 69-06-04-02, to one mile.

The issues to be considered in this matter are:

1. Will the location, construction, and operation of the proposed pipeline produce minimal adverse effects on the environment, natural resources, and upon the welfare of the citizens of North Dakota?

2. Is the proposed pipeline compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed pipeline corridor and route minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

4. Is it appropriate for the Commission to waive the procedures as requested in the application including the request for a single consolidated application for Corridor Certificate and Route Permit?

On December 4, 2007 Enbridge notified the Commission of an archeological site next to the Red River of the North.

On December 7, 2007 Enbridge filed a copy of Contractual Resolution of Dispute Between the North Valley Water District and Enbridge Pipelines (Southern Lights, LLC), Enbridge Energy, Limited Partnership concerning nine locations where existing Enbridge Energy, Limited Partnership pipelines and the proposed LSr line will cross North Valley Water District water lines.

On December 20, 2007 Enbridge filed an alternative for the proposed pipeline route at the Tongue River crossing with a map showing the route for this pipeline on the north and east side of the existing pipelines and expanding the width of the existing maintained clear cut right-of-way approximately 50 feet on each side of the river crossing.

Having allowed all interested persons an opportunity to be heard and having heard, reviewed and considered all testimony and evidence presented, the Commission makes the following:

Findings of Fact

1. Enbridge SL is a limited liability company with its operations center located at 1401 Hammond Avenue, Superior, Wisconsin.

2. Enbridge LP operates the Lakehead System beginning at the international border near Neche, North Dakota. There are currently five pipelines operating as a part of this system. When combined with the Canadian portion of the system, they form the longest liquid petroleum pipeline in the world. These two systems together are referred to as the Enbridge Mainline System. The first pipelines were constructed in the 1950s.

3. The purpose of the LSr Line is to ship crude oil from Canada to markets in the United States primarily in the Minneapolis, St. Paul and Chicago areas. The LSr Line will transport light and medium crude petroleum from Cromer, Manitoba and deliver such supplies into the Lakehead System tank farm and terminal facilities at Clearbrook, Minnesota. At the Clearbrook terminal, the crude oil and other liquid hydrocarbons can be further transported by a non-affiliated connecting carrier (Minnesota Pipe Line) for redelivery to Minnesota refineries or delivered into Midwest refinery markets via the Lakehead System.

4. Western Canadian supplies of crude oil are expected to increase, due primarily to production of oil sands in the Province of Alberta. Such production is expected to more than double for the forecast period between 2010 and 2015. Additionally, the American demand for petroleum products as an energy source and for other purposes is growing, and will continue to escalate throughout the Midwest area as population increases and economic activity expands, despite energy conservation, use of alternative energy and efficiency measures. With this rising demand for petroleum products as domestic supplies decline, refiners are looking to supplies from Canada as economical and secure alternatives to oil production countries outside North America. Thus, this pipeline provides the capacity necessary for transporting such increasing

volumes of western Canadian crude oil supplies to the Midwest and helps reduce the United States' dependence on crude oil from the Middle East.

5. The proposed LSr pipeline project consists of approximately 313 miles of 20-inch diameter pipeline. The pipeline will originate at Cromer, Manitoba, Canada and terminate at Clearbrook, Minnesota. This pipeline will parallel the Alberta Clipper Pipeline which was also the subject of the joint hearing, Commission Case No. PU-07-108. The LSr Line will enter Pembina County near Neche and extend southeasterly for approximately 28 miles and cross the Red River approximately two miles northeast of Bowesmont, North Dakota.

6. The LSr Line will have an annual capacity of approximately 186,000 barrels per day. No new pumping stations will be constructed within the State of North Dakota.

7. During construction, Enbridge SL will require construction corridor of 140 feet. However, an extra temporary area of up to 75 feet may be required in locations such as where the pipeline approaches roads, railroads and water bodies. Anticipated construction start date for the LSr Line is June 2008. The estimated construction completion date is on or before December 31, 2008, with the pipeline placed in service on that date.

8. Installing the proposed LSr Line in the existing pipeline corridor allows Enbridge SL to minimize land disturbances.

9. The design, construction, and operation of the pipeline will conform to the Department of Transportation regulations prescribed in 49 CFR Part 195-Transportation of Hazardous Liquids by Pipeline.

10. North Dakota Administrative Code Chapter 69-06-08, sets forth certain criteria to guide the Commission in evaluating the suitability of granting an application for a certificate of corridor compatibility and route permit. The criteria as set forth in North Dakota Administrative Code Section 69-06-08-02, are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria. A transmission facility route must not be sited within an Exclusion Area. A transmission facility route must not be sited within an Avoidance Area unless the applicant shows under the circumstances there are no reasonable alternatives. In determining whether an Avoidance Area shall be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. In accordance with the Commission's Section Criteria, a transmission route shall be approved if it is demonstrated that no significant adverse impacts will result from the

location, construction, and maintenance of the transmission facility. In accordance with the Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits of the transmission facility.

11. Enbridge SL evaluated a corridor width of one-mile for the exclusion, avoidance, selection and policy criteria of the Commission.

12. Direct impacts on the local economy will be minimal due to the size and duration of the project. Construction of the pipeline may affect, but is not likely to jeopardize, the continued existence of any listed endangered species and is not likely to destroy or adversely modify critical habitat. The project will have no significant impact on fish and wildlife resources, and no endangered or threatened plant or animal species are known to occupy the proposed route.

13. A total of six previous archeological surveys have been completed that directly relate to the proposed pipeline route. A review of SHPO's files identified one archeological site, being a historical ox-cart trail referred to as an Angle Road, which has been determined eligible for nomination to the National Register of Historic Places. Previous Enbridge LP pipelines have avoided impacts to the site by using conventional boring construction methods. Enbridge SL also proposes to bore beneath Angle Road for construction of this pipeline project. Thus, the historic site will be avoided. Enbridge SL completed a Class III cultural resource inventory for the proposed route through consultation with the North Dakota State Historic Preservation Office (SHPO).

14. The U.S. Fish and Wildlife Service owns land included within the Juhl National Wildlife Management Area, which is crossed by existing Enbridge LP pipelines. Enbridge SL has reviewed its proposed route and determined it is possible to avoid the Juhl National Wildlife Management Area by making a slight route deviation within the corridor. Therefore, the proposed pipeline will avoid this area.

15. The Pembina River also will be crossed by the pipeline. The Pembina River has been designated on the National Rivers Inventory ("NRI"). Thus, state and federal agencies need to avoid or mitigate actions that would adversely affect designated NRI river segments. Enbridge SL witness Mark S. Sitek provided Exhibit 3 showing an amendment to the original route proposal at the Pembina River crossing and testified that Enbridge would utilize a horizontal directional drilling method to cross underneath the Pembina River. Sitek testified that, on the North side of the Pembina River, the directional drill would start far enough from the river to drill under all the trees.

16. The pipeline will also cross the Tongue River and the Red River of the North. Enbridge's original proposed route deviates approximately 200 feet south and west of

the existing maintained right-of-way. Enbridge SL's December 20, 2007 filing proposes an alternative pipeline route that would cross the Tongue River immediately adjacent to and on the north and east side of the existing maintained right-of-way using an open cut method. For this pipeline, a swath of trees approximately 50 feet wide would be cleared for construction. Enbridge SL has not completed an archeological survey for the alternative pipeline route at the Tongue River crossing. The results of the archeological survey will be presented to the SHPO and the Commission. In the event SHPO determines there are archeological findings that preclude use of the alternative pipeline route, Enbridge SL will cross the Tongue River using the original proposed route and will utilize a horizontal directional drilling method to cross underneath the Tongue River. The directional drill will start far enough from the river to drill under all trees.

17. Sitek provided Exhibit 5 showing an amendment to the original route proposal in order to go around a very deep pond.

18. Sitek provided Exhibit 6 showing an amendment to the original proposed route crossing the Red River of the North. The amended route proposes a crossing closer to existing pipelines owned by Enbridge Energy, Limited Partnership. Sitek testified that due to use of the horizontal directional drilling method at the crossing, all trees will be avoided.

19. The proposed pipeline route is located within 500 feet of three inhabited rural residences. Enbridge SL has obtained waivers from the owners of each of the residences to allow construction within 500 feet.

20. A cathodic protection system will be installed to prevent against corrosion. In addition, Enbridge SL will monitor flow of crude oil by a SCADA (Supervisory Control and Data Acquisition) system.

21. The vast majority of the land in the proposed corridor is agricultural land. Enbridge SL's application provides mitigation measures to minimize the impacts of construction on agricultural land.

22. Enbridge SL will work with landowners to make sure the appropriate amount of topsoil is being removed according to landowners' requirements and according to the requirements of the Commission.

23. An estimated 27 wetlands will be crossed by the route. No surface facilities will be installed within the wetlands as requested by the North Dakota Game and Fish Department. Enbridge SL anticipates issuance of a wetlands crossing permit by the U.S. Army Corps of Engineers. No wetlands will be permanently drained or filled as a

result of construction, and effects on wetlands are expected to be short term and minor. Enbridge SL's application describes mitigation measures to be implemented to minimize the impact of construction on wetlands.

24. The proposed pipeline will cross approximately 0.1 mile of wooded areas, primarily associated with the crossings of the Pembina and Tongue Rivers. Enbridge SL has agreed to reduce the width of the construction in wooded areas to 50 feet, to selectively cut and remove shrubs and trees within the work area leaving mature shrubs and trees in place where practical.

25. Enbridge SL consulted with the following state and federal agencies: the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, North Dakota Game and Fish Department, North Dakota State Health Department, North Dakota Department of Transportation, and the North Dakota State Water Commission. The North Dakota Game and Fish Department has reviewed the project and foresees no identifiable conflict with wildlife or wildlife habitat based on the information provided to it by Enbridge SL. The Department recommended measures to mitigate impacts to wetlands. The Department requested that every effort be made to prevent destruction of trees and shrubs, and that any of those removed be replaced at a two-to-one ratio. The North Dakota Game and Fish Department and the U.S. Fish and Wildlife Service have recommended that construction of major water body crossings be scheduled to avoid fish spawning periods. In addition, the U.S. Fish and Wildlife Service also recommended that construction of wetlands be scheduled to avoid disruption of waterfowl and other wildlife during the nesting season. Enbridge SL has incorporated all these requests into its construction plans.

26. Enbridge SL will utilize an environmental inspector on the project during active construction that will be responsible for overseeing contractor's compliance with the environmental requirements and permits during construction. The environmental inspector will have stop work authority.

27. After construction, Enbridge SL will conduct post construction monitoring of the project area until the right-of-way has been successfully restored and crossings stabilized. Post-construction monitoring will be conducted on all areas disturbed during construction to determine successful revegetation of all project areas.

28. Enbridge SL's Cultural Resource Report will be submitted to the SHPO. Enbridge SL anticipates SHPO concurrence with the report's recommendations.

29. Enbridge SL submitted Exhibit Nos. 3-6 at the hearing which identifies several minor re-routes. These re-routes are clear from any cultural resources.

30. Enbridge SL agreed to comply with the Tree and Shrub Mitigation Specifications submitted as Exhibit A at the hearing.

31. Enbridge SL intended to bury the proposed pipeline to a depth of 36 inches to top of pipe. However, at the hearing Enbridge SL agreed to bury the pipe a minimum depth from the ground surface to the top of the pipe of 48 inches in rangeland, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines.

32. Enbridge SL agreed to, prior to any construction, file with the Commission a list identifying private and new access roads that will be used or required during construction and a description of methods used by Enbridge SL to reclaim those access roads.

33. At the hearing, a representative on behalf of North Valley Water District testified with respect to its rural water lines which will cross under the proposed pipeline at approximately nine locations. Enbridge SL committed that it will work with the water district to minimize disruption to its rural water lines. Enbridge SL and the North Valley Water District have reached an agreement regarding mitigation measures needed at the nine crossings and have filed a copy of that agreement with the Commission.

34 On December 4, 2007 Enbridge notified the Commission of an archeological site next to the Red River of the North. Enbridge proposes to avoid impacting the site by boring under it. It is anticipated that the North Dakota SHPO will concurred with this recommendation.

35. The proposed pipeline was evaluated for the exclusion, avoidance, and selection of policy criteria. Based on this analysis, the Commission believes the proposed route is the best location for the pipeline.

36. North Dakota Century Code § 49-22-07.2 authorizes the Commission to waive procedures, time schedules, and public hearings otherwise required by the Siting Act, when the Commission finds that a proposed facility is of such length, design, location or purpose that it will produce minimal adverse effects.

From the foregoing Findings of Fact, the Commission now makes its:

Conclusions of Law

1. The Commission has jurisdiction over the applicant, Enbridge Pipelines (Southern Lights) L.L.C., and over the subject matter of this application under North Dakota Century Code Chapter 49-22.

2. Enbridge SL is a utility as defined in North Dakota Century Code Section 49-22-03(13).

3. The pipeline proposed by Enbridge SL is a transmission facility as defined in North Dakota Century Code Section 49-22-03(12).

4. Enbridge SL is required to obtain written waiver under North Dakota Century Code Section 49-22-05.1 to locate the pipeline within 500 feet of an inhabited rural residence.

5. The location, construction, and operation of the proposed pipeline will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

6. The proposed pipeline corridor and route are compatible with the environmental preservation and the efficient use of resources.

7. The proposed pipeline corridor and route will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.

8. The proposed project is of such design and location that it will produce minimal adverse effects, as defined under North Dakota Century Code Section 49-22-07.2.

From the foregoing Findings of Fact and Conclusions of Law, the Commission now makes its:

Order

The Commission orders:

1. Enbridge Pipelines (Southern Lights) L.L.C.'s application for waiver of procedures and time schedules is granted.

2. Enbridge SL is issued Certificate of Corridor Compatibility No. 99 and Route Permit No. 109 to construct the 28-mile, 20-inch transmission pipeline. The route that is approved for this purpose is the route identified on Exhibit D to the Application, as

supplemented by Exhibit Nos. 3-6 as submitted at the hearing and as amended by Enbridge's December 20, 2007 filing of the alternate route at the Tongue River crossing.

3. Enbridge SL shall obtain approval from the Commission or Commission staff prior to any changes or deviations to the pipeline route.

4. Certificate of Corridor Compatibility No. 99 and Route Permit No. 109 are effective for the life of the pipeline, but are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

5. Enbridge SL shall comply with all the rules and regulations of all other agencies having jurisdiction over any phase of the proposed project, and shall obtain all other necessary licenses and permits, and shall provide copies to the Commission prior to any construction.

6. Enbridge SL shall obtain written waivers from affected landowners for location of the pipeline within 500 feet of a residence, school, or place of business prior to any construction in those areas.

7. Enbridge SL shall conduct a preconstruction conference to be held prior to the commencement of any construction. The conference must include an Enbridge SL representative, Enbridge SL's construction supervisor, and Commission staff, to ensure that Enbridge SL fully understands the conditions set forth in this order.

8. Enbridge SL shall inform the Commission of the date construction will start just prior to the commencement of construction; report to the Commission on the date construction is started; and, once construction has started, shall keep the Commission updated on construction activities on a weekly basis.

9. Enbridge SL shall construct and operate the pipeline in the manner described in the application and at the hearing and in late filed exhibits and supplemental materials, and in accordance with all applicable safety requirements.

10. The pipeline must be buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in rangeland, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines.

11. All crossings of graded roads must be bored unless the responsible governing agency specifically permits Enbridge SL to open cut the road.

12. The alternative pipeline route proposed by Enbridge SL at the Tongue River is approved subject to completion of an archeological survey for the alternative pipeline route at Tongue River crossing and approval of the alternative pipeline route by SHPO. The alternative route will be adjacent to, parallel to, and northeast of existing pipelines. The crossing of the Tongue River will be open cut. The pipeline construction at the Tongue River shall avoid trees to the extent practicable. In the event SHPO determines there are archeological findings that preclude use of the alternative pipeline route, Enbridge SL will cross the Tongue River using the original proposed route and will utilize a horizontal directional drilling method to cross underneath the Tongue River. The directional drill will start far enough from the river to drill under all trees.

13. The width of the clear cuts through any wooded areas and shelterbelts must be kept at a maximum of 50 feet unless otherwise approved by the Commission.

14. Enbridge SL shall promptly report to the Commission the presence in the permit area of any critical habitat of threatened or endangered species, or of bald or golden eagles that Enbridge SL becomes aware of and that were not previously reported to the Commission.

15. Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage, unless adequate protection measures approved by the Commission are taken.

16. All cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office (SHPO) and approved by the SHPO prior to the start of any fieldwork or construction activity. If any cultural resource, paleontological resource, archeological resource, historical resource, or gravesite is discovered during construction of the facility, earth disturbing activities in the immediate vicinity of the discovery must be halted. The resource must be marked, preserved and protected from any further disturbance until a professional examination can be made in consultation with the SHPO. A report of such examination must be filed with the SHPO and the Commission. Clearance to proceed must be given by the SHPO and the Commission.

17. During construction, at least 12 inches of topsoil, where available (or topsoil to the depth of cultivation, whichever is greater), over and along trench areas where cuts will be made, must be stripped and segregated from subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. After backfilling is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must then be replaced over areas from which it was stripped only after the subsoil is replaced.

18. Reclamation and clean-up along the right-of-way must be continuous and coordinated with ongoing construction.

19. All pre-existing roads and lanes used during construction must be restored to a condition that will accommodate their previous use, and areas used as temporary roads during construction must be restored to their original condition.

20. Enbridge SL shall, prior to any construction, file with the Commission a list identifying private and new access roads that will be used or required during construction and file a description of methods used by Enbridge SL to reclaim those access roads.

21. Reclamation, fertilization and reseeding must be done by Enbridge SL according to the Natural Resource Conservation Service unless otherwise specified by the landowner and approved by the Commission.

22. Enbridge SL shall comply with the Commission's Tree and Shrub Mitigation Specifications submitted as Exhibit A at the hearing. The Commission may order additional plantings if, after three years from the anniversary of the plantings, survival rates of plantings are less than 75% after three years.

23. Enbridge SL shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the proposed transmission facility.

24. Enbridge SL shall provide the Commission with a hard copy and electronic copy of the pipeline alignment drawings with alignment data showing the pipeline as built, and an electronic version of the as-built pipeline alignment that can be imported into ESRI GIS mapping software, and shall provide this information within 3 months of the completion of the construction.

25. Enbridge SL's obligation for reclamation and maintenance of the right-of-way shall continue throughout the life of the pipeline.

PUBLIC SERVICE COMMISSION

Tony Clark **Commissioner**	**Susan E. Wefald** **President**	**Kevin Cramer** **Commissioner**

M O T I O N

December 31, 2007

Enbridge Pipelines (Southern Lights) L.L.C. **Case No. PU-07-75**
Pembina County LP Pipeline
Siting Application

I move the Commission adopt the Order and issue a corridor certificate and route permit in Enbridge Pipelines (Southern Lights) L.L.C.'s application for the construction of approximately 28 miles of 20-inch crude oil pipeline and associated facilities, all in Pembina County of North Dakota, Case No. PU-07-75.

PJF

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Corridor Compatibility

Number 99

This is to certify that the Commission has designated a transmission facility corridor for Enbridge Pipelines (Southern Lights) L.L.C. to construct and operate a 28-mile, 20-inch pipeline with associated facilities and pipeline interconnections in Pembina County, North Dakota.

The transmission facility corridor is designated by the Commission's December 31, 2007 Order in Case No. PU-07-75.

This certificate is subject to the conditions and limitations noted in that Order.

Bismarck, North Dakota, December 31, 2007.

ATTEST: ***PUBLIC SERVICE COMMISSION***

_____ _____

Executive Director ***Commissioner***

STATE OF NORTH DAKOTA

Route Permit

Number 109

This is to certify that the Commission has designated a transmission facility route for Enbridge Pipelines (Southern Lights) L.L.C. to construct and operate approximately 28 miles of 20-inch oil pipeline with associated facilities and pipeline interconnections in Pembina County, North Dakota.

The transmission facility route is designated by the Commission's December 31, 2007 Order in Case No. PU-07-75.

This permit is subject to the conditions and limitations noted in that Order.

Bismarck, North Dakota, December 31, 2007.

ATTEST: ***PUBLIC SERVICE COMMISSION***

_____ _____

Executive Director ***Commissioner***

NORTH DAKOTA PUBLIC SERVICE COMMISSION
December 31, 2007

Enbridge Pipelines (Southern Lights) L.L.C. **PU-07-75**
Pembina County LP Pipeline
Siting Application

Facility:	313 miles of 20-inch liquid petroleum pipeline extending from Cromer, Manitoba to Clearbrook MN. 28 miles of pipeline in North Dakota parallel to existing Enbridge pipelines. Also known as the LSr Project.
Purpose:	To transport crude oil from western Canada, North Dakota and Montana to U.S. markets.
Design	Flow rate: 207,000 barrels per day; maximum allowable pressure: 1440 pounds per square inch (gauge); maximum product temperature: 104 degrees Fahrenheit.
Cost estimate:	$31.5 million (ND portion).
Schedule:	Construction proposed to begin in April 2008. Estimated in-service date is December 2008.
History:	Letter of Intent filed February 22, 2007. Application for corridor certificate and route permit filed April 16, 2007. Hearing held October 2, 2007.

PJF

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Green Bay ES Field Office
2661 Scott Tower Drive
New Franken, Wisconsin 54229-9565
Telephone 920/866-1717
FAX 920/866-1710

September 29, 2006

Mr. Shaun Kavajecz
Supervisor, Environment Business Development
Enbridge Pipelines, Inc.
119 N. 25th Street East
Superior, Wisconsin 54880

re: Southern Lights Pipeline Project
Superior to Minnesota State Line
Douglas County, Wisconsin

Dear Mr. Kavajecz:

The U.S. Fish and Wildlife Service (Service) has received your letter dated August 29, 2006, requesting our comments on the subject project. Enbridge Energy, L.P. (Enbridge) has proposed construction of a new pipeline between Superior, Wisconsin, and Neche, North Dakota. The project is designed to carry a light weight petroleum product from refineries in the Chicago area to the oil sands region of Canada. This project will utilize a new 16- to 20-inch diluent pipeline being constructed between Superior, Wisconsin and Manhattan, Illinois concurrently with the Southern Access Project, but will also require the construction of a new corridor between Superior and Neche. The portion of this new pipeline that occurs within Wisconsin would cross Douglas County only. You requested our comments relative to impacts to federally-listed threatened and endangered species resulting from the subject project

The bald eagle is known to occur at multiple locations in Douglas County. We recommend that to avoid adverse effects to this species, Enbridge implement avoidance measures similar to those proposed for the Southern Access Project. These measures include a commitment to avoid construction activities within 0.25 mile of active bald eagle nests between February 15 and August 15. This approach would also require that you continue to coordinate with area biologists to ensure use of the most up-to-date information on nest locations. If Enbridge were to adhere to these procedures, you could avoid adverse effects to the bald eagle.

For the Southern Access Project, Enbridge proposed to implement protective measures for gray wolf den and rendezvous sites as recommended in the Wisconsin Wolf Management Plan. Though there are currently no known den or rendezvous sites in the vicinity of your Southern Lights Project corridor, we recommend you continue to coordinate with Mr. Adrian Wydeven of the Wisconsin DNR to obtain the most up-to-date information prior to construction. We

anticipate that if Enbridge were to follow the same procedures as will be implemented for the Southern Access Project, you could avoid adverse effects to the gray wolf.

In addition to the gray wolf and bald eagle, the Canada lynx, Kirtland's warbler, and piping plover are also known from Douglas County. There are no recent records of Kirtland's warbler or piping plover from Douglas County, and we are not aware of any suitable habitat for either species in the vicinity of your project corridor. The Canada lynx has historically been known from this area, but there are no recent records, and no evidence that the species is currently present in the state.

In summary, we recommend that you implement protective measures for the bald eagle and gray wolf for the Southern Lights Project which are similar to those to be implemented for Enbridge's Southern Access project. If measures of this type were to be implemented, it is likely that you could avoid adverse effects to the bald eagle and gray wolf. The Canada lynx, Kirtland's warbler, and piping plover are not currently known to be present in the vicinity of your project corridor.

We appreciate the opportunity to respond. Questions pertaining to these comments can be directed to Mr. Joel Trick at 920-866-1737.

Sincerely,

for Louise Clemency
Field Supervisor

Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5107 Fax: (651) 296-1811 E-mail: sarah.wren@dnr.state.mn.us

October 3, 2006

Mr. Joe Reinemann
Natural Resource Group, Inc.
1000 IDS Center, 80 South 8th Street
Minneapolis, MN 55402

Re: Request for Natural Heritage information for vicinity of proposed Southern Lights Pipeline; Aitkin, Beltrami, Carlton, Cass, Clearwater, Hubbard, Itasca, Kittson, Marshall, Pennington, Polk, Red Lake, and St. Louis Counties
NHNRP Contact #: ERDB 20070268

Dear Mr. Reinemann,

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within an approximate one-mile radius of the area indicated on the map enclosed with your information request. Based on this review, there are 135 known occurrences of rare species or native plant communities in the area searched (for details, please see the enclosed database printouts and the explanation of selected fields). Following are specific comments for **only those elements that *may* be impacted** by the proposed project. Rare feature occurrences not listed below are not anticipated to be affected by the proposed project.

Kittson County Pipeline Sections:

- A mesic prairie remnant has been documented within the right-of-way of the Burlington Northern & Santa Fe Railroad in T159N R48W Section 31 (boundaries can be downloaded from http://deli.dnr.state.mn.us). The 1997 Minnesota State Legislature directed the DNR to conduct a field review of active railroad rights-of-way (ROW) to identify native prairie. The DNR surveyed 3240 miles of railroad ROW, of which 487 discontinuous miles of native prairie were identified. These prairie fragments were ranked *very good*, *good*, or *fair* based on the coverage of native prairie plant species, abundance of woody shrubs, and level of disturbance (such as herbicide use or equipment storage). Because more than 99% of the prairie that was present in the state before settlement has been destroyed, and more than one-third of Minnesota's endangered, threatened, and special concern species are now dependent on the remaining small fragments of Minnesota's prairie ecosystem, we feel that all prairie remnants merit protection. As such, we recommend that environmentally sensitive construction techniques, such as directional boring/drilling be considered for this railroad crossing so that construction within the prairie area can be completely avoided. In addition, runoff from the project area should be diverted away from the prairie, and immediately following construction, disturbed areas should be planted with prairie species native to Minnesota, or some other non-invasive cover to decrease the opportunity for exotic species to invade the area.

Marshall County Pipeline Sections:

- The proposed pipeline runs adjacent to a wet brush-prairie native plant community in T155N R45W Section 7 and through a wet brush-prairie community known to support Northern Singlespike Sedge (*Carex Scirpoidea*), a special concern plant species, in T155N R45W Section 18 (please see the enclosed map; community boundaries can also be downloaded from http://deli.dnr.state.mn.us). A calcerous seepage fen known to support Sterile Sedge (*Carex sterillis*), a state-listed threatened plant species, is also located about 30 meters west of the pipeline in Section 18. Calcareous fens are designated as "outstanding resource value waters" in water quality regulations administered by the MPCA (Minnesota Rules part 7050.0180) and they are given special protection through Minnesota Rules part 8420.1010 - 8240.1060. The Wetlands Conservation Act, authorized by Minnesota Statutes 103G.223, states that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by any activity, except as provided for in a management plan approved by the commissioner of the Department of Natural Resources. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Therefore impacts to groundwater in the vicinity of the fen also need to be taken into account during project design. If the fen could be impacted in any way by construction of the pipeline, you will need to consult with Wetlands Program Coordinator, Doug Norris (651/296-0779) and Regional Hydrologist, Larry Kramka (218/755-3973) regarding preparation of a management plan.

Pennington County Pipeline Sections:

- The proposed pipeline passes through a mixed cattail marsh native plant community within a "Site of Outstanding Biodiversity Significance" in T154N R44W Section 18 (please see the enclosed map; community and site boundaries can also be downloaded from http://deli.dnr.state.mn.us). "Sites of Biodiversity Significance" are areas with varying levels of native biodiversity that may contain high quality native plant communities, rare plants, rare animals, and/or animal aggregations. Outstanding ranking sites are defined as sites containing the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state. A special concern bird species, the Nelson's sharp-tailed Sparrow (*Ammodramus nelsoni*), has been documented in this cattail marsh community during the breeding season. To protect this ecologically significant site, disturbance in this area should be minimized in all ways possible. This may include, but is not limited to, the following: (1) As much as possible, operate within already-disturbed areas; (2) Minimize vehicular disturbance in the area (allow only vehicles necessary for pipeline installation); (3) Inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of exotic species; (4) Do not park equipment or stockpile supplies in the area; (5) If possible, do work in autumn or winter, to avoid damaging plants during the growing season; (6) Reduce runoff by completing the work as rapidly as possible and using erosion control measures such as straw bales or silt fencing; (7) Revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible, to decrease the opportunity for exotic species to invade the area; (8) Use only invasive free mulches, topsoils, and seed mixes.

- Creek Heelsplitter (*Lasmigona compressa*), Black Sandshell (*Ligumia recta*), and Fluted Shell (*Lasmigona costata*) mussels, all special concern species, have been documented in the Red Lake River in the vicinity of the proposed river crossing in T1153N R43W Section 29. Freshwater mussels are declining nation-wide and have been described as one of North America's most imperiled groups of animals. In Minnesota, 25 of our 48 native mussel species are listed as either endangered, threatened, or of special concern. The primary reason behind the decline is the

degradation of our lakes and rivers as a result of runoff and physical changes such as damming, channelization, and dredging. Mussels are particularly vulnerable to deterioration in water quality, especially increased siltation. Threats from stream crossings include crushing from heavy equipment or rip rap, stranding from dewatering, and smothering from sediment loading. Both mussels beds located at a crossing location and beds located downstream of a crossing site could be impacted by increased sedimentation. To protect mussels and other aquatic resources in the Red Lake River, we recommend that environmentally sensitive construction techniques, such as directional boring/drilling be considered for this crossing. We recognize that other DNR staff may raise concerns about additional crossing sites and that boring/drilling may not be feasible at all sites. As such, we recommend that all resource concerns be taken into account when determining which stream segments are the most sensitive and ultimately should require boring/drilling.

Red Lake & Polk County Pipeline Sections:

- Several mesic and wet prairie remnants have been documented within the right-of-way of the Canadian Pacific Railway in T150N R41W Section 1 and T150N R40W Sections 6-8, 9, & 16 (boundaries can be downloaded from http://deli.dnr.state.mn.us). To protect these prairie remnants, we request that pipeline construction occur outside of the railroad right-of-way and that there not be any driving or parking of vehicles or stockpiling of equipment/materials within prairie areas. In addition, runoff from the project area should be diverted away from the prairie, and immediately following construction, disturbed areas should be planted with prairie species native to Minnesota, or some other non-invasive cover to decrease the opportunity for exotic species to invade the area.

- Creek Heelsplitter mussels, a special concern species, have been documented in the Lost River in the vicinity of the proposed river crossing in T150N R41W Section 21. To protect mussels and other aquatic resources in this river, we recommend that environmentally sensitive construction techniques, such as directional boring/drilling be considered for this crossing. However, as noted above, we recognize that other DNR staff may raise concerns about additional crossing sites and that boring/drilling may not be feasible at all sites. We recommend that all resource concerns be taken into account when determining which stream segments are the most sensitive and ultimately should require boring/drilling.

Beltrami County Pipeline Sections:

- Creek Heelsplitter mussels have been documented in the Clearwater River in the vicinity of the proposed river crossing in T148N R35W Section 29. To protect mussels and other aquatic resources in this river, we recommend that environmentally sensitive construction techniques, such as directional boring/drilling be considered for this crossings. However, as noted above, we recognize that other DNR staff may raise concerns about additional crossing sites and that boring/drilling may not be feasible at all sites. We recommend that all resource concerns be taken into account when determining which stream segments are the most sensitive and ultimately should require boring/drilling.

Cass County Pipeline Sections:

- As you may know, several state-listed *Botrychium* species have been documented within the existing Enbridge pipeline right-of-way in Cass County. A detailed rare plant mitigation plan was previously prepared for populations to be impacted by the Enbridge Terrace III Expansion Project between Cass Lake and Bena. Annual monitoring of affected areas through 2008 was one

of the conditions included in the takings permits issued by the DNR for that project and related maintenance activities. Please note that data from the monitoring reports have not yet been entered into the Natural Heritage Database, so the enclosed database printouts do not contain a complete representation of *Botrychium* locations along the pipeline corridor. An assessment of whether any of the state-listed threatened or endangered *Botrychium* species will be impacted by construction of the new pipeline needs to be conducted, including any that were transplanted under the previous permits for Enbridge projects. For areas that are already being surveyed as part of ongoing monitoring efforts, no additional survey work will likely be needed; however, you will need to do a thorough review of the most current (2006) monitoring results to determine where there are extant *Botrychium* populations. Please note that we would have serious concerns if the new pipeline were to impact any of the populations included in the monitoring project. Not only is the monitoring project providing valuable insight into the ecology of *Botrychium* species and their response to disturbances such as transplantation, soil mixing, and shade loss, but it is also an obligation that needs to be upheld under the takings permits issued for the Terrace III and maintenance projects.

Survey work will be required in all construction areas that contain potential habitat for *Botrychium* species and are not covered by current monitoring efforts. Given the difficulty of identifying species within the genus *Botrychium*, this survey work must be conducted by a botanist with demonstrated experience identifying *Botrychium* species. Please contact me if you need a list of potential contractors, or if you have any other questions about the information presented above. Ongoing coordination on this endangered species issue will be needed and I would appreciate being kept informed as project planning in the Cass County area proceeds. Please be advised that a permit and approved mitigation plan will be required for any taking of threatened or endangered *Botrychium* species associated with the Southern Lights project.

- Bald Eagle (*Haliaeetus leucocephalus*) nesting areas have been documented in the vicinity of the pipeline alignment in T145N R30W Section 15, T145N R29W Section 21, T145N R27W Section 34, and T144N R26W Section 4. Bald Eagles are a species of special concern in Minnesota and are federally listed as threatened. Eagles often build several nests in a territory and use different nests in different years, so the potential exists for eagles to use these nest sites again in the future. Please refer to the enclosed fact sheet which provides background information regarding habitat use, life history, and reasons for this species' decline, as well as information regarding what activities should be avoided within various distances of a nest site. Please contact Regional Nongame Specialist, Katie Haws at 218- 755-2976 or the U.S. Fish & Wildlife Service at 612-725-3548 if you have any questions about the implementation of these guidelines.

<u>Itasca County Pipeline Sections:</u>

- A Bald Eagle nesting site has been documented approximately 700 feet north of the proposed pipeline alignment in T144N R26W Section 1. Please refer to the enclosed fact sheet mentioned above and contact Regional Nongame Specialist, Maya Hamady at 218-327-4518 or the U.S. Fish & Wildlife Service at 612-725-3548 if you have questions about implementation of the guidelines.

- Black Sandshell mussels, a special concern species, have been documented in the Prairie River and in the Swan River in the vicinity of the proposed river crossings in T55N R25W Section 14 and T54N R23W Section 33, respectively. To protect mussels and other aquatic resources in these rivers, we recommend that environmentally sensitive construction techniques, such as directional boring/drilling be considered for these crossings. However, as noted above, we

recognize that other DNR staff may raise concerns about additional crossing sites and that boring/drilling may not be feasible at all sites. We recommend that all resource concerns be taken into account when determining which stream segments are the most sensitive and ultimately should require boring/drilling.

St. Louis & Carlton County Pipeline Sections:

- The proposed pipeline crosses through or adjacent to several areas identified by the Minnesota County Biological Survey as "Sites of Moderate Biodiversity Significance" in the southeast portion of the project area in St. Louis County and the northwest portion of the project area in Carlton County (boundaries can be downloaded from http://deli.dnr.state.mn.us). These particular sites contain aspen-birch forests, northern hardwood forests, conifer bogs, cedar swamps, wet meadows, ash and alder swamps, and rich and poor fens. To protect these ecologically significant areas, disturbance in these areas should be minimized in all ways possible. This may include, but is not limited to, the following: (1) As much as possible, operate within already-disturbed areas; (2) Minimize vehicular disturbance in the area (allow only vehicles necessary for installation); (3) Inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of exotic species; (4) Do not park equipment or stockpile supplies in the area; (5) If possible, do work in autumn or winter, to avoid damaging plants during the growing season; (6) Reduce runoff by completing the work as rapidly as possible and using erosion control measures such as straw bales or silt fencing; (7) Revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible, to decrease the opportunity for exotic species to invade the area; (8) Use only invasive free mulches, topsoils, and seed mixes.

The Natural Heritage database is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Department of Natural Resources. It is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. Its purpose is to foster better understanding and protection of these features.

Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by-county survey of rare natural features is now underway, and has been completed for Aitkin, Carlton, Cass, Kittson, Marshall, Pennington, Polk, and Red Lake Counties. Our information about native plant communities is, therefore, quite thorough for these counties. However, because survey work for rare plants and animals is less exhaustive, and because there has not been an on-site survey of all areas of each county, ecologically significant features for which we have no records may exist in these counties. The county-by-county survey is in progress for Hubbard and St. Louis Counties, but has not begun in Beltrami, Clearwater, and Itasca Counties.

The enclosed results of the database search are provided in two formats: short record report and long record report. To control the release of locational information, which might result in the damage or destruction of a rare element, both printout formats are copyrighted. The short record report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an Environmental Assessment Worksheet, municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the short record report for any other purpose, please contact me to request written permission. **The long record report includes more detailed locational information, and is for your personal use only. If you wish to reprint the long record report for any purpose, please contact me to request written permission.**

Please be aware that review by the Natural Heritage and Nongame Research Program focuses only on *rare natural features*. It does not constitute review or approval by the Department of Natural Resources as a whole. If you require further information on the environmental review process for other natural resource-

related issues, you may contact your Regional Environmental Assessment Ecologists, Paul Stolen, at (218) 755-4068 for NW Minnesota, or Dave Holmbeck, at (218) 327-4317 for NE Minnestoa.

An invoice in the amount of $522.85 will be mailed to you under separate cover within two weeks of the date of this letter. You are being billed for map and database search and staff scientist review. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Sarah Wren

Sarah D. Wren
Endangered Species Environmental Review Coordinator

encl: Database search results
Rare Feature Database Print-Outs: An Explanation of Fields
Fact sheets: Bald Eagle
Maps

cc: Dave Holmbeck
Paul Stolen

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

NOV - 2 2006

Ms. Tracy Szela
Natural Resources Group
1000 IDS Center
80th South 8th Street
Minneapolis, Minnesota 55402

Re: Enbridge Energy Company, Inc. Southern Lights Pipeline Project Pembina County, North Dakota

Dear Ms. Szela:

The U.S. Fish and Wildlife Service (Service) has reviewed the proposed pipeline project presented in an August 29, 2006, letter from Enbridge Energy Company, Inc. (Enbridge). The proposed pipeline will be constructed adjacent to an existing Enbridge pipeline system in Pembina County, North Dakota. The pipeline project involves the transportation of a light weight petroleum project, called diluent, from refineries in the Chicago area to the oil sands region of Canada. The North Dakota portion of the project consists of a 20-or 24-inch crude oil pipeline that will run between Neche, North Dakota, and Clearbrook, Minnesota. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), and the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et seq.).

The Service administers fee title and easement lands throughout North Dakota. A review of our county plat maps (photocopies enclosed) indicates Service property interests (fee title lands highlighted in green) are located along the pipeline route, (T. 162 N., R. 51 W., Section 32, NW¼). The Service requires that all wetlands and property interests under its jurisdiction be avoided during project construction, when possible. Special Use or right-of-way permits will be necessary for any construction resulting in impacts to wetlands protected by easements or fee title lands. The issuance of Special Use or right-of-way permits are subject to the final determination of a refuge compatibility review process. For specific information on Service property interests in Pembina County and to determine the need for permits, contact Roger Hollevoet, Project Leader, Devils Lake Wetland Management District, P.O. Box 908, 221 Second Street NW, Devils Lake, North Dakota 58301, (701-662-8611).

Our review of the National Wetland Inventory (NWI) maps and photographs indicate the proposed planning area includes numerous wetland basins and the Red River of the North,

Pembina River, and Tongue River. You may access the NWI data directly through their website (wetlands.fws.gov). The river reaches that the proposed pipeline will cross are classified by the North Dakota Game and Fish Department (Department) as a highest-valued fishery resource. These rivers have value for forage fish production and sport fisheries. To avoid impact to these important aquatic resources, the Service recommends that these river channels be crossed using directional boring techniques.

Projects which involve the burying of a pipeline should not significantly affect wetland basins or stream channels provided precautions are taken to restore natural basin contours. Precautions should also be taken during installation of underground facilities by sufficiently compacting trenches through the wetlands to prevent drainage along the trench or through bottom seepage. The Service recommends that construction through or adjacent to these areas be avoided where possible or measures be taken (e.g. directional boring) to minimize disturbance to these areas.

To minimize disturbance to fish and wildlife resources in the project area, the Service provides the following recommendations:

- Avoid construction in river channels during the fish migration and spawning period from April 15 - June 1 and use directional boring techniques for river crossings.
- Make no stream channel alterations or changes in drainage patterns.
- Defer the timing of construction to late summer (after July 15) or fall so as not to disrupt waterfowl or other wildlife during the nesting season and to avoid high water conditions.
- Locate construction to avoid placement of fill in wetlands along the route.
- Replace unavoidable losses of wetland habitat with functionally equivalent wetlands and trees/shrubs at a ratio of two planted for each one removed.
- Install and maintain appropriate erosion control measures to reduce sediment transport to adjacent wetlands and stream channels.
- Reseed disturbed areas with a mixture of native grass and forb species.

If construction routes intersect wetlands, streams, or rivers, the Corps of Engineers (Corps) may require a Department of the Army permit for the placement of dredge or fill material into waters of the U.S., including wetlands, or other impacts to navigable waters. We suggest you contact Mr. Daniel Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine the Corps' permit requirements.

To minimize the electrocution hazard to birds, the Service, with support from the Rural Utilities Service, recommends that new or updated overhead power lines be constructed in accordance

with the current guidelines for preventing raptor electrocutions. The recommended guidelines can be found in "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996". To increase power line visibility and reduce bird fatalities resulting from collisions with power lines, the Service recommends power lines that cross or run adjacent to rivers or large wetlands be modified according to "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994". Both publications can be obtained by writing or calling the Edison Electric Institute, P.O. Box 266, Waldorf, Maryland 20604-0266, (1-800-334-5453) or visiting their website at www.eei.org.

A list of federally endangered and threatened species that may be present within the proposed project's area of influence is attached. This list fulfills requirements of the Service under Section 7 of the Endangered Species Act.

If a Federal agency authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its delegated agent, is required to evaluate whether the action "may affect" listed species. If the Federal agency determines the action "may affect" listed species, then the responsible Federal agency shall request formal section 7 consultation with this office. If the evaluation shows a "no effect" determination on listed species, further consultation is not necessary. If a private entity receives Federal funding for a construction project, or if any Federal permit is required, the Federal agency may designate the fund recipient or permittee as its agent for purposes of section 7 consultation.

Thank you for the opportunity to comment on this project. If you require further information or the project plans change, please contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address above.

Sincerely,

Jeffrey K. Towner

Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosures

cc: Project Leader, Devils Lake WMD
Regulatory Office, Army Corps of Engineers, Bismarck
(Attn: D. Cimarosti)
Director, ND Game & Fish Department, Bismarck
(Attn: M. McKenna)

FEDERAL THREATENED AND ENDANGERED SPECIES
FOUND IN PEMBINA COUNTY
NORTH DAKOTA
November 2006

ENDANGERED SPECIES

Mammals

Gray wolf (Canis lupus): Occasional visitor in North Dakota. Most frequently observed in the Turtle Mountains area.

THREATENED SPECIES

Birds

Bald eagle (Haliaeetus leucocephalus): Migrates spring and fall statewide but primarily along the major river courses. It concentrates along the Missouri River during winter and is known to nest in the floodplain forest.

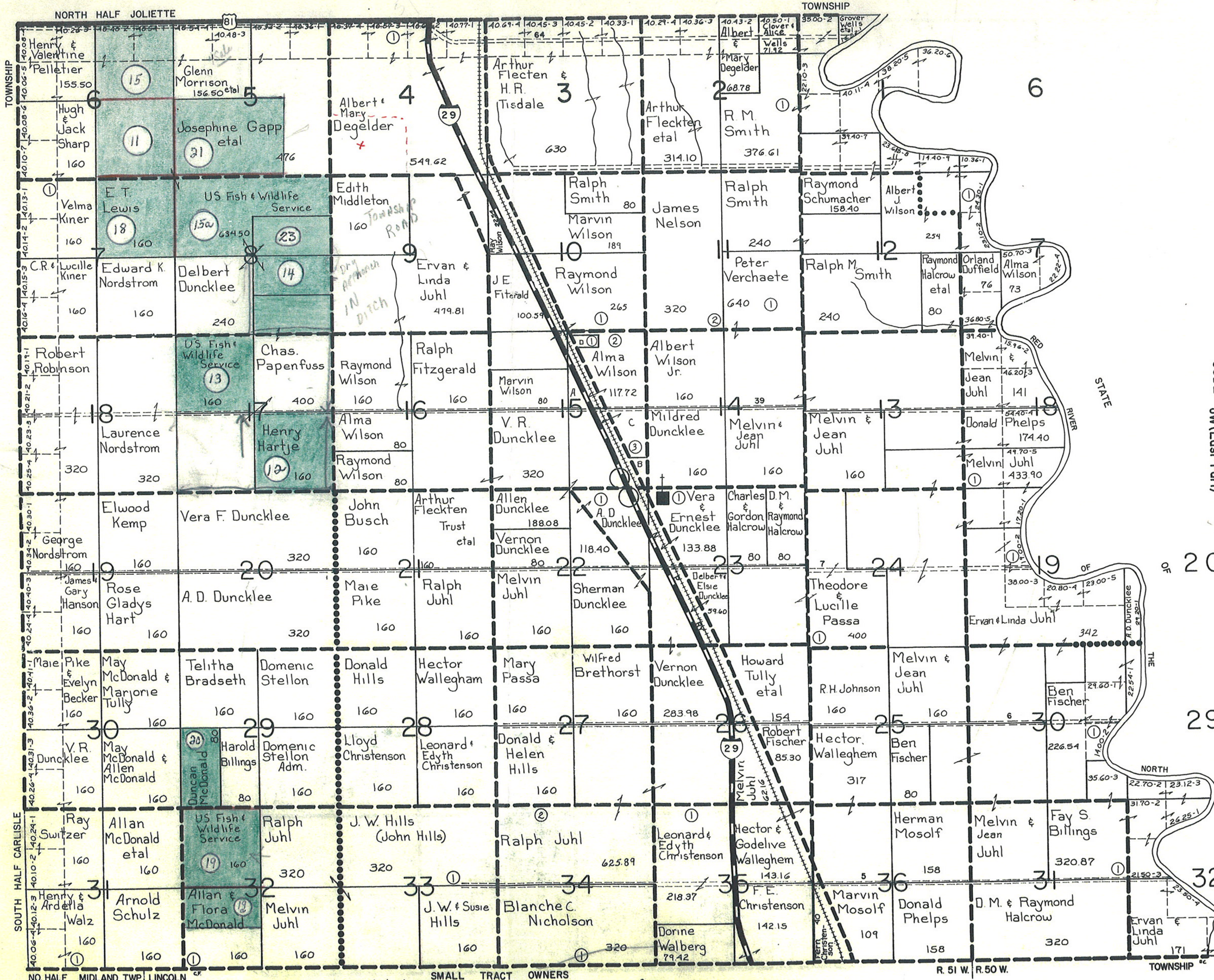
5828

JOLIETTE

TOWNSHIP : 161 N

CODE : JT (West Part) JW (East Part)

RANGE : 50 & 51 W



SMALL TRACT OWNERS

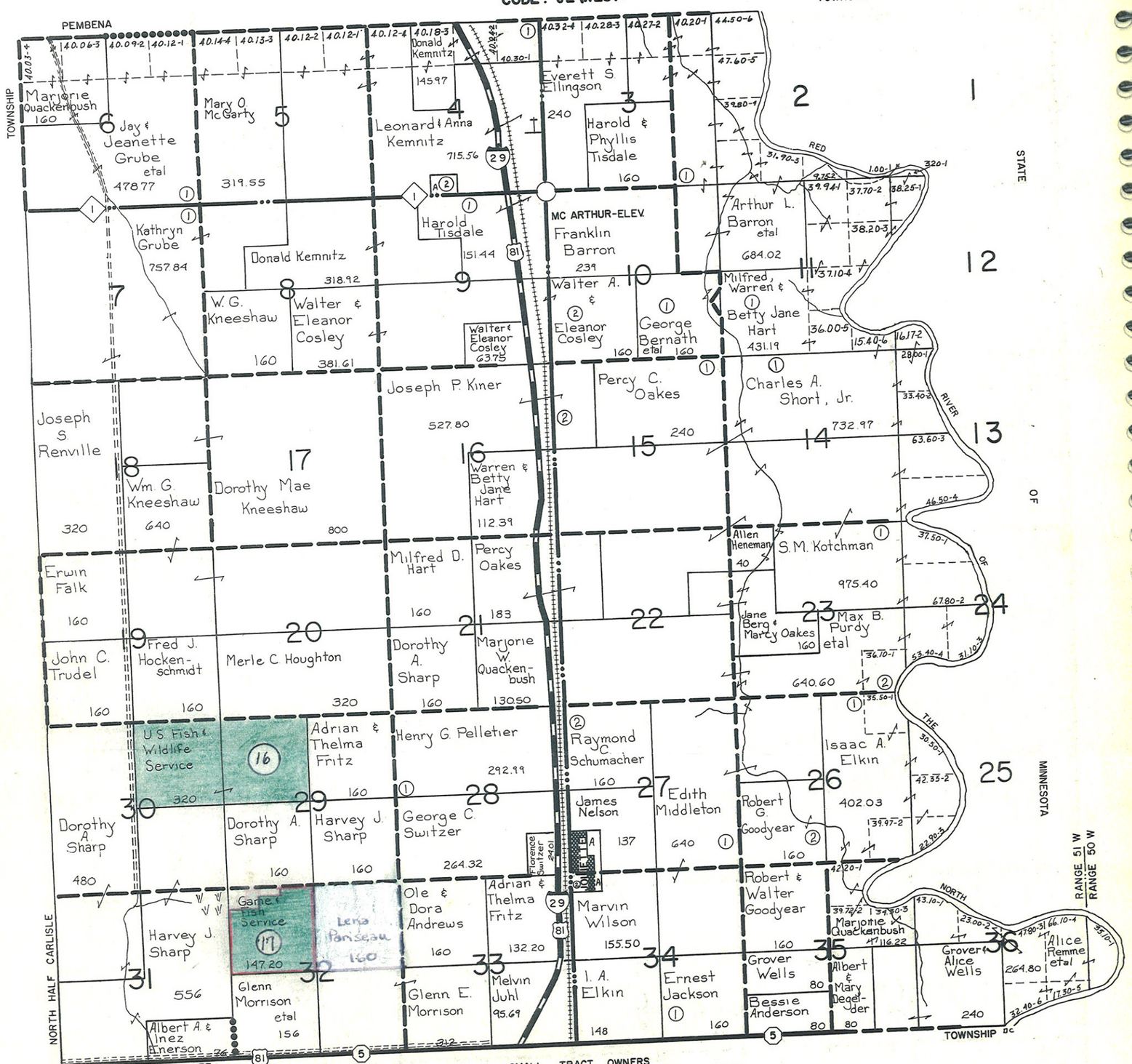
Sec.	Lot	Name	Acres
15	A	Vernon Wilson	12.00
15	B	Melvin Juhl	8.00
15	C	Ervan Juhl	32.00

JOLIETTE

TOWNSHIP: 162 N

CODE: JM (EAST) JL (WEST)

RANGE: 50&51 W



SMALL TRACT OWNERS

Sec	Lot	Name	Acres
4	A	Lyle U. Kemnitz	20.00
27	A	Florence Switzer	2.00
34	A	A.O. Dunclee	1.20

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

December 12, 2006

Tracy Szela
Natural Resource Group, Inc.
1000 IDS Center
80 South 8th Street
Minneapolis, MN 55402

Dear Ms. Szela:

RE: Southern Lights Pipeline Project

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. The State of North Dakota does not maintain an Endangered Species list, but instead defers to the Federal list.

As proposed, this pipeline will cross the Pembina and Tongue Rivers, both Class III fisheries, and the Red River, a Class I fishery. We recommend these streams be crossed by directional boring if possible. If this method is not feasible, construction should not take place within the waterway between April 15 and June 1, and controls should be implemented to minimize erosion and sedimentation. We suggest the US Army Corps of Engineers' North Dakota Regulatory Office be contacted for permit requirements under Section 404 of the Clean Water Act.

The National Wetland Inventory maps indicate numerous wetlands within the proposed project corridor. We recommend that steps be taken to protect any wetlands that cannot be avoided, above-ground appurtenances not be placed in wetland areas, and no alterations be made to existing drainage patterns. We also ask that every effort be made to prevent destruction of woody vegetation and any loss of trees and shrubs be replaced on a 2:1 basis.

Sincerely,

Steve Dyke

(for) Michael G. McKenna
Chief
Conservation & Communication Division

js

Stockbridge-Munsee Tribal Historic Preservation Office

Sherry White - Tribal Historic Preservation Officer
N8510 MohHeConNuck Road
P.O. Box 70
Bowler, WI 54416

June 4, 2007

Department of the Army
Michael F. Pfenning
St. Paul District, Corps of Engineers
Sibley Square at Mears Park
190 fifth Street East, suite 401
St. Paul, MN 55101-1638

RE: Enbridge Energy, L.P.
Construction of Two Petroleum Pipelines
North Dakota to Minnesota

Dear Mr. Pfenning:

Thank you for contacting the Stockbridge-Munsee Tribe regarding the above referenced project. The Tribe is committed to protecting archaeological sites that are important to tribal heritage, culture and religion. Furthermore, the Tribe is particularly concerned with archaeological sites that may contain human burial remains and associated funerary objects.

As described in your correspondence, the proposed ground disturbing activity of this project does not appear to be in a region of archaeological interest to the Stockbridge-Munsee Tribe. The states of Minnesota and North Dakota are not areas that we are concerned with.

We appreciate your cooperation in contacting the Historic Preservation Office. Should you have any questions, feel free to contact me.

Sincerely,

Sherry White

Sherry White
Tribal Historic Preservation Officer

(715) 793-3970 *Email: sherry.white@mohican-nsn.gov*

"MESKWAKI NATION"

Sac & Fox Tribe of the Mississippi in Iowa

349 Meskwaki Road, Tama, IA 52339-9634 • (641) 484-4678 FAX (641) 484-5424

June 20, 2007

Department of the Army
St. Paul District, Corps of Engineers
Sibley Square at Mears Park
190 Fifth Street East, Suite 401
St. Paul, MN 55101-1638

To Whom It May Concern:

Thank you for the letter concerning the projects:

- **LSr Project**
- **Alberta Clipper Project**

At this time, the Historical Preservation Department of the Sac and Fox of the Mississippi in Iowa has determined the above listed has:

- ☐ No interest in the area geographically
- ☐ No comment on the proposed undertaking
- ☑ No objections. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the NAGPRA Representative, Johnathan L Buffalo.
- ☐ Have an objection or require additional project information. Please send the following:

_____

Sincerely,

Johnathan L. Buffalo
Historical Preservation Director
Sac and Fox of the Mississippi in Iowa

Cc: File

Two Rivers Watershed District

In Roseau, Kittson, & Marshall Counties

Board of Managers:
Lawrence Lind, John Younggren, Roger Anderson, O'Neil Larson, Richard Novacek, Jim Kukowski, Jon Vold

410 5th Street S., Suite 112, Hallock, MN 56728 - Phone (218) 843-3333 - Fax (218) 843-2020 - Email: daniel.money@mn.nacdnet.net

August 8, 2007

Kevin O'Connor
Natural Resource Group
80 S. 8th Street, Suite 1000
Minneapolis, MN 55402

Dear Mr. O'Connor:

The Two Rivers Watershed District is in receipt of your August 1st, 2007 letter regarding Enbridge's plans for their proposed "Alberta Clipper" and "LSr" projects.

Please note that these projects will be partially located within the boundaries of the Two Rivers Watershed District, and as such the projects are subject to obtaining permits from the District. Also, the project will be crossing 3 ditch systems under the jurisdiction of the District, specifically JD 10 branch b, JD 10, and Kittson County Ditch #7. The District owns right of way along these ditches for the purpose of maintenance. These ditches periodically need sediment and / or debris removed from them, and as such we will require that your pipeline be placed deep enough below the legal ditch grade so as not to interfere with these activities.

I have attached a copy of the "Rules of the Two Rivers Watershed District for your information, and also a copy of our permit application form for your use. Early notification of project plans and specifications is encouraged. Please give me a call if you have any questions, comments, or would like further information.

Sincerely,

Dan Money
District Administrator

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

August 13, 2007

Mr. Kevin G. O'Connor
Enbridge Community Relations
Enbridge Energy Company, Inc.
1100 Louisiana, Suite 3300
Houston, TX 77002

Re: Three Pipeline Expansion Projects
Pembina County, North Dakota

Dear Mr. O'Connor:

This department has reviewed the information concerning the above-referenced project submitted under date of July 30, 2007, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

3. Oil and gas related construction activities disturbing five or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA
DEPARTMENT *of* HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101-1854

Helping People
Help the Land

Phone: (651) 602-7900
FAX: (651) 602-7914

August 21, 2007

Daniel Flo
Natural Resource Group
1000 IDS Center
80 South 8th Street
Minneapolis, MN 55402

Re: Enbridge Expansion Projects

Dear Mr. Flo:

This letter is in response to your request under the Freedom of Information Act (FOIA) for "identification of Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), and Wetland Reserve Program (WRP) lands; data regarding the presence of noxious weed species along the proposed pipeline route; and a recommendation for applicable seed mixes for use during revegetation and restoration of right-of-way". The Natural Resources Conservation Service has no authority over the CRP and CREP programs, therefore, your request for information regarding these programs must be directed to the Farm Service Agency. The Minnesota Department of Agriculture would be the best resource for investigating noxious weeds. NRCS can release WRP easement boundaries and this data will be sent to you via email. Regarding applicable seed mixes for revegetation, you will find attached to this letter a copy of the NRCS Critical Area Planting Practice Standard (342). This standard contains information regarding seeding mixes and their best suitable uses. With regards to your request for a review of the Enbridge Environmental Mitigation Plan, you can send a copy to Bill Lorenzen, NRCS Environmental Review and Justice Program Officer, at the address listed above.

You have 45 days to appeal the decision of this request. All appeals must be made in writing to:

Arlen Lancaster, Chief
USDA-NRCS
P.O. Box 2890
Washington, D.C. 20013

If you have any questions please contact, at (651) 602-7907.

Sincerely,

William Hunt

WILLIAM HUNT
State Conservationist

cc: Pat McLoughlin, FOIA Officer, NRCS, St. Paul, MN
Tessa Garcia, FOIA Officer, NRCS, St. Paul, MN
Mike Oja, District Conservationist, NRCS, Grand Rapids, MN
Paul Sandstrom, District Conservationist, NRCS, Duluth, MN
Scott Kittleson, District Conservationist, NRCS, Aitkin, MN
Kevin Daw, ASTC, NRCS Duluth, MN
Paul Flynn, SRC, NRCS, St. Paul, MN

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

CRITICAL AREA PLANTING
(Acre)
CODE 342

DEFINITION

Establishing permanent vegetation on sites that have or are expected to have high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.

PURPOSE

- Stabilize areas with existing or expected high rates of soil erosion by water.
- Stabilize areas with existing or expected high rates of soil erosion by wind.
- Restore degraded sites that can not be stabilized through normal farming practices

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to highly disturbed areas such as active or abandoned mined lands, urban conservation sites, road construction areas, conservation practice construction sites, areas needing stabilization before or after natural disasters such as floods, hurricanes, tornados and wildfires and other areas degraded by human activities or natural events.

CRITERIA

General Criteria Applicable to All Purposes

A site investigation shall be conducted to plan the needed soil amendments, site preparation alternatives, erosion control methods, etc.

Species selected for seeding or planting shall be suited to current site conditions and intended uses, including climate conditions, soil characteristics, aspect, exposure to sunlight, slope, drainage, presence of concentrated flow areas, proximity to natural plant communities, and plant characteristics such as season of growth, vigor, disease resistance, ease of establishment, longevity of the species, adaptation to soil conditions, growth habit and conservation value. Grasses, forbs, trees and shrubs used singly or in combination are appropriate plant materials. Selected species will have the capacity to achieve adequate density and vigor within an appropriate period to stabilize the site sufficiently to permit suited uses with ordinary management activities.

Seeding mixtures and rates of seeding or planting will be selected from Table 1 of the specifications for this standard, to best suit the site conditions. Species, rates of seeding or planting, minimum quality of planting stock, such as pure live seed (PLS) or stem caliper, method of seedbed preparation, and method of establishment shall be specified before application. Only viable, high quality seed or planting stock will be used.

Where there is known native prairie or certified native grass or forb seed production fields present, maintain an isolation distance of 165 feet for grasses and 1320 feet for forbs when planting the same species that have different genetic origins.

Seeding or planting shall be done at a time and in a manner that best ensures establishment and growth of the selected species. What constitutes successful establishment (e.g. minimum percent ground/canopy cover, percent survival, stand density, etc.), shall be specified before application.

Planting dates shall be scheduled during periods when soil moisture is adequate for germination and/or establishment. See the attached specifications for planting dates.

Plan and apply pest and nutrient management, mulching and other facilitating practices for plant growth to accelerate establishment of selected species.

The amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective shall be determined using the current approved wind and/or water erosion prediction technology.

Comply with all applicable federal, state and local laws, rules and regulations including those concerned with invasive species or species that are no longer acceptable to federal, tribal, state, or local partners.

NRCS-Minnesota
February 2007

Additional Criteria to Restore Degraded Sites

If gullies or deep rills are present, they will be treated to allow equipment operation and ensure proper site and seedbed preparation.

Based on a soil test, soil amendments will be added to improve or eliminate physical or chemical conditions that inhibit plant establishment and growth. Required amendments, such as compost or manure to add organic matter and improve soil structure and water holding capacity; agricultural limestone to increase the pH of acid soils; or elemental sulfur to lower the pH of calcareous soils shall be included in the site specification with amounts, timing, and method of application.

CONSIDERATIONS

Species or mixes that are adapted to the site and have multiple values should be considered. Native species should be considered when appropriate to site treatment.

Avoid species that may harbor pests. Species diversity should be considered to avoid loss of function due to species-specific pests.

Plans should be in compliance with the Migratory Bird Treaty Act.

On low maintenance sites, the use of seeding mixtures that include native grass species should be considered for improved wildlife habitat and aesthetics.

Seeding has advantages over sodding including lower establishment costs, a variety of grass and legume species to select from, and easier to install and establish on difficult sites. Sodding has advantages including immediate erosion control, reduced chance of failure, few weed problems and quicker use of sodded surfaces.

For waterways and areas of concentrated flow, seeding across the direction of water flow is preferred to seeding up and down the waterway with the direction of flow.

Hydroseeding is recommended on slopes too steep for normal field equipment or where the use of normal field equipment is not feasible.

Fertilizer spreaders may be used to broadcast seed along with the lime and fertilizer requirements. Inert materials such as cracked corn may be used as bulk material to aid in seed dispersal.

Allelopathy effects have been documented with certain cereal grains used as temporary cover. These crops produce chemical substances that inhibit the growth or establishment of following crops. Light tillage is often used to reduce allelopathy prior to seeding permanent cover.

Ground disturbing activities such as shaping and site preparation have the potential to affect significant cultural resources.

Planning and installation of other conservation practices such as Diversions, Land Smoothing, Obstruction Removal, Surface and Subsurface Drains or Underground Outlets may be necessary to prepare a critical area for planting.

If mulching is needed, follow the Mulching (484) standard.

When planning nutrient applications and tillage applications, encourage soil carbon buildup while discouraging greenhouse gas emissions.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for each field or management unit according to the criteria and operation and maintenance sections of this standard. Specifications shall describe the requirements for applying this practice to meet the intended purpose.

Record practice specifications using approved specification sheets, job sheets or other acceptable documentation.

The following elements shall be addressed in the plan, as applicable, to meet the intended purpose:

- Site Preparation
- Topsoil
- Fertilizer Application
- Seedbed/Planting Bed Preparation
- Methods of Seeding / Planting
- Time of Seeding / Planting
- Selection of Species
- Seed / Plant Source
- Seed Analysis
- Rates of Seeding
- Mulching
- Planting Trees, Shrubs and Vines
- Supplemental Water for Plant Establishment
- Protection of Plantings

OPERATION AND MAINTENANCE

Use of the area shall be controlled as long as necessary to stabilize the site and achieve the intended purpose. Protect new seedings from domestic livestock grazing, fire and traffic until well established.

Control or exclude pests that will interfere with the timely establishment of vegetation. Mow, clip or use approved chemicals as often as necessary during the seeding year to control noxious weeds and undesirable plants.

After the seeding year, use spot mowing, chemical treatment or prescribed burning to control noxious weeds and other undesirable plants. Practice Standard 338, Prescribed Burning may also be used to maintain vigorous stands of native grasses.

Occasional grazing and/or haying may benefit the stand. If grazing or haying is to be used as a management tool, develop specific management guidelines that stimulate the health and vigor of the vegetation without reducing the erosion control benefits. Mow grassed waterways and diversions as needed to maintain desired flow capacity.

Inspections, reseeding or replanting, fertilization, and pest control may be needed to insure that this practice functions as intended throughout its expected life. Observation of establishment progress and success should be performed at regular intervals until the practice has met the criteria for successful establishment and implementation.

Where establishment of vegetation creates potential habitat for grass-nesting birds, the impacts of vegetative disturbance upon these birds and their nests should be considered and included in operation and maintenance plans. Maintenance activities that result in disturbance of vegetation will not be conducted during May 1 to August 1, the primary nesting season for grass-nesting birds where occupied habitat for these species exists.

Mowing during the nesting period may occur only in the establishment year. To benefit insect food sources for grassland nesting birds, spraying or other control of noxious weeds will be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife.

REFERENCES

USDA-NRCS 2006. The PLANTS database: http://plants.usda.gov, 19 October 2006).

National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

University of Minnesota Extension Bulletin BU-6240-E: Fertilizer Recommendations for Agronomic Crops in Minnesota.

United States Department of Agriculture-Natural Resources Conservation Service-Minnesota Field Office Technical Guide, Section IV, Conservation Practice Standards 484, Mulching and 645, Upland Wildlife Habitat Management.

Critical Area Planting (342)

Specifications

Seeding Dates

It is policy in Minnesota to perform permanent seeding and mulching as soon as possible after completion of projects under government contract or division of work agreements. Non-contract projects should be seeded as soon as possible after construction is completed when construction occurs between April 1 and September 1 (north) or September 10th (south). If possible, seed during the optimum seeding periods listed in the table below. If it is not possible to wait, seeding can be done outside of the optimum seeding periods; however these seedings will have a greater chance of failure. No seeding will be done from September 1(north) or Sept. 10 (south) to November 1. After those dates, a dormant seeding may be done. See Figure 1 for planting zones.

OPTIMUM SEEDING PERIODS

North

	Spring	Summer	Dormant
Cool Season Grass	April 1 – June 15	July 15 – Sept. 1	Nov. 1 – freeze-up
Warm Season Grass	May 15 – June 30		Nov. 1 – freeze-up

South

	Spring	Summer	Dormant
Cool Season Grass	April 1 – June 1	Aug. 1 – Sept. 10	Nov. 1 – freeze-up
Warm Season Grass	May 15 – June 30		Nov. 1 – freeze-up

Dormant seedings are made after soil temperatures are cool enough to prevent germination. Dormant seedings will not be made on areas covered with ice or when snow is deeper than 2 inches, and will be mulched according to NRCS Practice Standard 484, Mulching. This type of seeding is riskier than spring or summer seedings.

Seeding Rates

Seeding rates are based on pounds of Pure Live Seed (PLS) per acre. When designing a custom seed mixture, at least 50% of the mixture must be grass. Only viable, high quality and adapted seed will be used. All seed and planting materials shall be labeled and meet state seed quality law and standards. Seed must be clean and relatively free of weed seed and other contaminants.

Legume seed shall be inoculated with the appropriate strain of nitrogen fixing bacteria prior to planting. Pre-inoculated seed shall be planted prior to the expiration date on the inoculum tag or be re-inoculated within 24 hours prior to planting. When applied with a hydroseeder, four times the amount of inoculant recommended by the manufacturer shall be used. Inoculated seed shall not be held in a slurry with fertilizer for more than one hour.

Companion Crops

Small grain companion crops shall be used on all critical area seedings when the area is not mulched. Companion crops are optional if mulching is done. For mixtures of introduced grasses - oats, barley, or spring wheat shall be seeded at the rate of ¾ to 1 ¼ bushels per acre with spring, summer or dormant seedings. Winter wheat or rye can be used with spring seedings only, at a rate of ½ to ¾ bushels per acre. Companion crops shall be clipped before heading so they do not become competitive to the developing grass seeding. Annual rye grass may be used as a companion crop in lieu of small grain during all seeding periods at the rate of 3 pounds per acre. It does not have to be clipped.

For Native Grass Mixtures, include Canada Wild Rye or Sideoats Grama seeded at 1 – 2 lbs. per acre to serve the purpose of a companion crop.

Fertilizer and Lime

For mixtures with native species, fertilizer and lime are not recommended.

With introduced species, soil fertility and pH level will be amended to satisfy the needs of the specific plant species planned. Recommendations will be determined by using a soil test or, if no soil test is available, apply the following minimum amounts of fertilizer (pounds per acre):

	N	P_2O_5	K_2O
CS - Cool Season Grass	80	80	80
CS grass &Legume	50	100	100

If the recommended fertilizer rate exceeds the criteria in NRCS Conservation Practice Standard 590, Nutrient Management, appropriate mitigating practices will be installed to reduce the risk of nutrient losses from the site.

Apply lime as needed to adjust soil pH to 6.0 for grass species and red clover. Adjust soil pH to 6.5 for seeding mixtures containing alfalfa.

Site Preparation and Topsoiling

The area will be shaped to final design grade, including installation of all measures to provide surface and subsurface drainage and needed erosion and sediment control practices. Grade to a stable slope when shaping to permit use of conventional equipment for fertilizer application, seedbed preparation, seeding, mulch application and mulch anchoring. For slopes steeper than 2:1 special practices such as soil bioengineering may be required. Eliminate all overfalls. The toe of the slope or the outlet of the concentrated flow channel shall be stable before attempting seeding.

On sites where exposed and underlying soil material will not support vegetation apply a minimum of 4 – 6 inches of topsoil as a part of construction. Topsoil shall be the highest quality surface soil available at the site and shall be free of debris, trash, stumps, rocks, roots, noxious weeds or any substance potentially toxic to plant growth. If available topsoil material is no better than the material to be covered, do not apply topsoil.

The surface of areas to be topsoiled shall be loosened to a depth of 2 inches. The topsoil shall be mixed within this depth to insure bonding of the topsoil and subsoil. Compact the topsoil enough to insure good contact with underlying soil but not so much that it will deter seed germination or prevent proper anchoring of mulch. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding. Smooth topsoil to allow seedbed preparation.

Seedbed Preparation and Seeding

During spring, summer or dormant seeding periods, seedbed preparation shall immediately follow construction activities. When construction is completed outside those periods or if dormant seeding is not planned, other erosion control methods such as applying mulch or seeding temporary cover will be used, and seedbed preparation will be done just prior to seeding during the next seeding period.

After construction and site preparation is completed, apply fertilizer and work the seedbed to a depth of 4 inches with a disc, field cultivator or similar equipment to loosen compacted layers, incorporate fertilizer and permit root penetration. On areas too steep for equipment to operate, scarify by hand. Then harrow or pack the seedbed prior to seeding to make a firm seedbed. The seedbed shall contain enough fine soil particles for uniform shallow coverage of the seed and contact with moisture and nutrients.

Apply the seed uniformly over the site by drilling, broadcasting or hydroseeding. Seed at a depth of ¼ to ½ inch, and firm the seedbed immediately to cover the seed by cultipacking or harrowing. Use hand raking where it is too steep or where surface obstructions hinder mechanical operations. Apply mulch if a cover crop is not being used.

With hydroseeding, seed and fertilizer may be applied in the same operation; however, separate operations may be desirable to avoid possible "burning" of the seed by the fertilizer. Hydroseeders shall provide continuous agitation and be capable of supplying a continuous, non-fluctuating flow of slurry.

Mulching

All critical area plantings will be mulched according to the NRCS Conservation Practice Standard 484, Mulching when a companion crop is not used. It is also required in the following situations:

- Fill heights greater than 10 feet in vertical height and/or longer than 30 feet.
- Designed channels to carry concentrated flows where velocity exceeds 2.5 f.p.s.
- All dormant seedings.

Mulching will be completed as soon as possible after seeding. When construction is completed and the permanent seeding is delayed for more than 30 days, it may be desirable to mulch the site before seeding, to control erosion. Prepare the seedbed, apply the fertilizer, and then apply and anchor the mulch material. When it is time to seed broadcast the seed uniformly over the mulch or use no-till equipment to plant through the mulch. When the seed is broadcast, double the seeding rate.

Temporary Cover

Completed sites or disturbed areas that will not have additional construction activity, where permanent seeding will not be done for 60 days or longer will be seeded to a temporary cover crop to stabilize eroding areas. For shorter periods of time, the need for temporary cover will be determined by site conditions. The residue from this crop may either be incorporated into the soil during seedbed preparation for the permanent seeding, or left on the surface and the planting made as a no-till seeding. Select temporary cover crops from the following table.

Species	Rate/Acre	Seeding Date
Oats	21/2 bushels	4/1 to 9/15
Sudangrass	1 bu (40 lbs.)	5/15 to 8/15
Millet	12 lbs.	5/15 to 8/15
Annual Ryegrass	8 lbs.	4/1 to 9/15
Cereal Rye	1 bushels	8/1 to 9/15
Winter Wheat	1 1/4 bushels	8/1 to 9/15

Sodding

Specifications for site preparation, topsoiling, seedbed preparation and fertilizing are the same as for seeding.

All sod used shall be free of noxious weeds, diseases and insects. Only moist, fresh sod shall be used. It shall be sufficiently moist to withstand exposure and handling during transplanting operations. Sod shall be machine cut at a uniform thickness of ½ to 1 inch, excluding top growth, and edges shall be cut straight and smooth. Sod strips shall not have dry or dead edges.

Lay sod as soon as possible after delivery to the site. Wet soil to a depth of two inches or more prior to laying the sod. Lay the sod from the lower end of the slope and work up slope. On steep slopes, use of ladders will speed up the laying and prevent damage to the sod. Sod strips shall be laid at right angles to the flow of water. Butt the edges and ends of each strip firmly together and stagger joints a minimum of 12 inches. Tamp or roll the laid sod to insure a solid contact of roots to soil surface. Outside edges of sodded areas shall be rolled in or banked flush with soil or other materials adjoining edges. On sites where surface drainage may try to follow sodded edges, extend sod strips 1 – 2 feet beyond the edges of the area being sodded every 8-10 feet to create a staggered effect.

On severely steep sites or when anticipating overland flow, sod shall be held in place by woven wire, wooden pegs, wire staples, or similar material. Pegs or staples will be a minimum of 10 inches long.

After laying sod, water thoroughly to wet the sod pad and the soil to a depth of 4 inches. In the absence of adequate rainfall, water during the first 30 days to keep underlying soil moist and allow the sod to become established. After the initial 30 day period, water as necessary to maintain adequate moisture in the root zone.

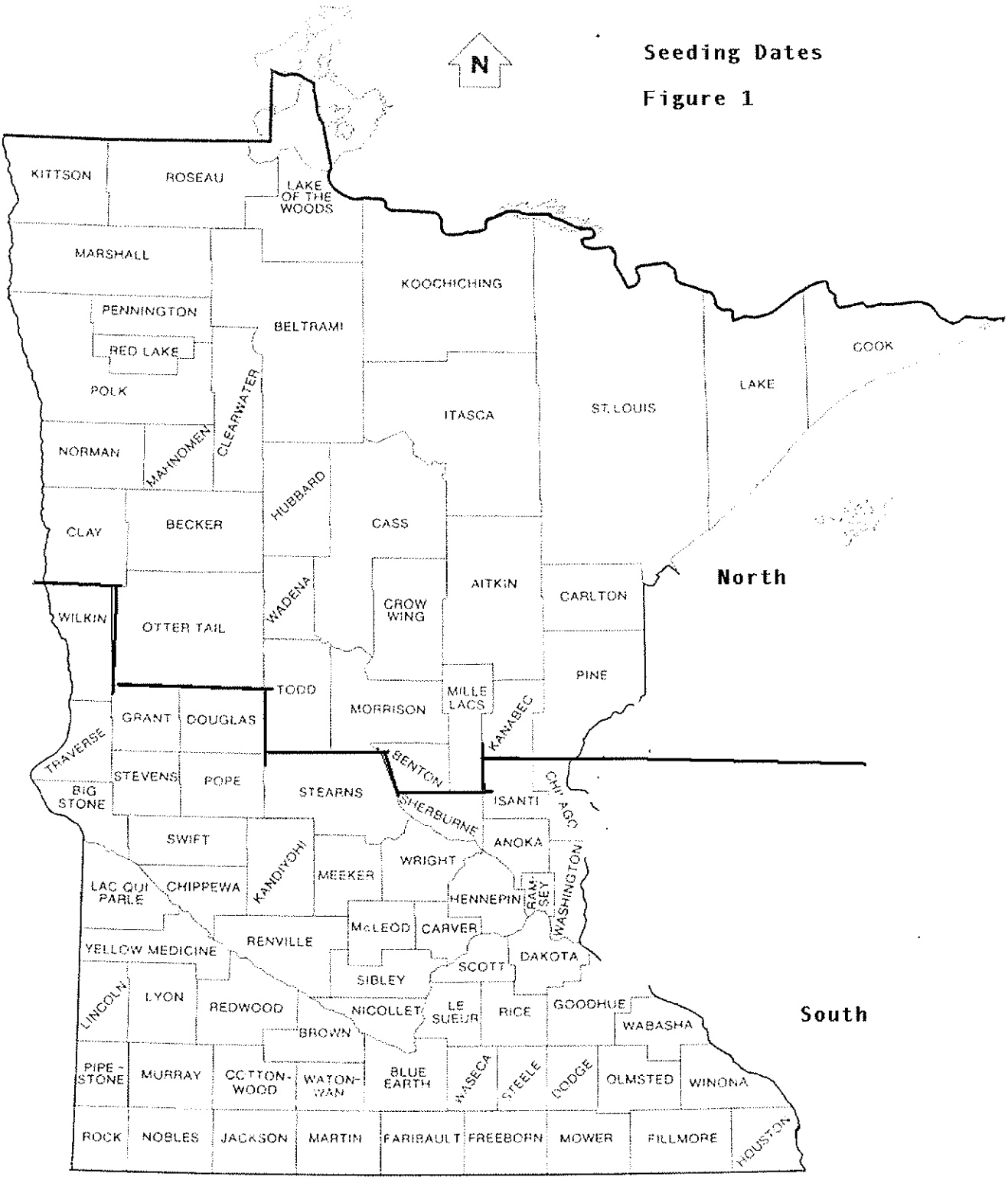

N
Seeding Dates
Figure 1
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
KOOCHICHING
PENNINGTON
BELTRAMI
RED LAKE
POLK
CLEARWATER
ITASCA
ST. LOUIS
LAKE
COOK
NORMAN
MAHNOMEN
HUBBARD
CASS
CLAY
BECKER
AITKIN
CARLTON
North
WILKIN
OTTER TAIL
WADENA
CROW WING
PINE
TODD
MORRISON
MILLE LACS
KANABEC
GRANT
DOUGLAS
TRAVERSE
BENTON
STEVENS
POPE
STEARNS
BIG STONE
SHERBURNE
ISANTI
CHISAGO
SWIFT
ANOKA
KANDIYOHI
MEEKER
WRIGHT
LAC QUI PARLE
CHIPPEWA
HENNEPIN
RAMSEY
WASHINGTON
McLEOD
CARVER
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
LINCOLN
LYON
REDWOOD
NICOLLET
LE SUEUR
RICE
GOODHUE
WABASHA
BROWN
PIPE-STONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON
South

Table 1: Seeding Mixtures for Permanent Seedings

Seeding Mixture	Lbs/acre	Seeds/ft^2 @1 lb./acre	Suitable Uses [1]	Drainage	Remarks
Smooth Brome Perennial Rye	20 3	3.1 6.3	CO, WW, CA	Moderate to well, Excessively drained	
Smooth Brome Timothy Perennial Rye	15 5 3	3.1 28.2 6.3	CO. WW, CA	Well to somewhat poorly drained	Add Red Clover or Alsike Clover if desired
Smooth Brome Red Top Perennial Rye	15 2 5	3.1 114.6 6.3	CO	Moderate to excessively drained	Add Alfalfa or Alsike Clover if desired
Intermediate Wheatgrass Timothy Canada Wildrye	 23 7 7	 2 28.2 2.6	CO, WW	Well to somewhat poorly drained	Add Alsike clover or Alfalfa if desired
Kentucky Blue Creeping Red Fescue Perennial Rye	5 - 5 10	40 - 5 6.3	CO,CA	Well to somewhat poorly drained	Add alsike or red clover if desired
Creeping Foxtail Timothy Red Top Perennial Rye	10 2 2 3	14 28.2 114.6 6.3	CO, WW, CA	Somewhat poorly to poorly drained	Add Red Clover if desired
Timothy Canada Wildrye Western Wheat Tall Wheat	2 7 10 5	28.2 2.6 2.5 1.8	CO,WW,CA	Moderate to somewhat poorly drained	
Big Bluestem Indiangrass Switchgrass Canada Wildrye	6 6 4 7	3.8 4 8.9 2.6	CO, CA	Moderate to well drained	
Big Bluestem Indiangrass Switchgrass Sideoats grama Little Bluestem	4 4 3 3 3	3.8 4 8.9 4.4 6	CO	Moderate to Excessively drained	
Switchgrass Sideoats Grama Canada Wildrye Western Wheat	4 4 7 5	8.9 4.4 2.6 2.5	CO, CA	Moderately to well drained	
Prairie Cordgrass Switchgrass Western Wheat Canada Wildrye	3 3 7 7	4.2 8.9 2.5 2.6	CO,CA,WW	Somewhat poorly to poorly drained	

1. Suitable Uses: CO = construction sites; CA = critical areas; WW = waterways

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 10 2007

REPLY TO THE ATTENTION OF:

B-19J

Ms. Elizabeth Orlando
OES/ENV Room 2657
U.S. Department of State
Washington, DC 20520

Re: U.S. EPA Scoping Comments for: (1) Enbridge Pipelines (Southern Lights) L.L.C. (LSr Project), and (2) Enbridge Energy, Limited Partnership (Alberta Clipper Project)

Dear Ms. Orlando:

The United States Environmental Protection Agency, Region 5 (U.S. EPA) reviewed the United States Department of State's (DOS) Notices of Intent (NOIs), dated July 27, 2007, for the above referenced petroleum pipeline projects. The NOIs identify that DOS proposes to prepare Environmental Assessments (EAs) to comply with the National Environmental Policy Act (NEPA) prior to determining whether or not to issue Presidental Permits. DOS issues Presidential Permits for the construction, connection, operation, and maintenance at the border of the United States of facilities for the export and import of petroleum to and from a foreign country.

The NOIs identify the proposed projects will be located in Region 5 and Region 8, but the majority of the proposed projects will be located in Region 5. Region 5 is the lead region for U.S. EPA on these two projects. In accordance with our responsibility and authority under NEPA and Section 309 of the Clean Air Act, we offer this letter with enclosed comments on both NOI identified proposals for your consideration as you proceed with preparing the NEPA documents.

One NOI identifies a proposal (LSr Project) by Enbridge Pipeline (Southern Lights) L.L.C (Enbridge) to construct and operate a 313-mile long pipeline and related facilities, to deliver 186,000 barrels per day (bpd) of petroleum, from a supply hub near Cromer, Manitoba, Canada, to Clearbrook, Minnesota. The U.S. portion of the proposal includes 136 miles of new 20-inch-diameter pipeline and related facilities from the U.S.-Canada border near Neche, North Dakota to Enbridge's existing tank farm in Clearbrook, Minnesota. Enbridge proposes to construct the LSr pipeline generally along Enbridge's existing pipeline right-of-way (ROW) between Neche, North Dakota and Clearbrook, Minnesota. The LSr Project would generally require a 100-foot-wide construction ROW.

The other NOI identifies a proposal (Alberta Clipper Project) by Enbridge Energy, Limited Partnership (Enbridge) to construct and operate a 992-mile long pipeline and related facilities to deliver 450,000 bpd of petroleum from Hardisty, Alberta, Canada to Superior, Wisconsin. The

proposed expansion in the U.S. would include the construction of approximately 326 miles of new 36-inch-diameter pipeline from the U.S.-Canada border near, Neche, North Dakota, across Minnesota, to Enbridge's existing tank farm in Superior, Wisconsin. The proposed Alberta Clipper Project would be constructed within or adjacent to the same Enbridge existing right-of-way (ROW) as the LSr Project between the U.S.-Canadian border near Neche, North Dakota, through Clearbrook, Minnesota, to Superior, Wisconsin. It is proposed that a 140-foot-wide construction ROW would be required. This NOI also identifies that Enbridge proposes to construct an additional pipeline concurrently and within a portion of the same pipeline corridor adjacent to the Alberta Clipper Project between Clearbrook, MN and Superior, WI. However, the NOI does not provide any additional information (i.e., project name, purpose, description, construction ROW requirements) other than to state that it will not require a Presidental Permit.

I represented U.S. EPA during DOS's August 17, 2007, interagency meeting/conference call concerning the Enbridge proposals. The principal points I made on behalf of U.S. EPA, and continue to make, is that DOS provide information to the other agencies that clearly names and describes each of the pending Enbridge projects, with a clear statement as to what other projects (e.g., terminal and refinery modifications, expansions, new constructions, and additional pipelines) are to be considered connected actions under NEPA and/or would be included in cumulative impacts analysis for the individual Enbridge projects. I also continue to recommend that DOS prepare an Environmental Impact Statement (EIS) for the Alberta Clipper Project because of the potential for significant impacts, in part, to wetlands and aquatic resources, surface water quality/quantity, tribal lands, public lands, forest lands and wildlife habitat.

We strongly support the use of the U.S. Army Corps of Engineers (Corps) Individual Clean Water Act Section 404 permits for projects such as these that will have substantial amounts of wetlands and stream impacts.

The following permits from U.S. EPA, Region 5 will be needed for any portion of Enbridge's Alberta Clipper proposal and connected actions that would occur within the exterior boundaries of the Leech Lake and/or Fond du Lac Indian Reservations: (1) Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) discharge permit for discharges to waters of the U.S. from ground water pump out or process water associated with pipeline hydrostatic pressure testing, and (2) CWA Section 401 water quality certification for Corps CWA Section 404 wetland permits, water body crossings or discharge into waters of the U.S. U.S. EPA contact information is provided in the enclosure.

At this time, we request you keep both Region 5 and Region 8 apprised of any future interagency meetings/conference calls. We would appreciate a 30-day advance notice of all meetings/calls. For your future reference, please send three (3) complete hard copies and three (3) CDs of the future NEPA documents to each reviewing Region by the start of the NEPA public comment periods. The Region 5 contact is Ms. Virginia Laszewski (contact information below). The Region 8 contact is Mr. Richard Clark. Mr. Clark may be reached by calling 303/312-6748 or email at clark.richard@epa.gov.

We look forward to reviewing DOS's NEPA documents for Enbridge's proposed projects. If you would like to discuss the content of this letter and enclosure in more detail, please contact Virginia Laszewski of my staff at 312/886-7501 or email her at laszewski.virginia@epa.gov.

Sincerely,

Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

Enclosure: 1

cc: Larry Svoboda / Richard Clark, U.S. EPA, Region 8
Tamara Cameron, U.S. Army Corps of Engineers, St. Paul District

U.S. EPA Scoping Comments to Department of State Concerning:
(1) Enbridge Energy, Limited Partnership (Alberta Clipper Project), and
(2) Enbridge Pipelines (Southern Lights) L.L.C. (LSr Project)

Based on the information in the Department of State's (DOS) Notice of Intents (NOIs), we offer the following comments for consideration as DOS prepares the NEPA documents for the above referenced Enbridge Projects.

Description of Proposed Enbridge Projects and Connected Actions - In the United States, Enbridge proposes to construct the LSr Project and the Alberta Clipper Project as separate petroleum products pipeline projects located along the same existing Enbridge right-of-way (ROW). However, the NOI for the Alberta Clipper Project also identifies an unnamed third petroleum products pipeline project proposed by Enbridge that would also be located along the same ROW. Each pending Enbridge project should be clearly named and described, with a clear statement as to what other projects (e.g., terminal and/or refinery modifications, expansions, new constructions, and/or additional pipelines, power lines, etc.) are to be considered connected actions under NEPA and/or will be included in cumulative impacts analysis for the individual Enbridge projects.

The NEPA documents should identify the Midwest refineries as well as the terminals that will receive the petroleum product/s from each proposed Enbridge pipeline. In addition, the NEPA documents should identify whether or not each refinery or terminal will need to be expanded and/or upgraded in order to refine and/or handle the type and amount of petroleum product delivered. Any impacts to resources such as air and water quality associated with any refinery or terminal upgrades, expansions or new projects should be identified and discussed in the NEPA documents.

Enbridge's Existing Right-of-Way (ROW) - A description of Enbridge's existing ROW from Neche, North Dakota, through Minnesota, to Superior, Wisconsin should be included in the NEPA documents. This should include, but need not be limited to, identifying the existing ROW width, the number and location of existing access roads, and the number, purpose, age and condition of existing pipelines within the ROW. The NEPA document should also identify whether Enbridge implements a vegetation management plan to control the growth and spread of noxious weeds and exotic species and identify the current status of invasive species within the existing ROW.

We recommend a vegetation management plan be prepared to address control of plant intrusions. The plan should list the noxious and exotic plants that occur in the resource area. In cases where the weeds are a threat, U.S. EPA recommends the document detail a strategy for prevention, early detection of invasion, and control procedures for each species. Should an infestation occur or already be present, EPA supports integrated weed management (e.g., effective mix of education and prevention, biological, mechanical, chemical management, etc.). However, we encourage prioritization of management techniques that focus on non-chemical

treatments first, with reliance on herbicides being the last resort. We recommend implementing yearly review and planning activity requirements for the above concerns, including evaluation of effectiveness to date.

Alternatives - It is our understanding that portions of the Alberta Clipper Project may need to be routed away from the existing ROW to get around various sensitive areas, such as tribal lands. In order to avoid, in part, degrading undisturbed landscapes/wildlife habitat, we recommend Enbridge and DOS develop and analyze pipeline route alternatives that utilize other utility, roadway, or railroad ROW, whenever feasible.

Ground and Surface Water Quality - The NEPA Documents should clearly describe water bodies and ground water resources within the analysis area that may be impacted by the proposed project. Special attention should be given to work that would occur in an identified sole source aquifer, or wellhead (drinking water) protection zone, or upstream of a drinking water intake. An analysis of the area's geology, topography, soils and stream stability in terms of erosion and mass failure potential may be necessary to adequately evaluate for the potential risks to surface and subsurface water quality and quantity. Appropriate State-identified Best Management Practices (BMPs) to reduce potential non-point sources of pollution from these projects proposed activities should be designed into the project.

Events such as vehicular spills of hazardous or toxic materials could result in significantly more adverse impacts to habitat and water quality. The NEPA documents should discuss the frequency or likelihood of such events, and describe spill and release response capabilities. Stormwater management should also be evaluated. If, any corrosion preventatives are applied to the inside of the pipes, DOS should describe the potential contamination of waters due to runoff of these chemicals and how these chemicals would be managed safely. To protect water quality from storm water runoff, including contaminated runoff from construction, operation, and maintenance activities, specific BMPs should be implemented.

U.S. EPA, Region 5 Contacts for Clean Water Act Permits – Tribes
The following permits from U.S. EPA, Region 5 will be needed for any portion of Enbridge's Alberta Clipper proposal and connected actions that would occur within the exterior boundaries of the Leech Lake Indian Reservation and/or Fond du Lac Indian Reservation:

- Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) discharge permit for discharges to waters of the U.S. from ground water pump out or process water associated with pipeline hydrostatic pressure testing. For permit information contact John Colletti, phone: 312/886-6106, email: colletti.john@epa.gov.

- CWA Section 401 water quality certification for U.S. Army Corps of Engineers (Corps) CWA Section 404 wetland permits, water body crossings or discharge into waters of the U.S. For 401certification information contact Janice Cheng, phone: 312/353-6424, email: cheng.janice@epa.gov.

We recommend DOS include the U.S. EPA 402 permit and 401 certification contact information in the NEPA Documents. Please note that U.S. EPA CWA 402 discharge permits and 401 water quality certifications only cover the area within the exterior boundaries of Indian Reservations. These programs are implanted by the states of North Dakota, Minnesota, and Wisconsin for areas not located within the Indian Reservations.

Wetlands, Streams, Rivers and Lakes – Under Section 404 of the Clean Water Act (CWA), a permit is required from the Corps for the discharge of dredge or fill material into waters of the U.S. We strongly support the use of the Corps Individual Clean Water Act Section 404 permits for projects with substantial amounts of wetlands and stream impacts, such as these will have.

Identification and assessment of the proposed projects' direct and indirect impacts to waters of the U.S. (i.e., wetlands, streams, rivers, lakes) should be included in the NEPA documents. The NEPA documents should identify all wetlands (by location, size and type). This would include the identification of any existing wetland mitigation sites and wetland mitigation banks. The assessments should provide a characterization of each water body's existing condition regarding water quality and aquatic resources. Details regarding the widths of proposed water bodies to be crossed, including wetlands, and the methods – directional drill or otherwise -- should be identified and discussed in the NEPA documents. We recommend the use of directional drilling for all perennial water crossings and their associated floodplains and wetlands, when feasible.

Activities permitted under CWA Section 404 should neither degrade high quality waters nor make impaired waters worse. The NEPA document should identify if any of the water body stream/river segments or lakes are listed as impaired on the CWA Section 303(d) lists for each state and for what reasons. For impairments such as habitat loss, nutrients or sediment that may be affected by dredge or fill activities, special care must be taken to ensure that the project does not make the situation worse. This would take the form of documenting baseline conditions and additional mitigation addressing the pollution potential of the crossing of that water body and of the project-affected area draining to that water body. The NEPA documents should identify emergency procedures for drilled water body crossings, in the event of a bentonite leak.

We strongly advise that the NEPA documentation demonstrate that proposed pipeline routes were identified to first avoid, and then minimize wetland impacts. After avoidance and minimization have been demonstrated, the NEPA document should include a Mitigation Plan (Plan) that identifies additional minimization measures that will be undertaken during project construction and operation. The Plan should also include a compensatory mitigation plans for those impacts that remain. Wherever feasible, impacts to forested wetlands, bogs and fens should be avoided. These types of wetlands are difficult to replicate. We note that the Alberta Clipper Project, due in part to its length and the areas it would go through, is likely to impact many of these aquatic resources.

Impacts of the various pipelines and alternatives on water quality should address, but not be limited to, a water body's designated use and compliance with applicable Water Quality

Standards and CWA Section 401 Water Quality Certification. Any storm water detention basins deemed necessary, due to project implementation activities, should neither be located in wetlands nor discharge directly into wetlands or waters of the U.S. without appropriate pretreatment. If hydrostatic testing is proposed, then water source and discharge areas should be identified and impacts evaluated. Details of the testing methods and the locations and amounts of test water needed should be identified. Specific mitigation measures that would be undertaken by Enbridge to prevent and enhance the quality of the receiving waters should be identified. Measures to protect the spread of exotic species through hydrostatic testing should be identified.

Mitigation of Wetlands, Streams/Rivers, Lakes – The two proposed projects each have a high potential for direct and indirect impacts to wetlands and other water bodies. However, we expect that the Alberta Clipper Project will have significantly more impacts due to its longer length and location.

Mitigation plans should be provided in the NEPA documents. Due to the time it can take to adequately reclaim some disturbed wetlands, river and stream systems, we suggest that the Department of State require mitigation of disturbance during the project operating time, and that mitigation for any particular wetland, stream or riparian area begin concurrent with the disturbance, or even prior to project construction, if possible. Of particular concern to U.S. EPA is the loss of forested wetlands. Forested wetlands take many decades to recover from tree loss and are also difficult to successfully create. Consequently, the temporal loss of the functions of any forested wetland due to tree cutting or clearing associated with project construction will need to be compensated. This is in addition to the compensation for the permanent loss of forested wetlands due to ROW maintenance. Depending on the quality of the wetland lost, we recommend a 2:1 to 6:1 replacement ratio for the temporal and/or permanent loss of any forested wetland. Wetland restoration is preferred to wetland creation or enhancement because it has a higher rate of success. Wetland mitigation should first take place within the immediate watershed where the impacts occur. Mitigation requirements under 40 CFR Section 230 address the replacement of the wetland functions and values that are unavoidably lost and any additional Federal, State and local mitigation requirements should be adhered to.

The mitigation plans should include, but not be limited to:
– commitments to acquire and start mitigation work prior to project construction;
– detailed schedules of pipeline and wetland creation/restoration work;
– detailed construction plans;
- a detailed mitigation monitoring plan, including a time table;
– detailed performance criteria to measure success;
– detailed specifications and commitments for corrective measures to be taken if performance criteria are not met; and,
– commitments to the establishment of a protection and management plan in perpetuity (i.e., legal surveys of the specific boundaries with buffers and conservation easements that are

given to a land conservancy organization) for all mitigation areas.

We encourage the delineation and marking of perennial seeps and springs, and wetlands on maps and on the ground before activity begins, so construction workers will be able to identify them. We recommend establishment of wetland and riparian habitat buffer zones to avoid adverse impacts to streams, wetlands, and riparian areas. We recommend a 100-foot buffer of native vegetation be provided around each wetland mitigation site to help enhance wildlife habitat and protect the site from sediment buildup that could result from land use practices immediately outside the buffer area. If stream bank disturbances result, then we suggest stabilizing stream banks with soil bioengineering techniques. The identification of appropriate mitigation sites should take place in consultation with the federal and state resource agencies.

If mitigation cannot be performed within the same watersheds where wetland impacts occur, and mitigation banking is proposed as an option, then details on the mitigation bank(s) should be included in the NEPA documents. This information should include, but not be limited to, the location of the mitigation bank/s and the respective service area(s), description of the bank's landscape setting (geomorphology), water source/s, vegetative structure and composition, identification of the bank owner, total acreage to be purchased, types and acreage of wetlands to be purchased, cost, and an explanation of how the functions and values of the wetlands lost are replaced by the proposed mitigation.

Air Quality – The protection of air quality should be addressed in the NEPA documents. The types of fuels to be used during construction activities, increased traffic during operations, and related VOC and NOx emissions, should be disclosed and the relative effects on air quality and human health evaluated. This analysis should also address and disclose the projects potential affect on: all criteria pollutants under the National Ambient Air Quality Standards (NAAQS), including ozone; visibility impairment, and air quality related values (AQRV) in protection of any affected Class I Areas; any significant concentrations of hazardous air pollutants; and protection of public health. We recommend Enbridge pursue opportunities to use clean diesel equipment, vehicles and fuels in construction of the project, and that DOS identify and disclose any opportunities to utilize these measures in the NEPA documents.

There are several terminal facilities identified in the NOIs. The NEPA documents should identify the specific Midwest refineries that will receive Enbridge pipeline petroleum products. In addition, the NEPA documents should identify and address the extent to which there may be an increase in the utilization of these refineries and any potential air quality impacts this may have.

Vegetation and Wildlife – The effects of project activities on area ecology, including vegetation, wildlife and their habitats, as well as recreational hunting and fishing activities, should be disclosed and evaluated in the NEPA documents. A proposed mitigation plan with detailed mitigation steps that will be taken to minimize or eliminate adverse impacts should be presented. We recommend close and early coordination with the U.S. Fish and Wildlife Service (USFWS) and State agencies on these and other wildlife-related issues. This should include

coordination with USFWS and state agencies regarding any federal and state-listed threatened or endangered species.

As currently proposed, the Alberta Clipper Project would cross the Chippewa National Forest in Minnesota and may cross two Minnesota State Forests, the Mississippi Headwaters State Forest and Fond du Lac State Forest. In addition to coordinating with USFWS, we recommend DOS coordinate with the U.S. Forest Service and the Minnesota Department of Natural Resources (MnDNR) concerning impacts to resources within U.S. Forest Service lands and State Forests, respectively. This coordination and the results of that coordination should be documented and included in the NEPA documents.

We are also concerned about the loss of upland resources and habitat fragmentation associated with pipeline construction and associated facilities construction. An inventory of any high quality or locally and regionally rare habitats or plant communities, such as old growth forest, and wildlife corridors should be included in the documentation. This would also include identification of forested areas and core forest and an assessment of the potential to impact forest interior dwelling birds, including neo-tropical migrants. Loss of core forest is the main reason for the decline in neo-tropical migrant populations. A description and the aerial extent of each site should be presented in the inventory. These resources should be avoided to the extent possible. The NEPA documents should identify the mitigation compensation measures that will be undertaken for any unavoidable loss.

We recommend replacement trees be planted to offset any unavoidable tree loss. We generally recommend that native saplings be used, if practicable, at a minimum 1:1 replacement ratio near the project site. However, mitigation might also include assisting county, state, or federal agencies with any on-going or planned forest reclamation projects in the watersheds affected. We recommend that the proponents commit to voluntary forest/tree mitigation, if applicable, in the NEPA documents and provide, as detailed as possible, a conceptual forest/tree mitigation plan that compensates for the loss and fragmentation of forest habitat due to the proposal.

Equipment and materials should not be placed or stored in wetlands or environmentally sensitive upland areas. Where possible, excavation should be done from non-sensitive upland areas. If equipment must work in wetlands, then it should be placed on mats. Site preparation and construction activities should be timed to avoid disturbing plants and animals during crucial seasons in their life cycle, such as migration, mating and rearing of their young. BMPs that will be utilized for this particular project should be identified.

Noise - Construction of the pipeline and operational activities associated with pump stations may cause an increase in local noise levels. The NEPA documentation should identify and discuss the sources of noise pollution. The document should identify and provide details of the mitigation measures that will be implemented. Mitigation measures may include, but are not limited to, restricting construction to daylight hours, the use of noise barriers, placement of trees and shrubs, sound-proofing structures, and the use of pumps that emit the lowest levels of noise practicable.

Impacts to Local Communities - The proposed projects traverse a variety of human environments, including, low population rural farming communities and more populated communities. The NEPA documents should identify and address the social and economic impacts these projects may have on the different communities. This would include, but is not limited to, identifying the number of outside workers that would be brought into the communities to construct the projects and the duration of proposed construction activities through the various communities. The NEPA documents should also consider environmental-related socio-economic impacts to the local communities, such as housing for project workers, schools, burdening existing solid waste and wastewater handling facilities, increased road traffic with associated dust and hazardous materials spill potential, and easier human access to wildlife habitat (with associated increased disturbances). If applicable, methods to avoid or minimize such impacts should be discussed.

While assessing the reasonably foreseeable development that may follow the completion of these projects can be difficult without having access to specific development plans or requests for additional development activities in the area, it is reasonable to address what additional activities could look like based on similar ongoing projects in all states affected by these current proposals.
Such evaluation could look at the types of environmental impacts that may be associated with such development, the loading that could be placed on local communities abilities to provide necessary public services and amenities, and methods that cold potentially avoid or minimize such impacts.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," signed in 1994, applies to federal agencies that conduct activities that substantially affect human health or the environment. In accordance with this order, the NEPA documents should disclose and evaluate any environmental justice aspects associated with impacts on rural low-income communities by either the proposed project, or the potential build-out for reasonably foreseeable development analysis. If there are no applicable environmental justice considerations, then that should be disclosed. EPA recommends close coordination with potentially impacted Native American tribes.

National Historic Preservation Act, Section 106 - Future NEPA documents should confirm that appropriate National Historic Preservation Act (NHPA) Section 106 consultation with the North Dakota, Minnesota, and Wisconsin State Historic Preservation Offices (SHPOs) has taken place, as well as with all applicable tribes and Tribal Historic Preservation Offices (THPOs). This consultation might be documented by including copies of letters to and from the SHPOs, tribes and/or THPOs and, if applicable, signed Memoranda of Agreement.

Executive Order 13175 Section 2 describes fundamental principles of inherent sovereign powers of tribes over their territory and the principle of government-to-government relationships with the United States Government where tribal resources and rights are affected. These principles have been the cornerstones of the United States Government's Indian Policy

since the Nixon Administration and have been re-affirmed by the current Administration in a memorandum from President Bush on September 23, 2004. We recommend that documentation of DOS's direct government-to-government consultation with the tribes and the results of that consultation be included in the NEPA documents for these two Enbridge proposals.

September 10, 2007 *(resubmitted w/ edit below on Sept 19, 2007)*

Ms. Elizabeth Orlando
Office of Environmental Policy
United States Department of State
OES/ENV
Washington D.C., 20520

RE: Scope of Environmental Assessments for: a) Embridge Pipelines (Southern Lights) LLC (LSr Project); and b) Embridge Energy, Limited Partnership (Alberta Clipper Project)

Thank you for the opportunity to comment on the scope of the two forthcoming Environmental Assessments (EA) for the projects referenced above, for which both Notices of Intent to Prepare Environmental Assessments appeared in the July 27, 2007, *Federal Register*. The following comments mostly reiterate the general points I made during the August 17th interagency meeting held to discuss these projects while you were in St. Paul.

The Minnesota Pollution Control Agency (MPCA) requests that the EAs for both the LSr and the Alberta Clipper Projects address the following:

1. **Impaired Waters.** The EAs for both projects should identify all of the impaired waters that will be potentially impacted (directly or indirectly) by the project, together with the specific construction methods (e.g., horizontal directional drilling) that will be employed to ensure these water quality impairments will not be exacerbated during the installation and maintenance of the pipelines .

2. **Outstanding Resource Value Waters (ORVW) and Trout Waters**. Both EAs need to identify all ORVWs and Trout Waters the pipelines will cross or impact (directly or indirectly), together with the specific construction methods that will be employed to ensure the quality of these water bodies will not be jeopardized during the installation and maintenance of the pipelines.

3. **Wetland Impacts**. Both EAs should clearly identify, using the Eggers and Reed Classification system, the type and quantity of wetland impacts the proposed projects will have, including the temporary and permanent loss of quality and function of these wetlands. If on-site wetland delineations have not yet been prepared for this purpose, they need to be for the data in the forthcoming EAs to be considered reliable in this regard. Further, both EAs need to discuss why these wetland impacts cannot be avoided or further minimized, in view of prudent and feasible alternatives that are available (Minnesota Rules, Part 7050.0186).

4. **Compensatory Wetland Mitigation**. Both EAs must discuss the specific mitigation that will be provided as a result of the permanent loss or lost function and quality of wetlands. This discussion needs to address Minnesota Rules, Part 7050.0186, Subpart 6, which requires: a) mitigation to be sufficient to ensure replacement of the diminished or lost designated uses of the wetland that was physically altered; and b) replacement wetlands to be of the same type and in the same watershed as the impacted wetlands, to the extent prudent and feasible, before or concurrent with the actual physical alteration of the wetlands.

5. **Required Authorizations**. Both EAs should identify the following MPCA permits and authorizations for the project.

    - A National Pollutant Discharge and Elimination System and State Disposal Permit, which regulates the discharge of water used to test the structural integrity of new and existing pipeline (hydrotest waters), the discharge of trench waters;
    - Stormwater permit coverage for the discharge of stormwater during construction activities, operation of the pipeline, and at pipe yard storage facilities; and
    - Clean Water Act Section 401 Water Quality Certification.

Again, thank you for the opportunity to provide input on the scope of these EAs. If you have any questions concerning this letter, please contact me at 651-297-7572

Sincerely,

Kevin Molloy
Wetland Coordinator
Municipal Division

cc: Tom Estabrooks, MPCA - Duluth
Chai Insook, MPCA - St. Paul

MINNESOTA
MDH
DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

September 21, 2007

Mr. Kevin O'Connor
Enbridge - Natural Resource Group
80 South Eighth Street - Suite 1000
Minneapolis, Minnesota 55402

Dear Mr. O'Connor:

This is in response to the Routing Permit for the Alberta Clipper/Southern Lights and LSr Project proposed by Enbridge Energy Company, Inc. (Minnesota Public Utilities Commission Docket Nos. PL9/PPL-07-360 and PL9/PPL-07-361). We have reviewed the permit documents with respect to potential impacts to wells along the proposed pipeline route. Our comments are as follows.

1) Regarding Section 8.3.1 of the Environmental Assessment. The report indicates that no public water supply wells were found to be located in the vicinity of the proposed pipeline. Our review focused on public water supply wells located within 200 feet of the proposed pipeline and found one such well. That well is identified as Chub Lake Park Well No. 1 and is located in Carlton County at the following UTM coordinates: X = 541468, Y = 5164474 (Zone 15 - NAD 83). Our review indicates that this well is located approximately 193 feet from the proposed pipeline. Although that distance exceeds the current 150-foot minimum required by the State Well Code (see Item 3 below), it does fall within the 200-foot Inner Wellhead Management Zone (IMWZ) for the Chub Lake Park well. For transient public water wells of this type, the IMWZ is equivalent to a Wellhead Protection Area (WHPA). Although wellhead protection rules do not prohibit pipelines within WHPAs or IMWZs, such potential sources of contamination are required to be inventoried by public water suppliers and management strategies are to be developed to manage the risk posed by them. Because of the close proximity of the proposed pipeline to this well, we recommend that any leaks that might occur within the IMWZ be addressed as aggressively as possible.

2) Regarding Section 8.3.2 of the Environmental Assessment. We have confirmed that the proposed pipeline crosses portions of two Drinking Water Supply Management Areas (DWSMAs). These belong to the cities of Grand Rapids and Oklee, respectively. The vulnerability of the Grand Rapids DWSMA ranges from moderate to low, whereas that of Oklee is low. In addition, we have confirmed that the proposed pipeline will cross a portion of the WHPA for the city of Grand Rapids well field. We feel that it is important for special safeguards to be in place within DWSMAs, and especially within WHPAs. For that reason, we recommend that: A) leak detection efforts be enhanced in such areas, and B) in the event of a leak, cleanup be initiated in an aggressive fashion and the Wellhead Protection Manager for a given DWSMA be contacted as soon as possible. The Wellhead Protection Manager for Grand Rapids is Mr. Dennis Doyle of Grand Rapids Public Utilities; he can be reached at 218/326-7192. The Wellhead Protection Manager for Oklee is Mr. Leo Olson, who can be reached at 218/796-5183.

3) Regarding Section 8.3.2 of the Environmental Assessment Which Discusses Domestic Wells. Minnesota Rules, part 4725.4450, subpart 1, item A, establishes a 150-foot isolation distance between a water supply well and various contamination sources, including a petroleum pipeline. According to Minnesota Statutes, section 103I.205, subdivision 6, "A person may not place, construct, or install a potential source of contamination any closer to a well than the isolation distances prescribed by the commissioner by rule unless a variance has been prescribed by rule." In other words, a proposed petroleum pipeline cannot be placed closer than 150 feet to an existing water supply well, unless a variance is obtained prior to placement of the pipeline. A variance cannot be granted after the fact. In granting a variance, the applicant must assure the same level of protection for the well.

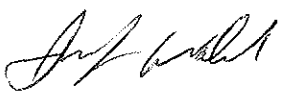
   Properties adjacent to the pipeline route should be checked for water supply wells with respect to this isolation distance. For wells within 150 feet of the proposed pipeline, the pipeline contractor has a variety of options, including adjusting the pipeline location to meet the minimum isolation distance, obtaining a variance, or sealing the well and constructing a replacement well beyond the 150-foot distance.

   The isolation distance applies to both water supply wells that are in-use or not-in-use (but not permanently sealed). The isolation distance requirement will no longer apply only when the well has been sealed by a licensed well contractor (or well sealing contractor) and the well sealing is documented by a Well and Boring Sealing Record.

   The Minnesota Department of Health (MDH) is proposing a number of revisions to Minnesota Rules, Chapter 4725 (Rules related to Wells and Borings). One proposed revision would reduce this specific isolation distance to 100 feet. The MDH anticipates noticing the proposed rule revisions later in 2007 and anticipates the revisions to be effective in early 2008.

Thank you for the opportunity to comment on the proposed project. If you have any questions, you can contact me at 651/201-4654.

Sincerely,



James F. Walsh, Hydrogeologist
Environmental Health Division
P.O. Box 64975
St. Paul, Minnesota 55164-0975

JFW:kmc
cc: Beth Kluthe, MDH Principal Planner, Bemidji District Office
Larisa Vishkovetsky, MDH Principal Planner, St. Paul Office
Larry Hartman, Project Manager, Minnesota Department of Commerce
Deborah Pile, Public Advisor, Minnesota Department of Commerce
Bret Eknes, Project Manager, Minnesota Public Utilities Commission
Elizabeth Orlando, OES/ENV, U.S. Department of State

State of North Dakota

Office of the State Engineer

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September 21, 2007

Brian Bjella, Attorney
Fleck, Mather & Strutz, Ltd.
400 East Broadway, Suite 600
P.O. Box 2798
Bismarck, ND 58502-2798

Dear Mr. Bjella:

This office received, on August 24, 2007, a "Notice of Filing and Notice of Hearing" letter from the North Dakota Public Service Commission for Enbridge Pipelines (Southern Lights) L.L.C. (Enbridge SL) and Enbridge Energy, Limited Partnership (Enbridge LP). Enbridge SL proposes to construct 28 miles of 20-inch liquid petroleum pipeline and associated facilities in Pembina County (LSr Project). Enbridge LP proposes to construct 28 miles of 36-inch liquid petroleum pipeline and associated facilities in Pembina County (Alberta Clipper Project).

According to the map enclosed with the notice, both pipelines cross the Red River of the North, and therefore, lie within sovereign land of the State of North Dakota. Sovereign land is defined in NDCC §61-33-01.3 as "those areas, including beds and islands, lying within the ordinary high watermark of navigable lakes and streams". NDAC §89-10-01-04 authorizes the State Engineer to require a permit for all projects that lie either partially or wholly on sovereign land.

Please complete a sovereign lands permit application and return it to this office along with the required information. The application is available upon request or at our website (www.swc.state.nd.us) under "Permits". Submit a separate application for each project. If you have any questions or concerns regarding this procedure, please contact me at (701) 328-4868 or lcackerman@nd.gov.

Sincerely,

Laura C. Ackerman

Laura C. Ackerman, E.I.T.
Water Resource Engineer

LCA:lca/1625

c: Public Service Commission

Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40__

September 24, 2007

Ms. Elizabeth Orlando
Office of Environmental Policy
U.S. Department of State
OES/ENV Room 2657
Washington D.C. 20520

RE: Enbridge Pipelines (Southern Lights) L.L.C. (LSr Project) and Alberta Clipper Project
Federal Register Notice of Intent to Prepare Environmental Assessments

Dear Ms. Orlando:

The Minnesota Department of Natural Resources (MDNR) has reviewed the Environmental Assessment (EA) scoping materials submitted by Enbridge Pipeline L.L.C. The Federal Notice invites state agency comments and asks that those comments focus on potential environmental impacts associated with the pipeline projects, and measures to avoid or lessen environmental impacts. To that end, MDNR has the following comments.

Potential Natural Resource Impacts

The proposed project will result in the construction and routing of a new 36-inch pipeline and a new 20-inch pipeline across northern Minnesota. For a majority of the route, the new pipeline corridor follows existing pipeline corridors already five pipelines wide from North Dakota to Clearbrook, MN and four pipelines wide from Clearbrook to Wisconsin. Because a wide corridor will become even wider as a result of this project, an analysis of cumulative impacts, and mitigation for these impacts, should be an important element of federal environmental review. While constructing a new pipeline along an existing corridor can result in less impact than a newly constructed corridor; shifting land uses, regulatory changes, and new environmental conflicts can occur even along an existing corridor, and should be described during environmental review.

In reviewing the scoping materials presented, it appears that the analysis relies on a generic configuration of new pipelines that uses the narrowest corridor possible (or, the maximum possible overlap with the existing corridor). While MDNR encourages the proposer to use the narrowest construction corridor wherever possible, in actuality, there will be substantial deviations from such a configuration, including deviations from the existing corridor that are not described in the applications, deviations in areas of existing land use conflicts, "cross-overs" to the non-working side of the existing corridor, and corridor widening in hilly terrain and other sensitive areas. Analysis of the expanded corridor should also include temporary work areas, access roads, and other ancillary facilities.

Federal environmental review should address and analyze the following natural resource impacts associated with the project (with consideration given to the cumulative nature of impacts, total construction corridor width, and each route alternative identified), and consider how to avoid or mitigate these impacts.

- Loss of fish and wildlife habitat value from permanent removal of forested or brush habitat along river and creek corridors.

    - River corridors lined with trees and shrubs provide high value fish and wildlife habitat. Best Management Practices (BMPs) have been developed to retain these values. Minnesota shoreland zoning regulations and MDNR protected waters regulations promote retention of such vegetation.

    - River edge habitat that includes trees, an understory, and shrubs is crucial for species such as mink, otter, beaver, and many species of birds. Open riverbanks expose some of these species to predators. These include ground predators (such as fox and coyotes), and aerial predators (such as hawks and eagles.) Many prey species avoid open areas because of this exposure. Therefore, removal of woody vegetation directly degrades this habitat value. It is likely that the susceptibility of prey species to either ground or aerial predators increases exponentially as the corridor widens, since the wider distance provides the predator with more time and distance to overcome prey species attempting to escape.

    - Woody vegetation along riverbanks can also provide shade that maintains cooler stream temperatures, which is important for cold-water fisheries such as trout streams.

    - The conservative estimate for post-construction, semi-permanent corridor width noted in the application is 250 feet. For the Alberta Clipper project, there are 64 perennial and 88 interment streams crossed. This would result in 6 miles and 8.3 miles, respectively, of cumulative loss of woody vegetation on riverbanks.

- Loss of woody vegetation that protects stream banks from erosion and channel migration.

    - Woody vegetation provides significantly better streambank stability during high river flows than do native grasses. In fact, normal river restoration BMPs involve planting woody vegetation (such as willows) instead of rock rip rap because trees and shrubs can provide better stability than rip-rap and have positive habitat values.

    - Adding pipelines to an existing pipeline corridor increases the likelihood of crossing streams at an angle or at meanders. As noted in the Enbridge documents, crossing a stream at a perpendicular angle is the lowest impact approach. A normal undamaged river system always has meanders, and meanders are constantly migrating. Channel migration is more active in streams in highly modified landscapes. Perpendicular crossings are normally placed between meanders in order to avoid multiple channel crossings, minimize crossing length, and cross at the location with the most stable stream banks. As more pipelines are added to an existing corridor, the likelihood of an available perpendicular river crossing is reduced. The MDNR has noted a number of locations where new pipelines are likely to cross at an oblique angle, at or near a stream meander.

- Soil compaction in heavy soils on the 65-foot wide temporary workspace area.

    - Studies indicate that soil compaction from the kind of heavy equipment used in pipeline construction and routing is estimated to last 200-300 years, and creates an essentially permanent condition in high clay soils. Soil degradation from compaction can result in establishment and proliferation of invasive non-native species, since a number of these species do well in poor soil areas.

- Long-term disruption of specific types of wetlands.

    - In some cases, wetland vegetation and wetland characteristics return to pre-construction conditions relatively quickly after large-diameter pipeline construction. In other cases, the impacts can be long-term. Compaction of organic soils can change wetland hydrology so that species changes occur. A return to pre-construction vegetation is unlikely for many years.

    - The types of wetlands that appear to be most affected by large-diameter pipeline construction (including the Enbridge corridor proposed for expansion) in northern Minnesota include: (1) Ecologically complex wetlands, such as spring-fed wetlands where there is groundwater discharge in channels through the wetland, as well as laterally under the wetland surface and to adjacent streams; (2) Wetlands with high species diversity of native plants and deep organic soils; (3) Wetlands that are sloped where it is difficult to return to pre-construction contours (often these are spring-fed wetlands); and (4) Wetland complexes that have a stream as an integral part of the ecological feature, such as trout streams through groundwater discharge zones.

- Conversion of forest and shrub habitat to grassland.

    - As pipelines expand in forested areas, these habitats are converted to open land dominated by grasses. In addition, the larger the contiguous area of the opening, it is more likely that open country wildlife species will become established within the forest area. Some wildlife species benefit from these changes, but it is likely that the others, such as native songbirds dependent on mature forest habitat, suffer some losses. Practically speaking, the focus of analysis on this aspect of habitat loss should likely be on specific sites with identifiable forest values, such as certain old growth forest stands already specifically identified as having value.

    - Long-term conversion of Minnesota forest land to open areas likely means merchantable timber can no longer be produced.

- Impacts associated with crossing streams and rivers.

    - Some streams and rivers have characteristics that are more sensitive to the large amount of excavation that will occur from trenched crossings because impacts can be longer-term. For example, some small trout streams in heavily vegetated areas are not capable of handling sediment, since they normally carry very little sediment. In this case, if pipeline construction mobilizes extra sediment from excavation of its bed and banks, or if it receives a burst of sediment from the construction right of way during a large rain event, channel modifications can occur for some distance downstream. This could be a serious, long-term impact.

- Rare species and plant communities [See attached information sheet].

- Invasion of non-native species.
    - There are several characteristics of pipeline construction that enhance the spread of invasive exotic species. These include: (1) Extensive deep excavation over the trench and on side-hill areas from construction of the work pad, as well as the extensive and extended soil exposure during the construction season; (2) Soil compaction degrading the quality of soil is conducive to invasion of non-native. Many of the most problematic non-native species are adapted to invasion in areas of exposed soil, or areas of poor soil such as where topsoil has become buried or where there is compaction; and (3) Lack of corridor maintenance practices after the construction period in areas where poor soils prevents or reduces the creation of a good cover of native species.
- Additional exposure of rivers and riverbanks to ATV traffic on the pipeline right of way.
    - Pipeline corridors--as well as other utility corridors--are sometimes attractive locations for unauthorized ATV travel. The corridor provides easy access to locations along the right of way, and for recreation. Such traffic can cause environmental problems from prevention of re-vegetation, especially on sensitive sites such as riverbanks, as well as trespass problems.
- Pipeline construction and operation effects on MDNR working lands (e.g. Forestry practices).
- Extent to which gravel deposits along the corridor are available for extraction after pipeline construction.
- Impacts related to recreational use conflicts (e.g. big game hunting).
- Impacts associated with different water body crossing techniques.
- Impacts associated with transferring water across major drainage divides, including the risk of transferring organisms not known to occur in the receiving basin.
- Potential impacts of a diluent leak or rupture.
- Potential for mobilizing toxic materials during excavation of the pipeline route at the St. Regis Paper Company Superfund site (near City of Cass Lake, Cass Co.).
- Cumulative impacts of constructing two new pipeline corridors adjacent existing pipeline corridors, including estimates of additional widening when deviating from minimum corridor width.

Potential mitigation measures

The MDNR will work with the applicant, and state and federal agencies to develop sound mitigation measures for the proposed project. The MDNR and other state and local government agencies have recently completed a review of another large-diameter, crude oil pipeline called the MinnCan project. Construction began in August. Detailed mitigation plans were developed for this project, and reflect current practices and regulatory approaches in Minnesota. These mitigation plans can be accessed at a FTP site (ftp://ftp.nrg-llc.com/FTP08) maintained by the company's consultant. By the end of the federal and state review processes, it is important that a similar mitigation plan be developed for the Enbridge project.

The following list identifies important project-related mitigation measures:

Winter construction. Constructing pipelines during frozen-ground conditions has clear environmental advantages, including areas where forested upland clearing is necessary. Winter clearing on frozen ground causes less disruption of vegetative root mass. Restoration and re-vegetation of temporary construction areas can also occur more rapidly. This technique should be regarded as an overall mitigation measure to the extent practicable.

Erosion and sediment control plans. Pipeline construction has a high potential risk of erosion and sedimentation within aquatic and wetland habitats because of the large amount of soil exposure, extended time of exposure, and the large amount of excavation potentially altering local drainage. Increasing focus on non-point sources of sediment has meant the development of increasingly sophisticated control methods. This project will be a particular challenge however, because of the construction of two new pipelines alongside each other. In some cases the construction will occur in consecutive seasons, requiring temporary controls in those locations where permanent re-vegetation cannot occur until the next season. In other cases, the installation of the second pipeline will follow behind the first; potentially complicating restoration, erosion and sediment control plans. The environmental analysis should therefore include a detailed explanation of how project timelines will be coordinated, and the resulting implications for mitigation.

Crossing techniques. Impacts to sensitive rivers can be avoided by using Horizontal Directional Drilling (HDD) water body crossing techniques. These types of crossings can be expensive. In our experience, it is often unclear how pipeline companies chose to do such crossings, and how they respond to our recommendations for such crossings. It is especially important on this project to analyze this major mitigation measure in detail because there are two pipelines involved. An HDD is less costly for a 20-inch line as compared to a 36-inch line, but an HDD for the latter size pipeline can also be accomplished. During the review of this project, the environmental justifications for going to an HDD crossing will be the same for either project, but the engineering and costs may not be the same. This raises an issue of whether to do both HDDs simultaneously--as well as the engineering and environmental question of whether both crossings simultaneously no matter what method is used.

Extra workspace needs in environmentally sensitive areas. The environmental analysis should contain a discussion and analysis of this issue. Mitigation such as retention of vegetative strips along riverbank crossings and topsoil segregation during construction should be considered and analyzed in the review.

Construction monitoring. Pipeline construction proceeds rapidly through the landscape. Although temporary erosion controls are established, there remains a high risk of environmental damage at river crossings in the event of large weather events. In our experience, environmental inspection procedures developed by the company and regulatory agencies can be a major mitigation measure. In the past, MDNR has entered into voluntary agreements with pipeline companies whereby the company funds MDNR-supervised inspectors. This should be addressed in the analysis as a significant mitigation measure.

MDNR Participation in State and Federal review of Enbridge proposals

The MDNR supports coordination among federal and state agencies as project review proceeds. The MDNR will copy the Department of State on comments submitted to the Minnesota Public Utilities Commission during state permitting and environmental review. These comments may be an elaboration of comments made in this scoping letter.

Thank you for the opportunity to review the scoping materials for this project. Please contact me with any questions regarding this letter.

Sincerely,

Matt Langan
Environmental Review Unit
Division of Ecological Services
(651) 259-5115

ATTACHMENT

c: Steve Colvin, Larry Hartman – MDOC, Leo Grabowski – USACE, Paul Meneghini – Enbridge, Tim Anderson - NRG

ERDB#20070268-0004
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MN Natural Heritage and Nongame Research Program information sheet

A. Overview of rare species and plant communities' management in Minnesota. Minnesota's Natural Heritage and Nongame Research Program (NHNRP), administered by the Minnesota Department of Natural Resources (MDNR), maintains the Natural Heritage Information System, a collection of databases that provide the most complete information on Minnesota's rare species and native plant communities. Much of this data is collected by the Minnesota County Biological Survey (MCBS), also administered by the MDNR. The MCBS has been systematically surveying each county in Minnesota for rare biological features since 1987. This survey has been completed for some of the counties along the proposed pipeline route (Aitkin, Carlton, Cass, Kittson, Marshall, Pennington, Polk, and Red Lake) but has not been completed for other counties (Clearwater, Beltrami, Hubbard, Itasca, and St. Louis.) However, there is some data from the uncompleted counties, and the NHIS is continually updated even in completed counties.

The MCBS has also identified several areas within the state as "Sites of Biodiversity Significance." "Sites of Biodiversity Significance" are areas with varying levels of native biodiversity that may contain high quality native plant communities, rare plants, rare animals, and/or animal aggregations. Biodiversity significance is evaluated on the basis of the number of rare species, the quality of the native plant communities, size of site, and context within the landscape. For instance, outstanding ranking sites are defined as sites containing the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state. These designations are used in MDNR permit decisions, land management decisions, and for advising other governmental units as to the significance in their land management or permit decisions. For instance, these designations have been incorporated into guidelines for administering Minnesota's Wetland Conservation Act.

The proposed Enbridge pipelines have the potential to negatively affect some rare species and native plant communities that are protected under Minnesota state law. MDNR administers these laws. Minnesota's endangered species law (Minnesota Statutes §84.0895) and associated rules (Minnesota Rules Chapter 6212.1800 -6212.2300 and 6134) prohibit taking, importing, transporting, or selling endangered or threatened plants or animals, including their parts or seeds, without a permit. For plants, taking includes picking, digging, or destroying. In addition, a calcareous fen is an extremely rare type of wetland that is critically endangered in Minnesota. Calcareous fens are designated as "outstanding resource value waters" in water quality regulations administered by the Minnesota Pollution Control Agency (MR Chap. 7050.0180) and they are given special protection through Minnesota Rules part 8420.1010 - 8240.1060. The Wetlands Conservation Act, authorized by Minnesota Statutes 103G.223, states that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by any activity, except as provided for in a management plan approved by the commissioner of the Department of Natural Resources. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Therefore, impacts to groundwater in the vicinity of fens can also negatively affect a fen.

B. Overall adequacy of Review. The sections of the Enbridge applications pertaining to rare plant communities and rare species are not adequate. Clearly, the pipeline may affect protected species and plant communities of statewide significance. Adverse impacts to these species and communities should be regarded as significant under both the National Environmental Policy Act administered by the Council on Environmental Quality (CEQ) and the Minnesota Environmental Policy Act administered by Minnesota Environmental Quality Board. Adequate measures to

avoid significant adverse impact to these features cannot be developed without an adequate analysis of potential impacts to them.

During the beginning stages of review of this project, Enbridge asked for a review from the NHNRP database of rare species and communities. A response was provided by MDNR in a 10/3/2006 letter to Joe Reinemann, NRG, Inc., from Sarah Wren, NHNRP. In addition, MDNR sent a letter to Enbridge indicating its concerns with the existing corridor in the Cass Lake area. The Department of State and Minnesota Public Utilities Commission (MPUC) applications do not address these comments.

C. Examples of issues not adequately addressed. The October 3, 2006 NHNRP letter raised a number of issues that have not been addressed in the Enbridge applications. The MDNR will not repeat all these issues in this information sheet. However, there are several items that are worth mentioning because they are examples of the more important deficiencies in the applications regarding analysis of impacts to rare species and communities. These are as follows:

1. Known specific sites along the pipeline corridor. The 10/3/2006 letter notes three specific locations on the pipeline corridor where rare species or plant communities exist. (Mileposts 817.2 in Kittson Co., 844 in Marshall Co., and 853 in Pennington Co.) Additional analysis is needed at these locations.

2. Cass County pipeline corridor with respect to endangered or threatened Botrychium species and existing mitigation project. The last expansion of the Enbridge corridor in 2001-2002 resulted in the pipeline impacting locations of individual plants that are protected by Minnesota law. This led to a mitigation project for the taking of *Botrychium spp.* plants in the vicinity of Cass Lake, Cass. Co. that is still ongoing. Normally, because of lack of knowledge of soil, habitat requirements, and other issues, transplantation of endangered or threatened species is not considered adequate mitigation for their destruction. For various reasons concerning these particular species, including the U.S. Forest Service development of a transplantation plan, the MDNR Takings Permit for the last Enbridge expansion specified that mitigation would include a monitoring study of the transplanted plants to determine whether transplantation was successful.

Another pipeline expansion in this area would cut short this monitoring study, and likely affect additional individual plants in the proposed new construction areas. The problems with this are discussed in the 10/3/2006 and 11/22/2006 letters from MDNR to Enbridge. There is no discussion in the applications regarding the potential impact to the ongoing *Botrychium* monitoring project that was initiated as mitigation under previous permits for Enbridge projects. As mentioned in the MDNR 10/3/2006 letter, an assessment needs to be done as to whether or not any state-listed threatened or endangered *Botrychium* species will be impacted by the new pipeline. This includes plants that were transplanted under the previous permits for Enbridge projects. The MDNR would have serious concerns if the new pipeline were to impact any of the populations included in the monitoring project.

The MDNR indicated in a meeting with Enbridge (December 21, 2006) that, because of the *Botrychium* issues and other corridor restrictions, we favored a thorough study of an alternate route following the Great Lakes Gas Corridor. Even though this corridor may also have protected *Botrychium* species, MDNR indicated that such a corridor would at least not compromise the existing mitigation study.

The comparison of major route alternatives in Section 2.2.3.3 of the Alberta Clipper Dept. of State application does not include an analysis of impacts to rare species or other rare features.

The description of the route comparison methods indicates that factors that were the same for both routes were not analyzed. However, there is no evidence provided that supports a conclusion that rare species issues are the same for both routes. For example, clearly, the Great Lakes Gas corridor has an advantage since the ongoing mitigation project would not be compromised.

The environmental analysis needs to fully analyze rare species issues, as well as the ongoing mitigation project on the existing corridor. For either route, survey work will be required in all construction areas that contain potential habitat for *Botrychium* species.

This should include the determination of whether or not the pipeline projects have the potential to impact the rare features listed, and any proposed avoidance and/or mitigation measures.

D. Additional comment. Upon further discussion with the MDNR Nongame Specialist for Minnesota's Northeast Region, it appears that the wood turtle, a state-listed threatened species, may be present in the vicinity of the eastern portion of the Enbridge corridor in Carlton County. The impact analysis should include a discussion of potential impacts to this species.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OCT 01 2007

REPLY TO THE ATTENTION OF
E-19J

Ms. Elizabeth Orlando
OES/ENV Room 2657
U.S. Department of State
Washington, DC 20520

Re: Correction to U.S. EPA's Scoping Comments Regarding Permits for Enbridge Energy, Limited Partnership (Alberta Clipper Project)

Dear Ms. Orlando:

This letter serves to correct one comment in our September 10, 2007, letter to you concerning the above referenced proposed crude oil pipeline project. We regret this error.

The September letter incorrectly states, "The following permits from U.S. EPA, Region 5 will be needed for any portion of Enbridge's Alberta Clipper proposal and connected actions that would occur within the exterior boundaries of the Leech Lake and/or Fond du Lac Indian Reservations: (1) Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) discharge permit for discharges to waters of the U.S. from ground water pump out or process water associated with pipeline hydrostatic pressure testing, and (2) CWA Section 401 water quality certification for Corps CWA Section 404 wetland permits, water body crossings or discharge into waters of the U.S. U.S. EPA contact information is provided in the enclosure." The above information was also reiterated in the enclosure to our September letter.

In 1996, the Fond du Lac Tribe was authorized to administer a water quality standards program, and in December 2001, received approval of their water quality standards by the U.S. EPA. Therefore, the Fond du Lac Tribe and not U.S. EPA, Region 5 would issue the CWA Section 401 water quality certification for the CWA Section 402 permits issued by U.S. EPA, Region 5 and Corps CWA Section 404 permits for actions that would occur within the exterior boundaries of the Fond du Lac Reservation.

Please note that our original comment quoted above is still applicable for projects within the Leech Lake Reservation.

If you have any questions, please contact Virginia Laszewski of my staff at 312/886-7501 or email her at laszewski.virginia@epa.gov.

Sincerely,

Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

cc: Karen Diver, Chairman, Fond du Lac Band of Chippewa
George J. Goggleye, Jr., Chairman, Leech Lake Band of Ojibwe
Wayne Dupris, Environmental Program Manager, Fond du Lac Band of Chippewa
Shirley Nordrum, Environmental Program Director, Leech Lake Band of Ojibwe
Larry Svoboda / Richard Clark, U.S. EPA, Region 8
Tamara Cameron, U.S. Army Corps of Engineers, St. Paul District

USDA FARM SERVICE AGENCY MINNESOTA STATE OFFICE
UNITED STATES DEPARTMENT OF AGRICULTURE
AGRIBANK BUILDING, SUITE 400
375 JACKSON STREET
ST PAUL, MN 55101-1852
(651)-602-7700
(651)-602-7743 FAX

Daniel Flo
Natural Resource Group
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

October 2nd, 2007

Dear Mr. Flo:

I appreciated the opportunity to discuss the upcoming proposals for the 3 different pipelines to be constructed by ENBRIDGE ENERGY across northern Minnesota. As we discussed, FSA may be able to provide some of the information you requested in your letter. In order to effect this release of data it will be necessary for you to formally make this request under the Freedom of Information Act (FOIA). This request should be directed to the Farm Service Agency State Office at the address listed above.

To expedite any necessary data acquisition it will be very helpful if you would provide the agency with the shape file for the proposed corridor alignment. In addition, it would also be helpful to have shape files of the affected existing corridors indicating alignment and easement boundaries. It is my understanding that the new easement will be adjacent in most cases to the existing easement but will not necessarily utilize any existing easement. These alignments should include and identify the temporary construction easement as well. If we are provided centerlines and dimensions we can incorporate appropriate buffers. If the alignment is still fluid then please give dimensions of the outermost design. These shape files can be forwarded electronically to me at jeff.johnson@mn.usda.gov and also to jeff.bloomquist@mn.usda.gov.

As we move forward in completing any environmental work (NEPA) that we are required to do for our various programs we will be in further contact with you. If you can help ensure that FSA's NEPA considerations are addressed in any EIS that is completed will expedite our review process as well. As we discussed, the potential for impacts may not only include lands encumbered by CRP/CREP contracts but also those lands currently subject to FSA (formerly FmHA) mortgages, lands subject to Debt for Nature Contracts and Easements, and lands subject to restrictive easements to protect important resources such as wetlands and threatened and endangered species. These restrictive easements were retained in favor of the government when farms that had been acquired through voluntary conveyance or foreclosure were sold out of government inventory. They are filed of record at the various recorders offices in the county in which they are located.

If you have any questions on the agencies' NEPA responsibility or FmHA mortgages please contact me at 320-235-3540 x113. Any questions on CRP policy should be directed to Greg Anderson, Chief Specialist for CRP or Glenn Schaefer Assistant Specialist. They can be reached at 651-602-7708 or 7704 respectively. If the questions are related to impacts on other agency programs we will relay them to the appropriate program area.

Sincerely:

Jeff Johnson
State Environmental Coordinator
State Farm Loan Program Specialist

CC: Perry Aasness, State Executive Director
Greg Anderson, Chief Conservation Specialist
Stuart Shelstad, Chief Farm Loan Program
Jeff Bloomquist, Lead GIS Specialist

Minnesota Department of Natural Resources
Division of Waters
2115 Birchmont Beach Road NE
Bemidji, MN 56601
218-755-3973

October 10, 2007

Leo Grabowski, Brainerd Field Office
U S Army Corps of Engineers
10867 East Gull Lake Drive NW
Brainerd, MN 65401
(Attention 2006-5527-LAG)

Dear Mr Grabowski:

RE: Comments on Section 404 Public Notice, Enbridge Pipeline Company proposed pipeline projects, with particular focus on the LSr Project (ERDB#20070268-0005)

Thank you for the opportunity to comment on the proposed Enbridge pipeline projects. The regulatory review of these projects is complex, with multiple jurisdictions and processes covering, in some cases, overlapping topics such as wetland or waterbody impacts. The Minnesota Department of Natural Resources (DNR) has been informed that this initial 404 public notice is for the LSr project, which is a 20-inch crude oil line from the North Dakota border to Clearbrook Minnesota, and that the COE intends to process this permit under its nationwide permitting process. DNR further understands that it is the intent of the COE that there will be a future public notice for an individual permit for the 20-inch pipeline from Clearbrook to the Wisconsin border combined with the 36-inch project crossing Minnesota (Southern Lights and Alberta clipper projects).

DNR has submitted comments to other jurisdictions and will be submitting additional comments on the future COE 404 public notice, as well as processing applications to the DNR from Enbridge for licenses to cross state lands and waters. The DNR's scoping comments to the US Department of State are attached (September 24, 2007 letter to Elizabeth Orlando, US Department of State, from Matt Langan, DNR.). Also attached are DNR's initial comments to the Minnesota Public Utilities Commission (PUC) (October 8, 2007 letter to Ms. Sharon Ferguson, MN Department of Commerce, from Matt Langan, DNR.). Please regard the two enclosed DNR comment letters as comments on the 404 public notice for jurisdictional wetlands.

We are trying to integrate our comments on all of the regulatory processes with two goals equally in mind; first, to foster cooperation among the reviewing agencies and Enbridge, and second to identify routes that do the least damage to natural resources by judicious route selection and development of sound mitigation measures to be applied during and after construction. We believe that cooperation among the parties is the basis for developing sound mitigation measures. In addition, DNR is conducting continuing field investigations of the proposed routes.

We have the following comments:

1. This 404 public notice concerns the LSr pipeline; however, this project is proposed as an expansion of the existing Enbridge corridor, and the Alberta Clipper project is intended to be constructed alongside the LSr project in a succeeding and almost overlapping time period (Construction for the Alberta Clipper project may begin in the 2007-2008 winter season in some locations.)

   It is not practical to separate out impacts from one project from the other, or to separately determine the least damaging location for the proposed projects. Therefore, DNR has been reviewing both projects in the corridor from North Dakota to Clearbrook. This includes potential impacts to wetlands and waters with COE jurisdiction.

2. DNR understands that Enbridge has asked that the COE consider all wetlands as being jurisdictional in order to simplify the regulatory process. DNR notes that should this occur, DNR will continue to make comments to the Board of Water and Soil Resources and local units of government regarding wetlands pertaining to the Wetland Conservation Act, as well as process applications when the DNR has jurisdiction. If this approach does not cause conflicts with the Enbridge request, Enbridge's suggestion may have merit.

3. COE jurisdictional wetlands are often in close proximity to DNR public waters and wetlands. River corridors often have wetlands that have important wildlife habitat values, and include these wetlands, as noted in the two DNR comment letters. There are also other comments that note that additional analysis of impacts and mitigation measures is needed; some of these also pertain directly or indirectly to wetland impacts. An example is the comments in the enclosed DNR letter to the Department of Commerce asking for more information concerning the practice of placing the new pipelines on the "non-working" side of the existing pipeline corridor.

4. In some wetland areas, large-diameter pipelines can be installed so that there are few long-term impacts. However, as noted in the two DNR comment letters, in the sections "Long-term disruption of specific types of wetlands," there are situations where long-term impacts to wetlands can result. The COE permitting process should address these topics.

5. There are potential impacts to certain wetlands that have relatively shallow organic soils that can result if substrate materials being brought to the surface of the wetlands during trenched excavation, since the trench can be six or more feet in depth. Substrates can be materials such as clay that can alter wetland vegetation for the long term, or result in a greater likelihood of invasion by exotic plant species. Such wetlands are common along the LSr corridor. Careful attention to the language in the wetland crossing mitigation plan, as well as monitoring during construction, can eliminate this potential impact.

6. During the initial field work for this project, DNR has identified a specific area where the proposed route crosses a "Site of Outstanding Biodiversity Significance." This crossing is from MP 852.7 to MP 855.5. This route segment contains rare plant communities and species associated with spring discharge wetlands. The corridor expansion in this area may damage these wetlands. Further information and recommendations are provided in the October 8, 2007 letter to Ms. Sharon Ferguson, MN Department of Commerce, from Matt Langan, DNR (See Item #4 in the section on the Alternative Route Analysis section of the comments.)

7 After an analysis of feasibility, requiring that both pipelines be installed at the same time in sensitive wetland and water body areas should be addressed as a possible mitigation measure. In addition, there is a large wetland west of Trail, Minnesota where winter construction should be looked at for both pipelines (MP 895).

Thank you for the opportunity to review this project. If you have specific questions related to these comments, please feel free to call me.

Sincerely,

for Bob Bezek

Robert J. Bezek
Regional Hydrologist

RJB:cda

Enclosures
c: Steve Colvin, Department of Natural Resources
Mike Peloquin, Department of Natural Resources
Larry Hartman – MDOC
Elizabeth Orlando – U.S. Department of State
Tamara Cameron– USACE
Paul Meneghini – Enbridge
Tim Anderson – NRG
Will Haapala -- Minnesota Pollution Control Agency
Dale Krystosek-- Minnesota Board of Water and Soil Resources
file

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

October 26, 2007

Ms. Elizabeth Orlando, Esq.
OES/ENV
Room 2657A
U.S. Department of State
Washington, ND 20520

ND SHPO REF: 06-1063 Department of State (DOS)/ND PSC Enbridge Energy's proposed: (1) Alberta Clipper and (2) Southern Lights Petroleum Pipelines from the United States-Canadian border near Neche, North Dakota to Clearbrook, Minnesota [Pembina County, North Dakota]

Dear Ms. Orlando:

We accept the invitation to participate in consultation regarding Department of State (DOS)/ND PSC Enbridge Energy's proposed: (1) Alberta Clipper and (2) Southern Lights petroleum pipelines from the United States-Canadian border near Neche, North Dakota, to Clearbrook, Minnesota, and we look forward to further consultation and correspondence on these two projects. Cultural resource protocols on proposed energy-related projects have been established and these protocols have been successfully carried out over the past two decades on a number of projects.

Thank you for the opportunity to review this project. Please include the **ND SHPO Ref.: 06-1063** in further correspondence for this project. If you have any questions please contact either Paul Picha at (701) 328-3574 or Susan Quinnell, Review and Compliance Coordinator at (701)328-3576 or squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota

c: Susan E. Wefald, Commissioner, ND PSC

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101-1854

Phone: (651) 602-7900
FAX: (651) 602-7914

File Code: 190-15-13

November 8, 2008

IN REPLY
REFER TO: Enbridge Southern Lights Project/Environmental Mitigation Plan

Daniel Flo,
NRG Deputy Project Manager,
Enbridge Southern Lights Projects
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

Dear Mr. Flo:

I have reviewed the above referenced project. Since you as the project sponsors are not USDA program benefit recipients, the wetland conservation provisions of the 1985 Food Security act, as amended are not applicable.

I do want to commend your actions, however, as a non-USDA participant third party (project sponsor) which impact agricultural wetlands owned or operated by USDA participants, in that you have taken the necessary steps to protect the owner/operators USDA eligibility. You have identified all CRP, CREP, and WRP lands that your pipeline project will impact, and you have made plans to work with all of these owner/operators to restore any excavated trenches to their normal surface elevations and pre-existing vegetative covers. You are also commended on your stream crossing plans, and for making plans to control any noxious weeds. Your Mitigation Plan is very thorough and complete.

Finally, because of the location and type of activity proposed, this project will not permanently impact, nor permanently alter existing agricultural lands through which your buried pipeline will be installed, and a Federal Farmland Policy Protection Act (FPPA) site assessment/land evaluation will not be required.

Sincerely

WILLIAM E. LORENZEN
Environmental Review/Justice Coordinator

cc: William Hunt, STC, NRCS, St. Paul, MN
Glen Kajewski, ASTC (FO), NRCS, Thief River Falls, MN
Gwen Kappes, DC, NRCS, Warren, MN

United States Department of the Interior

National Park Service

Midwest Region
601 Riverfront Drive
Omaha, Nebraska 68102-4226

NOV 20 2007

L60(MWR-PCL/PC)

Mr. Daniel Flo
Natural Resource Group
1000 IDS Center
80 South Eighth Street
Minneapolis, Minnesota 55402

Dear Mr. Flo:

Thank you for your letter of October 31 on behalf of Enbridge Energy, Limited Partnership and Enbridge Pipelines (Southern Lights) L.L.C (referred to collectively as Enbridge) requesting guidance on a proposal to expand transportation capacity in the upper Midwest. Enbridge plans to build three new liquid petroleum pipelines and reverse the flow of an existing pipeline between the U.S./Canada border near Neche, North Dakota, and Superior, Wisconsin. The route includes crossings of three rivers, which are listed on the Nationwide Rivers Inventory (NRI), prepared by the National Park Service (NPS). The rivers are the Pembina River in North Dakota and the Middle and Red Lake Rivers in Minnesota.

The NRI is a register of rivers that may be eligible for inclusion in the National Wild and Scenic River System. These rivers were included on the NRI based on the degree to which they are free-flowing, the degree to which the rivers and their corridors are undeveloped, and the outstanding natural and cultural characteristics of the rivers and their immediate environments. Section 5(d) of the National Wild and Scenic Rivers Act requires that:

> In all planning for the use and development of water and related land resources, consideration shall be given by all Federal Agencies involved to potential national wild, scenic and recreational river areas.

The intent of the NRI is to provide information to assist in making balanced decisions regarding use of the nation's river resources. A Presidential directive and subsequent instructions issued by the Council on Environmental Quality required that each Federal Agency as part of its normal planning and environmental review processes, take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, all Agencies are required to consult with the NPS prior to taking actions that could effectively foreclose wild, scenic, or recreational status for rivers on the inventory.

The Pembina River was listed on the NRI because of its free-flowing condition, water quality, and outstanding scenic, geologic and wildlife values. The Middle River was listed on the NRI because of its free-flowing condition, water quality, and outstanding scenic qualities. The Red Lake River was listed on the NRI because of its free-flowing condition, water quality, and outstanding scenic and recreational opportunities. Generally, to reduce impacts to these rivers and their associated values, we recommend the following:

1. To the extent practicable, utilize horizontal directional drill (HDD) methods to cross the rivers. Entry/exit boreholes should be located outside of the riparian corridor and measures should be in place to prevent inadvertent releases from entering the river.
2. In the event HDD methods are not viable, installation techniques should be conducted in the dry and in a manner which maintains flows downstream (such as dam and pump or flume methods). Methods to avoid/minimize scour, erosion, and sedimentation should be in place.
3. Avoid stream crossing installation activities during critical spawning dates and/or during periods when heavy rainfall is expected.
4. Erosion control plans should be designed to incorporate measures to minimize short-term and long-term sedimentation impacts. All erosion control devices that are installed should be monitored throughout the duration of the project.
5. Any fill placed above the ordinary high-water level should be stabilized as soon as possible.
6. Equipment operating near the river should be inspected daily for fuel/lubricant leaks and promptly repaired.
7. Following installation, streambanks should be properly contoured, stabilized, and vegetated to their pre-construction condition. Vegetation removed should be replaced with the same or similar native species; trees should be replaced at a 3:1 ratio.
8. Hardened bank stabilization systems such as riprap or steel bulkheads should be avoided. At a minimum, native fieldstone should be used, covered with topsoil above the ordinary high watermark, and planted with native vegetation.
9. All traces of construction materials and equipment should be removed from the project site upon project completion.

We understand the pipeline route is not final; Enbridge is currently evaluating the need for potential route variation that could result in changes to the proposed route depicted on maps provided to this office. We note the current pipeline route goes through Douglas County, Wisconsin. Please be advised the St. Croix River is located in Douglas County. The St. Croix River is a designated Wild and Scenic River and a unit of the National Park System. In the event the proposed route crosses the St. Croix or any tributary to the St. Croix, please coordinate with Resource Management Specialist Jill Medland at the St. Croix National Scenic Riverway, 401 Hamilton Street North, St. Croix Falls, Wisconsin, 54024, telephone 715-483-3284 extension 609. Please contact Wild & Scenic Rivers Coordinator, National Park Service, Midwest Region Sue Jennings at 402-661-1848 if you have questions or require additional information regarding the NRI.

These comments have been provided as early technical assistance and do not necessarily indicate the NPS' or the Department of the Interior's responses to future environmental documents prepared in association with the project

Sincerely,

Ernest Quintana
Regional Director

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

December 11, 2007

Mr. Jeff Izzo
U.S. Department of State
EEB/ESC, Room 4843
Washington, DC 20520

Re: Draft Environmental Assessment for
Proposed Enbridge Southern Lights Pipeline Project
Pembina County, North Dakota

Dear Mr. Izzo:

This department has reviewed the information concerning the above-referenced project submitted under date of November 28, 2007, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, our comments remain the same as in our August 13, 2007 letter to Mr. Kevin O'Connor of the Enbridge Energy Company, Inc. (copy attached).

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

August 13, 2007

Mr. Kevin G. O'Connor
Enbridge Community Relations
Enbridge Energy Company, Inc.
1100 Louisiana, Suite 3300
Houston, TX 77002

Re: Three Pipeline Expansion Projects
Pembina County, North Dakota

Dear Mr. O'Connor:

This department has reviewed the information concerning the above-referenced project submitted under date of July 30, 2007, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

3. Oil and gas related construction activities disturbing five or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 27 2007

REPLY TO THE ATTENTION OF:

E-19J

Ms. Elizabeth Orlando
OES/ENV Room 2657
U.S. Department of State
Washington, DC 20520

Re: Comments on the Southern Lights 20-inch Crude Line Project (LSr Pipeline Project) Draft Environmental Assessment

Dear Ms. Orlando:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act, the United States Environmental Protection Agency, Region 5 and Region 8 (U.S. EPA) reviewed the Department of State's (DoS) above referenced Draft Environmental Assessment (Draft EA). This letter reflects consolidated comments from Regions 5 and 8.

The Draft EA identifies a proposal (LSr Project) by Enbridge Pipeline (Southern Lights) L.L.C (Enbridge) to construct and operate a 313-mile long pipeline and related facilities, to deliver 186,000 barrels per day (bpd) of petroleum, from a supply hub near Cromer, Manitoba, Canada, to Clearbrook, Minnesota. Enbridge is currently proposing the LSr Project, in part, to meet future crude oil demand by U.S. refineries in the Midwest and to accommodate the expected increase of Canadian crude oil for these markets. The Draft EA focuses only on the portion of the pipeline located within the United States. The U.S. portion of the proposal includes the construction and/or installation, operation and maintenance of the following:

- 136 miles of new 20-inch-diameter underground petroleum pipeline on or adjacent to existing Enbridge right-of-way (ROW) from the U.S.-Canada border near Neche, North Dakota to Enbridge's existing tank farm in Clearbrook, Minnesota with minor route variations totaling 1.8 miles;

- piping modifications to use existing pumping units within existing Enbridge pump station sites at Donaldson, Minnesota and Plummer, Minnesota; and,

- mainline valves at major water body crossings and other select locations over the length of the pipeline route.

The proposal also requires ancillary facilities such as access roads, storage and contractor yards. Construction is proposed to occur over approximately 6 months starting in mid-2008, with an in-service date on or before December 31, 2008.

Unless new information comes to light, our review of the Draft EA indicates we have no major concerns with the major pipeline route alternative proposed for the LSr Project. However, U.S. EPA believes that additional information is needed to inform decisions related to the selection of minor alternative route variations, and mitigation measures and for substantiating mitigation sequencing for Clean Water Act Section 404 permitting purposes. U.S. EPA's detailed comments and recommendations are provided in the enclosure to this letter.

In addition, based on the information in the Draft EA, it is unclear whether Enbridge must obtain a U.S. EPA approved Facility Response Plan (FRP) and develop a Spill Prevention, Control and Countermeasures (SPCC) Plan that meet the requirements at 40 C.F.R 112 for Enbridge's Clearbrook Terminal. For example, what is the current capacity at the facility? If a U.S. EPA approved FRP is needed, Enbridge should submit an FRP to U.S. EPA Region 5 immediately. Mr. Alexander Tzallas is our FRP contact and may be reached by calling (312) 886-0622. In addition, the SPCC plan in Appendix G does not meet requirements at 40 C.F.R 112. Ms. Barb Carr is our contact regarding SPCC plans. She may be reached by calling (312) 886-7187. We recommend that the Final EA for the LSr proposal clearly disclose whether or not a U.S. EPA approved FRP is required and a SPCC plan must be developed to meet the requirements of 40 C.F.R 112 for the Clearbrook Terminal.

We appreciate the opportunity to comment on this Draft EA. Both Region 5 and Region 8 would appreciate receiving three (3) complete hard copies and three CDs of the future NEPA document for our review and comment. If you have any questions concerning our comments, please call Ms. Virginia Laszewski (Region 5, U.S. EPA lead) at 312/886-7501 or email her at laszewski.virginia@epa.gov. The Region 8 contact is Mr. Richard Clark. Mr. Clark may be reached by calling 303/312-6748 or email at clark.richard@epa.gov.

Sincerely,

Henry A. Kanka

for Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

Enclosure: 1

cc: Larry Svoboda / Richard Clark, U.S. EPA, Region 8
Tamara Cameron, U.S. Army Corps of Engineers, St. Paul District
Nick Rowse, U.S. Fish and Wild Life Service, St. Paul

Alternatives – Route Variations

The Draft EA identifies that the proposed pipeline route would follow Enbridge's existing pipeline right-of-way (ROW) except for several minor route variations that total 1.8 miles in length. The proposed route variations generally appear to be important for avoiding streams, farmsteads or businesses. However, neither the route maps in the body of the document nor the more extensive 11x17 air photo route maps highlight the locations of the wetlands or other sensitive natural features to help substantiate avoidance and/or minimization of impacts to these resources. We recommend the route maps be modified to highlight wetlands and other sensitive natural features by indicating their boundaries on the 11x17 air photo route maps.

Tongue River Crossing (route variation) [near Mile Post (MP) 786] - This proposed route variation is located southwest of the existing Enbridge ROW. Its path appears to go through a relatively wide area of riparian forest that might be forested wetland. The USFWS (North Dakota) Nov. 2, 2006 letter recommends using horizontal directional drill (HDD) method for the Tongue River in part because the North Dakota (ND) Game and Fish Department (NDGFD) has classified this reach of the River as highest-valued fishery resource (letter in Appendix A). We recommend the Final EA explain and substantiate why the HDD method is not being proposed for crossing the Tongue River and its associated forested riparian habitat in order to further reduce impacts to these resources. In addition, we request Enbridge/DoS consider a route variation for this crossing to the northeast side of the existing ROW in order to minimize impacts associated with the riparian forest. We recommend the Final EA document this consideration and the results.

Snake River Crossing (route variation) (MP 843) - The route variation shown on page 2-29 in Figure 2.2.3-4 of the draft EA is substantially different from the route variation depicted on "Drawing LSr-035) of the 11x17 air photo route maps. The former, shows the proposed route variation going through the riparian forest while the later shows the route variation skirting the edge of the riparian forest along Enbridge's existing ROW. We recommend the Final EA clarify the route variation proposed for this area. We advise Enbridge use a route that abuts the existing ROW in order to minimize impacts to riparian forest. If feasible, we recommend that the Snake River and any associated riparian forest be crossed using the HDD method in order to avoid and minimize impacts to water quality and riparian forest habitat.

Wetlands and Streams/Rivers

Agency Roles - On page 1-7, section 1.3.2.1, it is more correct to say that, "Section 404 of the Clean Water Act is jointly administered by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. The Corps issues Section 404 permits for the discharge of dredge and fill materials. . . "

Hydrostatic Testing – U.S. EPA recommends the Final EA identify the source, amount and discharge locations for hydrostatic test water. The Final EA should also evaluate the potential for aquatic nuisance species, pathogens or other organisms to be transferred beyond their

watershed of origin via discharge of hydrostatic test waters. Include the steps Enbridge will take to insure no transfer of invasive species will occur during hydrostatic testing.

Stream and River Crossings - Enbridge currently proposes to use the HDD method for crossing only 5 rivers (Pembina, Red, Red Lake, Tamarac and Middle Rivers) of the 14 perennial streams. We propose that the following additional rivers and associated forested wetlands or riparian forests may also be good candidates for the use of the HDD method in order to avoid or further reduce potential impacts to these resources, water quality and Minnesota Department of Natural Resources (MDNR) identified state special concern mussel species:

- Tongue River, Snake River, Clear Water River, Swan River (mussels), and Lost River (mussels).

We recommend Enbridge/DOS reassess using HDD methods for these river crossings in consultation with resource agencies and document the decision in the Final EA.

We recommend the Final EA include the results of the geotechnical borings associated with work needed to identify those rivers that have suitable geology for the use of HDD.

All Stream crossings should be highlighted on the 11x17 air photo route maps.

We encourage working out the details of open cut stream crossing refinements with the State water quality and natural resources agencies.

A 10-ft. stream bank buffer is extremely narrow for water quality purposes. We would prefer to have a minimum 20-ft. buffer. In situations where that presents problems, we recommend planning for an average of 20-ft. and a minimum of 10-ft. for the stream construction buffer.

Wetlands – The Draft EA identifies that 3.2 acres of forested wetlands will to be cleared for the LSr Project. No wetland compensation is being proposed for the temporal loss of forested wetlands and a wetland compensation plan is not included in the document.

1. Although a wetland delineation has been conducted, there is no spatial indication of the location of wetlands on the 11x17 air photo route maps. This makes it hard to assess how the minimization of wetland impacts has occurred even for temporary impacts and for route variations. Areas proposed for a reduced construction right of way should be highlighted on the maps.

2. Mitigation should be provided to offset the temporal loss of the 3.2 acres of forested wetlands, at a ratio of no less than 0.5 acres restored to every acre lost. So, at least 1.6 acres of forested wetland should be restored, preferably contributing to a river corridor where it was lost. This should occur in advance or during the pipeline construction period.

3. It is critical to avoid adverse impacts to the calcareous fen, a rare and sensitive type of wetland, and its source of water supply, near MP 853. This type of work is complex. More information is needed in the EA to describe methods that will be used.

4. When discussing "noxious and invasive species" as on p. 3-35, it is important to include a discussion of wetland plant species that present ecological problems in this area—perhaps reed canary grass and non-native cattails. We recommend the Final EA identify the specific steps that will be taken to reduce their spread in disturbed areas.

5. U.S. EPA and the Corps of Engineers will be reviewing the jurisdictional determination of the wetlands in a separate process, following the November 2007, Memorandum of Understanding for Linear Public Infrastructure Projects in Minnesota and Wisconsin.

Construction Impacts

It will be extremely important to implement the trench drainage control steps effectively to avoid de-watering wetlands.

The St. Paul District of the Corps of Engineers and the Wisconsin Department of Natural Resources have assessed problems that occurred with the recent construction of an Enbridge pipeline in Wisconsin. It will be important to apply corrections to these problems, when they may apply in this project. This would include, but not limited to: (1) practices such as marking wetland boundaries in construction and surrounding areas on the ground and in the project plans, (2) leaving sufficient markers in the field and instructions for avoiding wetlands during post-construction clean up, and (3) obtaining and using pre-construction wetland elevations and careful crowning procedures for greater success in wetland recovery in the finished right-of-way. We strongly suggest Enbridge consult with the St. Paul District for their detailed experience.

Social and Economic Conditions

We recommend the Final EA include information and analysis to demonstrate that sufficient temporary housing is available to accommodate the number of anticipated temporary workers in this substantially rural area. If the analysis shows that this is not the case then we recommend the Final EA identify how Enbridge proposes to house temporary workers without causing undue harm to local communities. We also recommend the Final EA demonstrate that sufficient law enforcement personnel will be available to handle the potential influx of 600 pipeline construction workers.

Public Health and Safety

We recommend Section 3.11.2.1 - Enbridge Pipeline Incidents and Public Safety, Section 3.11.2.2 - Enbridge Ten Year Pipeline Accident Record and Table 3.11.2-1 (p.3-61) be updated to include the information from the recent pipeline explosion and the two resulting deaths that occurred in Minnesota along Enbridge's existing pipeline ROW proposed for the LSr Project. We recommend the Final EA explain why the explosion occurred and the corrective measures Enbridge is taking to assure this type of occurrence will not happen again.

Cumulative Impacts

Based on the information provided for the cumulative impacts analysis in Section 3.12, it appears that substantial losses of historical native flora and fauna and the associated wildlife habitat (e.g., wetlands, prairie, riparian forest) has occurred throughout the study area due largely to agricultural activities. It also appears that the existing Enbridge ROW has also historically contributed to this loss. However, the analysis does not indicate whether Enbridge has undertaken compensation mitigation for impacts to these resources from their 5 past pipeline projects in the existing Enbridge ROW. We recommend the Final EA disclose that information.

Mitigation

We expect that compensation mitigation will be required for the permanent and temporal loss of forested wetlands during CWA Section 404 permitting. However, we note that the LSr project would involve the clearing of 85.7 acres of forest land with the permanent removal of approximately 24.7 acres for the maintained ROW. We encourage Enbridge to voluntarily compensate for the permanent and temporal loss of upland and non-wetland riparian forest due to the LSr project because the resource is relatively rare in the project study area.

We encourage Enbridge to undertake judicious implementation of the various mitigation measures identified in the Draft EA to protect these limited resources. We recommend the Final EA specifically identify whether or not Enbridge will undertake the recommendations made by MDNR to: (1) use HDD crossing methods for areas with mesic prairie remnants (e.g., between MP 816 and MP 886) and mixed cattail marsh near MP 853, (2) divert runoff away from the remnants, and (3) plant disturbed areas with prairie species native to Minnesota.

U.S. EPA Detailed Comments to the U.S. Department of State Concerning:
Draft Environmental Assessment (Draft EA) for
Enbridge Pipelines (Southern Lights) L.L.C. (LSr Project)

Independent and Connected Actions

Clearbrook Terminal - The Draft EA identifies that Enbridge does not plan to add new tanks at the Clearbrook Terminal at this time (pages xiii, 3-3 and 3-6). However, since the LSr Project would increase the amount of crude oil delivered to this facility, we recommend that the Final EA provide a discussion of the existing terminal facility and existing capacity.

In addition, it is unclear whether Enbridge must obtain a U.S. EPA approved Facility Response Plan (FRP) and develop a Spill Prevention, Control and Countermeasures (SPCC) Plan that meet the requirements of 40 C.F.R 112 for Enbridge's Clearbrook Terminal. If a U.S. EPA approved FRP is needed, Enbridge should submit an FRP to us immediately. Mr. Alexander Tzallas is our FRP contact and may be reached by calling (312) 886-0622. In addition, the Sill SPCC plan in Appendix G does not meet requirements at 40 C.F.R 112. Ms. Barb Carr is our contact regarding SPCC plans. She may be reached by calling (312) 886-7187. We recommend that the Final EA documentation for the LSr proposal clearly disclose whether or not a U.S. EPA approved FRP is required and a SPCC plan must be developed to meet the requirements of 40 C.F.R 112 for the Clearbrook Terminal.

Marathon and Flint Hill Refineries (connected actions) - The Draft EA identifies that over 70 percent of the crude oil feedstock for the Marathon Petroleum Refinery (St. Paul, MN) and Flint Hill Refinery (Rosemont, MN) is met with deliveries off the Enbridge System at Clearbrook (p. 1-3). However, the Draft EA does not identify whether the increase in the amount of crude oil delivered to these two refineries due to the proposed LSr Project would necessitate an expansion or upgrade of either refinery. We recommend that the NEPA document identify whether or not each refinery will need to be expanded and/or upgraded in order to refine and/or handle the type and amount of petroleum product delivered by the LSr Project. Any impacts to resources such as air and water quality that would be associated with a refinery or terminal upgrade/expansion or new construction due the LSr project should be identified and discussed in the Final EA.

Alberta Clipper Project – The Draft EA identifies that Enbridge's proposed Alberta Clipper Project is a separate petroleum products pipeline project that might be undertaken in the future. A portion of a potential route for the Alberta Clipper Project parallels the proposed LSr Project up to the Clearbrook Terminal. The Draft EA provides some disclosure of the potential impacts associated with the portion of the Alberta Clipper Project in Section 3.12 - Cumulative Impacts. However, we recommend that the NEPA document for the LSr Project provide a discussion of how the Alberta Clipper Project's overall path and likely construction time period relate to the LSr Project, and how this potential for double disturbance would contribute to the cumulative impacts of this project or the need for any special mitigation measures, such as for erosion control.

ENBRIDGE

Date: May 20, 2008

Ms. Barb Carr
US Environmental Protection Agency
SE-5J
77 West Jackson Boulevard
Chicago, IL 60604-3590

Mr. Alexander Tzallas
US Environmental Protection Agency
SE-5J
77 West Jackson Boulevard
Chicago, IL 60604-3590

RE: **Enbridge LSr 20" Crude Pipeline Project**
Environmental Assessment Comments

Ms. Carr and Mr. Tzallas:

As a follow up to our recent phone messages and discussions, Enbridge is providing this letter to document our conversations regarding the regulatory applicability of our crude oil terminal located in Clearbrook, Minnesota with 40 CFR Part 112. Additional facility information is provided below:

Enbridge Clearbrook Terminal
17816 470th Street
Clearbrook, Minnesota 56634
Site Contact: Blake Olson
218-776-3115

Enbridge operates nine aboveground storage tanks at the facility. Crude oil can only enter the facility via six Enbridge pipelines or leave the facility via six pipelines (four Enbridge and two from another non Enbridge affiliated party). Therefore the facility meets the transportation-related exemption as specified in 40 CFR Part 112. The facility is regulated by the US DOT under 40 CFR Part 190 through Part 199.

If you require any additional follow up, please feel free to contact me at 715-398-4573.

Sincerely,

Paul Meneghini, P.E.
Supervisor, US Major Projects

Cc: Kenneth Westlake, USEPA
Elizabeth Orlando, US DoS

Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-4037

January 9, 2008

Mr. Jeff Izzo
U.S. Department of State
EEB/ESC Room 4843
Washington D.C. 20520

RE: Enbridge Southern Lights Pipeline Project Draft Environmental Assessment

Dear Mr. Izzo:

The Minnesota Department of Natural Resources (MDNR) has reviewed the Draft Environmental Assessment (Draft EA) prepared by the U.S. Department of State. The Notice of Availability in the Federal Register invites public comment on the document. The MDNR has the following comments.

General Comments

Lack of response to key environmental issues

The method of assessing impacts to natural resources throughout the EA is to compile overall estimates of impacts based on categories of habitats, land uses, and so forth. This approach is useful for developing gross measures of impacts, but it is flawed because it does not address significance and sensitive areas, or address impacts in a manner conducive to development of effective mitigation. For example, page 3-37 indicates that 91.2 percent of the pipeline route is on agricultural lands; while about 3.9 percent of the route crosses forested areas. Lumping forested areas into one acreage figure does not address impacts. In fact, the Draft EA goes no further in addressing wildlife impacts. Retention of remnant forested lands in agricultural areas is highly important because these areas represent the only remaining forested habitat in an otherwise highly impacted landscape.

Important issues raised in the MDNR scoping comment letter of September 24, 2007, were not addressed in the EA. Therefore, please consider the contents of that letter in developing the Final EA and whether to issue a FONSI.

Pages 2-4 of the MDNR 9/24/07 scoping letter identify impacts that are either long-term, or potentially long-term if mitigation measures are not developed. The Draft EA does not address these issues and generally characterizes impacts as temporary. While this is often true for pipeline installation on lands that are already disturbed; it is not true at all locations. MDNR pointed out circumstances where long-term impacts occur, and these need to be recognized and mitigated as much as possible.

The MDNR 9/24/07 scoping letter indicated the importance of forested habitat along rivers and indicated the reasons why it is important. The Draft EA does not address this important topic.

Assessing impacts of the Alberta Clipper project

The construction of the Alberta Clipper project needs to be addressed in the Draft EA so that proper mitigation measures are developed for both projects collectively.

Level of detail and analysis in the EA and Presidential Permit

The Draft EA does not have adequate information on key impacts about important natural resources. MDNR has encountered difficulties with lack of key information in the various Enbridge applications. The MDNR is not advocating addition of extensive details to the EA; rather, we are recommending focusing on the key issues, which is the intent of the NEPA scoping process. As noted below, there are multiple authorities addressing environmental impacts of the project. We recommend close coordination among these agencies during the development of permit conditions and environmental plans, as well as during monitoring of construction. Such coordination should be included as a requirement in the Presidential Permit. We also recommend a phased approach to the approval process because of the multiple reviews and because of the manner in which pipelines are designed and constructed.

Rare features between MP 852 and 853 in Pennington County, MN

This pipeline route segment is illustrative of several important issues, including the lack of assessment of key impacts in the EA. It is also indicative of the need for federal and state integration of mitigation measures for addressing this route segment. MDNR previously commented on the importance of the natural communities in this route segment, which is in Section 18, Township 155 N, Range 45 W. A site inspection by the MDNR indicated concerns along a whole segment of the beach ridge from MP 852.7 to 855.7. MDNR indicated that a Horizontal Directional Drill (HDD) crossing technique in this area might be a means of avoiding potential impacts. This recommendation was made after a finding that a new pipeline corridor would likely have to be developed to avoid the feature, and a determination that the length, expense, and likely high degree of difficulties with additional landowners made such a re-route impractical.

Enbridge conducted additional work in this area, and identified a new calcareous fen next to the pipeline right of way within this beach ridge complex (approximately perpendicular to MP8.53.7). Enbridge responded to this finding with a recently submitted proposal to cross over to the other side of the existing pipeline right of way, and have submitted some information to MDNR regarding the results of the survey.

Based on this information submitted to us, no plant community data survey has been done on the western slope of the westernmost beach ridge at MP 853.1-853.4. MDNR field investigations indicated that most of the west slope of the beach ridge was wetland with a high degree of plant diversity, few or no invasive species, and the type of plant community clearly needing further investigation. Additional survey work is needed in this area. An HDD crossing technique should be considered as a means of avoiding impacts. As indicated in previous letters, MDNR is concerned with the cumulative impacts to this rare area from continued expansion of the pipeline corridor.

Mitigation of Loss of Forested River Corridors.

As noted in previous comments, the continued expansion of the already wide Enbridge corridor is causing increasingly serious loss of natural resources along rivers (See pages 2-4 of MDNR's 9/24//07 scoping letter). MDNR is very concerned that these impacts be addressed as much as possible for the Enbridge project.

Pipeline construction at river crossings results in essentially complete removal of woody vegetation along river banks. This includes trees and understory vegetation, and often extends to a wider area than the normal right of way. Some of this area is for temporary construction staging, often resulting in removal of large areas of trees and understory. MDNR field inspections have noted slow or no return of this vegetation removal years after pipeline construction. These areas are currently up to 250 feet wide in some locations, and will become wider with the expansion from these two pipelines. The following issues are relevant to development of a proper understanding of impacts and mitigation.

Current regulatory and Best Management Practices for protecting woody vegetation along river banks
Protection of at least portions of forested river corridors is built into Minnesota regulations such as MDNR regulations, zoning ordinances, and many Best Management Practices for activities next to rivers. For example, the Forest Management Guidelines from the MN Forest Resource Council that are used voluntarily by the logging industry in Minnesota's forested areas, and that are mandatory in Minnesota state forests, contain various filter strip guidelines ranging from 50 -150' depending on slope. A Riparian Management Zone may extend up to 200'. The resource values these guidelines are trying to maintain within these buffers are:

* Maintaining soil, channel and stream bank stability, stream temperature and water quality
* Providing water storage and conservation
* Providing nutrient and food input to the aquatic system
* Providing in-stream structure of coarse woody debris
* Providing a moderated microclimate
* Providing diverse and productive habitat for aquatic and terrestrial wildlife, habitat continuity and travel corridors for wildlife, and support of unique habitats and communities
* Providing for recreation, tourism, forest products, hunting, fishing, biological diversity and other human values.

Cumulative impacts from loss of riparian forests and other woody vegetation due to corridor widening.
As noted in previous MDNR comments, this impact is of an increasing severity. For example, such vegetation provides secure travel corridors for many wildlife species. With ever-widening corridors, these locations become major obstacles to such movement, and therefore cause natural resource impacts beyond the pipeline corridor.

Recommended mitigation measures for long-term impacts
* The removal of canopy and understory woody vegetation within 50-150 feet of rivers (depending on slope) for the purpose of Extra Temporary Work Spaces (ETWS) for river crossings should not be allowed. ETWS should be set back beyond the 50-150 foot zone.

* During the installation of trenched crossings, removal of existing woody vegetation along rivers, including trees and understory, should only be allowed for the minimum stream bank distance size necessary for safe equipment operation for the installation. Methods should be explored so that this distance is about the width of one pass of equipment with no need for passing. This is about the width of a typical construction mat road plus the trenched area in a typical large wetland. This is often 35-50 feet. Trees and understory beyond this distance should be left undisturbed for the width of the particular crossing. In effect, the goal for temporary removal is to retain the river bank vegetation (except the 35-40 feet along the river), and a setback from the river of 50-150 feet of corridor buffer zone. ETWS and the normal pipeline construction corridor would be allowed beyond this zone.

* Permanent removal of woody vegetation and trees over the permanent right of way for aerial inspection purposes should not be allowed. Other inspection measures should be developed that allows for retention and re-growth of these impact natural resources. This zone should be of the same order as other practices in Minnesota, which would be on the order of 50-150 feet wide. Difficult inspection locations could allow variations of this, or could result in a height limit of vegetation. However, such measures should be limited so that the objectives listed above are not substantially compromised. The width of this zone will be determined during the MDNR review of the License to Cross Public Waters.

* As mitigation for the cumulative impacts to natural resources from the corridor widening resulting from the addition of two more pipelines in this wide corridor, woody vegetation should be allowed to return

along the stream banks of the existing pipelines. In some cases, as determined by the MDNR, woody vegetation plantings by Enbridge should be required in corridors that have been severely impacted by past corridor widening, and that are particularly important travel corridors (Such as the Red River, Red Lake River, and Snake River).

* Enbridge should explore additional leak detection technology that can detect small leaks near rivers that are not detectable by pressure drops. For example, odor detection technology has become so advanced that field samplers can detect the precise signature of petrochemical compounds such as a particular kind of crude oil (See for example "Odor Detection and Analysis using GC/SAW zNose", Air and Waste Management Association; at: www.estcal.com/TechPapers/Environmental/AWMA-2005.pdf). If this or similar equipment could be simplified and modified and included with the block valves (which are already doing continuous monitoring at rivers), it would provide an added detection measure without requiring visual inspection.

Management and coordination of environmental issues during permitting and construction.
Development of mitigation measures through permitting for the Enbridge projects, as well as monitoring of construction, should be given special attention in the Final EA and in the Presidential Permit. MDNR offers the following recommendations.

Regulatory complexity. There are four regulatory authorities [Dept. of State, MPUC, MDNR and the Corps of Engineers] with overlapping responsibilities for this project. MDNR believes that the most effective mitigation measures can be developed by these agencies agreeing on what impacts potentially can occur and by integrating these measures into one set of mitigation measures for the project as a whole. We recommend that this coordination be incorporated into the Presidential Permit and have specific methods for doing this listed in this comment.

The nature of pipeline construction Large-diameter pipeline construction practices have long been more of a "design-build" concept than other construction - it is almost impossible to foresee the circumstances that are faced during installation. There are two key aspects of this that relate to environmental mitigation and management of environmental issues:

* The initial engineering of pipeline installation, especially at some locations, is an approximation that continually gets updated as final permitting and construction approaches. The construction contractor is often not selected until late in this process or even after final permitting, and this firm can request changes in important environmental measures. These are often improvements over earlier site-specific proposals; therefore, the major permits should allow flexibility and continued oversight because additional impact reduction can be achieved by the flexibility.

* Pipelines cross many jurisdictions and, because they are buried, all inspections occur during construction, not after. Therefore, pipeline companies and contractors have a higher degree of built in inspection systems and a high degree of comfort levels with environmental inspection. Current industry standards are to have company-retained but independent environmental inspectors present during construction who work directly with regulatory agency staff when possible for oversight and for modification requests.

Construction of two new large pipelines in subsequent construction seasons at the same location.
Reclamation and coordination among differing construction crews in the same area has the potential to cause difficulties in applying proper mitigation measures and adds to the complexity of environmental requirements.

Environmental monitoring and inspection by state and federal agencies for the project as a whole. MDNR is currently involved in construction monitoring of another large-diameter pipeline project in Minnesota, the MinnCan project. MinnCan voluntarily provided funding for two MDNR Monitors whose responsibilities included monitoring for conditions placed on private agricultural lands, and for monitoring compliance with MDNR land and water license requirements. The value of having these individuals monitoring construction has become evident, especially because of their ability to address problems caused by construction delays and winter construction. Having the Environmental Monitors in place is also a benefit to the company because of unforeseen circumstances and license modifications.

Recommended mitigation measures. The following measures concern managing construction of the Enbridge projects to reduce potential impacts:

* *Phased project approvals*. The U.S. Dept. of State should consider giving conditional approval for the projects west of Clearbrook in the Presidential Permit, pending additional information about the project and review by the MDNR, the COE, the DoS, and the public process. MDNR understands that the COE has the means to also do such a phased approval process.

* *Development of one set of environmental mitigation plans that apply to any given location*. MDNR believes that the separate review processes for segments of the Enbridge projects should not be an obstacle to development of sound environmental plans and mitigation. There is a potential for this to occur, since the Draft EA only covers the 20-inch LSr project (west of Clearbrook), and the first Minnesota PUC Route Permit covers both this pipeline and the segment of the 36-inch Alberta Clipper project west of Clearbrook. There should be one set of environmental procedures--or full integration of both projects into both plans-- for both pipelines west of Clearbrook. Such integration can be best accomplished the kind of federal/state coordination recommended in this letter.

* *Required environmental monitoring*. MDNR recommends that monitoring along the entirety of the Enbridge route during construction be modeled on the approach used by the MDNR and Department of Agriculture for the MinnCan project.

* *Federal/state interagency agreement regarding monitoring*. Federal oversight authority on the project is provided through the Presidential Permit and by the COE because of large amount of wetlands along the route. Direct state authority is provided through the PUC. MDNR administers Licenses to Cross Public Lands and Waters. These agencies all have overlapping topics and mitigation issues to address.

A federal-state agreement regarding monitoring of construction and coordination among the regulatory agencies could be modeled on a past agreement on a large interstate and international pipeline project in Montana of which the MDNR is familiar. This was the Northern Border Pipeline, which was a part of the Alaskan Natural Gas Pipeline project. MDNR can provide a copy of this agreement upon request.

Thank you for the opportunity to review the Draft EA for this project. Please contact me with any questions regarding this letter.

Sincerely,

Matt Langan
Environmental Review Unit
Division of Ecological Services
(651) 259-5115

c: Steve Colvin, Larry Hartman – DOC, Leo Grabowski – COE, Paul Meneghini – Enbridge, Tim Anderson - NRG

Minnesota Pollution Control Agency
520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 1-800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us

January 11, 2008 (via e-mail)

Mr. Jeff Izzo
U.S. Department of the State
EEB/ESC Room 4843
Washington, DC 20520

RE: Draft Environmental Assessment for the
Proposed Enbridge Southern Lights LSr Pipeline Project

Dear Mr. Izzo:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (Draft EA) for the proposed Enbridge Southern Lights LSr Pipeline Project (the Project). Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, the MPCA staff has the following comments for your consideration. Many of these issues were discussed during a December 19, 2007, meeting between MPCA staff, Paul Meneghini of Enbridge, and Daniel Flo of Natural Resource Group. Also, on September 10, 2007, the MPCA provided written comments (via e-mail) on the scope of the EA to Ms. Elizabeth Orlando at the Department of the State. While some of those comments were addressed in the Draft EA, others were not, as discussed below.

Required MPCA Authorizations

The text within Table 1.4-1 of Section 1.4 of the Draft EA inaccurately identifies some of the MPCA permits and approvals required for the Project. Further, it identifies that certain applications were submitted in October 2007; however, the only application the MPCA received by that date was for the Section 401 Water Quality Certificate. Please ensure this table is revised in the Final EA accordingly. Specifically, the following three MPCA authorizations need to be identified:

- Clean Water Act (CWA) Section 401 Water Quality Certification, to ensure the Project will comply with applicable state water quality standards;
- National Pollutant Discharge Elimination System (NPDES) and/or State Disposal System (SDS) Permit, which regulates the discharge of water used to test the structural integrity of new and existing pipeline (hydrostatic test waters), and the discharge of trench waters; and
- SDS Stormwater Permit coverage for the discharge of stormwater during construction activities, during operation of the pipeline, and at pipe yard storage facilities in accordance with Minn. R. 7090.

For further information on the: a) CWA Section 401 Water Quality Certification, please contact Kevin Molloy (651-297-7572); b) NPDES/SDS Permit for Hydrostatic Testing, please contact Deborah Schumann (651-297-5791); and c) SDS Stormwater Permit, please contact Larry Zdon (651-297-8219).

As discussed during the December 19, 2007, meeting, utilities that are exempt from complying with the federal NPDES stormwater requirements must still comply with the state of Minnesota stormwater requirements administered by the MPCA. The stormwater conditions required to be followed by this Project will likely be incorporated into a separate chapter of the required NPDES/SDS Permit for discharging hydrostatic test waters and trench waters, provided the Project's required permit applications

are submitted to the MPCA in a timely manner. Alternatively, the MPCA may include conditions governing the stormwater-related discharges into the CWA Section 401 Water Quality Certification, which would then become conditions of the required US Army Corps of Engineers (USACE) CWA Section 404 Permit.

As detailed below, MPCA staff concludes that the Draft EA did not adequately identify all of the potential water quality impacts the Project may have, nor did it sufficiently detail the measures that will need to be employed to mitigate the potential impacts to all waterbodies. Therefore, additional submittals will be necessary before the applicant can receive the required MPCA authorizations.

Given the uncertainty regarding this Project's ability to comply with state water quality standards, MPCA staff requests that an Individual Section 404 Permit be required by the USACE for this project, rather than the General Permit No. 3 (RGP-003-MN) sought by the applicant. Unlike the General Permit process, this will enable the MPCA to issue an Individual Section 401 Water Quality Certificate, the conditions of which will then become protective and enforceable conditions of the USACE Individual Section 404 Permit. The MPCA uses the individual 401 Certificate process to impose site-specific conditions and require mitigation measures that are protective of sensitive waterbodies within certain portions of the Project area. While we recognize that the majority of this Project will be constructed in predominantly agricultural areas, this does not obviate the need for the MPCA to certify that adequate mitigative protections will be implemented to prevent potential detrimental impacts to the water quality in the remainder of the Project area.

Impaired Water Crossings

Section 3.4 of the Draft EA contains a discussion of the proposed crossings of impaired waters, including potential impacts and mitigation. Table 3.4.1-4 lists the Minnesota impaired waters that the Project is proposed to cross, along with their specific impairments. The source for this information is the 2006 listing of impaired waters, which is not the most current MPCA listing available. Consequently, we request that this table be revised in the Final EA, as necessary, to incorporate any additional waterbodies that may be directly or indirectly impacted by this Project, as identified in the updated 2008 Final Draft 303d TMDL List of Impaired Waters (2008 List). The 2008 List can be found on the MPCA's Web site at http://www.pca.state.mn.us/water/tmdl/tmdl-303dlist.html.

The Final EA must provide an explanation of how the proposed construction methods for pipeline installation and maintenance at each impaired water crossing - including any additional impairment(s) identified by the 2008 List – can reasonably be expected not to exacerbate the specific impairment(s).

While the Draft EA identifies (page 3-23) that three of the six Minnesota impaired waters on the 2006 list (including the Red River of the North, the Tamarac River, and the Red Lake River) will be crossed using the Horizontal Directional Drilling (HDD) method – which, if done correctly, should result in no additional discharges to the waterbody – it also states that Enbridge proposes to cross the other three impaired waters (the Clearwater River, the Lost River, and the Silver Creek) using the open-cut method. Since the Draft EA does not explain why the proposed open-cut method should result in no additional increase to existing impairment(s), the Final EA must clearly explain why this should be considered an acceptable approach, relative to other alternatives that are available, for each of these impaired waters.

Please include in the Final EA a description of the specific reach of each impaired waterbody in Minnesota that will be crossed so that the information can be cross-checked with the MPCA's list. And since we were unable to locate a specific figure in the Draft EA that depicts the name of each waterbody being crossed, please ensure the Final EA includes a figure (or multiple figures) for this purpose.

The Draft EA proposes utilization of HDD at five river crossings, however, does not explain why the specific five were chosen. In addition to explaining why the HDD method is not proposed for all the impaired waters, the Final EA should explain the reasoning behind the proposal to utilize HDD at other crossings, as well as why HDD or dry crossing procedures are not proposed for other water bodies to protect water quality, especially the protection of those that are of concern to other agencies (e.g., the Minnesota Department of Natural Resources [MDNR] and the U.S. Environmental Protection Agency [EPA]) as indicated by the public record. The proposed construction methods and mitigative measures for crossing all sensitive waterbodies will be of particular concern during the MPCA's review of Enbridge's application for the required Section 401 Water Quality Certificate.

Wetlands

The Draft EA identifies that 172 wetlands will be crossed in Minnesota, spanning ~~a total~~ of 10.1 miles. However, we did not find a description of the quantity and type of all wetlands that will be impacted in Minnesota, using the Eggers and Reed classification system, as requested by the MPCA staff in our aforementioned comment letter on the scope of the EA. The Draft EA does not mention the need to comply with Minn. R. 7050.0186, nor does it include a specific compensatory mitigation plan for the temporal and permanent loss or lost function and quality of these impacted wetlands (both of which were also previously requested by the MPCA). Consequently, the Final EA should be revised to satisfactorily address these issues (i.e., Items 3 and 4 in the September 10, 2007, MPCA comment letter). Without this information, the MPCA staff cannot reasonably conclude that the Project will be in compliance with applicable state water quality standards governing wetlands, which further demonstrates the need for this Project to acquire a USACE Individual Section 404 Permit and an MPCA Individual Section 401 Water Quality Certificate. Please contact Kevin Molloy at 651-297-7572 if you have any questions about wetlands or about the MPCA's Section 401 Water Quality Certification process.

Environmental Mitigation Plan (Appendix D)

We have the following specific comments about the Draft EA Environmental Mitigation Plan (the Plan), dated April 2007:

Stormwater. The Plan does not demonstrate a comprehensive understanding of, or commitment to comply with, the specific provisions of Minn. R. ch. 7090 governing stormwater discharges in the state of Minnesota (the need to comply with these rules does not appear to be mentioned anywhere in the Plan). Some examples that show how the Plan is inconsistent with the state rules are provided below (this is not meant to be an exhaustive list):

a) The Plan does not discuss stockpile perimeter control or placement (this is required in Minnesota);
b) Section 2.6.1 identifies straw bales and silt fence as erosion control measures; however, these items are actually sediment barriers. Blankets, wood chips, and mulch are among the options for erosion control; and
c) Section 7.3.1 states that erosion control blankets will be placed on slopes greater than 30 percent, but does not identify permanent erosion control for lesser slopes, which is required.

Minimally, this Plan needs to be revised in the Final EA so that it is consistent with the state of Minnesota's requirements governing stormwater discharges. Further, it needs to acknowledge that, because this Project will disturb 50 acres or more and will have discharge points within 2,000 feet of, and flows to, an impaired water, the SDS Permit Application must be submitted at least 30 days before the

start of construction activity. The SDS Permit Application must contain a Project-specific Stormwater Pollution Prevention Plan (SWPPP), including all calculations for the Permanent Stormwater Management System. This requirement allows for MPCA staff to review the SWPPP submitted with the completed application.

Environmental Inspectors. There are several references made to an "Environmental Inspector" in the Plan; however, there is no explanation regarding the qualifications and level of expertise of the inspector(s) with regard to Minnesota water quality rules and regulations, including those governing stormwater. We seek clarification on this matter.

Contractors. The MPCA requests that all contractors who will be employed by Enbridge for this project be adequately trained, prior to the commencement of any construction activity, on the state of Minnesota's requirements governing stormwater.

Lessons Learned from Enbridge Pipeline Project in Wisconsin. As discussed during the December 19, 2007, meeting, the MPCA staff is aware of issues of non-compliance with water rules and regulations recently incurred by Enbridge during construction activities associated with a pipeline project in Wisconsin. Since the Draft EA does not mention this matter, the MPCA staff requests that the Final EA disclose what led to those violations. We also request that the Final EA identify the precautionary methods and additional resources that Enbridge will employ to ensure the same problems will not occur with this proposed Project in Minnesota.

Additional Environmental Monitoring/Inspections. The MPCA suggests that Enbridge consider providing funding for on-site monitors to be employed by the MDNR, following the example used by the MinnCan project, which is a pipeline construction project currently under way in Minnesota. MPCA staff specifically requests that this suggestion be addressed in the Final EA.

Contamination Management

Appendix G of the Draft EA (Spill Prevention, Containment, and Control Plan) describes plans for responding to spills that occur during construction of the Project. The MPCA would also like to see a discussion of plans for managing petroleum contamination from historic leaks or spills - whether previously documented or not - that is encountered during construction of the Project. This discussion should include the identification of known spill sites through or near which the Project construction will proceed. Please describe the general approach the Project proposer intends to take at sites with historic releases, including identifying contamination, reporting to the Minnesota Duty Officer, investigating extent and risk, conducting product and/or soil removal, and managing contaminated material that is removed. We have noted that you prepared such a document in April 2007 as an appendix (Appendix F) to the Minnesota Public Utilities Application for this Project, and we request that you include such a document as an appendix to the Final EA. If you have any questions specifically about emergency response or contamination management, please call Walt Haas in the MPCA's Brainerd office at 218-828-6073.

Pipeline Incidents and Public Safety

The Final EA should contain an updated section on Enbridge pipeline incidents (pages 3-60 of Draft EA), reflecting the incident that occurred at the Clearbrook facility on November 28, and resulted in the death of two workers. A description of how the incident occurred, as well as mitigative measures enacted to prevent such occurrences in the future, should be included.

Cumulative Impacts

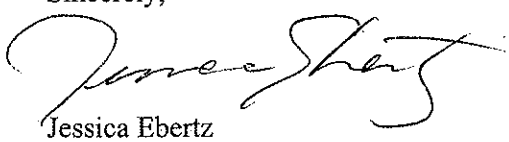
The Cumulative Impacts portion of the Draft EA fails to address whether and what additional impacts may occur as a result of the construction of two proposed adjacent/overlapping projects (Enbridge's LSr and Alberta Clipper projects) within a short time frame (estimated in-service dates for the two projects are one year apart). Please include a comprehensive discussion of this in the Final EA. The discussion should include an analysis of the timing of site restoration for the LSr project, in combination with commencement of construction of the Alberta Clipper project, and what cumulative impacts may occur as a result, as well as mitigative measures that will be undertaken to avoid or minimize impacts. How will the timing of the two projects affect various proposed restoration and revegetation efforts outlined in the Draft EA?

Other

The Final EA should identify, in the section entitled Agency Consultations and Public Outreach, the multi-agency state and federal consultation meeting that took place in St. Paul, Minnesota in August 2007 during the public scoping process, and identify why the Draft EA did not adequately address the written comments submitted by agencies to the Department of the State shortly thereafter during the scoping period.

We look forward to receiving your responses to our comments, as well as a copy of the Final EA and determination on the need for an Environmental Impact Statement for the Project. Optimally, it would be helpful if you could send, to my attention, three hard copies of the Final EA, together with at least six versions on compact disc. Also, please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any additional questions, please call me at 651-296-8011.

Sincerely,



Jessica Ebertz
Planner Principal
Environmental Review and Operations Section
Regional Division

JE:mbo
cc: Virginia Laszewski, EPA, Chicago
Linda Fisher, Larkin Hoffman Daly & Lindgren, Minneapolis
Tamara Cameron, USACE, St. Paul
Daniel Flo, NRG, Minneapolis
Paul Meneghini, Enbridge, Superior, Wisconsin
Matt Langan, MDNR, St. Paul
Walt Hass, MPCA, Brainerd
Scott Lucas, MPCA, Brainerd
Joyce Cieluch, MPCA, Detroit Lakes
Kevin Molloy, MPCA, St. Paul
Deb Schumann, MPCA, St. Paul
Larry Zdon, MPCA, St. Paul

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E MAIL cass.mhb@co.cass.mn.us
WEB SITE www.mississippiheadwaters.org

Date: Friday, January 11, 2008

To: Natural Resource Group
Attn: Daniel Flo - Consult
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

From: Mississippi Headwaters Board

RE: Comment on Enbridge Pipelines Expansion plans

This board would first like to thank you for the opportunity to review and comment on the proposed pipeline expansion to increase the transportation capacity of liquid petroleum and diluents traveling through portions of the Mississippi River corridor.

This office received previous detailed information and requests for comment from the USDA Forest Service (Chippewa National Forest) on Enbridge's intent to obtain additional right-of-way for this same proposed project. In recent meetings of this board, each board member was given an opportunity to comment on or address any concerns.

We apologize if our response has been delayed in getting to you but our office has recently relocated and the dust is not quite settled yet. Please allow us to extend this letter now as comment. This board does not foresee any issues and no concerns were express by this board in regard to the plans as long as they adhere to local, state and federal guidelines and to the ordinances outlined in the MHB 2002 Management Plan.

Lastly, we would like to commend you for your conscientious stewardship and champion efforts in providing due diligence in areas such as this that could greatly affect the quality of our national environmental treasure, the Mississippi River.

If you need MHB to review future drafts and/or you have questions, please feel free to contact the Mississippi Headwaters Board office at: cass.mhb@co.cass.mn.us

Thank you again.
Together in Public Service.

Virgil F. Foster
Virgil Foster – 2007 Mississippi Headwaters Board Chair

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

TAKE PRIDE IN AMERICA

JAN 16 2008

ER-07/1039

U.S. Department of State
Attention: Ms. Elizabeth Orlando
Bureau of Oceans and International
Environmental and Scientific Affairs
OES/ENV Room 2657
Washington, D.C. 20520

Dear Ms. Orlando:

As requested by the United States Department of State, the Department of the Interior (Department) has reviewed the draft environmental assessment (EA) for the proposed Enbridge Southern Lights Pipeline Project (Project) in North Dakota and Minnesota. The Department offers the following comments and recommendations for your consideration:

Rivers on the Nationwide Rivers Inventory

The Nationwide Rivers Inventory (NRI) is a register of rivers, maintained by the National Park Service (NPS) that may be eligible for inclusion in the National Wild and Scenic River System. These rivers were included on the NRI based on the degree to which they are free flowing, the degree to which the rivers and their corridors are undeveloped, and the outstanding natural and cultural characteristics of the rivers and their immediate environments. Section 5(d) of the National Wild and Scenic Rivers Act requires that:

> In all planning for the use and development of water and related land resources, consideration shall be given by all Federal Agencies involved to potential national wild, scenic and recreational river areas.

A Presidential directive and subsequent instructions issued by the Council on Environmental Quality requires that each Federal agency, as part of its normal planning and environmental review processes, take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, Federal agencies are required to consult with the NPS prior to taking actions that could effectively foreclose wild, scenic, or recreational status for rivers on the inventory.

The Project would cross the Pembina River in Pembina County, North Dakota. Approximately 88 miles of the Pembina River was nominated to the NRI in 1982 based upon its scenic, geologic, and wildlife values. At the time of the nomination, much of the area was in a semi-wilderness condition. The Pembina Valley and escarpment are part of the northeastern drift

plain, containing most of the remaining forested lands in North Dakota. The area supports highly diverse wildlife, including a moose herd, which was being established in the area at that time. We note that the EA proposes Horizontal Directional Drilling as the preferred water body crossing technique for the Pembina River. The Department concurs that this technique has the potential to avoid impacts to the river and would not result in affecting the values that make this segment of the river eligible for its listing. We have also reviewed the mitigation plans and request that the applicant, Enbridge Pipelines (Southern Lights) LLC, notify the NPS along with other regulatory agencies in the event of any release of drilling fluids or other materials into the river.

The Department has a continuing interest in working with the Department of State and the applicant to address the impacts to resources of concern to the Department. If you have any question about these comments, please contact the NPS's Regional Environmental Coordinator Nick Chevance, Midwest Regional Office, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone 402-661-1844.

Sincerely,

Willie R. Taylor
Director, Office of the Environmental
Policy and Compliance

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

TAKE PRIDE IN AMERICA

JAN 16 2008

Daniel B. Smith
Executive Secretary
U. S. Department of State
Washington, D.C. 20520

Dear Mr. Smith:

This is in response to a request by the United States Department of State (DOS) dated November 29, 2007, seeking the Department of the Interior's concurrence or objection to the issuance of a Presidential permit to Enbridge Pipelines (Southern lights) LLC under Executive Order 13337. Enbridge has filed for a Presidential permit to construct, connect, operate, and maintain facilities (including a 20-inch diameter pipeline) at the U.S. Canadian border at Neche, Pembina County, North Dakota.

The DOS also requested comments from the Department on the draft environmental assessment (EA) prepared in conjunction with the permit application on environmental issues of concern as they affect the Department's responsibilities under the National Environmental Policy Act (NEPA). In a letter dated January 16, 2008, the Department provided the DOS comments on the draft EA pursuant to NEPA and other relevant laws and regulations. We request that the DOS carefully consider these comments, as appropriate, as a part of its deliberations with respect to the issuance of a permit.

Based on a careful review of all the documents and information provided by the DOS, the Department offers no objection to the permit issuance. Should you have any questions with respect to the Department's comments, please do not hesitate to contact Dr. Vijai N. Rai of my staff Office at (202) 208-3891.

Sincerely,

Willie R. Taylor

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

February 18, 2008

Ms. Elizabeth Orlando, Esq.
OES/ENV
Room 2657A
U.S. Department of State
Washington, ND 20520

ND SHPO REF: 06-1063e Department of State (DOS)/ND PSC Enbridge Energy's proposed: (1) Alberta Clipper and (2) Southern Lights Petroleum Pipelines from the United States-Canadian border near Neche, North Dakota to Clearbrook, Minnesota [Pembina County, North Dakota]: Environmental Assessment and Class I and Class III CRI Report

Dear Ms. Orlando:

We have received and reviewed correspondence and documentation for 06-1063e : "Class I and Class III Cultural Resources Survey for Enbridge Pipelines' Southern Lights 20-Inch Crude Line (LSr) and Alberta Clipper Pipeline Projects, Pembina County, North Dakota" by 106 Group, (December 2007) and we offer no substantive review comments at this time in addition to those presented in prior copied December 27, 2007 correspondence and the January 3, 2008 e-mail to you. We look forward to receiving a copy of the final report. Avoidance of unevaluated and/or significant sites is recommended. Also, we concur with the scope and scale of identification efforts for cultural resources on the project.

Thank you for the opportunity to review this project and we look forward to further consultation on it. Please include the **ND SHPO Ref.: 06-1063** in further correspondence for this project. If you have any questions please contact either Paul Picha at (701) 328-3574 or Susan Quinnell, Review and Compliance Coordinator at (701) 328-3576 or squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota
c: Susan E. Wefald, Commissioner, ND PSC
c: Daniel E. Cimarosti, COE-Regulatory, Bismarck
c: Karen Ackerman, Regulatory, ND OSE/SWC

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

February 28, 2008

Ms. Elizabeth Orlando, Esq.
OES/ENV
Room 2657A
U.S. Department of State
Washington, DC 20520

ND SHPO REF: 06-1063f Department of State (DOS)/ND PSC Enbridge Energy's proposed: (1) Alberta Clipper and (2) Southern Lights Petroleum Pipelines from the United States-Canadian border near Neche, North Dakota to Clearbrook, Minnesota [Pembina County, North Dakota]: Concurrence on Determinations of Eligibility (DOE)

Dear Ms. Orlando:

We have received and reviewed the February 26 correspondence and documentation for 06-1063e: Determinations of National Register of Historic Places Eligibility (DOE). We concur with the listed DOE for sites enumerated in Attachment A and with their respective management recommendations. ***Sites 32PB206, 32PB161, and 32PB173 are to be avoided either through horizontal directional drilling (HDD) or file boring as recommended.*** We concur that the remaining listed sites are not significant and not eligible for listing in the National Register of Historic Places. Finally, we concur with the scope and scale of identification efforts for cultural resources on the project.

Thank you for the opportunity to review this project and we look forward to further consultation on it. Please include the **ND SHPO Ref.: 06-1063** in further correspondence for this project. If you have any questions please contact either Paul Picha at (701) 328-3574 or Susan Quinnell, Review and Compliance Coordinator at (701) 328-3576 or squinnell@nd.gov

Sincerely,

for Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota
c: Susan E. Wefald, Commissioner, ND PSC, with enc.
c: Daniel E. Cimarosti, COE-Regulatory, Bismarck, with enc.
c: Karen Ackerman, Regulatory, ND OSE/SWC, with enc.

Attachment A: List of Properties Evaluated for Eligibility for the National Register of Historic Places for the Enbridge LSr Pipeline Project in North Dakota

Site Number	Type	NRHP Recommendation by Applicant	NRHP Finding by DOS	Additional Work Needed
Newly Identified Archaeological Sites				
32PB0206	Historic Trail/Road	Recommended Eligible	Eligible	Avoid by Boring or HDD
32PBX0161	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0165	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0205	Undetermined Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
Previously Recorded Archaeological Sites				
32PB0161	Precontact Artifact Scatter	Previously Recommended Potentially Eligible	Unevaluated*	Avoid by Boring or HDD
32PBX0212	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0213	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0214	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0219	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0158	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0215	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0099	Historical Homestead	Recommended Ineligible	Ineligible	No Additional Work Recommended

32PB0216	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0217	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0220	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0152	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0166	Potential Precontact Mound	Portion of Site within Current APE Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0155	Multi-component Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0159	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0222	Precontact Isolated Find	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0160	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PB0162	Historical Artifact Scatter	Recommended Ineligible	Ineligible	No Additional Work Recommended
32PBX0218	Isolated Precontact Artifacts	Recommended Ineligible	Ineligible	No Additional Work Recommended
Newly Identified Architectural History Property				
32PB0173	Railroad	Recommended Eligible	Ineligible	Avoid through Boring or HDD
*Because this site will be avoided through the use of a Horizontal Directional Drill for the crossing of the Red River, no further evaluation of this site's NRHP eligibility is required.				

Appendix A-2

Summary of Comments on Draft Environmental Assessment
and Responses to Comments

Appendix A-2
Comments on Draft EA and Responses

This appendix summarizes comments to the U.S. Department of State (DoS) on the Draft Environmental Assessment (EA) for the LSr Project submitted by the U.S. Environmental Protection Agency (EPA; letter dated December 27, 2007), the U.S. Army Corps of Engineers (COE; letter dated January 1, 2008), the Minnesota Department of Natural Resources (MDNR; letter dated January 9, 2008); the Minnesota Pollution Control Agency (MPCA; letter dated January 11, 2008) and the Minnesota Center for Environmental Advocacy (MCEA; letter dated December 28, 2007). These comments, and the comments submitted by other interested parties, are also addressed in relevant sections of the Final EA.

The comments are categorized by subject and include responses to address the issues. A number of the issues raised individually by the agencies were of a similar nature and were grouped within a category. Responses follow the comments for each category listed below.

Category	Subject
A	Independent and Connected Actions
B	Waterbody Crossings
C	Wetlands
D	Upland Environmental Impacts
E	Cumulative Impacts
F	Water Quality, NPDES, Stormwater, Hydrostatic Testing
G	Public Health & Safety
H	Environmental Compliance during Construction
I	General Comments and Regulatory Issues
J	Alternatives

A: Independent and Connected Actions

Comments:
The EPA raised a concern that since the LSr Project would increase the amount of crude oil delivered to the Clearbrook terminal facility and that the Final EA should provide a discussion of the existing terminal facility and existing capacity. Additionally, the EPA is seeking clarification if Enbridge is required to obtain an EPA-approved Facility Response Plan and Spill Prevention, Control and Countermeasures Plan. The relationship of the LSr Project to refinery expansions and upgrades are noted below.

MCEA wrote that the Department of State has not taken into account the most recent energy use data in assessing the need for the LSr Project. MCEA also stated that the LSr Project is connected with other proposed or planned pipelines that would serve the oil sands project in Alberta, Canada and therefore that the environmental impacts of that project, and those other pipelines, need to be assessed. MCEA also stated that certain refinery expansion projects announced for the Upper Midwest are also related to the LSr pipeline and need to be assessed.

Responses:
The Clearbrook terminal is an integral part of an interstate petroleum pipeline transportation facility and all tanks are defined as breakout tanks as part of the pipeline facility. As a result, the emergency procedures are covered under the Pipeline Safety Act. Emergency plans have been developed as prompted by the Oil Pollution Act of 1990 as promulgated in federal regulations in 49 CFR Part 194. Enbridge has an existing Emergency Response Plan (ERP) submitted and approved by U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), as required by 49 CFR Part 194. Thus, 49 CFR Part 194 governs emergency response regulations, rather than the EPA's Spill

Prevention, Control and Countermeasures Plan. The Final EA clarifies that the existing Clearbrook facility and modifications to that facility required by the LSr Project are covered under the existing (already incorporated) PHMSA approved ERP.

There has been no public pronouncement concerning any plans to expand the Marathon refinery located in South St. Paul, Minnesota. The Flint Hills Resources refinery in Rosemount, Minnesota, is currently undergoing an expansion project that was underway separate from and far before the LSr project proposal. Enbridge does not have capacity contracts devoting deliveries to any specific shipper or refinery. Because crude oil delivered through the LSr pipeline will not involve long-term capacity commitments or be devoted to specific refineries, it is impossible to determine how much petroleum will be delivered to any customer or any delivery point at any time in the future. As stated in the Project Description in the Final EA, the purpose of the LSr Project is to relieve a bottleneck in the existing Enbridge system at Cromer, Manitoba. Because the LSr Project is needed by Enbridge in spite of any current or future refinery expansions, any current or future plans for refinery expansions on or near the Enbridge pipeline system are not connected actions to the Enbridge LSr Project.

The LSr Project is not solely devoted to deliveries to the Minnesota Pipeline at Clearbrook that serve the two refineries in Minneapolis/St. Paul. The LSr pipeline also may make deliveries to the Enbridge Lakehead System south of Clearbrook to deliver to downstream refineries, dependent upon the current capacity of existing pipeline systems downstream of the Clearbrook Terminal. These deliveries at Clearbrook to the benefit of either the Minnesota refineries or refineries connected downstream of the Lakehead System are driven by month-to-month nominations by shippers depending on market needs.

With respect to MCEA's comments, the LSr Project is not designed to support the growth or development of the Alberta oil sands project. The LSr pipeline will transport light and medium crude oil produced from conventional wells located in the northern Williston Basin of Saskatchewan. While the LSr pipeline has on occasion been described together with other U.S.-Canada pipeline projects, the LSr pipeline has independent utility from Enbridge's Alberta Clipper Project or other projects designed to transport heavy crude oil from the oil sands into the United States, including the Keystone pipeline. The Alberta Clipper Project will be the subject of a separate environmental impact statement to be prepared by the Department of State as announced at 73 Fed. Reg. 16920 (March 31, 2008).

The LSr Project is unrelated to any new or expanded refinery projects in the Upper Midwest. No refinery expansions have been announced in connection with the transportation of medium and light crude oil from the Williston Basin into the United States. The plans to expand the Flint Hills refinery pre-dated the announcement of the LSr pipeline and that expansion is unrelated to the pipeline. The destination of crude transported through the LSr pipeline is unknown as the pipeline will be operated as a common carrier facility and thus Enbridge has stated that no contractual commitments will be made relative to the transportation of the crude.

The Final EA sets forth an analysis of all indirect and cumulative impacts of the LSr Project, including air quality and wetlands impacts, together with other reasonably foreseeable projects. This analysis fulfills relevant NEPA obligations. The project has not been segmented from any connected actions since the LSr Project stands on its own and is not connected to other projects identified by MCEA.

MCEA comments on global warming and other environmental concerns about the oil sands project in Alberta. The LSr Project will not serve the oil sands project. MCEA's concerns about greenhouse gas emissions and other environmental impacts associated with the Alberta oil sands project therefore do not fall within the scope of the matters that are required to be addressed in the Final EA.

MCEA also commented that the Final EA must include an analysis of air quality and global warming impacts under the precedent of *Mid-States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003) (requiring federal rail regulatory agency to analyze air quality impacts of transporting coal by rail to Upper Midwest utilities). The Final EA does provide such an analysis and explains why the impacts on air quality and greenhouse gases of the crude oil transported by the LSr pipeline would be insignificant. The Final EA explains that crude oil to be transported through that

pipeline will largely replace oil that would otherwise be supplied to Upper Midwest refineries from either or both domestic oil sources or other foreign sources, and will not significantly increase overall oil imports.

MCEA wrote that the Draft EA overlooks the 2008 update to the 2007 Annual Energy Outlook. MCEA correctly reports that the Outlook was updated in 2008 and now includes the impact of the Energy Independence and Security Act of 2007 (EISA 2007), Pub. L. 110-104. The Revised Early Release of the Annual Energy Outlook 2008 is reflected in the March 4, 2008 Testimony of Guy Caruso, Administrator, Energy Information Administration before the U.S. Senate Committee on Energy and Natural Resources, available at http://www.eia.doe.gov/oiaf/aeo/index.html. That testimony indicates that total primary energy consumption is projected to grow by 19 percent between 2006 and 2030, with liquid fuel growing at an average rate of 0.4 percent from 20.7 million barrels per day (bpd) in 2006 to 22.8 million bpd in 2030. These figures take into account the new fuel efficiency (CAFÉ) standards mandated for vehicles. The same testimony also reports at page 6 that, “Net imports of energy are expected to continue to meet a major share of total U.S. energy demand.” The testimony reports further that liquid fuel consumption will continue to grow throughout the projection period, with the transportation sector dominating that projected growth. While domestic production of crude oil is expected to increase modestly with eventual increased production from the Gulf of Mexico and onshore sources, it will subsequently decline by 2030, with imported oil retaining a significant share of at least 50% of the market or higher through 2030. In addition, the Administrative Law Judge in the Minnesota PUC Certificate of Need proceeding for the LSr pipeline was aware of state conservation and greenhouse gas reduction measures and nevertheless found that the state requirements for a Certificate of the Need were met. MPUC Docket No. PL9/CN-07-464 (Certificate of Need) Summary of Testimony at the Public Hearings, Findings of Facts, Conclusions and Recommendations at page 52.

B: Waterbody Crossings

Comments:

Crossing Methods

The EPA asked why the horizontal directional drill (HDD) method will not be used at the Tongue River crossing and asked for clarification of the route at the Snake River crossing (a discrepancy in the EA figure versus the route maps). Both the EPA and the MPCA seek more information regarding the process for selecting waterbody crossings where the HDD method would be employed. Geotechnical investigation results need to be included in discussions regarding HDD method applicability. In addition to explaining why the HDD method is not proposed for all the impaired waters, the MPCA is looking for an explanation of the reasoning behind the proposal to utilize HDD at other crossings, as well as why HDD or dry crossing procedures are not proposed for other water bodies to protect water quality, especially the protection of those that are of concern to other agencies (e.g., MDNR and the EPA) as indicated by the public record. Maps need to better identify stream crossings, including proposed crossing methods.

The COE requested that the Final EA include a discussion of the potential impacts of a frac-out and the measures Enbridge would take to avoid and minimize such effects.

Protected and Impaired Waters

MPCA staff stated that the Draft EA did not adequately identify all of the potential water quality impacts the project may have, nor did it sufficiently detail the measures that will need to be employed to mitigate the potential impacts to all waterbodies. Therefore, additional submittals will be necessary before the applicant can receive the required MPCA authorizations.

Section 3.4 of the Draft EA contains a discussion of the proposed crossings of impaired waters, including potential impacts and mitigation. Table 3.4.1-4 lists the Minnesota impaired waters that the Project is proposed to cross, along with their specific impairments. The MPCA requests that this table be revised in the Final EA to incorporate any additional waterbodies that may be directly or indirectly impacted by this project as identified in the updated 2008 Final Draft 303d TMDL List of Impaired Waters.

MPCA comments that the Final EA should provide an explanation of how the proposed construction methods for pipeline installation and maintenance at each impaired water crossing - including any additional impairment(s) identified by the 2008 list – can reasonably be expected not to exacerbate the specific impairment(s). While the Draft EA identifies (page 3-23) that three of the six Minnesota impaired waters on the 2006 list (including the Red River of the North, the Tamarac River and the Red Lake River) will be crossed using the HDD method – which, if done correctly, should result in no additional discharges to the waterbody – it also states that Enbridge proposes to cross the other three impaired waters (the Clearwater River, the Lost River, and the Silver Creek) using the open-cut method. MPCA comments that the Draft EA does not explain why the proposed open-cut method should result in no additional increase to existing impairment(s). MPCA states that the Final EA should clearly explain why this should be considered an acceptable approach, relative to other alternatives that are available, for each of these impaired waters. MPCA states that the Final EA (and maps) should include a description of the specific reach of each impaired waterbody in Minnesota that will be crossed so that the information can be cross-checked with the MPCA's list.

Construction Mitigation at Waterbody Crossings

The EPA recommended maintaining an undisturbed 20 foot buffer at stream crossings. The MDNR noted that removal of canopy and understory vegetation within 50-150 feet of rivers (depending on slope) for the purpose of Extra Temporary Work Spaces (ETWS) for river crossings should not be allowed. ETWS should be set back beyond the 50-150 foot zone. During the installation of trenched crossings, removal of existing woody vegetation along rivers including trees and understory should only be allowed for the minimum stream bank distance size necessary for safe equipment operation for the installation.

Protection of at least portions of forested river corridors is built into Minnesota regulations such as MDNR regulations, zoning ordinances, and many Best Management Practices (BMPs) for activities next to rivers. Pipeline construction at river crossings results in essentially complete removal of woody vegetation along

river banks. This includes trees and understory vegetation, and often extends to a wider area than the normal right-of-way. Some of this area is for temporary construction staging, often resulting in removal of large areas of trees and understory. MDNR field inspections have noted slow or no return of this vegetation years after pipeline construction. These areas are currently up to 250 feet wide in some locations, and will become wider with the expansion from these two pipelines. As mitigation for the cumulative impacts to natural resources from the corridor widening resulting from the addition of two more pipelines in this wide corridor, woody vegetation should be allowed to return along the stream banks of the existing pipelines.

The MDNR 9/24/07 scoping letter indicated the importance of forested habitat along rivers and indicated the reasons why it is important. MDNR comments that the Draft EA does not address this important topic. As noted in previous comments, the continued expansion of the already wide Enbridge corridor is causing increasingly serious loss of natural resources along rivers (See pages 2-4 of MDNR's 9/24/07 scoping letter). MDNR is very concerned that these impacts be addressed as much as possible for the Enbridge project. Permanent removal of woody vegetation and trees over the permanent right-of-way for aerial inspection purposes should not be allowed.

The COE commented that the Final EA should include a discussion of how long-term impacts on water quality impacts would be avoided or minimized. However, this information was already addressed in the Draft EA in sections 3.4.1 and 3.6.2.2. Also, the COE noted that it considers reed canary to be an invasive species in aquatic resources areas.

Responses:

Crossing Methods

Enbridge, in discussions with the North Dakota Public Service Commission (NDPSC), has proposed and received approval for an alternative alignment for the crossing of the Tongue River as noted in the ND PSC Routing Permit for the LSr Project. The new alignment has been revised to include a crossover to the northeast side of the existing right-of-way and a crossing of the Tongue River via the open-cut crossing method. This new alignment was chosen so as to minimize the amount of tree clearing and because the most recent previous pipeline construction occurred on the northeast side of the right-of-way in this area. The open-cut crossing method is being proposed because Enbridge feels, and the NDPSC agrees, that the crossing can be achieved with minimal impacts to riparian resources. In conjunction with the ND PSC order, Enbridge also has agreed to replant trees and shrubs at a 2:1 ratio as mitigation for any tree removal in North Dakota.

The proposed crossing alignment at the Snake River will minimize impacts to riparian resources by mirroring the existing right-of-way and previously-disturbed area. Enbridge proposes to use the open-cut crossing method at the Snake River and will further minimize impacts to riparian resources by employing mitigation measures as detailed in the Enbridge Construction Environmental Control Plan (CECP), described below (Response, Category F) and included in the Final EA.

Section 2.1.3.3 of the Final EA identifies the six locations where Enbridge proposes to perform an HDD stream crossing and also discusses the methodology used by Enbridge to determine the necessity and feasibility of an HDD stream crossing. In summary, the Pembina River would be crossed using the HDD method to avoid further damage to the river banks and associated dykes, as well as protect this portion of the river which was nominated to the Nationwide Rivers Inventory in 1982. The Red River of the North is proposed to be crossed using the HDD method because of the size of the river and because it was successfully crossed in 1998 using this method. This river is designated as an impaired water in Minnesota (see table below). The unnamed ditch at MP 817 would be crossed using HDD because of its proximity to U.S. Highway 75 and a nearby railroad. The Tamarac River would be crossed using HDD to avoid further degradation of the river banks, which contain extensive rock riprap on both sides and to limit further impairment. The Middle River would be crossed using HDD to avoid an adjacent parallel segment of the river at this location and to limit further impairment. For the Red Lake River, HDD is proposed because it was used successfully during a past pipeline expansion project. The Red Lake River is also listed as an impaired water in Minnesota (see below).

It should be noted that, although the HDD crossing method is generally effective at minimizing impacts to riparian areas and associated resources, such a method is not always feasible and may have other drawbacks as different resource impacts may occur in the event of a drilling mud release. Subsurface conditions, such as shallow bedrock, large cobbles in the subsoil, or unstable or fractured substrata can make an HDD crossing difficult or impossible. In addition, the possibility of a release of drilling muds (or "frac-out") is always an important consideration, especially when attempting to cross under or near sensitive resources such as calcareous fens. Consistent with the COE's request, the Final EA has been revised to include the potential impacts associated with a frac-out and the mitigation measures proposed to avoid such an event. Geotechnical borings were performed at all waterbodies proposed to be crossed by HDD. Based on geologic conditions, assessment of impacts due to additional working space at the drill sites on both sides of the crossing, an overall cost-and-risk-benefit assessment leads to the recommended crossing method. Due to the drawbacks of HDD, this method is chosen in limited conditions. The results of these assessments for each crossing are summarized in the Final EA in Section 2.1.3.3. Even when HDD is the first preferred option, Enbridge selected alternative crossing methods in the event the HDD crossing fails. This information is included in the attached waterbody crossing table and in the Final EA. Enbridge will continue to work with the MDNR to develop alternative crossing plans if currently proposed crossing plans are deemed insufficient to protect a resource.

Protected and Impaired Waters

The list of impaired waters crossed by the proposed project in Minnesota has been updated based on the 2008 Final Draft 303d TMDL List of Impaired Waters. Table 3.4.1-4 in the Draft EA was based on the Minnesota 2006 listing and has been revised with the updated listings below. The revisions between the two lists resulted in the addition of two waterbodies; Middle River and the County Ditch/Black River; change in designated use at Clearwater River and Lost River and a change in the use support classification at Red Lake River and Clearwater River.

TABLE 3.4.1-4 – (Revised 2/14/08)

Proposed Crossings of Minnesota Impaired Waters

Waterbody	County	Milepost	Designated Use	Use Support [a]	Impairment
Red River of the North	Kittson	801.71	Aquatic consumption	5A	Mercury Fish Consumptive Advisory (FCA), PCB FCA[b]
Tamarac River	Marshall	828.81-829.08	Aquatic Life	5C	Fish Ibiotic Impairment[c]
Middle River	Marshall	835.9	Aquatic Life	5A	Turbidity[d] Dissolved Oxygen[d]
Black River (County Ditch)	Pennington	855.0	Aquatic Life	5A	Turbidity[d] Dissolved Oxygen[e]
Red Lake River	Pennington	864.4	Aquatic Consumption	4A	Mercury FCA[f]
Clearwater River	Red Lake	875.45	Aquatic Consumption	4A	Mercury FCA[f]
Lost River	Red Lake	885.88	Aquatic Recreation	5C	Fecal Coliform[g]
Silver Creek	Clearwater	907.15-907.77	Aquatic Recreation	5C	Fecal Coliform[g]

[a] Category 5 has the following three sub-categories: 1) 5A: Impaired by multiple pollutants and no total maximum daily load (TMDL) study plans are approved by the U.S. Environmental Protection Agency (EPA); 2) 5B: Impaired by multiple pollutants and at least one TMDL study plan is approved by the EPA; 3) 5C: Impaired by one pollutant and no TMDL study plan is approved by the EPA. Category 4A is an impaired or threatened water that has completed TMDL study(s).
[b] TMDL start date 1998, 2002, completion dates 2011 and 2015, respectfully.
[c] TMDL start date 2010.
[d] TMDL start date 2009.
[e] TMDL start date 2011.
[f] TMDL Plan approved 2008.
[g] TMDL Start Date 2006, anticipated completion date 2009.

Summary of Crossing Methods for Impaired Waters Along the LSr Project in Minnesota

MP	Waterbody	Reach	Crossing Method	Alt. Crossing Method[1]	Crossing Width (bank to bank)	Substrate
801.7	Red River of the North	Unnamed creek to Two Rivers	HDD	N/A	500 feet	Muck/Silt
828.8	Tamarac River	Florian Park Res. to Stephen Dam	HDD	Dam & Pump	20 feet	Muck/Silt
835.9	Middle River	Headwaters to Snake River	HDD	Dam & Pump	30 feet	N/A
855.0	County Ditch/Black River	Headwaters to Little Black River	Dam & Pump	HDD	30 feet	Mud/sand
864.3	Red Lake River	Thief River Falls Dam to Unnamed Creek	HDD	Dam & Pump	170 feet	N/A
875.4	Clearwater River	Ruffy Bk to Lost River	Dam & Pump	N/A	60 feet	Muck/Silt
885.8	Lost River	Anderson Lake to Hill River	Dam & Pump	HDD	70 feet	Sand
907.1 907.4 907.7	Silver Creek	Headwaters to Anderson Lake	Dam & Pump	HDD	20 feet	Gravel

[1] Crossing method to be implemented in the event that site conditions prohibit the use of the preferred method.

When the HDD method is not the preferred option, the proposed crossing method was changed from open cut to the dam and pump method to minimize environmental impacts. Rationale for the chosen crossing methods is provided below. Detailed descriptions of each respective construction method are provided in the Final EA.

Crossing methods at waterbodies were determined in part by existing site conditions and previous construction methods used for installation on earlier Enbridge projects. Three construction methods have been proposed for this project: horizontal directional drill; dam and pump; and open cut. The construction methods at impaired waters have been determined as discussed below.

The Red River will be crossed by HDD due to the breadth of the river at the crossing location and based on Enbridge's successful crossings of this feature on previous projects. An HDD crossing is proposed at the Tamarac River based on an evaluation of current site conditions along the waterbody; specifically steep and eroded stream banks. The Middle River will be crossed using the HDD method. The HDD at this location will be 1,000 feet or greater due to a road crossing, topography and proximity to the river (meandering, resulting in being parallel to the pipe). The Black River will be crossed using the dam and pump method in lieu of the HDD method due to the breadth of the waterbody crossing. The Red Lake River will be crossed with an HDD due to the breadth of the river crossing and based on Enbridge's previous successes with this method at this feature. The Clearwater River will not be crossed with the HDD method (dam and pump will be used instead). Enbridge reviewed past crossing records and multiple failed HDD attempts in 1998 due to the existence of subsurface glacial erratics. Although HDD technology has improved since then the geotech analysis conducted in 1998 and again for the LSr Project, indicate the presence of substantial boulders that would cause an HDD to fail. Both the Lost River and Silver Creek will be crossed using the dam and pump method due to the breadth of the waterbody crossing. Additionally, this crossing method is not anticipated to contribute to the impairment at either feature.

Enbridge will continue consultations with the MPCA regarding mitigative measures to be employed for crossings of impaired waters.

Construction Mitigation at Waterbody Crossings
Regarding vegetative buffers at waterbody crossings, Enbridge concurs with the agencies and proposes:

- For non-HDD waterbody crossings, maintain a 20-foot riparian buffer (rather than the 10-foot buffer stated in the EMP) until 24 hours before the crossing is to be performed, per EPA's suggestion in their comment letter.
- For non-HDD waterbody crossings, no clearing within the 20-foot riparian buffer (rather than the limited clearing that is stated in the EMP) until 24 hours before the crossing is scheduled to be initiated.
- For HDD waterbody crossings, no clearing above the crossing zone.
- Neck down from the typical upland construction right-of-way width of 100 feet to a 75-foot construction right-of-way width in all wetlands and at all waterbody crossings.

Enbridge has and will take numerous avoidance, minimization and mitigation measures to reduce impacts to forest resources. In response, Enbridge has developed environmental plan maps which show these measures. These maps have been provided to MPCA, MDNR, COE and EPA. These maps show all environmentally sensitive features along the route including forested and non-forested wetlands, archaeological sites and rare plant community sites (confidential information such as archaeological sites have been depicted generically as "sensitive environmental feature"). The maps also show a "footprint of construction" which will provide information to stakeholders regarding Enbridge's attempts to reduce impacts to forested areas. In addition, waterbody crossing plans are currently being developed in support of Enbridge's application for a License to Cross Public Waters currently before the MDNR. These plans will identify practicable measures to be employed to reduce forest clearing.

Enbridge has agreed that the removal of stream bank vegetation should be minimized as suggested. This BMP has been employed by Enbridge in recent construction projects. Removal of woody vegetation

at river banks will only occur where an open-cut or dam and pump methodology is used. Typically, the removal of woody vegetation along the bank itself is reduced to the minimum width as possible to only allow for the trench and one travel lane to allow equipment to cross. Nearby workspace is very important to facilitate the crossing as this allows the crossing to be completed in a safe and more time efficient manner. A significant reduction in workspace or in the setback distance resulting in an increased relay distance of material back away from the crossing ultimately can result in additional or different impacts to the resource. A "neck down" typically allows the clearing along the river bank to be less than the typical right-of-way width, not greater as stated in the MDNR comment letter. Enbridge will continue to work with the MDNR regarding appropriate measures to be included in the License to Cross Public Waters to minimize woody vegetation impacts along river banks. Enbridge has agreed that BMPs should be used to minimize impacts to forested river corridors. The environmental plan maps clearly indicate that a significant amount of design effort has been completed to: a) limit the amount of any temporary extra workspace in forested river corridors; and b) establish neck downs to only allow the trench width and one vehicle travel lane to cross a waterbody. Enbridge has advised that it is committed to avoid clearing woody vegetation between the drill sites and water's edge on both sides of the crossings at the locations where the HDD method is proposed.

Regarding the COE's comment about reed canary, the Final EA has been revised to reflect the invasive status of this species. Enbridge will consult with the COE on how invasive species in aquatic resource areas would be controlled.

To address the concern about insufficient vegetative cover in areas across the existing, maintained pipeline corridor, Enbridge proposes to replant shallow-rooted woody vegetation in 25 foot buffers adjacent to waterbodies and between all of the pipelines (new and existing) where the pipes are buried sufficiently deep to allow growth of such vegetation, with landowner approval (see attached figure). Enbridge will consult with MDNR to determine the extent and selection of preferred vegetation in these areas.

Allowing a cleared right-of-way for aerial inspection is very important, but not the only reason for the permanent removal of woody vegetation. Federal regulations require inspection of liquid pipeline rights-of-way approximately every two weeks. Inspection by air is the most efficient and least intrusive to the landowner. Additionally, a cleared right-of-way facilitates Enbridge access to the right-of-way for maintenance, ground inspections of equipment and emergency response. Moreover, a cleared right-of-way is one means of preventing damage from third-party excavation as the cleared area, along with pipeline markers at crossings, assist in calling attention to underground utilities and the need to call the state excavation one-call system. In some cases, tree roots can damage the pipeline coating and therefore create integrity concerns. Removal of woody vegetation removal over the permanent pipeline right-of-way is a condition of the easement or crossing agreement with the landowner and has been a standard industry practice for decades.

Regarding the important travel corridors noted, Enbridge plans on using the HDD crossing method for the Red River and Red Lake River crossings so no additional permanent clearing and corridor widening will occur. The Snake River is currently proposed as an open-cut, and Enbridge will work with the MDNR to determine a crossing location and technique that minimizes impacts. Enbridge has agreed to discuss with regulatory agencies woody vegetation planting opportunities, as noted above, to mitigate cumulative impacts following the construction of the LSr and Alberta Clipper pipelines.

Comparing pipeline construction impacts to timber harvest impacts, including impacts to waterbodies, is not a useful comparison due to the much different nature of the activities. Pipelines must invariably cross waterbodies whereas timber harvest operations do not. In addition another likely reason for timber harvest operations to stay back a set distance from waterbodies is for runoff control from the large expanses of cleared areas paralleling the stream bank. Pipeline construction is more linear and perpendicular to the stream bank and restoration plans are used in pipeline construction to immediately establish a vegetative cover. The narrower crossing, along with erosion control and restoration requirements for pipeline crossings of waterbodies provides adequate environmental protection.

As each waterbody crossing presents its own unique construction challenges, it is not feasible to establish a standard set-back design. Past experience has shown that open-cut methods are most successful in limiting impacts if the work is completed as fast as possible therefore minimizing uncontrollable variables (primarily weather). Relaying back material to the proposed distance of 50 to 150 feet will certainly slow down the crossing (which typically occurs within 48 hours). In addition impacts from excessive equipment traffic used to relay the material back has the potential to cause other short term impacts including rutting, compaction and the loss of sensitive streambed material from excessive handling and transportation. The proposed site-specific setbacks that are depicted on the environmental plan sheets address the need to minimize long-term impacts to the streambed. Except for 10 locations, the ETWS will be set back 50 feet from the top of the bank at waterbody crossings. For the 10 locations referenced above, the ETWS will be set back a site-specific distance to minimize to the extent feasible clearing of trees.

C: Wetlands

Comments:
The EPA requested that the source, amount, and discharge locations for hydrostatic test water be identified in the Final EA. Additionally, the Final EA needs to evaluate aquatic nuisance species and pathogens that could be transferred beyond watersheds and measures to prevent such transfers.

The COE had several comments related to wetland impacts and the section 404 permit requirements. The Final EA should include wetlands in the list of locations where topsoil will be removed and segregated. The Final EA should also list which wetlands would have a reduced 75-foot-wide right-of-way, update NWI wetland data with completed field delineated wetland data, list wetland crossing methods, refer to wetland plant community types, and list which wetlands will be converted from forested to non-forested wetlands and the mitigation proposed. The COE also recommended that the Final EA include updated COE permit application information (e.g., status) and expand on the wetland crossing and construction methods discussions, especially in sensitive and/or protected wetland areas. Additionally, the COE requested that the potential impacts resulting from a frac-out and the mitigation proposed be included.

Further comments suggest that wetlands need to be depicted on aerial maps showing the construction footprint and neck down areas in wetlands. The MPCA recommends that the Eggers & Reed classification for wetland types be included in the Final EA.

The EPA suggests that temporal forested wetland loss should be mitigated by replacing $\leq$ 0.5 acre for each acre lost. This replacement should be done before or during construction. Enbridge is encouraged by the EPA to compensate for both temporary and permanent upland forest clearing. The MPCA is seeking a discussion of compensation for temporary and permanent loss of function and quality of wetlands affected by the project.

The EPA recommends that methods to avoid impacts to the fen (MP 853) should be addressed in the Final EA. The MDNR notes that additional survey work is needed at MP 853.1 – 853.4, an area supporting a rare plant community. The MDNR suggests employing the HDD method for crossing this area. The EPA recommends discussing in the Final EA if MDNR recommendations will be followed:

- to employ the HDD crossing method at mesic prairie remnants between MP 816 and MP 866;
- to divert runoff away from remnants; and
- replant remnants with native species

Regarding the presence and control of noxious weeds in wetlands (p. 3-35), the EPA recommends identifying species present and measures that would be employed to reduce spread of these species.

The EPA is seeking an expanded discussion of the COE and EPA November 2007 Memorandum of Understanding (MOU) regarding the alternative jurisdictional determination process for the project. The MPCA noted that the project requires a COE Individual Permit (§ 404 Clean Water Act, § 10 Rivers and Harbors Act). They are also looking for a discussion regarding the need to comply with Minn. R. 7050.0186.

Responses:
Section 3.4 of the Final EA has been revised to include a table identifying all of the proposed hydrostatic test water appropriation locations, anticipated quantity of each appropriation, and planned discharge locations for hydrostatic testing for the LSr Project. It should be noted that, for each instance of hydrostatic testing, the water will be appropriated from and discharged to the same waterbody. Therefore, no aquatic nuisance species, pathogens, or other organisms will be transferred to other watersheds.

The LSr environmental plan maps have been revised to include delineated wetlands, waterbody crossing locations, and the construction workspace with extra workspace areas depicted so as to show the areas

where the workspace will be placed or refined to minimize impacts to wetlands and other resources (e.g., reduced construction right-of-way). The Eggers & Reed classifications were not used in the Draft EA because it is a less informative method for describing the full character of a wetland area, as compared to the Cowardin classification system that has historically been the preferred classification method. However, the Eggers & Reed classifications have been added to the wetland tables in the Final EA.

In recognition of the relative rarity of the resource in the LSr project area, Enbridge would provide compensatory wetland mitigation for unavoidable permanent and temporary impacts to forested wetland and scrub shrub wetland. The impact areas would include estimates of the wooded component of mixed emergent and wooded wetland, as well as areas where trees and shrubs were dominant.

The overall objective of the proposed compensatory wetland mitigation would be to compensate for wetland resource functions lost as a result of the proposed project taking into consideration what is available, practicable, and capable of being done. Proposed project wetland mitigation would be in place, as defined by applicable guidelines, in that it would be located within one or more of the watersheds, counties or wetland bank service areas in which the wetland impacts occur. Appropriate and practicable compensatory wetland mitigation ratios will be established in consultation with the COE St. Paul District; the factors used to determine mitigation ratios will be those specified in applicable policies and rules, such as whether the proposed mitigation is in kind or out of kind; in place or out of place; in advance or not in advance; or located in an area with greater than or less than 80% of its pre-settlement wetland acreage remaining. At this time, proposed project wetland mitigation may include:

- restoring effectively drained wetland;
- rehabilitating the functions of existing, degrading wetland;
- creating new wetland;
- enhancing existing wetland functions by planting native trees or shrubs; and/or
- purchasing wetland mitigation credits from an approved wetland bank.

Enbridge would develop a specific wetland mitigation plan based on consultation with the COE St. Paul District and other state and federal resource agencies. This mitigation plan would be submitted to the COE St Paul District for review and approval prior to commencement of project construction. The COE St. Paul District and Enbridge would develop cooperatively hydrology and vegetation success criteria for restored, rehabilitated, created or enhanced wetland mitigation sites that would be set forth as special conditions in the permit authorization. Wetland mitigation monitoring would be required consistent with applicable regulations and policies.

In addition, private landowners will be fairly compensated for the use of land, including forested areas, as part of the negotiations for the use of temporary and permanent easements. Finally, some forested areas that will be cleared during construction do not represent naturally occurring or historically significant forested areas, but rather were planted in prairie areas during the settlement era to provide firewood and shelterbelts.

On November 28, 2007, NRG on behalf of Enbridge provided the MDNR with a proposal for avoiding impacts to the unnamed calcareous fen located in Pennington County (approximately MP 853) and requested a Finding of No Impact. Verbal approval was given to the Enbridge avoidance plan, which involves crossing over the existing pipelines far enough east and west of the designated fen to avoid any direct and indirect impacts to this hydrogeological resource. In a letter to the DoS dated January 9, 2008, the MDNR suggested the use of an HDD to avoid the fen and other resources along the entire beach ridge. The nature of soils in beach ridge formations is not conducive to a successful implementation of this technique. Beach ridges typically contain stratified layers of silts, clays, sands and gravel in laminated formations. The presence of the fen and wet meadow communities in this area is a strong indicator of near-surface hydrologic flow. A HDD crossing would likely result in movement of bentonite clay (“drilling mud”) through soil fissures either to the surface (“frac-outs”) or, of even greater concern, laterally within the substrate thereby causing interference with subsurface water movement. The effects could result in releases of drilling mud into nearby wetland features or inalterable changes in wetland

hydrology. While groundwater may likely be encountered during open trenching through this area, the impacts to the wetland would be temporary and be less than the risk of a major frac-out if an HDD failed.

Regarding the rare plant community near MP 853.1 – MP 853.4, Enbridge's submittal to the MDNR in November 2007 focused on the new fen found near MP 853.7 as this was the prevailing issue identified during survey and subsequent consultation with MDNR. However, during surveys conducted in July and September 2007, the wetland complex between MP 853.1-853.4 was examined and findings support the MDNR's classification of the wetland as a Northern Wet Prairie (WPn53) community primarily on the eastern end of the complex. The western (and larger portion) of the wetland complex would be classified as a Wet Meadow/Carr community (WMn82) with occasional upland mounds supporting aspen stands. During Enbridge's field work, *Cypripedium candidum* (a Minnesota Special Concern species) was found on the western end of the wetland complex. Most of the wetland complex extends to the south of the existing pipeline corridor. Enbridge has prepared a report of survey findings and has submitted the completed report to MDNR in February 2008. As with the nearby calcareous fen, employing the MDNR's suggestion to cross this area using the HDD technique may present additional risks to the resource and may not be feasible for the reasons stated above.

In the mesic prairie remnants between MP 816 and MP 866, these features are associated with railroad corridors. Enbridge would construct underneath these corridors and associated prairie remnants using a horizontal bore technique. This technique does not disturb surface vegetation. Enbridge would employ the recommended measures to divert runoff away from remnants and replant remnants with native species, although as stated, no surface disturbance is anticipated in the associated remnants.

Enbridge has solicited comments from local Natural Resource Conservation Service (NRCS) and Farm Service Agency (FSA) offices for information regarding invasive species and noxious weeds and for recommendations on controlling these nuisance plants. These comments have been incorporated into the Final EA and mitigation measures will be employed as appropriate. Enbridge will seek further guidance from MDNR and COE regarding the presence and control of noxious and invasive species in wetlands.

The EPA and COE have accepted Enbridge's request that the LSr Project be subject to the MOU for Linear Public Infrastructure Projects in Minnesota and Wisconsin and the jurisdictional determination process is underway. The Final EA has been revised to include this information.

Regarding the COE's comments about a potential frac-out, a discussion has been added to the Final EA that addresses the potential impacts from a frac-out and Enbridge's proposed mitigation to reduce such impacts. Finally, the Final EA wetland crossing and construction methods have been updated to reflect information about wetland boundaries and mitigation measures proposed, including sensitive or protected wetland areas.

D: Upland Environmental Impacts

Comments:
The MDNR notes that the method of assessing impacts to natural resources throughout the EA is to compile overall estimates of impacts based on categories (habitats, land uses, etc.). MDNR states that this approach does not address significance and sensitive areas, or address impacts in a manner conducive to development of effective mitigation. It states that the Draft EA goes no further in addressing wildlife impacts. Retention of remnant forested lands in agricultural areas is highly important because these areas represent the only remaining forested lands in an otherwise highly impacted landscape.

Pages 2-4 of the MDNR 9/24/07 scoping letter identify impacts that are either long-term, or potentially long-term if mitigation measures are not developed. MDNR states that the Draft EA does not address these issues and generally characterizes impacts as temporary. MDNR comments that while this is often true for pipeline installations on lands already disturbed; it is not true at all locations. The MDNR identified circumstances where long-term impacts occur and the importance of forested habitat along rivers. These need to be recognized and mitigated as much as possible.

The COE added that there is the potential for extra workspace areas would be located in forested areas and would require removing, adding to long-term forest land impacts. Additionally, such a loss is a cumulative impact. Cumulative impacts are discussed further under Item E. The COE also requested clarification that no new access roads would be required for the project.

Responses:
Impacts to all forested lands should be minimized to the greatest extent feasible while still meeting the needs of the pipeline construction project and the public's need. Through discussions with MDNR, COE and MPCA, Enbridge has been provided further guidance regarding effective mitigative strategies to limit such impacts. Subsequently, Enbridge has developed mitigative measures such as shallow rooted woody vegetation plantings in riparian forest areas and establishing wildlife travel lanes (vegetative plantings) in upland forest crossings in sensitive travel areas as indicated by the MDNR and with landowner approval. In forested wetlands, Enbridge has proposed to neck down from a typical 100-foot construction width to a 75-foot typical construction width to minimize impacts as identified in Section 3.4.3.2 of the Draft EA and in accordance with COE Section 404 permit requirements. These proposed measures are pending agency review and feedback before they are fully developed. Enbridge has also been in consultation with the COE and MDNR and has agreed that temporary extra workspace will not be located in any wetlands (forested or non-forested) where feasible in order to minimize impacts. All reasonable attempts will be made to not site extra workspaces within forested areas (upland or wetland). Enbridge has prepared environmental plan sheets provided to the MDNR, MPCA, and COE indicating the location of all extra workspaces. In the event it is not feasible to avoid a sensitive area when extra workspace is needed the sites will be identified on the map, and site-specific mitigation plans will be developed in consultation with the agencies.

Subsequent to the public availability of the Draft EA, many of the issues identified in the MDNR scoping letter were specifically discussed with MDNR and COE staff in a meeting on December 20, 2007 and a table was provided to MDNR referring to the issues identified in their September 24, 2007 letter, referencing the applicable section in the Draft EA where these issues were addressed. Issues identified in the MDNR scoping letter and proposed mitigative measures and impacts are discussed in numerous locations in Section 3.0 of the Draft EA and are typically grouped by resource. The Final EA expands on these discussions and have resulted in numerous interactions between Enbridge and MDNR, COE, and MPCA staff.

As stated on Page 4 of the MDNR's January 9, 2008 comment letter, due to the nature of pipeline construction, many additional surveys and small changes to the proposed route alignment have occurred since the publication of the Draft EA for public comment. These route deviations to allow for realignment to address landowner, constructability or environmental concerns have been submitted to the Minnesota Public Utilities Commission and Department of Commerce as part of the state's Routing Permit process.

Finally, Enbridge does not intend to construct any new access roads for the project. The Final EA has been updated to clarify this.

E: Cumulative Impacts

Comments:
The EPA is seeking an expanded discussion of the relation between the Alberta Clipper Project and the LSr Project construction timeframes, particularly addressing the cumulative impact of double disturbance and any mitigative measures to be used. Additionally, the COE had several comments regarding the cumulative impacts discussion and recommended that it be revised in close coordination with agency staff.

In the Final EA, the EPA is looking for further explanation of compensatory mitigation from past projects that would address cumulative impacts from the LSr Project.

Cumulative impacts from loss of riparian forests and other woody vegetation due to corridor widening: as noted in previous MDNR comments, this impact is of an increasing severity. For example, such vegetation provides secure travel corridors for many wildlife species. With ever-widening corridors, these locations become major obstacles to such movement, and therefore cause natural resource impacts beyond the pipeline corridor.

MDNR noted concerns regarding management and coordination of environmental issues during permitting and construction. With regard to construction of two new large pipelines in subsequent construction seasons at the same location, reclamation and coordination among differing construction crews in the same area has the potential to cause difficulties in applying proper mitigation measures and adds to the complexity of environmental requirements.

The MPCA notes that the Cumulative Impacts portion of the Draft EA fails to address whether and what additional impacts may occur as a result of the construction of two proposed adjacent/overlapping projects (LSr and Alberta Clipper) within a short time frame. MPCA states that the Final EA discussion should include an analysis of the timing of site restoration for the LSr project in combination with commencement of construction of the Alberta Clipper project, and what cumulative impacts may occur as a result, as well as mitigative measures that will be undertaken to avoid or minimize impacts. MPCA asks how the timing of the two projects will affect various proposed restoration and revegetation efforts outlined in the Draft EA.

Responses:
As discussed in Sections 2.1.3 and 3.13 of the Final EA and in the Enbridge Environmental Mitigation Plan (EMP), the LSr and Alberta Clipper Projects will share an area of construction workspace about 40-feet-wide from when the LSr pipeline project is constructed in 2008 and Alberta Clipper in 2009. This shared work area will help to minimize the amount of new land disturbance during Alberta Clipper construction. In addition, also discussed in the above sections and Plan, Enbridge proposes to perform full right-of-way restoration of the LSr work area as if no subsequent construction was being planned in the following year. Restoration will minimize erosion that would occur between projects and will occur in a continuous fashion as pipeline construction is completed.

Environmental compensatory damage for past pipeline projects is outside the scope of the current NEPA review. Enbridge completed expansions along portions of their existing corridor that are co-located with the LSr route during 1994 and 1998. At the time, standard revegetation practices were implemented to restore areas disturbed during construction of those expansion programs. No compensatory mitigation was required by regulatory agencies. As discussed in the Final EA (Section 3.13), wetland reserve and other conservation set aside programs have resulted in net increases for these types of restored resources in the vicinity of the LSr Project.

Enbridge has agreed to greatly limit woody vegetation removal in all riparian forested areas. Specific to wildlife and cumulative effects, this is discussed in Section 3.6.1.2 of the Final EA. As recommended by the USFWS, the current construction schedule calls for primary construction to occur in summer and early fall to minimize impacts to wildlife and waterfowl. In addition, no woody vegetation will be removed at four of the more significant sensitive river crossings in Minnesota as these resources will be crossed using

HDD. If the MDNR has additional specific information at a location where a species of concern needs greater protection due to corridor widening, Enbridge is committed to further discussions to develop mitigative measures to minimize impacts.

Enbridge proposes to perform full right-of-way restoration of the LSr work area as if no new construction was being planned in the following year. Restoration will occur in a continuous fashion as pipeline construction is completed. By so doing, the need for special mitigation measures (i.e. erosion control, streambank stabilization, etc.) directly related to two different pipelines will be minimized or avoided. Enbridge would ensure that stabilization (erosion control and revegetation measures) of areas disturbed during LSr construction, including areas that would again be disturbed by subsequent Alberta Clipper construction, would be monitored and corrective measures would be taken as needed until construction of the Alberta Clipper project commences. For areas affected by LSr construction outside of the Alberta Clipper project construction footprint, Enbridge would continue to monitor restoration progress during successive growing seasons and implement additional corrective measures as needed.

In summary, the cumulative impacts section has been revised to reflect the comments and suggestions received in coordination with the applicable agency staff (e.g., COE).

F: Water Quality, NPDES, Stormwater, Hydrostatic Testing

Comments:
The MPCA commented that stormwater management was not sufficiently addressed in Enbridge's EMP and sought further information regarding stockpile perimeter control, erosion control (versus sediment barriers as referenced in Section 2.6.1 of the Draft EA), and permanent erosion controls on slopes < 30%. The MPCA recommended that the Final EA should address the reasons why a SDS permit is required and reflect those requirements (including the preparation of a project-specific Stormwater Pollution Prevention Plan (SWPPP)).

The MPCA requested that all contractors who will be employed by Enbridge for this project be adequately trained, prior to the commencement of any construction activity, on the State of Minnesota's requirements governing stormwater.

The COE requested that specific state authorizations needed for the appropriation and disposal of hydrostatic test water be listed in the Final EA. The COE also recommended that the Final EA state that work would be done in accordance with such authorizations.

Responses:
Enbridge is developing a project-specific Construction Environmental Control Plan (CECP) for the LSr Project that provides, among other things, specifications for erosion controls to be implemented before, during and after construction. These specifications include acceptable performance standards (BMPs) for erosion controls such as placement of temporary and permanent slope breakers (i.e., 300 feet apart on slopes from 5 – 15%, 200 feet apart on slopes >15 – 30%, and 100 feet apart on slopes greater than 30%), application of mulch on slopes prone to wind and water erosion and within 200 feet of surface waters (i.e., within 7 days for slopes steeper than 3:1, 14 days for slopes 10:1 to 3:1, and 21 days for slopes flatter than 10:1) as well as application rates and criteria for seeding and soil amendments.

One of the components of the CECP describes the organizational structure of construction management, including lines of authority and communication between Enbridge, construction contractor personnel, environmental inspectors and third-party agency compliance monitors. The CECP describes roles and responsibilities for inspection personnel and describes elements of the environmental training program. Environmental training will be provided to all construction personnel and appropriate to the worker's compliance responsibility. Generally, all personnel will be provided an overview of the applicable environmental permit conditions including stormwater management requirements.

The Final EA has been updated to list the authorizations necessary to appropriate and discharge hydrostatic test water associated with the project, and, per the COE's recommendation, updated to state that work would be done in accordance with these authorizations. Enbridge has also provided hydrostatic test water appropriation and discharge water locations, dates, anticipated water volumes, etc. in the Final EA.

G: Public Health and Safety

Comments:
The EPA noted concerns about whether sufficient temporary housing resources would be available for construction personnel during construction of the LSr Project and suggested the impact on local law enforcement resources be discussed in the Final EA.

Both the EPA and the MPCA are seeking additional information regarding the Clearbrook incident on November 28, 2007 that resulted in the death of two workers (section 3.11.2 of the Draft EA). The agencies asked for information on how the incident occurred as well as mitigative measures enacted to prevent such occurrences in the future.

The MDNR suggests that Enbridge should explore additional leak detection technology that can detect small leaks near rivers that are not detectable by pressure drops.

MPCA noted that Enbridge prepared a Petroleum-Contaminated Soil Management Plan that was submitted to the MN PUC and DOC in support of a Minnesota Certificate of Need and Routing Permit. This plan should be discussed in the Final EA and included.

Responses:
The scale of construction activities that are planned for the LSr Project are very similar in scope to the Lakehead Capacity Expansion Project that was constructed in the same area in 1994 and the Lakehead Terrace I Project in 1998. In addition, another pipeline project (the MinnCan Project) is currently under construction between the Clearbrook Terminal and Flint Hills Resources' Pine Bend Refinery south of the Twin Cities. During each of these projects, no material problems or shortages occurred with regard to housing, law enforcement, or other social or economic issues. Pipeline construction crews are largely a transient workforce and are accustomed to finding or providing their own lodging. In addition, because the project will be constructed by multiple crews moving in tandem, not all of the associated construction workers will be located in the same area at the same time, but rather will be spread out along the extent of the project route. Enbridge will brief local law enforcement and/or county economic development or similar departments with regard to project schedule and activities and anticipated numbers of workers in the area.

Sections 3.11.2.1 and 3.11.2.2 and Table 3.11.2-1 have been updated to reflect the most current information regarding Enbridge mainline pipeline incidents on the Lakehead System reportable to PHMSA. The November 28, 2007 accident was south of Clearbrook, Minnesota and outside the route of the LSr Project. The accident occurred during maintenance activities associated with an existing pipeline and was not related to new pipeline construction which is the subject of the Final EA. As of early April 2008, the accident investigation underway by the two jurisdictional agencies – OSHA and PHMSA – was not completed. The results of the agency investigation will be made public upon completion expected during by the spring of 2008.

Pipeline integrity and inspection is regulated by PHMSA. The Minnesota Office of Pipeline Safety (MN OPS) has been authorized as an agent by PHMSA for interstate liquid pipelines and inspects the Lakehead System for compliance with federal regulations. Enbridge is a leading member of industry associations, research organizations and works with PHMSA in developing improving technologies related to leak detection. Enbridge has implemented a leak detection subsystem as part of its Pipeline Control System that exceeds federal regulations and implements a public awareness program that contributes to education of residents in observing and reporting abnormal conditions. As evidenced by the reporting of very small leaks on the updated mainline leak table in the Final EA, Enbridge is able to detect or learn of small leaks to ensure rapid response, control and restoration.

The Petroleum-Contaminated Soil Management Plan has been added to the Final EA, along with state-specific procedures for addressing historic leaks and spills. Recent pipeline expansion projects along this

corridor and prior restoration of historical leak sites minimizes the risk of encountering unknown contamination.

H: Environmental Compliance during Construction

Comments:
The MDNR recommends that state and federal agencies coordinate environmental monitoring for the project. The monitoring program for the LSr Project would be modeled on the approach used by the MDNR and MDA for the MinnCan Project. The MPCA suggests that Enbridge consider providing funding for on-site monitors to be employed by MDNR, following the example used by the MinnCan project. MPCA staff specifically request that this suggestion be addressed in the Final EA.

The MPCA notes that there are several references made to an "Environmental Inspector" in the Draft EA; however, there is no explanation regarding the qualifications and level of expertise of the inspector(s) with regard to Minnesota water quality rules and regulations, including those governing stormwater. MPCA seeks clarification on this matter.

As discussed during the December 19, 2007 meeting between Enbridge and MPCA staff, MPCA is aware of reports of non-compliance with water rules and regulations recently incurred by Enbridge during construction activities associated with a pipeline project in Wisconsin. Since the Draft EA does not mention this matter, the MPCA staff requests that the Final EA disclose what led to those violations. They also request that the Final EA identify the precautionary methods and additional resources that Enbridge will employ to ensure the same problems will not occur with this proposed project in Minnesota.

As noted in Item F., the COE requested that specific state authorizations needed for the appropriation and disposal of hydrostatic test water be listed in the Final EA.

The COE also had several specific comments on and suggested text edits to Enbridge's Environmental Mitigation Plan (EMP) and Drilling Mud Containment, Response, and Notification Plan. These focused primarily on construction mitigation methods for wetland areas.

Responses:
Enbridge has committed to fund agency monitors during project construction. The Agricultural Mitigation Plan that was created in consultation with the MDA provides for Agricultural Monitors and Agricultural Inspectors with responsibilities covering pipeline construction in agricultural lands in Minnesota. In addition, Enbridge has committed to provide funds for MDNR Monitors who will monitor compliance with environmental requirements set forth by permits issued for the project. It is expected that MDNR will coordinate with other permitting agencies to determine appropriate jurisdiction for which the compliance monitors would be responsible. Although funded by Enbridge, the activities of the third-party compliance monitors will be directed by MDNR (or as otherwise arranged between the stakeholder agencies). In general, the compliance monitors will serve in an auditing capacity and work closely with Enbridge's environmental inspectors to verify that construction activities are implemented correctly and are effective in minimizing impacts to protected resources. Enbridge has provided resumes of qualified compliance monitor candidates to MDNR who will have the option of selecting personnel.

Enbridge's CECP outlines the organizational structure of construction management, including lines of authority and communication between Enbridge, construction contractor personnel, environmental inspectors and third-party agency compliance monitors. Enbridge will coordinate with MDNR and other agencies to further define the roles and responsibilities of the compliance monitors.

The CECP also describes the minimal qualifications of environmental inspection personnel. Environmental inspectors with experience on pipeline construction projects will be retained by Enbridge. Qualified environmental inspectors will have, at a minimum, appropriate educational credentials (*i.e.*, bachelor's degree in environmental or natural sciences), demonstrated experience working on pipeline construction projects including restoration, and the ability to communicate effectively with construction contractor personnel, landowners, compliance monitors, and agency personnel. Environmental inspectors will become familiar with all environmental requirements for the project and will conduct environmental training for all construction personnel. During training, requirements including state rules and regulations regarding protection of water quality will be discussed. Enbridge conducts worker

orientation, safety and environmental training as construction workers begin the project and this training emphasizes each worker's responsibility for complying with the environmental requirements appropriate to their duties.

Enbridge has discussed the reports of non-compliance with the MPCA for the recent expansion in Wisconsin. The majority of noted items had been immediately corrected and/or material issues were a result of unusual rains. Enbridge has incorporated experiences learned from this project into the plans for construction for the LSr Project to avoid controllable occurrences such as those that occurred in Wisconsin. Specifically, Enbridge will limit the amount of excavated open trench to two days of anticipated welding production or 14,000 feet. It is common practice to allow an equivalent length of open trench equal to one day of welding production ahead and one day behind the welding operation. The welding production is anticipated to be 7,000 feet per day. This limitation will mitigate against unforeseen weather events such as those that occurred in Wisconsin as runoff water will not accumulate to such an extent in the trench causing significant erosion. Specific construction crews (clearing, construction, restoration) would work in a tighter sequence limiting the amount of time from initial ground disturbance to final restoration. Additionally, measures will be implemented to isolate waterbody crossing construction activities from construction in upland areas. Other measures such as maintaining wider vegetative buffers adjacent to waterbodies (*i.e.*, maintaining a 20-foot minimum distance until just prior to installation), and other areas susceptible to erosion, will help prevent migration of sediment into protected resources during intensive periods of precipitation. Also, the nature of the project setting (primarily flat, actively cultivated farmland) compared to the setting in Wisconsin (greater topography with more extensive forest cover) will limit the extent of erosion potential, should weather exacerbate erosion control efforts during construction. The Final EA expands this discussion to address concerns raised by MPCA regarding this issue.

Enbridge has revised its EMP and HDD Plan as appropriate to address the COE's comments and suggested edits. The revisions are addressed in the CECP.

Lastly, as noted in Item F., the Final EA has been updated to list the authorizations necessary to appropriate and discharge hydrostatic test water associated with the project, and, per the COE's recommendation, updated to state that work would be done in accordance with these authorizations. Enbridge has also provided hydrostatic test water appropriation and discharge water locations, dates, anticipated water volumes, etc. in the Final EA.

I: General Comments and Regulatory Issues

Comments:
The EPA requested that wetlands be depicted on aerial maps for the route variations. They also requested that sect. 1.3.2.1 of the Final EA be corrected to properly define COE and EPA roles regarding CWA 404. The MPCA notes that the permit table (1.4-1) in the Final EA needs to be updated to include CWA § 401 Water Quality Certification, NPDES/SDS hydrostatic test discharge, construction dewatering, and NPDES/SDS Stormwater (construction, operation and at off-right-of-way use areas) permits. They also suggest that the August 17, 2007 interagency meeting be included in the "Agency Consultations and Public Outreach" section of the Final EA.

The COE recommends that wetland impacts associated with the modifications of existing pump stations and valves be included in the Final EA. The COE also questioned whether the FWS was a cooperating agency for the project, and noted a few regulatory terminology edits as well as information that would be required for its specific regulatory review (e.g., extra workspace locations required for section 404 authorization).

The MDNR recommends that the Final EA focus on key impacts about important natural resources. Further, they recommend close coordination among these agencies during the development of permit conditions and environmental plans, as well as during monitoring of construction. MDNR also recommends a phased approach to the approval process because of the multiple reviews and because of the manner in which pipelines are designed and constructed.

MDNR notes that due to the regulatory complexity of the project, one set of interagency-coordinated mitigative measures should be developed. These measures should also cover both LSr and Alberta Clipper. It is suggested that permit conditions have sufficient flexibility to reflect the "design-build" nature of pipeline construction. Further, MDNR recommends that the DoS issue the Presidential Permit with conditional approval, pending more project details including mitigative measures.

MDNR is seeking the establishment of a federal, state interagency agreement regarding compliance monitoring.

Responses:
The LSr environmental plan maps which have been provided to MDNR, COE and MPCA, depict delineated wetlands, waterbody crossing locations, and environmental resource areas within the construction work area. The exact nature of some natural features and all cultural resources sites has been kept confidential in accordance with state and federal laws and to protect the integrity of those resources.

The Final EA has been modified to reflect the more accurate statement of Section 404 CWA administrative jurisdiction. Regarding MPCA permits, the permit table in the Final EA has been modified to include these authorizations. The section discussing agency consultations now includes the August 17, 2007 interagency meeting. Below is the updated MPCA authorizations and related permits filing strategy as reached through ongoing consultations with MPCA staff:

- **NPDES/SDS permitting** - The state of Minnesota authorizes hydrostatic test water discharges under the National Pollutant Discharge Elimination System program. Minnesota does not have a general permit for hydrostatic test water discharges, thus authorization will be provided under an Individual NPDES permit. Although the EPA has exempted most of the oil and gas exploration and transmission industry from the NPDES Construction Stormwater program, states have the ability to implement their own state program. Minnesota regulates the discharge of construction stormwater under the State Disposal System (SDS) program which does not include an exemption for the oil and gas industry. Enbridge has applied for authorization to discharge hydrostatic test water under the NPDES program and authorization to discharge construction stormwater and trench dewatering under the SDS program. The MPCA has indicated that one Individual permit will be issued for all three discharge streams. Under the Individual permit, the

applicant is still required to provide the agency request for authorization to discharge hydrostatic test water and construction stormwater. The MPCA has indicated that the authorization to discharge construction stormwater for the project will be effective with the issuance of the Individual permit. Enbridge is proposing to submit the following applications as noted below.

1. Submittal of application for Individual NPDES permit: February 6, 2008
2. Submittal of request for authorization to discharge hydrostatic test water under Individual permit - after MPCA meeting: (late February, 2008)
3. Enbridge will develop and submit for review a stormwater pollution prevention plan - after MPCA meeting: (late February 2008)

- **Section 401 Water Quality Certification** – The COE St. Paul District has determined that an Individual Section 404 permit will be required for the LSr project and with that the MPCA has determined that an Individual 401 Water Quality Certification would be required.

1. Application for Individual Section 404 Water Quality Certification submitted January 23, 2008.
2. Enbridge will be obtaining stormwater coverage under the SDS program and any stormwater related water quality issues will be addressed in this permit.

As noted by MDNR, with multiple stakeholders it is challenging to provide the "level of detail" in a large, all-encompassing NEPA review process to satisfy the informational needs of all stakeholders. Numerous other Minnesota regulatory agencies will certainly require more "key issues analysis" or site-specific issues analysis with further in-depth discussion. Enbridge has been working with applicable regulatory agencies as these more detailed permitting processes develop. Regarding the suggestion for interagency coordination of the development of mitigation and the need for permit flexibility, Enbridge concurs with this concept and has committed to provide whatever assistance necessary to facilitate this approach.

As stated in other responses to agency comments, Enbridge supports funding independent, third-party compliance monitors who will work under the direction of the agencies. Enbridge has committed to assist the agencies, if such assistance is of value, in defining the responsibilities and limits of jurisdictional authority of the monitors as well as working with the agencies to define the appropriate lines of communication.

All aspects of the project, including pump station modifications and valves, have been addressed in the Final EA. Regarding the COE's comment about the FWS serving as a cooperating agency, the Final EA has been revised to reflect the FWS as a cooperating agency.

J: Alternatives

Comments:
The COE requested that the Final EA state the documentation of its alternatives analysis and that Enbridge developed the alternatives analysis discussion on behalf of the DoS. It also recommended that it be noted where the project is in the state process, which allows for the consideration of route alternatives. Further, the COE recommended deleting the opinion regarding the "No Action" alternative and to clarify what proposed alternatives and/or variations have been adopted and if they are included in the environmental analysis of the project.

MCEA comments that the Final EA should provide a full examination of the environmental effects from alternatives to the preferred action and that the agency should exercise independent judgment in defining the purpose and need for the project. It asks for a full analysis of a "no-build" alternative in light of its view that the LSr pipeline will serve the oil sands project region in Alberta and displaces other means of producing energy that it wrote are more environmentally sound and sustainable.

Responses:
The "No Action" opinion statement has been deleted from the Final EA. The Final EA clarifies which proposed alternatives and/or variations have been reviewed and are included in the environmental analysis.

The proposed project corridor is co-located to the greatest extent feasible with the existing Enbridge pipeline corridor. There are several benefits realized by co-location, including the ability to construct within a portion of the existing, maintained right-of-way. However, co-location creates a wider corridor with associated impacts to resources along the route. These issues are discussed throughout the Final EA including the Cumulative Impacts section. While Enbridge examined another alternative (the Direct Alternative Route), the environmental benefits or consequences associated with a new greenfield corridor do not sufficiently support the establishment of a new utility corridor involving new landowners and potentially affecting previously undisturbed natural resources. As noted in the Final EA, comments received during the joint DoS/PUC/DOC public scoping meetings centered on site-specific concerns such as avoiding residential structures or preclusion of uses resulting in the expansion of the existing pipeline right-of-way. Very few environmental concerns were identified. The extensive discussion of alternatives in the Final EA, taken together with comments received from the public and regulatory agencies, sufficiently addresses the alternatives analysis required under NEPA.

MCEA's comments are focused on the "no build" alternative. MCEA is of the view that no pipeline is needed to serve the oil sands project and that oil can be procured in a manner that has fewer environmental impacts than the oil sands project. The LSr pipeline will not serve the oil sands project. The purpose and need for the LSr pipeline, which are unrelated to the oil sands project, are described in the Final EA. In addition, the Final EA addresses the cumulative impacts of constructing the LSr pipeline and other projects, including the Alberta Clipper pipeline. The Department of State is also preparing an EIS for the Alberta Clipper pipeline.

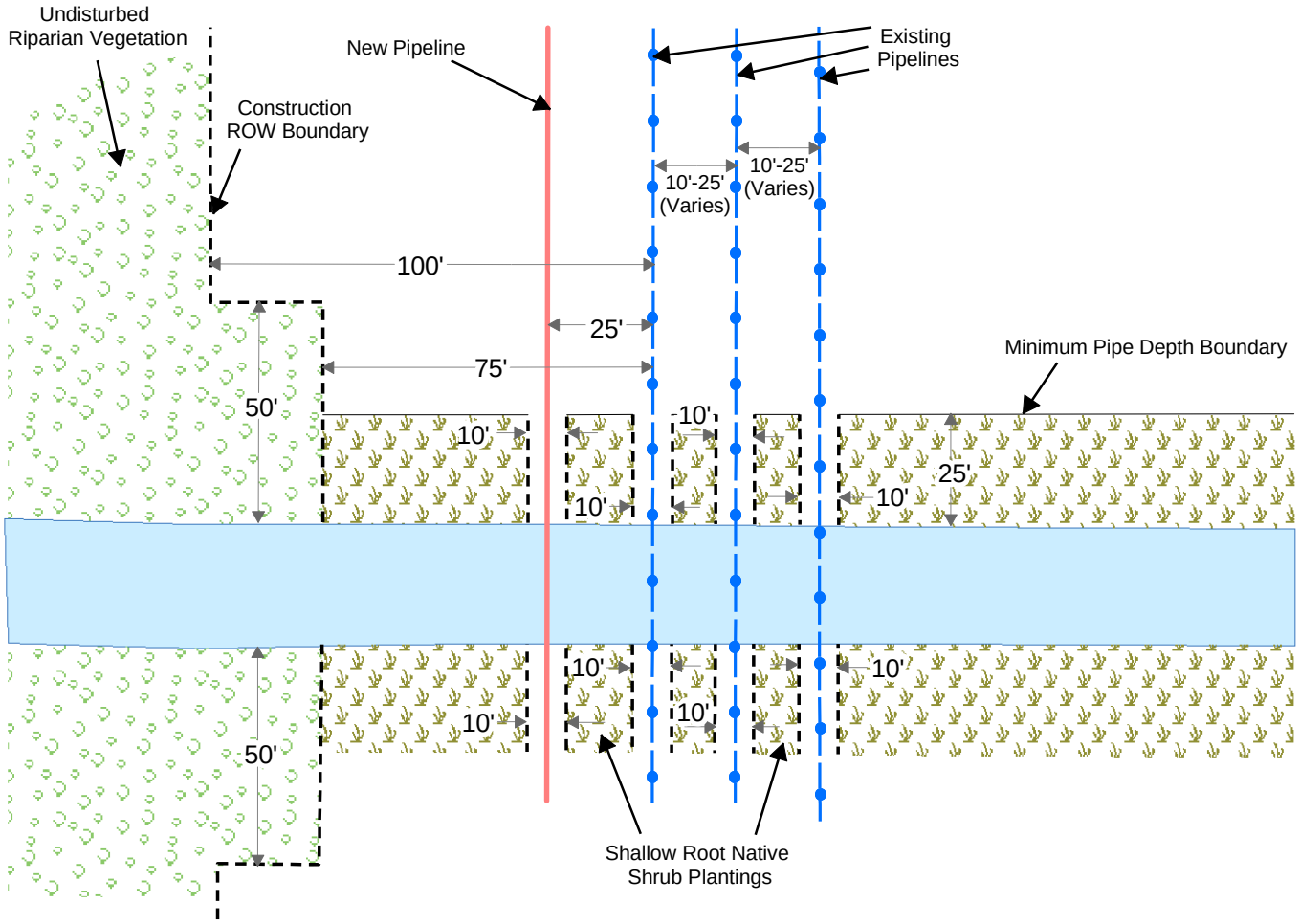
Waterbodies Crossed by Proposed LSr Pipeline Route						
MP	Name	Flow [a]	Top-of-Bank Width (ft)	Proposed Crossing Method [b]	Alternative Crossing Method [b]	Special Regulation/Classification [c]
North Dakota - Pembina						
775.5	Pembina River	P	100	HDD	DP	• Listed - Nationwide Rivers Inventory • Recreational Canoeing River • North Dakota Impaired Water
778.7	Ditch #42	I	50	OC		
781.2	Drain #8	I	0	OC		
781.2	Drain #8	I	0	OC		
781.4	Auger Coulee	I	50	OC		
782.6	Tributary to Tongue River / County Drain #33	I	30	OC		
783.3	Tongue River “cutoff”	P	100	OC		
786.2	Tongue River	P	50	OC		
788.7	unnamed ditch	I	20	OC		
789.9	unnamed ditch	I	20	OC		
790.6	unnamed ditch	I	50	OC		
792.1	Drain #64	I	20	DP		
793.5	unnamed ditch	I	30	OC		
793.5	unnamed ditch	I	30	OC		
794.4	unnamed ditch	I	20	OC		
794.9	unnamed ditch	I	20	OC		
795.7	County Ditch #39	I	42	OC		
797.1	County Ditch #7	I	50	OC		
797.8	unnamed ditch	I	50	OC		
798.5	County Ditch #6	I	30	OC		
799.2	unnamed ditch	I	50	OC		
799.2	unnamed ditch	I	50	OC		
799.9	Drain #5	I	50	OC		
800.9	Drain #66-1/ Tributary to Red River	I	100	OC		
Minnesota - Kittson						
801.7	Red River	P	500	HDD	HDD	• Minnesota Protected Water/Impaired • North Dakota Impaired Water • Listed - Nationwide Rivers Inventory • Navigable RHA §10 Waters • Recreational Canoeing Rivers
805.4	Tributary to Red River	I	10	OC		• Minnesota Protected Water
810.0	unnamed ditch	I	20	OC		
810.0	unnamed road ditch	I	20	OC		
811.5	County Ditch #19	I	25	DP		
812.8	County Ditch #7	I	20	OC		
814.2	Ditch #16	I	20	DP		
815.6	Judicial Ditch #10	I	40	OC		
Minnesota - Marshall						
817.1	Unknown	I	25	HDD		
818.9	unnamed ditch	I	15	OC		

Waterbodies Crossed by Proposed LSr Pipeline Route						
MP	Name	Flow [a]	Top-of-Bank Width (ft)	Proposed Crossing Method [b]	Alternative Crossing Method [b]	Special Regulation/Classification [c]
821.0	unnamed ditch	I	30	OC		
823.5	unnamed ditch	I	30	DP		
825.7	Unknown	I	20	OC		
826.1	unnamed ditch	I	30	DP		
828.8	Tamarac River	P	20	HDD	DP	• Minnesota Protected Water/Impaired
831.1	unnamed drain	I	25	OC		
831.3	Unknown	I	20	OC		
833.1	Unknown	I	20	OC		
835.9	Middle River	P	30	HDD	DP	• Minnesota Protected Water/Impaired • Listed - Nationwide Rivers Inventory
838.3	Unknown	I	25	OC		
838.3	Unknown	I	25	OC		
839.7	unknown	I	30	OC		
839.8	unnamed ditch	I	6	OC		
843.2	Snake River	P	30	OC		• Minnesota Protected Water • Navigable RHA §10 Waters • Recreational Canoeing Rivers
847.2	Trib. to Snake River	P	40	OC		• Minnesota Protected Water
Minnesota - Pennington						
853.0	Unnamed Ditch	I	25	OC		
855.0	County Ditch/Black River	P	30	DP	HDD	• Minnesota Impaired Water
857.2	unnamed ditch	I	25	OC		
858.7	unnamed ditch	I	20	OC		
860.1	unnamed ditch	I	25	OC		
861.7	unnamed ditch	I	25	OC		
863.3	unnamed ditch	I	20	OC		
863.4	unnamed ditch	I	30	OC		
863.5	unnamed ditch	P	40	OC		
864.3	Red Lake River	P	170	HDD	DP	• Listed - Nationwide Rivers Inventory • Minnesota Protected Water/Impaired • Navigable RHA §10 Waters • Recreational Canoeing Rivers
864.8	unnamed ditch	I	40	OC		
866.2	Tributary to Red Lake River	I	25	DP		• Minnesota Protected Water
867.4	Road Ditch Waterway to Red Lake River	I	35	OC		
868.1	Tributary to Red Lake River	I	15	OC		
869.7	Tributary to Red Lake River/ County Ditch #62	I	25	OC		• Minnesota Protected Water
869.7	Tributary to Red Lake River	I	20	OC		• Minnesota Protected Water
Minnesota - Red Lake						
871.4	Judicial Ditch #15	I	30	OC		

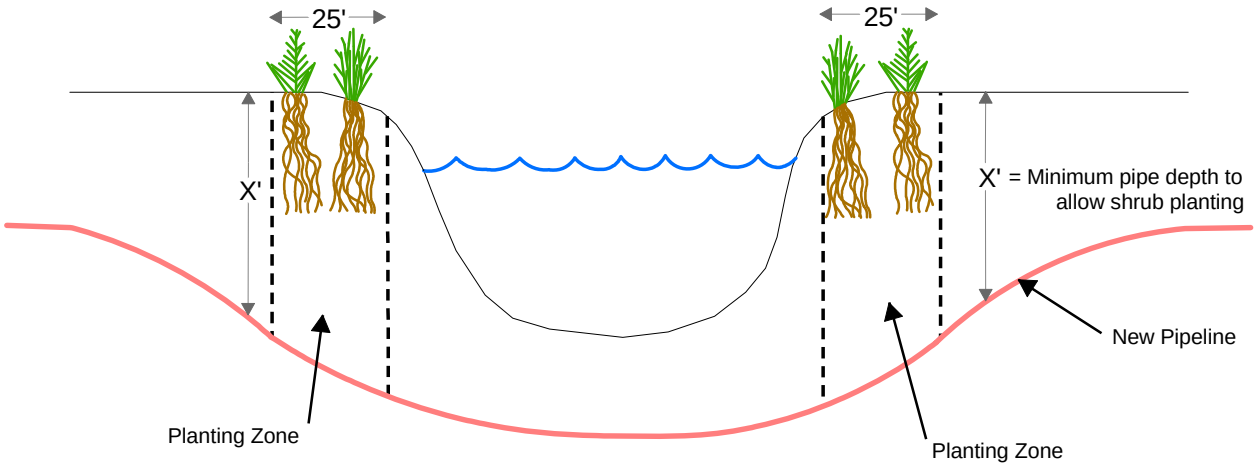
Waterbodies Crossed by Proposed LSr Pipeline Route

MP	Name	Flow [a]	Top-of-Bank Width (ft)	Proposed Crossing Method [b]	Alternative Crossing Method [b]	Special Regulation/Classification [c]
872.0	Tributary to Judicial Ditch #15	I	25	OC		
872.4	Tributary to Judicial Ditch #15	I	25	OC		
873.8	Tributary to Judicial Ditch #15	I	20	OC		
875.4	Clearwater River	P	60	DP		• Minnesota Protected Water/Impaired
880.2	County Ditch #18	I	35	OC		
882.4	unnamed ditch	I	25	OC		
884.7	County Ditch #61	P	35	OC		
885.8	Lost River	P	70	DP	HDD	• Minnesota Protected Water/Impaired
886.7	County Ditch #71	P	40	OC		
Minnesota - Polk						
888.0	unnamed ditch to Lost River	I	20	OC		
889.7	State Ditch #87/61	P	40	DP		
890.8	unnamed ditch	P	25	OC		
890.8	unnamed ditch [d]	I	35	OC		
891.3	unnamed ditch	I	25	OC		
892.5	unnamed ditch	P	30	DP		
892.4	unnamed ditch	I	25	OC		
893.9	unknown	P	25	OC		
894.0	unnamed ditch	I	35	OC		
894.9	unnamed ditch	P	20	OC		
Minnesota - Clearwater						
902.9	Tributary to Lost River	P	4	OC		• Minnesota Protected Water
903.5	Tributary to Lost River	I	12	OC		
904.0	Tributary to Lost River	P	18	DP		• Minnesota Protected Water
907.1	Silver Creek	P	20	DP	HDD	• Minnesota Protected Water/Impaired
907.4	Silver Creek	P	12	DP	HDD	• Minnesota Protected Water/Impaired
907.7	Silver Creek	P	15	DP	HDD	• Minnesota Protected Water/Impaired
908.9	unknown	I	7	OC		
909.2	Tributary to Silver Creek	P	7	OC		• Minnesota Protected Water

[a] I – Intermittent, P – Perennial
[b] OC -Open Cut, DP - Dam and Pump, HDD - Horizontal Directional Drill
[c] Nationwide Rivers Inventory (National Wild and Scenic Rivers Act, National Park Service); Minnesota River Inventory (MN Department of Natural Resources); Recreational Canoeing Rivers (ND Parks and Recreation); Impaired Waters under §303 (c), CWA; Navigable Waters under RHA §10; Minnesota Protected Water – License to Cross Protected Water.
[d] Waterbody is within the survey corridor, but not crossed by the construction right-of-way for LSr.



Plan View



Profile

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LSr Stream Crossing Replanting-Typical

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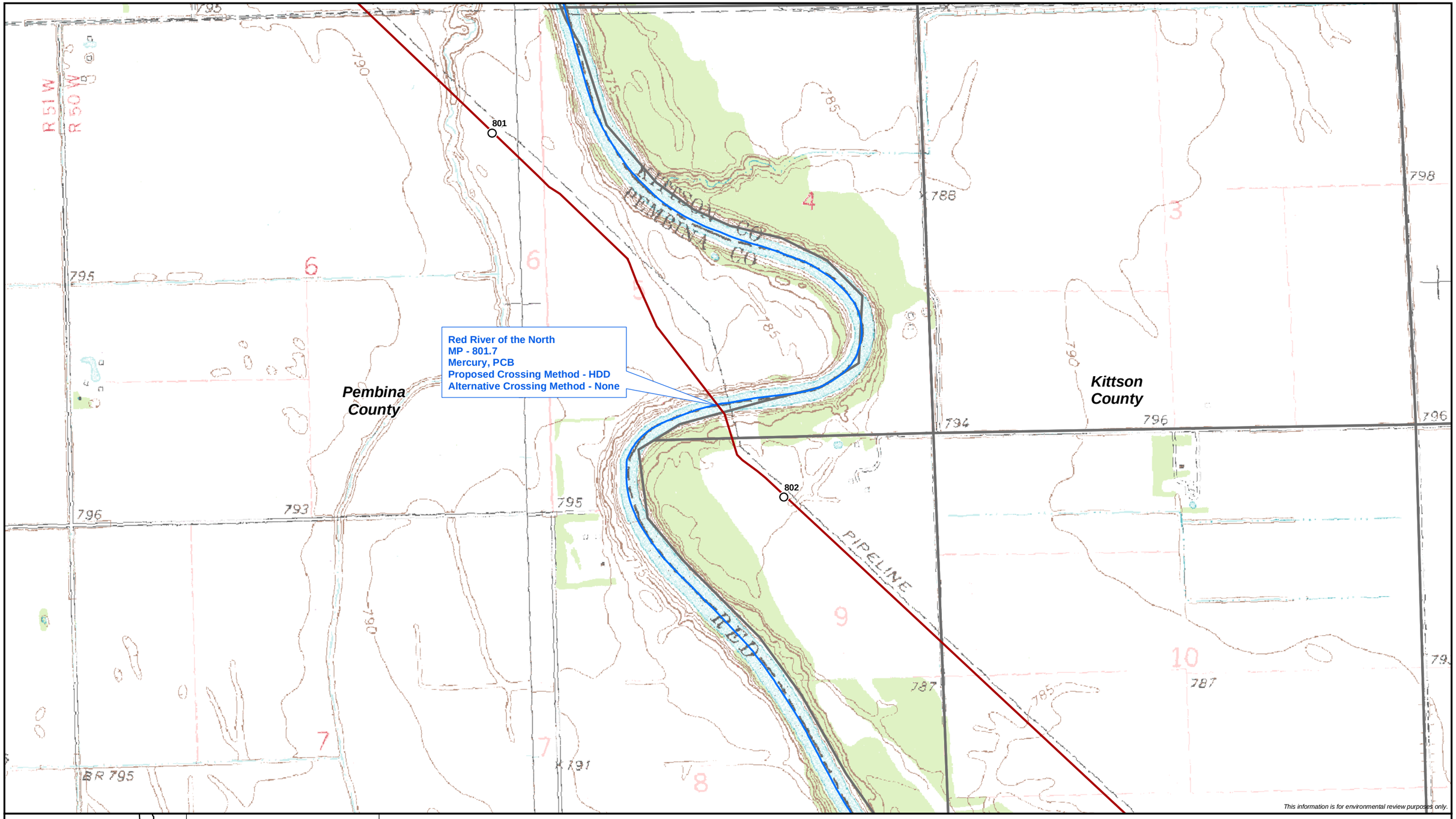

Milepost

Proposed LSr Oil Pipeline

0 500 1,000 Feet

N

LSr Pipeline Project

MPCA Listed Impaired Waters

Red River of the North

Reach Description: Unnamed Creek to Two River

T160N, R50W, Sec. 4

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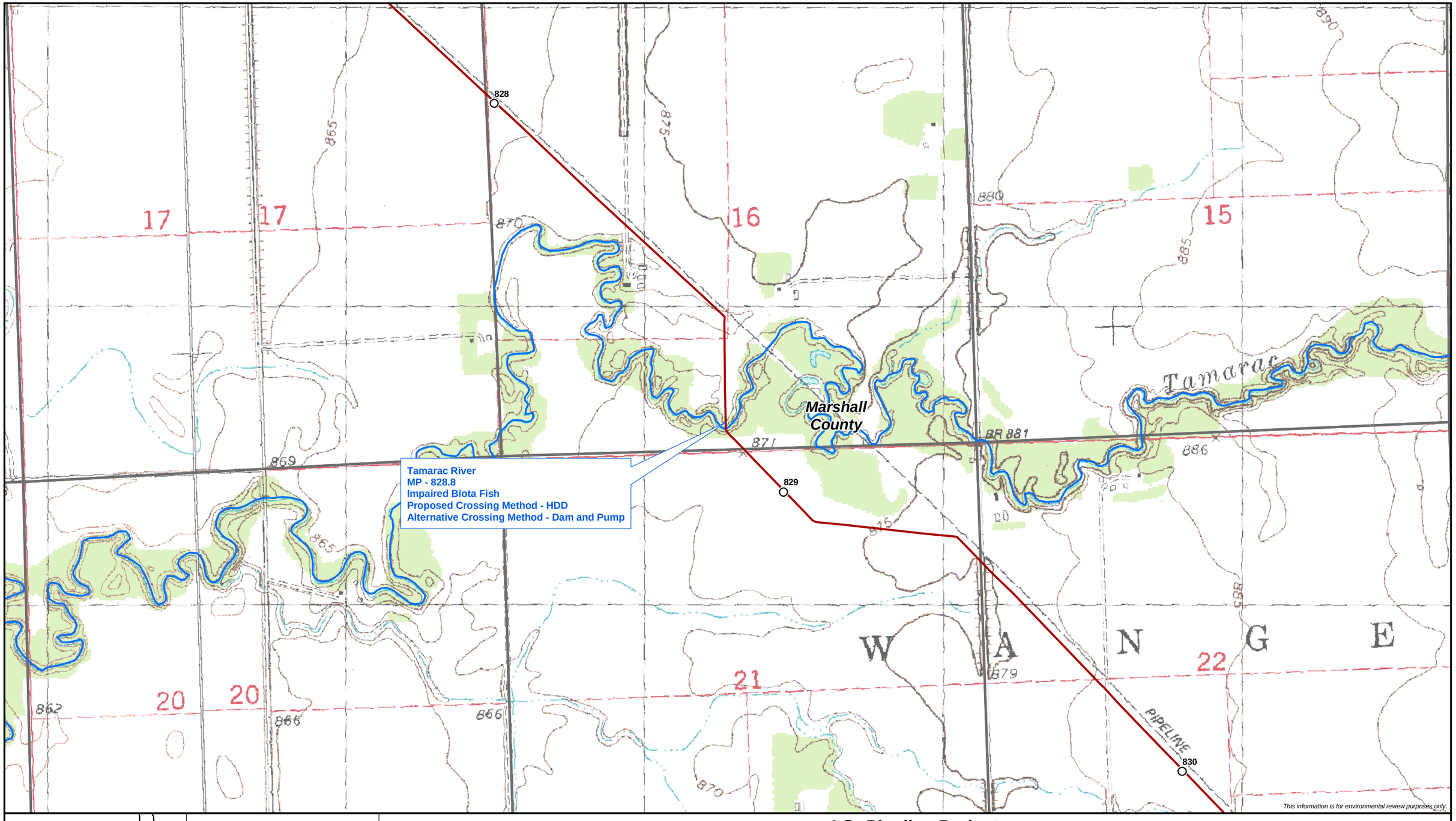

LSr Pipeline Project

MPCA Listed Impaired Waters

Tamarac River

Reach Description: Florian Park Reservoir to Stephen Dam

T157N, R47W, Sec. 16

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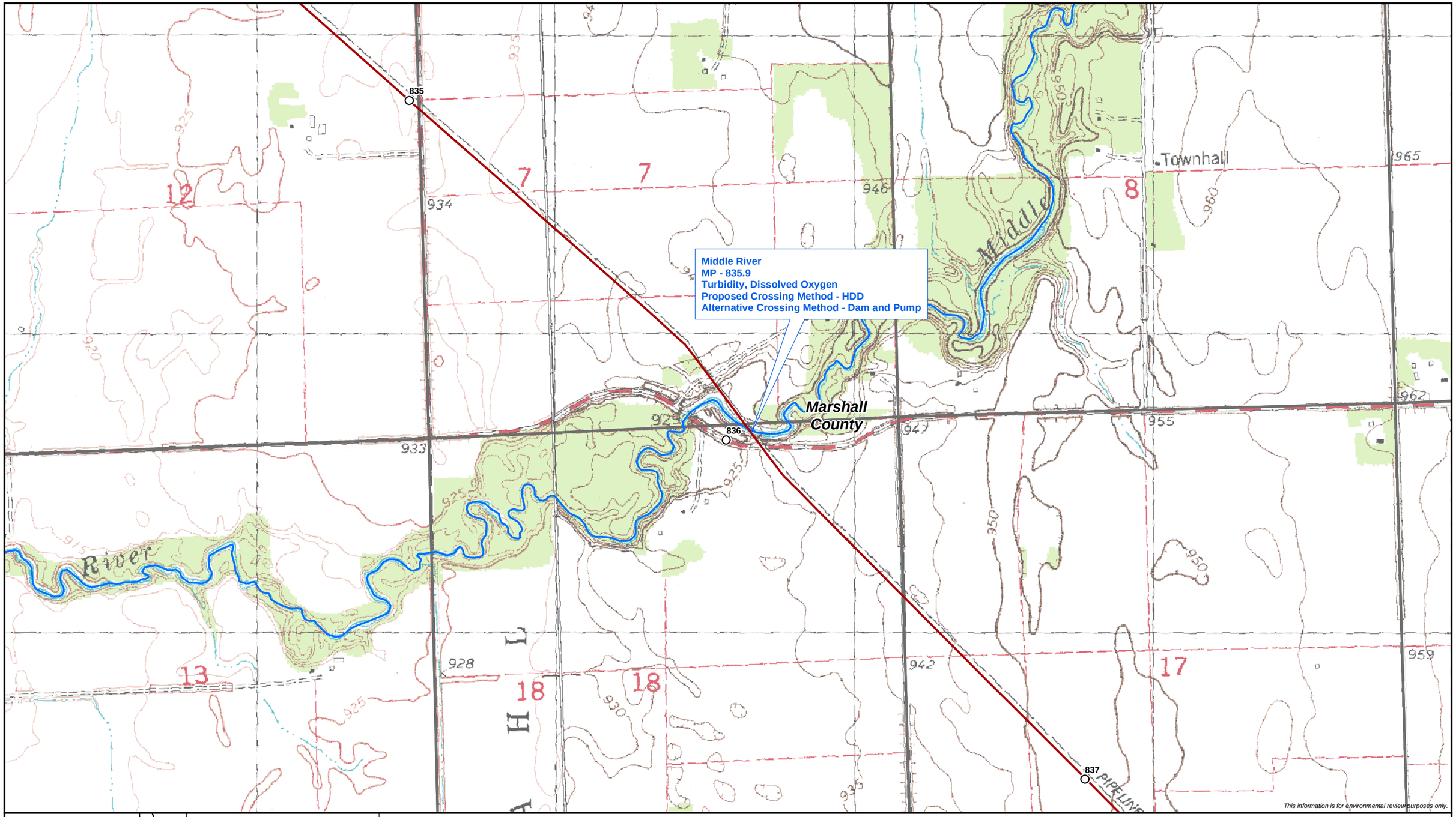

Milepost

Proposed LSr Oil Pipeline

0 500 1,000 Feet

N

LSr Pipeline Project

MPCA Listed Impaired Waters

Middle River

Reach Description: Headwaters to Snake River

T156N, R46W, Sec. 18

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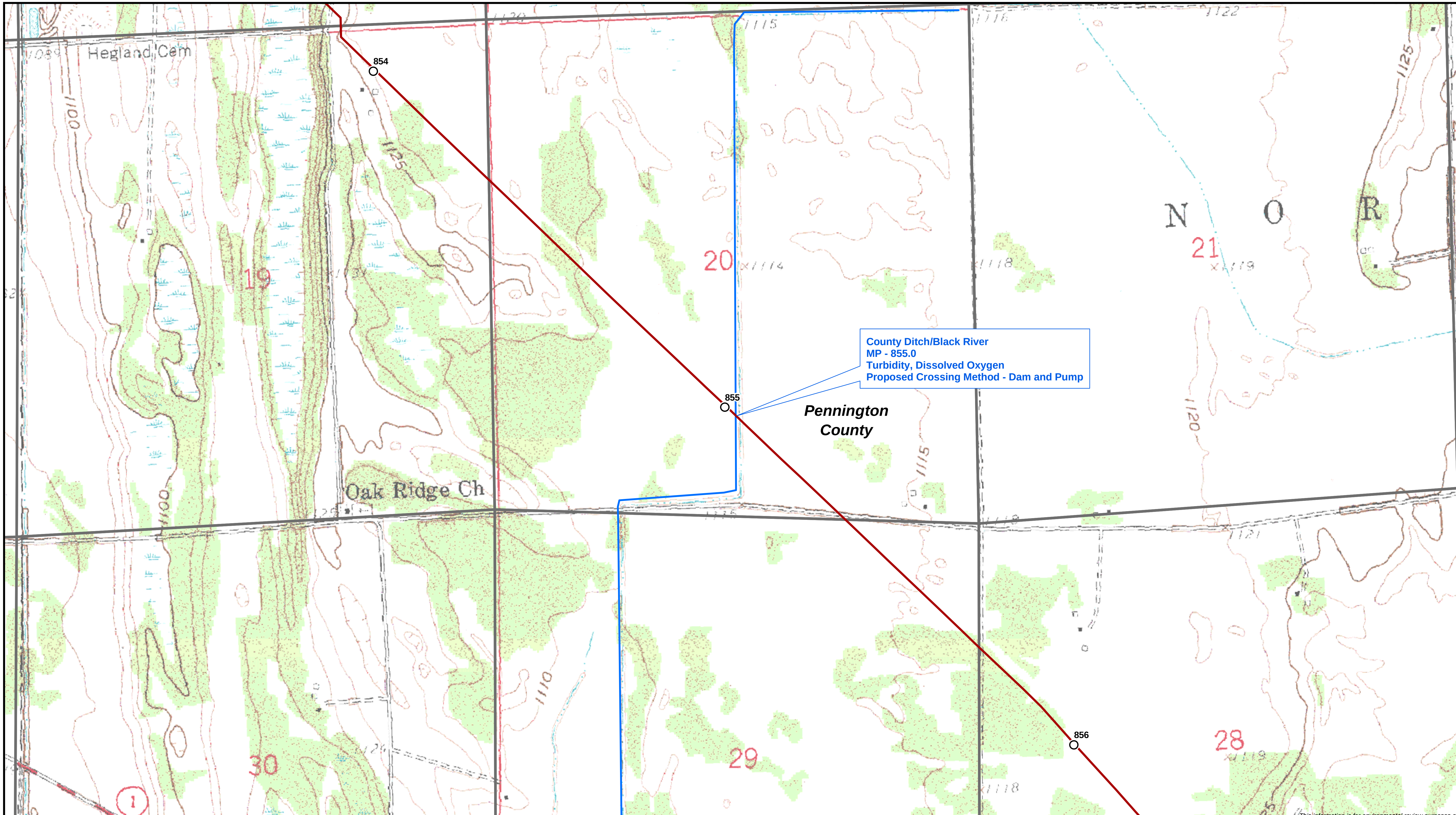

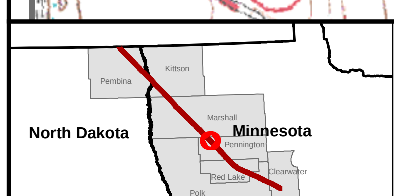

Milepost

Proposed LSr Oil Pipeline

0 500 1,000 Feet

N

LSr Pipeline Project

MPCA Listed Impaired Waters

Black River

Reach Description: Headwaters to Little Black River

T154N, R44, Sec. 20

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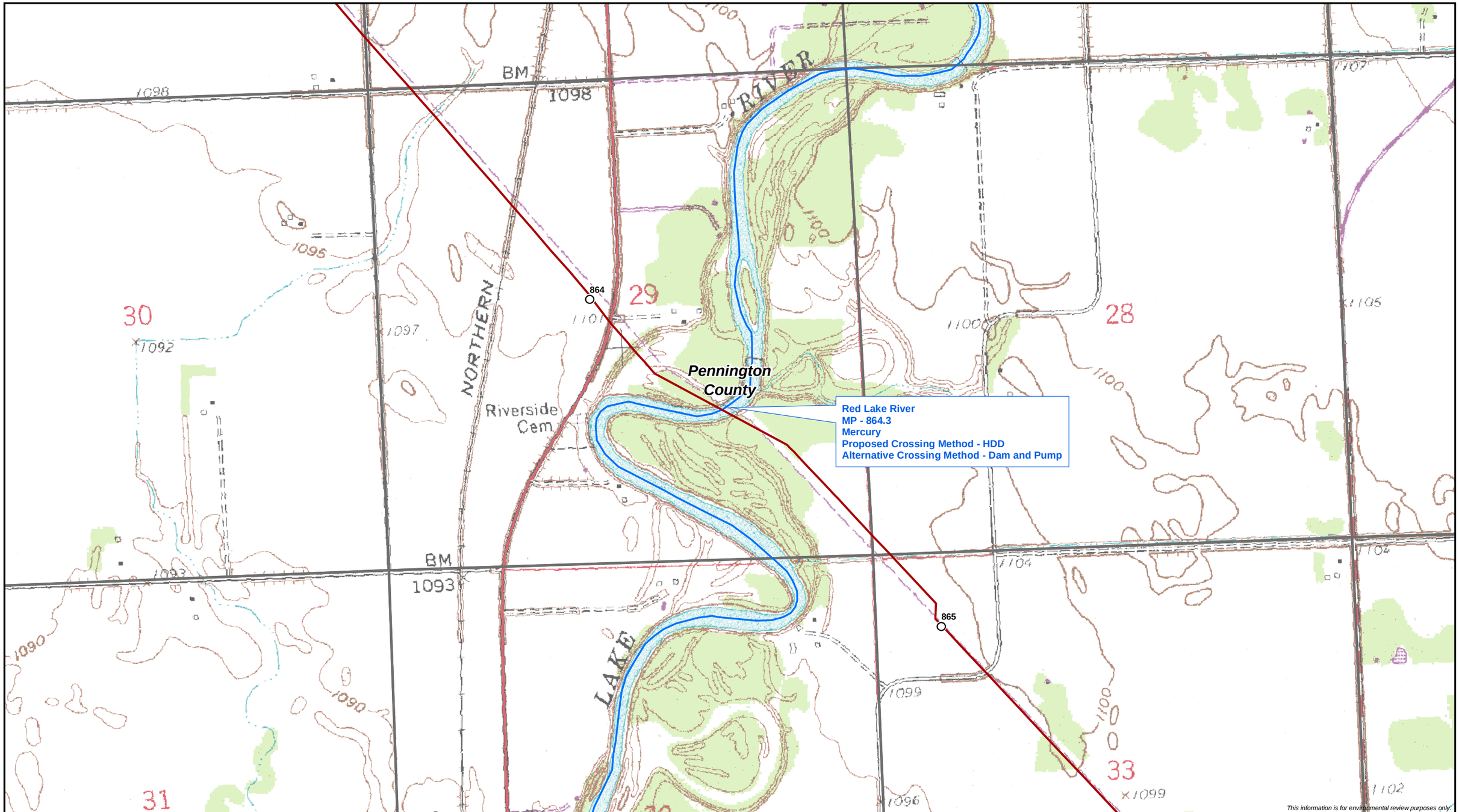

LSr Pipeline Project

MPCA Listed Impaired Waters

Red Lake River

Reach Description: Thief River Falls Dam to Unnamed Creek

T153N, R43W, Sec. 29

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875

Gaging Station

Red Lake County

Clearwater River
MP - 875.4
Dissolved Oxygen, Fecal Coliform, Turbidity
Proposed Crossing Method - Dam and Pump

876

Sewage Disposal Ponds

Plummer

This information is for environmental review purposes only.

Milepost

Proposed LSr Oil Pipeline

0 500 1,000 Feet

N

LSr Pipeline Project

MPCA Listed Impaired Waters

Clearwater River

Reach Description: Ruffy Brook to Lost River

T151N, R42W, Sec. 9

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Lost River
MP - 885.8
Fecal Coliform
Proposed Crossing Method - Dam and Pump

Red Lake County

Polk County

Oklee

Oklee Racetrack

885

886

887

Milepost

Proposed LSr Oil Pipeline

0 500 1,000 Feet

N

LSr Pipeline Project

MPCA Listed Impaired Waters

Lost River

Reach Description: Anderson Lake to Hill River

T150N, R41W, Sec. 1

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906
907
908
909
PIPELINE
PIPELINE
Silver Creek
MP - 907.1
Fecal Coliform
Proposed Crossing Method - Dam and Pump
Silver Creek
MP - 907.4
Fecal Coliform
Proposed Crossing Method - Dam and Pump
Silver Creek
MP - 907.7
Fecal Coliform
Proposed Crossing Method - Dam and Pump
Clearwater
County
Clearbrook
Sewage
Disposal
Pk
Pumping Station
Augustana Cem
Elim Cem
Silver Creek Cem
BM
1353
BR 1332
1300
1330
1345
1347
1350
1352
1360
1367
1830
25
29
30
92
This information is for environmental review purposes only.

North Dakota
Minnesota
Kittson
Pembina
Marshall
Pennington
Red Lake
Clearwater
Polk

Milepost
Proposed LSr Oil Pipeline
N
0 500 1,000
Feet

LSr Pipeline Project
MPCA Listed Impaired Waters
Silver Creek
Reach Description: Headwaters to Anderson Lake
T149N, R38W, Sec. 25 and T149N, R37W, Sec. 30

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Appendix A-3

Summary of Applicant's Contacts with Public Agencies

APPENDIX A-3

Summary of Select Meetings/Calls with Federal, State, and Local Agencies

Agency	Date of Contact	Method and Purpose of Contact
Minnesota Department of Commerce (DOC)	August 15, 2006	Phone call to provide DOC with general information on the project.
COE St. Paul District	August 25, 2006	Call to Tamara Cameron to introduce the project and discuss agency coordination issues.
COE St. Paul District	September 20, 2006	Meeting to coordinate with COE on route changes and identify new disturbances resulting from route changes, identify special aquatic sites along route.
DOC/Minnesota Public Utility Commission (PUC)	September 22, 2006	Met to discuss process, approach and schedule regarding state environmental review.
U.S. Departments of State (DoS) and Energy (DOE)	October 25, 2006	"Pre-filing" discussion with policy level personnel at the U.S. Department of State ("State") regarding Presidential permit for "border crossings". DoS established as lead federal agency.
Minnesota Department of Natural Resources (MDNR)	November 15, 2006	Call with Paul Stolen to discuss potential power line project in the area, agency coordination and upcoming 12/4/06 meeting.
MDNR	November 22, 2006	Call with Matt Langan to discuss overall coordination between Enbridge and MDNR regarding environmental review for the project.
MDNR	December 4, 2006	Joint meeting with power companies to discuss routing, impact issues.
DoS	December 7, 2006	Introductory meeting with DoS to discuss roles, staff, process.
U.S. Fish and Wildlife Service – Minnesota	December 11, 2006	Call to confirm consultation results regarding federal listed protected species along the project route.
North Dakota Game & Fish Department	December 12, 2006	Call regarding the presence of state protected species along the project route.
Minnesota Department of Agriculture (MDA)	December 15, 2006	Met to discuss process for implementing the Agricultural Mitigation Plan (AMP) for route permit, including early public meeting to inform stakeholders and gather concerns, draft the AMP using a previous example as the template; and include the AMP with the PUC application.
MDNR	December 21, 2006	Met at DNR Regional Office, Grand Rapids, MN. Introduction of the LSr and Alberta Clipper Projects; discuss routing issues, protected species concerns, and waterbody crossings
Pembina County Water Resource District	December 21, 2007	Call to discuss permitting requirements and information needed to complete the permit review process.
COE St. Paul District	January 26, 2007	Contacted via conference call St. Paul District Corps of Engineers (COE) regulatory staff to provide an update on recent developments related to the anticipated Department of State (DoS) review of the projects.
DoS	January 30, 2007	Met to discuss preparation of environmental documents, permit applications.
MDNR	February 1, 2007	Met to discuss state protected species issues.
North Dakota Public Service Commission (ND PSC)	February 6, 2007	An overview was provided of the proposed LSr pipeline, Southern Lights pipeline reversal and the Alberta Clipper pipeline projects, discussing market need, routing and schedule.
INTERAGENCY MEETING	February 8, 2007	Meeting/call with DOC/PUC, ND PSC, COE, DoS to discuss framework for evaluating state route permits consistent with state, federal law.
COE St. Paul District	February 9, 2007	Call to discuss approach to cumulative impacts analysis for LSr Project.
Minnesota Canola Research and Promotion Council	February 19, 2007	Attended conference to field questions about upcoming LSr and Alberta Clipper projects.
County Commissioners	Mar. 12 – 15, 2007	Meetings with county commissioners along the route to provide status of project and discuss schedule, issues.
DoS	March 23, 2007	Call confirming DoS as lead federal agency, further discussion regarding responsibilities and environmental review process.
DOC	March 27, 2007	Met in St. Paul to discussion of CON review

APPENDIX A-3

Summary of Select Meetings/Calls with Federal, State, and Local Agencies

Agency	Date of Contact	Method and Purpose of Contact
COE St. Paul District	April 12, 2007	Meeting to discuss definition of roles for COE, DoS regarding NHPA Section 106. Also discussed process for Section 401 Water Quality Certification, Viking Fen, waterbody crossings, wetland delineations.
DOC	May 2, 2007	Call with Larry Hartman regarding anticipated timing of the Alberta Clipper Route Permit and Certificate of Need applications and how these could be synchronized with the LSr Project.
DOC	May 8, 2007	Met to discuss timing of application submittals, review process.
DoS	May 17, 2007	Call to discuss status of LSr Project filing.
DOC/PUC	May 21, 2007	Met to discuss further information needs to process applications.
DOC	June 6, 2007	Call to discuss refinement of route, landowner notifications, recent data request.
DoS	July 9, 2007	Informal call to discuss process and timing of NEPA review.
MDNR	July 9, 2007	Call with Paul Stolen to discuss PUC/DOC environmental review process and MDNR involvement, establishing meetings with Enbridge.
DOC/PUC	August 7, 2007	Pre-hearing conference to establish public meeting schedules.
COE St. Paul District	August 9, 2007	Met to at the COE Brainerd Office to discuss the status of the LSr 404/10 application submittal, the recent Supreme Court Rapanos decision, and other updates.
MDA	August 10, 2007	Call with Bob Patton to discuss sharing information from upcoming public meetings to discuss the project.
Minnesota Department of Health	August 16, 2007	Call to discuss Wellhead Protection Program to discuss location of projects in relation to public water supply wells.
INTERAGENCY MEETING	August 17, 2007	Meeting/conf. call with DoS, COE, DOC, PUC, ND PSC, MDNR, MPCA, WDNR, DOT, EPA, CNF, MDA to discuss LSr and Alberta Clipper projects. Focused on agency roles and responsibilities and status of agency review.
DOC	September 5, 2007	Met to discuss route corridor, landowner notification status.
COE St. Paul District	September 17, 2007	Met to discuss options for completing jurisdictional determinations (JD) of waterbodies affected by the LSr and Alberta Clipper projects and other topics.
MDNR	September 19, 2007	Met at DNR Regional Office, Grand Rapids, MN to discuss administrative procedure review, DNR State Lands and Waterbodies Crossing Licenses.
ND PSC	October 2, 2007	Certificate of Corridor Compatibility/Route Permit hearing held.
Red Lake County Soil & Water Conservation District	October 2, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
Pennington County Soil & Water Conservation District	October 2, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
Kittson County	October 2, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
Marshall-Beltrami County Soil & Water Conservation District	October 2, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
Clearwater County	October 3, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
MDNR	October 4, 2007	Met to discuss options for avoiding newly discovered fen near project route.
COE St. Paul District	October 4, 2007	Met to discuss the approach COE would prefer in discussing cumulative impacts in the LSr EA, status of JD review.
Polk County Soil & Water Conservation District	October 8, 2007	Call to discuss information requirements for Minnesota Wetland Conservation Act utility exemptions.
COE Omaha District	October 17, 2007	Call with Karen Lawrence to determine information needed by COE to process application.

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Summary of Select Meetings/Calls with Federal, State, and Local Agencies

Agency	Date of Contact	Method and Purpose of Contact
COE Omaha District	October 25, 2007	Met with Karen Lawrence (Leo Grabowski – St. Paul Dist. by phone) to discuss data, review status for 404 permit.
COE and Wisconsin Department of Natural Resources	October 29, 2007	Met to discuss modifications to erosion control practices based on current project underway in Wisconsin and how to apply to LSr and Alberta Clipper projects.
MDA	November 5, 2007	Call with Bob Patton to discuss modifications to the AMP.
Minnesota Board of Water & Soil Resources	November 5, 2007	Call to discuss appropriate local government units for submitting Minnesota Wetland Conservation Act utility exemptions.
DoS	November 8, 2007	Call to discuss NEPA schedule for LSr Project and status of consultations.
COE St. Paul District	November 12, 2007	Call to discuss alternative JD request process, timing.
DoS	December 13, 2007	Call to discuss draft EA for LSr project – additional information needed, status of review and schedule.
Minnesota Pollution Control Agency (MPCA)	December 19, 2007	Met to discuss 401 Water Quality Certification and sufficiency under COE Regional/General Permit. Individual Permit likely to be issued. Also discussed NPDES permitting requirements.
COE/DNR	December 20, 2007	Met with DNR and COE to discuss the status of LSr and Alberta Clipper projects and comments from MDNR regarding impacts to resources affected by the projects.
Middle-Snake-Tamarac River Watershed District	December 20, 2007	Called to confirm status of review; permit preparation completed with issuance pending.
DoS	January 8 & 10, 2008	Met to review agency comments on draft EA for LSr. Also discussed schedule, process and consultations status.
COE St. Paul District	January 14, 2008	Met to review cumulative impacts analysis in the LSr project EA.
MDNR	January 17, 2008	Call to discuss questions from MDNR regarding specific construction/mitigation at waterbody crossings.
DoS	January 24, 2008	Met to review agency comments and proposed responses regarding the draft EA for LSr.
COE St. Paul District	January 29, 2008	Met to discuss issues raised during recent interagency call involving DoS, EPA, MPCA, MDNR, COE. Also discussed further information needed for COE to continue processing permit applications.
MPCA, COE	February 19, 2008	Met to discuss section 401 Water Quality Certification process, information needs. Presented new environmental maps depicting sensitive environmental areas.
MDNR, COE	February 22, 2008	Met to discuss progress of permit application review, additional information support, agency monitors, response to MDNR draft EA review comments. Discussed site-specific concerns of the MDNR. Provided environmental maps.
COE St. Paul District	February 28, 2008	Met to discuss refined cumulative impacts assessment – new approach and findings.
MDNR	February 29, 2008	Call with Matt Langan to determine if MDNR has additional specific resource concerns.
MDNR	February 29, 2008	Call with Cindy Buttleman to discuss specific information to be included in state waterbody crossing permits.
Red Lake Watershed District	March 4, 2008	Called to confirm status of review; permit preparation completed with issuance pending.