

Staff Briefing Papers

Meeting Date August 22, 2019 Agenda Item **5

Company Enbridge Energy, LLC

Docket No. **PL9/PPL-18-752**

In the Matter of the Application of Enbridge Energy for a Route Permit and Partial Exemption for the Fond du Lac Line 4 Project in Saint Louis and Carlton Counties

Issues Should the Commission grant a partial exemption from the pipeline route selection procedures and issue a pipeline route permit for a 10-mile segment of the Line 4 Pipeline on the Fond du Lac Reservation in Saint Louis and Carlton Counties?

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 **Relevant Documents**

Date

Enbridge Energy, Limited Partnership – Application (16 parts)	February 25, 2019
Fond du Lac Band of Lake Superior Chippewa Letter	February 25, 2019
Commission Order Accepting Application, Establishing Review Process, and Granting Variances	April 11, 2019
Notice of Public Information Meetings and Comment Period	April 26, 2019
MPCA Comments	May 20, 2019
DNR Comments	June 13, 2019

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

 **Relevant Documents**

Date

MNDOT Comments	June 13, 2019
Enbridge Energy Comments and Compliance Filing	June 14, 2019
OAH Report to the Commission	June 28, 2019
Enbridge Energy Proposed Findings of Fact, Conclusions of Law and Order	July 18, 2019
DOC EERA Comments	July 19, 2019

Attachments

Proposed Findings of Fact, Conclusions of Law, and Order

Staff Exceptions Table

Proposed Pipeline Route Permit including Route Maps and Attachments

I. Statement of the Issue

Should the Commission grant a partial exemption from the pipeline route selection procedures and issue a pipeline route permit for a 10-mile segment of the Line 4 Pipeline on the Fond du Lac Reservation in Saint Louis and Carlton Counties?

II. Statutes and Rules

Minnesota Statutes, § 216G.02 requires a pipeline routing permit issued by the Commission to construct and install certain intrastate pipelines designed to transport hazardous liquids. The pipeline routing requirements are outlined in Minnesota Rules, Chapter 7852.

The Commission has jurisdiction over the routing of pipelines with a nominal diameter of six inches or more that are designed to transport hazardous liquids, and pipelines designed to be operated at a pressure of more than 275 pounds per square inch that carry natural gas.

If the applicant does not expect the proposed pipeline and associated facilities to have significant impacts on humans or the environment, it may submit an application for partial exemption from pipeline route selection procedures. If the Commission does not grant the partial exemption, the applicant may submit its application pursuant to the Commission's pipeline route selection procedures.¹

The Commission's April 11, 2019 Order established requirements for the application review process including provisions for publication of notices, identification of the public advisor, the need for public information meetings, establishment of a comment period, and a request for an Administrative Law Judge to preside over the public information meetings and provide the Commission a summary of all comments received.

The Commission may grant or deny the partial exemption request upon review of the record and consideration of the criteria provided in Minnesota Rule 7852.1900. If the Commission grants the partial exemption a route permit for the project will be issued.

III. Procedural History

On February 25, 2019, Enbridge Energy, Limited Partnership (Enbridge) filed its Pipeline Routing Permit and Partial Exemption Application for the Fond du Lac Line 4 Pipeline Project in Saint Louis and Carlton Counties (application) with the Commission.

On February 25, 2019, the Fond du Lac Band of Lake Superior Chippewa Reservation Business Committee filed a letter in support of the project.

On March 11, 2019, Department of Commerce Energy Environmental Review and Analysis staff (DOC EERA) filed comments on the application.

¹ Minnesota Rules, parts 7852.0800-3100.

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On March 15, 2019, Enbridge filed a revised application updating several portions of the application.

On March 20, 2019, DOC EERA filed comments and recommendations on the revised application.

On April 11, 2019, the Commission issued its Order Accepting Application, Establishing Review Process, and Granting Variances.

On April 26, 2019, the Commission issued a Notice of Public Information Meetings and Comments Period.

On May 20, 2019, the Minnesota Pollution Control Agency (MPCA) filed comments.

On May 22-23, 2019, Administrative Law Judge (ALJ) Kimberly Middendorf presided over Public Information Meetings in the cities of Brookston and Cloquet.

On June 13, 2019, the Minnesota Department of Natural Resources (DNR) filed comments.

On June 13, 2019, the Minnesota Department of Transportation (MnDOT) filed comments.

On June 14, 2019, Enbridge Energy filed comments and compliance filing.

On June 28, 2019, Judge Middendorf of the Minnesota Office of Administrative Hearings filed a Report to the Commission.

On July 18, 2019, Enbridge Energy filed proposed findings of fact, conclusions of law, and order.

On July 19, 2019, DOC EERA filed comments.

IV. Proposed Project

The proposed Fond du Lac Line 4 Project would relocate approximately ten miles of the existing 48" Line 4 pipeline from the center of the existing Enbridge Mainline Corridor to its outer edge with a 36" replacement pipeline within the Fond du Lac Band Reservation. The Line 4 Project also includes to deactivation and removal the existing above-grade Line 4 segment.

V. Tribal Comments

On February 25, 2019, the Fond du Lac Band of Lake Superior Chippewa Reservation Business Committee filed a letter in support of the project, including the request for a partial exemption.

VI. Public Comments Received

Ms. Elizabeth Jaakola is a lifelong member of the Fond du Lac Band of Lake Superior who sits as a chair of a tribal advisory board on cultural resources. Ms. Jaakola spoke at the public information meeting as an individual, and indicated that there are many Band members who do not support the pipeline or the tribal agreement with Enbridge.

VII. Public Agency Comments

Minnesota Pollution Control Agency

In its May 20, 2019 comments, the MPCA indicated that it had reviewed the application and had no comments on the application.

Minnesota Department of Natural Resources

The DNR noted that a Natural Heritage Review was required for the project. The DNR requested that the applicant submit a request to the DNR's Endangered Species Coordinator. The DNR noted that the proposed project would cross the Stoney Brook watercourse which would require a site-specific plan for a License to Cross Public Waters.

Regarding project plans and procedures, DNR requested the route permit include a condition requiring Enbridge to observe the Best Management Plans (BMPs) from the finalized version of the Environmental Protection Plan and other required applicable plans and procedures developed for the Line 3 Project. DNR recommends the application identify and use measures for proper handling and disposal of hazardous materials.

Minnesota Department of Transportation

In its June 13, 2019 comments, MnDOT filed comments stating it had reviewed the application and determined that the project area does not directly affect the state trunk highway system. MnDOT stated that because of the possibility of oversize/overweight hauling of pipeline and equipment on interregional corridors, Enbridge will need to coordinate with MnDOT when planning such loads. Enbridge should also contact MnDOT should any construction work affect MnDOT's rights-of-way for temporary or permanent access.

VIII. Enbridge

On June 14, 2019, Enbridge submitted a compliance filing affirming the distribution of the application and publication of the notice of public meetings. Enbridge also filed a response to public comments received through June 13, 2019 and provided recommended changes to the Sample Route Permit issued by DOC EERA on March 11, 2019.

On July 18, 2019, Enbridge submitted Proposed Findings of Fact, Conclusions of Law, and Order (Findings of Fact) prepared in consultation with DOC EERA to assist the Commission in reviewing the record.

Enbridge indicated that it considered the Sample Route Permit to be reasonable, and offered minor changes to provide additional description of project facilities or to correct typos. The applicant indicated it will continue to work with the state agencies to address their concerns and recommendations. Enbridge requested that the PUC grant the partial exemption and issue a route permit for the Line 4 Project.

IX. Department of Commerce Energy Environmental Review and Analysis –

DOC EERA staff believes the Applicant's proposed findings of fact accurately reflect the record and support a determination that the project satisfies the factors set forth in Minn. Stat. § 216G.02 and Minn. R. Ch. 7852 for a partial exemption and issuance of a route permit. DOC EERA staff recommended that the Commission grant a partial exemption from the pipeline routing procedures and issue a permit for the Enbridge Energy, Limited Partnership Fond du Lac Line 4 Project.

X. Staff Analysis

Staff has reviewed the criteria in Minnesota Rule and the Route Permit Application and the record in this matter. Staff agrees with Enbridge and the DOC EERA staff that the procedural requirements of the partial exemption process have been met. Staff believes that it adequately satisfies the requirements for granting a partial exemption from the pipeline route selection procedures.

Staff is in general agreement with the Findings of Fact proposed by the applicant. Staff has made several edits to the Findings of Fact to correct typographic errors and remove several references to the Line 3 Pipeline Project (Numbers 17, 58, 93, 129, 130, 149, 155, 168, and 169). Staff notes that the operative decision criteria (Minnesota Rule 7852.0200) does not require the Commission to formally adopt the Findings of Fact, Conclusions of Law, and Order. Decision Option A.3 provides an options for the Commission to approve the partial exemption without adoption of the Findings of Fact, Conclusions of Law, and Order.

Staff agrees with the proposed permit language with modifications included in the enclosed Exceptions Table and as reflected in the enclosed Proposed Site Permit. Staff has populated the Permit Compliance Filings Requirements in Attachment 3 of the Sample Route Permit. Although the dates are indicative, the Commission should request feedback from Enbridge and DOC EERA regarding the filings and their anticipated submittal dates.

Because staff's changes require modification(s) to both the Site Permit and Proposed Findings of Fact, Conclusions of Law, and Order, staff provides decision option B.1 to allow for incorporation of this decision and any other changes necessary to reflect the Commission's decision.

XI. Decision Options

A. Route Permit Issuance

1. Grant the partial exemption and issue a Route Permit to Enbridge Energy for the Fond du Lac Line 4 Project with the Finding of Fact and Route Permit modifications proposed by Enbridge.
2. Grant the partial exemption and issue a Route Permit to Enbridge Energy for the Fond du Lac Line 4 Project with the Finding of Fact and Route Permit modifications proposed by Enbridge as further modified by staff.
3. Determine that the proposed project does not present significant impacts on humans or the environment, grant the partial exemption, and issue a Route Permit to Enbridge Energy for the Fond du Lac Line 4 Project with the Route Permit modifications proposed by Enbridge as further modified by staff.
4. Take some other action.

B. Administrative Consistency

1. Authorize Commission staff to make further refinements to the findings of fact, conclusions of law and order and permit conditions as necessary to ensure consistency with the record, the language of recently issued permits, and the Commission's decision in this matter.

Staff Recommendation: Option A.2 or A.3 and B.1

STATE OF MINNESOTA
BEFORE THE
PUBLIC UTILITIES COMMISSION

Katie Sieben	Chair
Dan Lipschultz	Commissioner
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
John Tuma	Commissioner

In the Matter of the Application of Enbridge Energy, Limited Partnership for a Pipeline Routing Permit and Partial Exemption for the Fond du Lac Line 4 Project in Minnesota on the Fond du Lac Reservation

MPUC Docket No. PL9/PPL-18-752

**PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND ORDER**

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STATEMENT OF THE ISSUES

Has Enbridge Energy, Limited Partnership (“Enbridge” or “Applicant”) satisfied the factors set forth in Minn. Stat. § 216G.02 and Minn. R. Ch. 7852 for a partial exemption and issuance of a route permit for the Fond du Lac Line 4 Project (“Project”), which would relocate approximately 10 miles of the existing Line 4 pipeline from the center of the existing Enbridge Mainline Corridor (“Corridor”) to the outer edge of the Corridor within the Fond du Lac Band Reservation (“Reservation”)?

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The Minnesota Public Utilities Commission (“Commission”) concludes that the Applicant has satisfied the applicable legal requirements and the criteria set forth in Minnesota law for a partial exemption and issuance of a route permit, and, therefore, the Commission grants the Applicant a Route Permit.

FINDINGS OF FACT

I. Applicant

1. Enbridge is the Applicant requesting a partial exemption and route permit for the Project. Enbridge is a Delaware limited partnership authorized to do business in the State of Minnesota. Enbridge is a wholly-owned subsidiary of Enbridge Energy Partners, L.P., which is a Delaware limited partnership.¹

II. Description of the Proposed Project

¹ Enbridge’s Route Permit and Partial Exemption Application for the Minnesota Public Utilities Commission (“Application”), Revised March 15, 2019, at 1-5.

2. The proposed Project includes relocating and replacing approximately 10 miles of the existing 48-inch diameter Line 4 pipeline with approximately 10 miles of 36-inch diameter pipeline in the right-of-way adjacent to the existing Enbridge Mainline Corridor. The Project will be located in portions of St. Louis and Carlton Counties within the boundaries of the Reservation.²
3. The Project will parallel the existing Enbridge Mainline Corridor for 100 percent of the proposed Preferred Route. The segment of the existing Line 4 pipeline which will be relocated will be removed after the Project has received regulatory approvals and is constructed, tested, and placed into service.³
4. The Project addresses specific concerns raised by the Fond du Lac Band of Lake Superior Chippewa (“Fond du Lac Band” or “Band”) related to an above-grade segment of existing Line 4 pipe installed through the Reservation in the 1970s. Fond du Lac Band has raised concerns that the above-grade Line 4 segment creates a barrier to the natural water flow across the Reservation and, in some areas, impedes land access for the Band members to gather medicinal plants and other culturally important resources.⁴
5. After thoroughly investigating those concerns and potential alternatives, Enbridge and Fond du Lac Band agreed to relocate and bury the new proposed Line 4 segment within the Reservation adjacent to the current Enbridge Mainline Corridor. Once the Project is complete and the new relocated Line 4 segment is in service, the existing above-grade Line 4 segment will be deactivated and removed. Removal of the existing segment of Line 4 in the Reservation will provide a positive impact on humans and the environment. The positive impacts include removing the physical barrier and enhancing access to Band members who traverse this area and removing the hydrologic barriers to surface flow, allowing future environmental remediation of Fond du Lac Band lands.⁵
6. The Project’s associated facilities include mainline valves, access roads, and cathodic protection equipment. Because the proposed Project will relocate a segment of the existing Line 4 pipeline between two existing mainline valve locations, no new pump stations are proposed as part of the Project.⁶
7. The Project will involve the following valve site work: the removal of an existing mainline valve at the existing milepost (“MP”) 1060 valve site; the installation of a new mainline valve at MP 1062; and the removal and replacement of an existing mainline valve at MP 1070. The valve work at these locations is required to place the valves in the right location for operational needs of the Enbridge Mainline System and to isolate segments of the pipeline near environmental features identified by the Fond du Lac Band.⁷

² Application at 1-1.

³ Application at 1-1.

⁴ Application at 1-1.

⁵ Application at 1-1.

⁶ Application at 1-3.

⁷ Application at 1-3.

8. Eleven temporary access roads and two new operational access roads for the valve sites are proposed along existing trails and roads where public roads do not provide adequate access to the Right-of-Way for construction. These temporary access roads are also planned to be used during the construction of the Line 3 Replacement Project. Enbridge will restore the temporary access roads after construction of the Project is complete. Further, new cathodic protection test stations will be installed along the Project. A cathodic protection test station is a wire or cable attached to an underground metallic structure (i.e., Line 4 pipeline) that is encased in a polyvinyl chloride pipe that extends three to four feet above-grade with a cap.⁸
9. Enbridge conducted an Intelligent Valve Placement analysis for the Project’s Preferred Route to ensure that the current and intended valve placement complies with federal law and the operational needs of the Enbridge Mainline System. The valves to be installed will be 36-inch American National Standards Institute 600 weld end by weld end, full port, rising stem gate valves. These valves will be manufactured in accordance with industry standard, American Petroleum Institute Standard 6D “American Petroleum Institute Specification for Steel, Gate, Plug, Ball, and Check Valves for Pipeline Service.”⁹
10. The table below (Table 3.3.1-1 from the Application) identifies the Project’s pipe specifications:

Table 3.3.1-1 Fond du Lac Band Line 4 Project Pipe Specifications	
Explanation	Specification
Pipe Size (Diameter)	36-inch outside diameter (NPS 36)
Pipe Type (Grade)	X70 carbon steel pipe manufactured according to American Petroleum Institute (API) Specifications 5L PS2
Pipe Wall Thickness	
Nominal	0.515 inch
Road Bore	0.600 inch
Cased Railroad	N/A
Uncased Railroad	N/A
Horizontal Directional Drill (HDD)	N/A
Estimated Length	10 miles
Pipe Design Factor	0.72
Longitudinal Seam Factor	1.00
Class Location and Requirements	Not applicable (applies to natural gas pipelines)
Coating, mainline	14 mils Epoxy Bonding
Coating, trenchless	40 mils Epoxy Bonding ABR
Specified Minimum Yield Strength (psi)	70,000 psi
Tensile Strength (psi)	82,000 psi

⁸ Application at 1-3 and 3-9 and Enbridge Reply Comments (June 14, 2019) at 3.

⁹ Application at 3-5.

11. The wall thickness will vary between 0.515 inch and 0.600 inch, and length of the pipe sections will be determined on a site-specific basis based on detailed engineering for the final route. The increased wall thickness designed at these crossings is primarily implemented to account for the additional stress caused by exterior loads and additional stress encountered during installation. A minimum wall thickness requirement for pressure containment is calculated for the entire mainline to satisfy the desired Maximum Allowable Operation Pressure, thereby ensuring the entire mainline can withstand normal operating pressure at designed wall thickness. In addition, short lengths of heavier-wall pipe will be utilized at roads and water crossings. The determination of an appropriate pipeline wall thickness is governed by design criteria in the Code of Federal Regulations (“C.F.R.”), which incorporates numerous factors, one such being the pipe design factor, which is a safety factor provided in C.F.R. § 195.106(a). Another such factor, the longitudinal seam factor, is a factor that takes into consideration the method by which the longitudinal weld was completed and can be found in C.F.R. § 195.106(e). The specified minimum yield strength as provided in the table means the amount of stress required to induce permanent deformation of the steel as prescribed by the specification that the pipe was manufactured to. Finally, the tensile strength is the maximum stress that the steel can withstand while being stretched or pulled before breaking.¹⁰
12. The operating pressure of the Project will be up to 1,156 pounds per square inch gauge (“psig”). The maximum operating pressure of the relocated segment of Line 4, based on Barlow’s formula, which is a calculation used to show the relationship between internal pressure, allowable stress, nominal thickness, and diameter, could be 1,440 psig.¹¹
13. Annual average capacity for the Line 4 pipeline is 796 thousand barrels per day. This will not be impacted by the Project.¹²
14. The Line 4 pipeline currently transports predominantly heavy crude oil. The products shipped on Line 4 are not expected to change with the Project in service.¹³
15. The total Project estimated cost is approximately \$100 million.¹⁴

III. Regulatory Permits and Approvals

16. A Certificate of Need is not required for the Project because it is not classified as a large energy facility under Minn. Stat. § 216B.2421, subd. 2., or a large petroleum pipeline under Minn. R. 7853.0010, subp. 14.¹⁵

¹⁰ Application at 3-3.

¹¹ Application at 3-4.

¹² Application at 3-7.

¹³ Application at 3-7.

¹⁴ Application at 3-11.

¹⁵ See also Minn. Stat. § 216B.243.

17. Pursuant to Minn. Stat. § 216G.02, “[a] person may not construct a pipeline without a pipeline routing permit issued by the [Commission].” For the purposes of this Project, a pipeline is defined to include a pipeline that is used to “transport crude petroleum.”¹⁶
18. Pursuant to Minn. Stat. § 216G.02, subd. 4, a route permit issued by the Commission “is the only site approval required to be obtained by the person owning or constructing the pipeline. The pipeline routing permit supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local, and special purpose governments.”
19. Permits identified by the Applicant as potentially being required for construction and operation of the Project are identified in Section 6.18 of the Application.
20. Additional details regarding the route and safety features of the Project and route are provided in the Application.

IV. Procedural History

21. On February 25, 2019, the Applicant filed its route permit application pursuant to the partial exemption process in accordance with Minn. Stat. Ch. § 216G and Minn. R. 7852.0600, subp. 1, and 7852.2000.¹⁷
22. Also on February 25, 2019, the Fond du Lac Band submitted a letter of support of the Project.¹⁸
23. On February 27, 2019, the Commission issued a Notice of Comment Period on application completeness, setting a comment deadline of March 11, 2019.¹⁹
24. On March 11, 2019, the Department of Commerce, Energy Environmental Review and Analysis (“DOC EERA”) submitted comments recommending that Enbridge provide additional information in the Application. In addition, DOC EERA provided a Sample Route Permit to help inform the review process for the Project.²⁰
25. On March 15, 2019, Enbridge filed a revised Application in response to the DOC EERA recommendations.²¹

¹⁶ Minn. Stat. § 216G.01, subd. 3 and § 216G.02.

¹⁷ Application.

¹⁸ Letter, Fond du Lac Band (Feb. 25, 2019) (eDockets Document ID 20192-150599-02).

¹⁹ Notice of Comment Period (Feb. 27, 2019) (eDockets Document ID 20192-150664-01).

²⁰ Environmental Review and Analysis Completeness Comments and Recommendations (Mar. 11, 2019) (eDockets Document ID 20193-150985-01).

²¹ For the purposes of these findings, references to the “Application” will subsequently refer to the revised Application filed on March 15, 2019.

26. On March 20, 2019, DOC EERA filed a letter stating that Enbridge’s March 15, 2019, filing addressed its comments and recommendations. DOC EERA recommended that the Commission find the Application complete.²²
27. On April 11, 2019, the Commission issued its Order Accepting Application, Establishing Review Process, and Granting Variances.²³
28. On April 26, 2019, the Commission issued a Notice of Public Information Meetings and Comment Period.²⁴
29. The Applicant published notice of the Application acceptance in the *Duluth News Tribune* and *Pine Knot News* on April 26, 2019. Copies of the Project Application and notice of the public information meetings and the comment period were mailed to local libraries, certain state agencies, local government entities, and affected landowners by April 24, 2019. Notice of the meetings and comment period was also posted to the Commission’s website on April 26, 2019.²⁵
30. The Administrative Law Judge (“ALJ”) conducted two public meetings, one on May 22, 2019, in Brookston, Minnesota, and another on May 23, 2019, in Cloquet, Minnesota.²⁶
31. On May 20, 2019, the Commission filed comments from the Minnesota Pollution Control Agency (“MPCA”) dated May 14, 2019.²⁷
32. On June 13, 2019, the Minnesota Department of Natural Resources (“MDNR”) and Minnesota Department of Transportation (“MnDOT”) submitted comments regarding the Project.²⁸
33. On June 14, 2019, Enbridge submitted a compliance filing and comments responding to the MPCA, MDNR, and MnDOT comments. Enbridge also submitted proposed revisions to the Sample Route Permit provided by DOC EERA.²⁹
34. Following a 50-day public comment period, the hearing record closed on June 14, 2019, at 4:30 p.m.³⁰

²² Letter, DOC EERA (Mar. 20, 2019) (eDockets Document ID 20193-151228-01).

²³ Order Accepting Application, Establishing Review Process, and Granting Variances (Apr. 11, 2019) (eDockets Document ID 20194-151887-02).

²⁴ Notice of Public Information Meetings and Comment Period (Apr. 26, 2019) (eDockets Document ID 20194-152359-01).

²⁵ Report to the Commission, Office of Administrative Hearings (June 28, 2019) (eDockets Document ID 20196-153980-01) at 1 (hereinafter “Report to the Commission”).

²⁶ Report to the Commission at 1.

²⁷ Letter, MPCA (May 14, 2019) (eDockets Document ID 20195-153021-01).

²⁸ Letter, MDNR (June 13, 2019) (eDockets Document ID 20196-153555-01); Letter, MnDOT (June 13, 2019) (eDockets Document ID 20196-153554-01).

²⁹ Compliance Filing, Enbridge (June 14, 2019) (eDockets Document ID 20196-153578-01); Comments, Enbridge (June 14, 2019) (eDockets Document ID 20196-153599-01).

³⁰ Report to the Commission at 1.

35. On June 28, 2019, ALJ Middendorf filed the Report to the Commission, which summarized the public information meetings held regarding the Project.³¹

V. Public and Agency Participation

A. Fond du Lac Band Letter

36. On February 25, 2019, the Fond du Lac Band submitted a letter of support for the Application, noting that the Project is the result of the Band's requirement that Enbridge address the Band's concerns over the above-grade segment of 48-inch diameter Line 4 pipeline that runs through the Reservation. The Fond du Lac Band stated that the Project is designed to avoid natural and historic features and, once the new line is in place, old Line 4 will be removed and the land and original water flow restored. The Band further stated that the Project is the best alternative to address the Band's needs and that the Band fully supports it.³²

B. Public Comments at the Public Meeting

37. The public meetings were lightly attended, with three or four members of the public present at each meeting. No oral testimony was offered at the May 22, 2019, meeting. At the May 23, 2019, meeting, one member of the public spoke. The comments were critical of oil dependence and pipeline construction in general. Further, the speaker objected to the Project because she believes that doing business with Enbridge does not benefit members of the Fond du Lac Band. The speaker expressed that not all members of the Band agree with the Band's expression of support for the Project.³³

C. Public Comments during the Comment Period

38. No additional comments were received from members of the public during the comment period.

D. Agency Comments

1. *Minnesota Pollution Control Agency*

39. In a letter dated May 14, 2019, the MPCA indicated that it had no comments at that time.³⁴

2. *Minnesota Department of Natural Resources*

40. In a letter dated June 13, 2019, the MDNR provided comments regarding the Project. MDNR requested that Enbridge submit a Natural Heritage Information System ("NHIS") Data Request Form to MDNR for the Project.³⁵

³¹ See generally Report to the Commission.

³² Letter, Fond du Lac Band (Feb. 25, 2019) (eDockets Document ID 20192-150599-02).

³³ Report to the Commission at 2.

³⁴ Letter, MPCA (May 14, 2019) (eDockets Document ID 20195-153021-01).

³⁵ Letter, MDNR (June 13, 2019) (eDockets Document ID 20196-153555-01).

41. MDNR further noted that the Project crosses one MDNR public watercourse – Stoney Brook – for which a license to cross public waters would be required. Similarly, MDNR noted that a license to cross public lands would be required for the Project’s crossing of the Fond du Lac State Forest, a portion of which is administered by MDNR.
42. MDNR also recommended that the Project be required to follow the finalized version of the best management practices (“BMPs”) identified in the Environmental Protection Plan (“EPP”) for the Line 3 Replacement Project. Finally, MDNR recommended that Enbridge identify and use measures to avoid contamination during removal of the existing Line 4 pipeline and ensure proper transport and disposal of hazardous materials.

3. *Minnesota Department of Transportation*

43. In a letter dated June 13, 2019, MnDOT stated that the Project does not directly affect the state trunk highway system. MnDOT noted that Enbridge will need to coordinate with MnDOT regarding oversized loads and any work that may affect MnDOT right-of-way.³⁶

VI. Considerations in Designating Pipeline Route Permit

44. The routing of the Project is governed by Minn. Stat. Ch. 216G and Minn. R. Ch. 7852.

A. Land Requirements

45. The Project will require the acquisition of new Right-of-Way and temporary workspace on the Reservation. The Project will typically require the acquisition of 20 to 40 feet of new Right-of-Way in uplands, wetlands, and saturated wetland areas. The temporary workspace may vary depending on field conditions but will typically require 140 feet of temporary workspace in upland areas and 115 feet in wetlands and saturated wetland areas, much of which will be disturbed during construction of the Line 3 Replacement Project.³⁷
46. The proposed area necessary for new Right-of-Way varies in width based on the terms of existing easements and the current alignment of existing pipelines or utilities within existing easements. The temporary workspaces will be located adjacent to and contiguous with the proposed new Right-of-Way corridor and will be identified by distinctive staking of construction limits prior to clearing.³⁸
47. Overall, the amount of new Right-of-Way to be acquired is anticipated to be approximately 37 acres, and the Project is anticipated to affect approximately 168 acres of land.³⁹
48. Valves and other aboveground appurtenances will require approximately 0.055 acres. New cathodic protection test stations will be installed along the Project.⁴⁰

³⁶ Letter, MnDOT (June 13, 2019) (eDockets Document ID 20196-153554-01)

³⁷ Application at 3-8.

³⁸ Application at 3-8.

³⁹ Application at 3-9.

⁴⁰ Application at 3-9 and Enbridge Reply Comments (June 14, 2019) at 3.

49. Typical trench dimensions are identified in Table 3.6.4-1 of the Application. The total amount of soil excavated during construction will be approximately 100,000 cubic yards that will be separated, stored, and then returned to the trench during the Project's backfill operation.⁴¹

B. Depth of Cover

50. In accordance with 49 C.F.R. § 195.248(a), the depth of cover between the top of the pipeline and the ground level, road bed, or river bottom can range between 18 to 48 inches, depending on the location of the pipe and the presence of rock. Based on site characteristics for the Project, these regulations allow a depth of cover for 30 inches. Where a pipeline crosses cultivated agricultural lands, state law requires that a minimum depth of cover of 54 inches be maintained unless waived by the landowner. Because the Project does not cross cultivated agricultural lands, however, this requirement does not apply.⁴²

C. Agricultural Mitigation Plan

51. Because the Project does not cross cultivated agricultural land, an agricultural mitigation plan is not required.

D. Pipeline Safety

52. The Commission is required to set forth rules for the routing of pipelines, and the rules may not set safety standards for the construction of pipelines.⁴³

53. The Commission's route permit does not set safety standards for the design or construction of the pipeline and shall not contravene applicable state or federal jurisdiction, rules, or regulations that govern safety standards for pipelines.⁴⁴

54. Enbridge will own and operate the pipeline under the jurisdiction of the U.S. Department of Transportation ("USDOT"), Pipeline and Hazardous Materials Safety Administration ("PHMSA"), the Commission, and the Minnesota Office of Pipeline Safety ("MNOPS").

55. The USDOT is mandated to prescribe minimum safety standards to protect against risks posed by pipeline facilities under Title 49, U.S.C. Chapter 601. PHMSA administers the national regulator program to ensure the safe transportation of natural gas and other hazardous materials by pipeline. It develops safety regulations and other approaches to risk management that ensure safety in the design, construction, testing, operation, maintenance, and emergency response of pipeline facilities.⁴⁵

56. Title 49, U.S.C. Chapter 601 provides for a state agency to assume all aspects of the safety program for intrastate facilities by adopting and enforcing federal standards. A state may

⁴¹ Application at 3-10.

⁴² Application at 3-10 – 3-11.

⁴³ Minn. Stat. § 216G.02.

⁴⁴ Minn. R. 7852.0200, subp. 2.

⁴⁵ 49 C.F.R. § 60102 – Purpose and General Authority.

also act as USDOT's agent to inspect interstate facilities within its boundaries; however, the USDOT is responsible for enforcement actions.⁴⁶

57. For the Project, MNOPS is the state agency responsible for ensuring pipeline infrastructure is in compliance with applicable pipeline safety standards.
58. As a crude oil pipeline, the Project's design, construction, maintenance, and operation are regulated by PHMSA under 49 C.F.R. Part 195. Enbridge abides by all PHMSA regulations and works directly with various regional, state, and local agencies, landowners, tribal authorities, and other stakeholders.⁴⁷

VII. Construction Activities, Testing, and Restoration

59. Pipeline construction includes survey and staking of the Right-of-Way, clearing and grading, topsoil stripping and soil segregation, pipe stringing, bending, welding/coating, inspection, trenching, lowering-in, backfilling, hydrostatic testing, cleanup, and restoration and revegetation.⁴⁸
60. Enbridge crews will stake the centerline and exterior boundaries of the construction Right-of-Way. Enbridge and its contractors will also contact Gopher One-Call System to identify and mark the locations of underground utilities.⁴⁹
61. Once the Right-of-Way is staked, traffic control measures are implemented where the Right-of-Way intersects public roads.⁵⁰
62. Next, clearing equipment is brought in to remove existing vegetation.⁵¹ After clearing, temporary erosion control measures will be installed in accordance with the EPP. Timber mats will be installed in wetlands where soil conditions cannot support construction equipment without causing rutting or significant soil disturbance, and mats will be placed at utility crossings where soil conditions are not adequate to support construction loads. Construction workspace will be reduced at wetland crossings.⁵²
63. Topsoil will be stripped and segregated during construction in agricultural lands, residential areas, and other areas as requested by the landowner or as specified in Project plans, commitments, and/or permits.⁵³
64. Pipe specifically fabricated for the Project will be loaded from the pipe yard located near the route in Carlton, Minnesota, onto specialized "stringing trucks" and transported to the construction Right-of-Way. Before excavating the pipeline trench, Enbridge will string

⁴⁶ *Id.*

⁴⁷ Application at 4-29.

⁴⁸ Application at 4-3.

⁴⁹ Application at 4-4.

⁵⁰ Application at 4-5.

⁵¹ Application at 4-6.

⁵² Application at 4-7.

⁵³ Application at 4-11.

individual joints of pipe along the construction Right-of-Way and arrange the pipe to be accessible to construction personnel.⁵⁴

65. A mechanical pipe-bending machine bends individual joints of pipe to the angle needed to accommodate changes in the natural ground contour or pipeline alignment.⁵⁵ After pipes are strung and bent, pipe sections will be welded together and placed on temporary supports next to the trench.⁵⁶ Although federal regulations require only 10 percent of welds to be inspected, Enbridge will field-inspect 100 percent of the welds and will apply coating at welded joints.⁵⁷
66. Construction personnel will then use backhoes and/or ditching machines to excavate a trench that is approximately six feet deep. Construction crews will then use GPS equipment to mark the final position of the pipeline before backfilling.⁵⁸
67. At waterbody crossings, crews will utilize one of the following construction methods: open cut; flume; or dam-and-pump. The method selected for a specific crossing will include erosion control, bank stabilization, and bank revegetation.⁵⁹
68. Road crossings may be completed using several different methods, including using a road boring technique.⁶⁰
69. The trench will then be backfilled to the approximate ground surface elevation.⁶¹ After backfilling, Enbridge will hydrostatically test the pipeline in accordance with PHMSA regulations. This involves filling a segment of the pipeline with water and maintaining a prescribed pressure for a specified amount of time. Hydrostatic test water use and discharge will be consistent with the EPP and applicable permits.⁶²
70. After backfilling is complete, Enbridge will regrade, restore, and decompact as necessary to preconstruction conditions to the extent practicable.⁶³ Topsoil will be re-spread over areas from which it was removed. Permanent soil stabilization efforts will primarily include revegetation of the Right-of-Way.⁶⁴ Enbridge will restore original land grade and contours to the extent practicable and will install permanent erosion control devices to ensure restoration occurs. Revegetation will be conducted in accordance with the EPP, permit requirements, and site-specific landowner requests.⁶⁵

⁵⁴ Application at 4-13, 4-14.

⁵⁵ Application at 4-15.

⁵⁶ Application at 4-16.

⁵⁷ Application at 4-17.

⁵⁸ Application at 4-18.

⁵⁹ Application at 4-20.

⁶⁰ Application at 4-23.

⁶¹ Application at 4-22.

⁶² Application at 4-25.

⁶³ Application at 4-25.

⁶⁴ Application at 4-26.

⁶⁵ Application at 4-29.

71. After restoration is complete, Enbridge will contact affected landowners to discuss any outstanding issues related to the Project and will work with each affected party to ensure cleanup and restoration conforms to the easement agreement.⁶⁶

VIII. Pipeline Routing

72. Pursuant to Minn. R. 7852.0100, subp. 31, “route” is defined as the proposed location of a pipeline between two endpoints. A route may have a variable width from the minimum required for the pipeline Right-of-Way up to 1.25 miles. In developing the proposed pipeline route, Enbridge evaluated the statutory and rule criteria – Minn. Stat. Ch. 216G and Minn. R. Ch. 7852.⁶⁷
73. Enbridge and the Fond du Lac Band worked together to identify a Preferred Route for the Project. As part of the route selection process, Enbridge and the Fond du Lac Band considered: (i) the priorities of the Fond du Lac Band, particularly removing the above-grade mounded pipe; (ii) state criteria; and (iii) overall environmental, engineering, and economic factors.⁶⁸
74. More specifically, the Project addresses concerns regarding the above-grade Line 4 segment that is creating a barrier to the natural water flow across the Reservation and, in some areas, impedes land access for Band members to gather medicinal plants and other culturally-important resources.⁶⁹ Accordingly, Enbridge and the Fond du Lac Band focused their route selection process on relocating the approximately 10-mile segment of existing Line 4 between the two existing mainline valve sites located on the Reservation.⁷⁰
75. To limit human and environmental impacts and provide the shortest route, Enbridge and Fond du Lac Band determined that the relocated Line 4 section would need to be installed within the Reservation and parallel the existing Enbridge Mainline Corridor. This paralleling route would also allow the Project to be incorporated into the easement for existing Enbridge pipelines on the Reservation.⁷¹
76. In addition, Enbridge tried to avoid constraints, including: locally-designated environmental protection areas; sensitive habitats; areas with special legal status or where Right-of-Way cannot be acquired and eminent domain may not be exercised; and, public infrastructure. Overall, the Project’s Preferred Route follows the Commission’s routing criteria, generally avoids constraints, incorporates routing opportunities, and applies appropriate technical guidelines.⁷²
77. The Project’s Preferred Route begins near the Reservation border in St. Louis County and extends approximately 10 miles near the end of the Reservation border in Carlton County,

⁶⁶ Application at 4-29.

⁶⁷ Application at 5-1.

⁶⁸ Application at 5-1.

⁶⁹ Fond du Lac Band Letter.

⁷⁰ Application at 5-1.

⁷¹ Application at 5-3.

⁷² Application at 5-3.

Minnesota. Along this route, the Project will share and run parallel to the existing Enbridge Mainline System Rights-of-Way.⁷³ The Project is proposed to be installed 20 to 40 feet away from the Line 3 Replacement Project; the Project will generally be installed at a standard offset of 20 feet in both uplands and wetlands. However, in certain saturated wetland areas, a pipe separation of 40 feet will be necessary.⁷⁴

78. Enbridge’s Application identified four additional routing alternatives it considered during the Project’s route selection process and explained why none of the four alternatives were preferable to the Preferred Route.⁷⁵

IX. Standard and Criteria for Partial Exemption

79. In deciding whether to grant a partial exemption from pipeline route selection procedures, the Commission must determine that the pipeline project will not have a significant impact on humans or the environment. The Commission must consider the impact of the pipeline project in light of the criteria identified in Minn. R. 7852.0700, subp. 3.

A. Effects on Human Settlement, Existence and Density of Populated Areas, Existing and Planning Future Land Use, and Management Plans

80. Minn. R. 7852.1900, subp. 3(A), requires that when reviewing a pipeline route application, the Commission shall consider the impact of the pipeline on “human settlement, existence and density of populated areas, existing and planned future land use, and management plans.”⁷⁶

1. Human Settlement and Existing and Density of Populated Areas

81. The Preferred Route generally avoids population centers. However, three municipal boundaries are crossed by the Preferred Route: Arrowhead Township; Perch Lake Township; and Progress Township.⁷⁷
82. As recommended by MnDOT, Enbridge will coordinate any oversize/overweight hauling with MnDOT and will apply for all necessary permits.⁷⁸
83. There are 176 residences within one-half mile of the Project; Enbridge has been working with private landownership impacted by the Project to address their concerns through notification in writing, direct phone calls, and in-person meetings.⁷⁹

⁷³ Application at 5-22.

⁷⁴ Application at 5-26.

⁷⁵ Application at 5-4 – 5-20.

⁷⁶ Minn. R. 7852.1900, subp. 3(A).

⁷⁷ Application at 6-11.

⁷⁸ Comments, Enbridge (June 14, 2019) at 2.

⁷⁹ Application at 6-12.

84. Construction activities will have temporary direct or indirect impacts to human settlement through construction noise and traffic, which includes the associated access roads.⁸⁰ Enbridge has been working with private landowners impacted by the Project to address their concerns, and contained in the Sample Route Permit are conditions 5.4.2 and 5.4.3 that will require Enbridge to minimize these impacts.
85. Project operations and maintenance will have no long-term effects on human settlements or populated areas.⁸¹
86. Enbridge initiated this Project in response to the request from the Fond du Lac Band, and this Project is intended to improve the environment for the Fond du Lac Band community. One of the purposes of the Project is to meet environmental justice goals on the Reservation.⁸²

2. Existing and Planned Future Land Use, and Management Plans

87. Comprehensive land use plans have been established by both Carlton and St. Louis Counties, and the Fond du Lac Band has established a Reservation Strategic Plan. These plans acknowledge the need for and existence of utilities and infrastructure. Because the Project will not establish any new utility corridors but will be co-located with the existing Enbridge Mainline System, the Project will not conflict with these plans.⁸³

B. Natural Environment

88. Minn. R. 7852.1900, subp. 3(B), requires that when reviewing a pipeline route permit application, the Commission shall consider the impact of the pipeline on “the natural environment, public lands, and designated lands, including but not limited to natural areas, wildlife habitat, water, and recreational lands.”⁸⁴
89. Similarly, Minn. R. 7852.1900, subp. 3(G), requires that when reviewing a pipeline route permit application, the Commission shall consider the impact of the pipeline on “natural resources and features.”⁸⁵
90. As detailed in the following findings, the Project is not anticipated to have significant impacts on the natural environment as a result of the design and routing of the Project, as well as the conditions and requirements included in the Sample Route Permit.

1. Geology

91. The topography crossed by the Preferred Route is relatively flat. Generally, bedrock along the Preferred Route is far below the surface. Although bedrock can be encountered where

⁸⁰ Application at 6-12.

⁸¹ Application at 6-13.

⁸² Application at 6-12.

⁸³ Application at 6-20.

⁸⁴ Minn. R. 7852.1900, subp. 3(B).

⁸⁵ Minn. R. 7852.1900, subp. 3(G).

horizontal directional drill (“HDD”) installation techniques are used, because the Project will not utilize HDD, bedrock is not expected to be encountered.⁸⁶

92. Enbridge determined that 1,500 feet was a reasonable distance for evaluating mineral resources that could potentially be impacted by the Project, based on consideration of the potential for expansion of existing resources. The Preferred Route does not cross any mined to mineral resources areas. There are two sites, possibly associated with non-metallic resources (one sand pit and one gravel pit) that are approximately 1,500 feet from the construction workspace.⁸⁷
93. The Project will not cross any metallic mineral exploration tracts through the Reservation. Enbridge is not aware of any other county- or state-owned metallic mineral rights crossed by the Project that are actively leased to exploration or production companies. Enbridge expects that further coordination with MDNR will, among other things, identify any additional crossings of Public Lands and Public Waters that will need further encumbrance determinations for metallic, aggregate, and/or peat resources.⁸⁸
94. Construction of the Project will result in minor impacts on topography and geology, including temporary alteration of slopes. After the trench is backfilled, Enbridge will stabilize the Right-of-Way with erosion control measures as necessary.⁸⁹

2. Soils

95. The major land resource areas crossed by the Project generally range from somewhat poorly drained soils with sandy to clayey textures to well or excessively drained soils.⁹⁰ Enbridge identified soil characteristics that could affect or be affected by Project construction, including: highly erodible soils; prime farmland; hydric soils; compaction-prone soils, presence of stones and shallow bedrock; droughty soils; depth of topsoil; and percent slope. Table 6.8.1-2 of the Application provided a summary of significant soil characteristics identified along the Preferred Route by county.⁹¹
96. The Preferred Route crosses approximately 64.1 acres of soils classified as farmland of statewide importance. The EPP describes mitigation measures that will be implemented during construction to minimize impacts to such soils. The Preferred Route also crosses approximately 54.6 acres of soils classified as droughty. Enbridge will minimize impacts of construction on droughty, non-cultivated soils by timely reseeding using species tolerant of dry conditions and applying mulch.⁹²
97. To minimize topsoil disturbance, Enbridge will remove and segregate topsoil as requested by the landowner or specified in Project plans, commitments, and/or permits. The

⁸⁶ Application at 6-30.

⁸⁷ Application at 6-30.

⁸⁸ Application at 6-31.

⁸⁹ Application at 6-32.

⁹⁰ Application at 6-33.

⁹¹ Application at 6-35.

⁹² Application at 6-35 – 6-36.

maximum depth of topsoil stripping will be 12 inches. Segregated topsoil and subsoil will be stockpiled separately and replaced in the proper order during backfilling and final grading of the construction workspace. In addition, Enbridge will minimize compaction and rutting impacts by constructing timber mats or using low-ground-weight equipment where warranted, such as in saturated wetland soils. Enbridge will also take steps to mitigate the effects of compacted soils, including deep tilling and/or plowing.⁹³

98. Enbridge will implement erosion control measures to minimize erosion both during and after construction activities as necessary, including: construction of silt fences, installation of slope breakers, temporary sediment barriers, permanent trench breakers, revegetation, and mulching. Enbridge will also implement dust mitigation measures, as needed.⁹⁴
99. In addition, the Sample Route Permit requires Enbridge to develop the following plans or procedures to further avoid, minimize, or mitigate potential impacts: Spill Prevention, Containment, and Control Procedures; Drilling Mud Containment, Response, and Notification Procedures; a Petroleum-Contaminated Soil Management Plan; a Soil Erosion and Sediment Control Plan; and a Fugitive Dust Control Plan.⁹⁵

3. *Water Resources*

100. Water resources within the vicinity of the Preferred Route may include groundwater resources, wetlands, and surface waters.
101. With respect to groundwater, there is one drilling record of wells within 150 feet of the Preferred Route; this well is approximately 85 feet from the proposed workspace. While Enbridge does not anticipate the Project will impact this well, Enbridge will work with the landowner to replace the well if it is found to be within 100 feet of the operational Right-of-Way.⁹⁶
102. Construction of the Project is not expected to have long-term impacts on groundwater resources. Construction activities, such as trenching, backfilling, and dewatering, that encounter shallow surficial aquifers may result in minor short-term and localized fluctuations in groundwater levels within the aquifer. Ground disturbance associated with pipeline construction is limited to surface and very shallow ground layers and only temporary, minor impacts to groundwater are anticipated.⁹⁷
103. Construction dewatering may temporarily impact groundwater levels in proximity to the dewatering location. Dewatering techniques are described in the EPP. In addition, any applicable water appropriations and use permits required under Fond du Lac Band, federal,

⁹³ Application at 6-36.

⁹⁴ Application at 6-36.

⁹⁵ See Sample Route Permit §§ 4.3.2, 4.3.3, 4.3.4, 4.3.12, and 4.3.13.

⁹⁶ Application at 6-60 – 6-62.

⁹⁷ Application at 6-61.

or state regulations would be obtained. Once construction activities are complete, the groundwater levels are expected to recover quickly to preconstruction levels.⁹⁸

104. Routine operations and maintenance is not expected to affect groundwater resources.⁹⁹
105. With respect to wetlands, in Minnesota, wetland crossings are regulated by the U.S. Army Corps of Engineers (“USACE”) under Section 404 of the Clean Water Act (“CWA”). Wetland impacts associated with the Project will also be regulated by the Fond du Lac Band through the Band’s Standard Wetland Activity Permit under the Band’s Wetlands Protection and Management Ordinance (“WPMO”). Since 1996, the Band has had “Treatment in the Same Manner as a State” under the CWA.¹⁰⁰
106. Because the Project is wholly within the Reservation and the Band has had “Treatment in the Same Manner as a State” under the CWA since 1996, the Project does not require any permits or approvals from the MPCA. Enbridge will apply to the Fond du Lac Band for the necessary water quality-related approvals. Enbridge proposed changes to the sample route permit provided by DOC EERA to reflect this issue.¹⁰¹
107. Enbridge conducted wetland delineation surveys along approximately 91 percent of the Preferred Route. Along the remaining portion of the route, Enbridge used National Wetlands Inventory (“NWI”) data to identify potential wetlands. Based on this analysis, the Preferred Route will cross 37 wetlands, with a combined crossing length of approximately 6.16 linear miles. The Project does not cross wetlands or basins listed on the MDNR Public Waters Inventory, nor does it cross any Outstanding Resource Value Waters (“ORVWs”) designated by MDNR.¹⁰²
108. The following wetland types are found in the Project area: Palustrine emergent (“PEM”) wetlands; Palustrine scrub-shrub (“PSS”); Palustrine forested (“PFO”) wetlands; and Palustrine unconsolidated bottom wetlands. Enbridge will acquire necessary wetland permits from local, state, federal, and Fond du Lac Band agencies. As part of the permitting requirements for USACE and Fond du Lac Band, Enbridge will avoid and minimize impacts on wetlands to the extent possible, restore temporary impacts to wetlands on-site, and provide compensatory mitigation as required by permits.¹⁰³ For example, Enbridge reduced the construction workspace width within saturated wetlands and unsaturated wetlands to 115 feet.¹⁰⁴
109. Temporary construction impacts include: loss of wetland vegetation and wildlife habitat; soil disturbance; and, increases in turbidity and alterations in hydrology. Invasive species were also observed within some saturated wetlands within the Right-of-Way, and Enbridge

⁹⁸ Application at 6-61 – 62.

⁹⁹ Application at 6-62.

¹⁰⁰ Application at 6-63.

¹⁰¹ Comments, Enbridge (June 14, 2019) at 2.

¹⁰² Application at 6-64.

¹⁰³ Application at 6-63 – 6-64.

¹⁰⁴ Application at 6-65.

would follow the procedures identified in the EPP to prevent the spread of invasive species, to the extent possible, within the construction corridor.¹⁰⁵

110. Typical construction in most wetlands will be similar to construction in uplands and will consist of clearing, trenching, dewatering, installation, backfilling, cleanup, and revegetation. Construction activities will be minimized in wetlands and/or special construction techniques will be used to minimize the disturbance to vegetation and soils and to maintain wetland hydrology. Where a wetland cannot support construction equipment, construction activities will be accomplished from timber construction mats or by the use of low ground pressure equipment. Enbridge will also minimize impacts on wetlands by implementing the mitigation measures specified in USACE permits and the Fond du Lac Band WPMO, including the purchase of wetland mitigation credits or other agreed-upon compensatory mitigation.¹⁰⁶
111. After the pipeline is constructed, the Right-of-Way will be maintained free of larger-diameter trees and will limit the reestablishment of the scrub-shrub wetlands and forested wetlands. The Project will thus result in the permanent impacts of approximately 7.6 acres of forested wetland and 6.1 acres of scrub-shrub wetland as these wetland types will be converted to emergent wetland. Approximately 0.03 acre of PSS wetland will be permanently converted to upland area to accommodate the valve installation at MP 1062. Additional temporary impacts to wetlands may result from maintenance activities that require excavation.¹⁰⁷
112. Planned future removal of the existing segment of Line 4 in the Reservation will provide enhanced access to Fond du Lac Band lands by removing the above-ground pipe. The Project will allow water to move naturally across the existing Enbridge Mainline Corridor and restore the wetland hydrology to allow for the long-term restoration of the temporary impacted PEM, PFO, and PSS wetlands.¹⁰⁸
113. The Project will cross three waterbodies, including one stream and two tributaries. One of the three waterbodies, Stoney Brook, is designated as a public water by MDNR. The Preferred Route will not cross any Aquatic Management Area or designated trout streams.¹⁰⁹
114. Enbridge will prepare and submit an application to MDNR to obtain a License to Cross Public Waters permit for the Stoney Brook crossing. No waterbodies crossed by the Project are considered navigable waters, as defined under Section 10 of the Rivers and Harbors Act of 1899. The Project will not cross any waterbodies meeting ORVWs criteria. The Project will not cross any river segments that are listed on the National Rivers Inventory as designated or potentially designated National Wild and Scenic Rivers. The

¹⁰⁵ Application at 6-65.

¹⁰⁶ Application at 6-66.

¹⁰⁷ Application at 6-70.

¹⁰⁸ Application at 6-71.

¹⁰⁹ Application at 6-47.

Project will not cross any river segments that are listed as state-designated canoe and boating routes.¹¹⁰

115. Within the Reservation boundaries, there are five primary wild rice producing waterbodies. These lakes are not located within the Project area and are not expected to be impacted by the Project.¹¹¹
116. Enbridge's routing analysis and proposed construction procedures minimize wetland and surface water impacts to the maximum extent practicable. Potential impacts on waterbodies will be minimized along the Preferred Route by implementing BMPs described in Enbridge's EPP. Stream banks will be protected from erosion through the use of temporary and permanent soil stabilization techniques. Examples of erosion control techniques include placement of erosion control blankets, mulch, straw bales, bio-logs, silt fence, and prompt seeding following construction activities. Stream banks will be restored to pre-construction grades when practicable and revegetated with appropriate vegetation. Placement of rock rip-rap, geotextile fabric, and other bioengineering techniques may be implemented to stabilize sites inherently unstable.¹¹²
117. It is Enbridge's intention to execute the primary crossing method for each of the three waterbodies. If at the time of construction, the contractor, in coordination with Fond du Lac Band and Enbridge, determines that the primary crossing method is not attainable due to site conditions, the secondary crossing method will be utilized.¹¹³ The pipeline will be installed across the three waterbodies using one of the two primary dry crossing methods: dam-and-pump or flume method.¹¹⁴
118. After the pipeline is installed, the streambed will be restored and the banks will be reconstructed and stabilized with erosion control materials.¹¹⁵ It is anticipated that any impacts to water quality from construction of the Project will be temporary, and the EPP contains measures addressing water quality issues.¹¹⁶
119. Enbridge will hydrostatically test the new pipe to verify its integrity prior to placing the pipeline in service. Enbridge plans on utilizing water from Big Lake (near MP 1066) as a source for appropriating hydrostatic test water. Enbridge will obtain the applicable water appropriation and discharge permits for hydrostatic testing activities. Water used for hydrostatic testing will be discharged on land or returned to the waterbody from which it was appropriated, in accordance with Environmental Protection Agency's National

¹¹⁰ Application at 6-76.

¹¹¹ Application at 6-76.

¹¹² Application at 6-77.

¹¹³ Application at 6-77.

¹¹⁴ Application at 6-78.

¹¹⁵ Application at 6-79.

¹¹⁶ Application at 6-80.

Pollutant Discharge Elimination System permit requirements for the Project and Fond du Lac water quality standards.¹¹⁷

120. In addition, the Sample Route Permit requires Enbridge to develop the following plans or procedures to further avoid, minimize, or mitigate potential impacts: Environmental Protection Plan; Spill Prevention, Containment, and Control Procedures; Drilling Mud Containment, Response, and Notification Procedures; a Soil Erosion and Sediment Control Plan; Winter Construction Procedures; and Wetland and Water Resource Procedures.¹¹⁸
121. Impacts on water quality due to operations and maintenance activities are expected to be temporary (e.g., excavation, mowing), minimal, and site-specific.¹¹⁹

4. *Biological Resources*

122. Enbridge evaluated the occurrence of sensitive plant communities and wild rice waters along the Preferred Route using publicly available data layers from MDNR, including Native Plant Communities (“NPC”), Minnesota Biological Survey (“MBS”) data, designated Calcareous Fens, and Railroad Right-of-Way Prairies. MBS data included a combination of publicly available Sites of Biodiversity Significance (“SOBS”) data and draft SOBS data provided directly to Enbridge by MDNR. Enbridge also used interpretation of aerial photography by professional plant surveyors approved by MDNR to identify sensitive plant communities. The only NPC crossed by the Preferred Route is the Northern Poor Fen (APn91), an acidic peatland system.¹²⁰ There are five Moderate SOBS and two High SOBS crossed by the Project.¹²¹
123. The clearing of herbaceous vegetation during construction will result in short-term vegetation impacts. Enbridge will seed disturbed areas following installation of the pipeline. This active revegetation measure and the anticipated rapid colonization of disturbed areas by annual and perennial herbaceous species will restore most of the herbaceous vegetative cover within the first growing season after construction.¹²²
124. The clearing of woody shrubs and trees will be the primary long-term impact of the Project on vegetation. Woody shrubs and trees will be allowed to recolonize within the temporary construction workspace. However, recolonization of disturbed areas by woody shrubs and trees will be slower than recolonization by herbaceous species. As natural succession proceeds in these areas, it is anticipated that forested communities will eventually reestablish after a number of years.¹²³
125. MDNR maintains a list of state and federally-listed noxious weeds. In addition, the Fond du Lac Band has developed a list of invasive species of concern within the Reservation.

¹¹⁷ Application at 6-81.

¹¹⁸ See Sample Route Permit §§ 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.10, 4.3.11, 4.3.12, and 4.3.14.

¹¹⁹ Application at 6-82.

¹²⁰ Application at 6-38.

¹²¹ Application at 6-39.

¹²² Application at 6-40.

¹²³ Application at 6-40.

Enbridge would address noxious and invasive species in accordance with the EPP and the Band's Invasive Species Management Plan. Further, Enbridge is working directly with the Fond du Lac Band regarding additional control and management of noxious and invasive plant species. To minimize the introduction and increase of noxious and invasive plants, Enbridge will implement BMPs, including minimizing the time between final grading and permanent seeding, cleaning construction equipment, and preparing a seeding supplement to prevent the spread of noxious weeds and invasive plants. Enbridge has conducted surveys for terrestrial noxious weeds and invasive plant species in advance of construction activities. This survey information will provide background information to assist in implementing mitigation measures during construction.¹²⁴

126. Although no state-listed plant species occurrences are known within the Project based on Enbridge's consultations with the MDNR for the Line 3 Replacement Project (NHIS search), the Project does cross through an area designated as Northern Poor Fen. Enbridge has completed surveys for rare and sensitive plants along the Preferred Route through this area. No rare or sensitive plant species were documented within the Project workspace located within the Northern Poor Fen.¹²⁵
127. Revegetation will take place following restoration, and seed mixes will be selected in accordance with the EPP and through consultation with the Fond du Lac Band, landowners, or land-managing agencies. Vegetation that grows so that it obscures the visibility of the Right-of-Way for federally required surface condition inspections will be mechanically removed. Herbicides may be used during operations in limited situations, such as to control weedy species. If used, herbicides will be applied by properly licensed individuals and coordinated with the necessary regulators and landowners.¹²⁶
128. The Project crosses aquatic and terrestrial habitat cores and corridors within Minnesota's Wildlife Action Network, which was formulated and detailed in Minnesota's Wildlife Action Plan 2015-2025. Enbridge plans to consult with MDNR regarding minimization of impacts to aquatic and terrestrial habitat areas within Minnesota's Wildlife Action Network. The Project does not cross any Minnesota Audubon-designated Important Bird Areas or any state-designated wildlife management areas.¹²⁷
129. Construction will involve the temporary removal of vegetative cover within the construction workspace. Some smaller and less mobile animals such as amphibians, reptiles, and small mammals may experience direct mortality during clearing and grading activities. Larger and more mobile animals will disperse from the Project Right-of-Way during construction. It is expected that individual wildlife will return to their previously occupied habitats after construction has been completed and suitable habitat has become reestablished. The intensity of construction-related disturbances will depend on the particular species and the time of year during construction. ~~The Preferred Route would enable partial sharing and/or paralleling of the existing Line 3 Replacement Project Right-~~

¹²⁴ Application at 6-40 – 6-41.

¹²⁵ Application at 6-41.

¹²⁶ Application at 6-41.

¹²⁷ Application at 6-43.

~~of Way along the Enbridge Mainline System, as well as the co-construction with the Line 3 Replacement Project. This would minimize the time of disturbance on the Reservation and the amount of new temporary workspace that would need to be obtained for the Project. The majority of the temporary workspace along the Preferred Route will be shared and cleared by the permitted Line 3 Replacement Project.~~¹²⁸

130. In December 2018, Enbridge initiated consultations with the U.S. Fish & Wildlife Service (“USFWS”) and MDNR for the Project. ~~In addition, due to the co-location of the Project with the Line 3 Replacement Project, the information gathered for the Line 3 Replacement Project was also used to assess potential impacts of the Project.~~ Enbridge will continue to coordinate with these agencies, including MDNR to address its comments on the Project, and the Fond du Lac Band on protected species issues as warranted for the Project.¹³⁰
131. Enbridge identified federally listed species under the federal Endangered Species Act (“ESA”) that could occur within the Project area. One endangered species and three threatened species have the potential to occur in the Project area. No critical habitat is located within the Project area.¹³¹
132. The Canada lynx (*Lynx canadensis*) is a federally threatened species and a species of special concern in Minnesota. Construction activities may affect Canada lynx by potentially diverting individuals from the workspace area due to noise or presence of humans and equipment involved in construction activities. Due to the extensive range of the Canada lynx and extensive habitat near the Preferred Route, disturbance is expected to be temporary and localized. Construction activities may also impact Canada lynx habitat, which in turn may affect foraging and sheltering behaviors of individual lynx. Due to the abundance of habitat near the Preferred Route, these potential impacts are expected to be localized. Enbridge will minimize potential impacts on Canada lynx individuals and habitat through general Project-based conservation and mitigation measures. In addition, Enbridge will implement the following species-specific conservation measures, as appropriate: Contractors and inspectors will be trained to identify and immediately report sightings of Canada lynx to USFWS; and, if a Canada lynx is sighted by Enbridge’s contractor or Environmental Inspector within the construction workspace, Enbridge will cease construction activities until the individual(s) have left the area.¹³²
133. The Western Great Lakes Distinct Population Segment of the gray wolf (*Canus lupus*) is federally threatened; the gray wolf has no state-level special status in Minnesota. The threatened status for the gray wolf in the Western Great Lakes Distinct Population Segment was reinstated under the ESA on December 19, 2014. Construction activities may affect the gray wolf by potentially diverting individuals from the workspace area due to noise or the presence of humans and equipment involved in construction activities. Due to the range of the gray wolf and extensive habitat near the Preferred Route, disturbance is expected to be temporary and localized. Additionally, due to the co-location of the Project with an existing Right-of-Way, temporary and permanent impacts to forested habitat that may be

¹²⁸ Application at 6-43.

¹³⁰ Application at 6-50.

¹³¹ Application at 6-50.

¹³² Application at 6-51.

used by gray wolves will be minimized. Enbridge will minimize potential impacts on gray wolves through general Project-based conservation and mitigation measures. In addition, Enbridge will implement the following species-specific conservation measures, as appropriate: Contractors and inspectors will be trained to identify and immediately report sightings of gray wolves to USFWS; and, if a gray wolf is sighted by Enbridge's contractor or Environmental Inspector within the construction workspace, Enbridge will cease construction activities until the individual(s) have left the area and coordinate with the Fond du Lac Band Reservation Business Committee.¹³³

134. The northern long-eared bat ("NLEB"; *Myotis septentrionalis*) is listed as a state species of special concern in Minnesota. The NLEB was listed as threatened under the ESA on May 4, 2015, and the USFWS issued a 4(d) rule that became effective on February 16, 2016. Suitable NLEB habitat includes forest stands in riparian areas, forested ponds, and woodlots made up of potential roosts (i.e., snags and/or live trees ≥ 3 inches diameter at breast height with exfoliating bark, cracks, crevices, and/or cavities). Wooded corridors and other linear features (such as fencerows) and non-forested habitats (including emergent wetlands and adjacent edges of agricultural fields and pastures) are also used by NLEBs for foraging and hunting. Enbridge will identify NLEB maternity roost trees prior to construction and will implement mitigation measures as needed in accordance with the NLEB 4(d) rule. Potential impacts to NLEB may occur if clearing of forested habitat for construction workspace takes place at locations where individuals are breeding, foraging, or raising pups. Enbridge will minimize potential impacts on NLEB and habitat through general Project-based conservation and mitigation measures. If maternity roost trees are identified, Enbridge will implement the following mitigation measures: clearing of known maternity roost trees and trees within 150 feet of known maternity roost trees will not occur between June 1 and July 31; no trees will be removed within 0.25 miles of a known hibernacula at any time of the year; and Project activities will not be conducted within known hibernacula (although it is acknowledged that no NLEB hibernacula currently exist within the Reservation).¹³⁴
135. Minnesota is home to piping plovers from both the Northern Great Plains and Great Lakes populations, and the species was listed as a state endangered species in 1984. The Project is located within the area of the Great Lakes population. No potentially suitable habitat for the piping plover exists within the Project footprint or the immediate surrounding area, and the species is not expected to occur within the Project area. Therefore, it is anticipated there will be no impact to the piping plover or its habitat as a result of construction or operation of the Project.¹³⁵
136. In the Application, Enbridge identified the following state-listed sensitive species within one mile on either side of the Preferred Route, including access roads and temporary workspace: Least Moonwort; Narrow Triangle Moonwort; Pale Sedge; Slender Naiad;

¹³³ Application at 6-52.

¹³⁴ Application at 6-53.

¹³⁵ Application at 6-54.

Torrey's Mannagrass; and Northern Goshawk. Enbridge will update this information based upon updated results of the most recent NHIS for the Project area.¹³⁶

137. Enbridge has been working throughout Project design to avoid construction in areas where state threatened or endangered plant species are known to occur. If state threatened or endangered plants are unavoidable, Enbridge will apply for an incidental take permit.¹³⁷
138. The northern goshawk (*Accipiter gentilis*) is a state species of special concern. Potential impacts to northern goshawk may occur if clearing of forested habitat for construction workspace takes place at locations where individuals are breeding or foraging. The species may be disturbed during clearing or construction activities due to noise or human presence. Due to the abundance of habitat near the Preferred Route, these potential impacts are expected to be localized. Enbridge will minimize potential impacts to the northern goshawk and habitat through general Project-based conservation and mitigation measures.¹³⁸
139. Field surveys completed in 2018 have identified the following Fond du Lac Band Tribal species of concern occurring within the Project Right-of-Way: black ash (*Fraxinus nigra*), lowbush blueberry (*Vaccinium angustifolium*), sugar maple (*Acer saccharum*), white birch (*Betula papyrifera*), white cedar (*Thuja occidentalis*), and wild rice (*Zizania palustris*). Enbridge is currently working with the Fond du Lac Band regarding specific mitigation.¹³⁹
140. Bald eagle nest aerial surveys were conducted within 0.25 miles of the Line 3 Replacement Project Preferred Route in 2014 and 2015 in accordance with the 2014 Bald and Golden Eagle Nest Survey Protocol. Enbridge also conducted surveys in 2018. No eagle nests were identified within 0.25 miles of the Project during these surveys.¹⁴⁰
141. The Sample Route Permit requires Enbridge to develop the following plans or procedures to further avoid, minimize, or mitigate potential impacts on biological resources: Environmental Protection Plan; Rare and Sensitive Environmental Resource Procedures; Noxious Weeds and Invasive Species Control Procedures; and Revegetation and Restoration Monitoring Procedures. The Route Permit also includes provisions for the use of environmental inspectors and third party agency monitors.¹⁴¹

5. Air Quality

142. Construction of the Project is not expected to have a substantial impact on air quality. Construction of the pipeline and associated facilities could result in intermittent and short-term fugitive emissions. These emissions would include dust from soil disruption and combustion emissions from construction equipment. Emissions from construction are not

¹³⁶ Application at 6-54 – 6-55.

¹³⁷ Application at 6-57.

¹³⁸ Application at 6-57 – 6-58.

¹³⁹ Application at 6-58.

¹⁴⁰ Application at 6-59.

¹⁴¹ See Sample Route Permit §§ 4.3.1, 4.3.7, 4.3.8, 4.3.9, 4.4.10, 4.4.2, and 4.4.3.

expected to cause or significantly contribute to a violation of any applicable ambient air quality standard.¹⁴²

143. Enbridge will minimize dust generated from construction activities, including wetting soils.¹⁴³
144. The Project will not result in operational emission changes because no operational changes are proposed to the Clearbrook Terminal.¹⁴⁴

6. *Noise*

145. Because the Project involves relocation of an existing pipeline segment, and not the installation of pump stations, a baseline noise analysis was not completed. Noise levels are not anticipated to change because of the Project, and MPCA Noise Standards will continue to be met.¹⁴⁵
146. The heavy equipment needed to construct the Project will have an intermittent and temporary impact on existing noise levels in the vicinity of the construction workspace. Enbridge reviewed aerial photography and identified 33 sensitive noise receptors within 500 feet of the construction workspace, and 54 sensitive receptors between 500 and 1,500 feet of the construction workspace. The identified receptors were residential structures. In the vicinity of residential areas, Enbridge's contractor will take reasonable measures to control construction-related noise, including limited pipeline construction activities to daylight hours when possible, maintaining equipment in good working order, and utilizing manufacturer-supplied silencers when available.¹⁴⁶
147. Following construction, noise will not be generated by the pipeline during normal operations. A small amount of operational noise will be generated at the valve sites; however, the sound level associated with the operation of the valve sites will be low and not likely perceptible outside of the new Right-of-Way during normal operations.¹⁴⁷

C. Lands of Historical, Archaeological, and Cultural Significance

148. Minn. R. 7852.1900, subp. 3(C), states that when reviewing a pipeline route permit application, the Commission shall consider the impact of the pipeline to "lands of historical, archaeological, and cultural significance."¹⁴⁸
149. Enbridge has completed a traditional, archeological historic properties review for the Line 3 Replacement Project, which includes an evaluation of what also encompasses the Line 4 corridor across the Reservation.¹⁴⁹ In addition, Enbridge has worked with the Fond du Lac

¹⁴² Application at 6-86.

¹⁴³ Application at 6-86.

¹⁴⁴ Application at 6-86 – 6-87.

¹⁴⁵ Application at 6-16.

¹⁴⁶ Application at 6-16.

¹⁴⁷ Application at 6-16.

¹⁴⁸ Minn. R. 7852.1900, subp. 3(C).

¹⁴⁹ Application at 6-83.

Band Tribal Historic Preservation Office (“THPO”) to design and conduct comprehensive tribal historic properties review, and the Fond du Lac Band has led a tribal historic properties assessment on the Reservation as part of a larger assessment along the entire Line 3 corridor (the “TCR Survey”). Enbridge and the Fond du Lac Band have agreed upon procedures for conducting all aspects of the TCR Survey, as well as for handling unanticipated discoveries on the Reservation. Enbridge will continue to consult on these matters throughout every phase of the Project. Additionally, the Fond du Lac Band has completed field work, interviews, and literature review for the TCR Survey. There is one historic feature adjacent to the proposed route that Enbridge has committed to avoid. Therefore, the Fond du Lac Band has informed Enbridge that the preliminary conclusion is that no Traditional Cultural Properties or other historic sites will be impacted by the Project.¹⁵⁰

150. Enbridge has also developed an Unanticipated Discoveries Plan for use during all Project construction activities. The Unanticipated Discoveries Plan prescribes actions to be taken in the event that previously unrecorded archaeological or historic site or human remains are discovered during construction activities, which sets forth the guidelines to be used in the event archaeological resources (including both prehistoric and historical resources) or human skeletal remains are discovered during construction activities. If any cultural resources are identified within the construction corridor or possible archaeological and cultural materials or suspected human skeletal remains are identified during ground disturbing activities within the construction corridor, Enbridge would work with THPO representatives and any other applicable authorities to establish a mitigation strategy for pipeline construction and operation. Moreover, there will be Tribal Monitors, approved and trained by the Band, present during construction to ensure no sites are disturbed.¹⁵¹
151. In addition, the Sample Route Permit requires Enbridge to develop an Archaeological and Historic Resources Plan and Unanticipated Discoveries Plan. The Route Permit includes provisions for the use of tribal monitors.¹⁵²
152. As such, the Project will not have a significant impact on lands of historical, archaeological, and cultural significance.

D. Land Use Economies

153. Minn. R. 7852.1900, subp. 3(D), states that when reviewing a pipeline route permit application, the Commission shall consider the impact of the pipeline upon “economies within the route, including agricultural, commercial or industrial, forestry, recreational, and mining operations.”¹⁵³
154. Economies along the Preferred Route include forestry, recreation, and tourism. No commercial or industrial operations are present along the Preferred Route. With respect to

¹⁵⁰ Application at 6-84 and Fond du Lac Band Letter (Feb. 25, 2019).

¹⁵¹ Application at 6-85.

¹⁵² See Sample Route Permit §§ 4.3.5, 4.3.6, and 4.4.5.

¹⁵³ Minn. R. 7852.1900, subp. 3(D).

recreational economies, the Project will not cross any federal parks or state parks; it will cross approximately 2.3 miles of state forest. The Project will not cross any recreational trails or any canoe or boating routes.¹⁵⁴

155. Enbridge has not identified any areas crossed by the Project that are in agricultural production. Further, construction of the Project will result in approximately 60.4 acres of impacts to forested areas, of which 10.7 acres are new temporary disturbance associated with the Line 4 pipeline construction. Of the 60.4 acres, 10.6 acres will be converted to permanent impacts for the new Line 4 Right-of-Way that will be maintained free of large-diameter trees ~~and will be disturbed by association with the authorized Line 3 Replacement Project~~. Although construction of the Project will have temporary and permanent impacts on forested lands, the clearing of the Right-of-Way and workspaces areas will not appreciably reduce the lands available to forestry.¹⁵⁵

156. As such, the Project will not have a significant impact on land use economies.

E. Pipeline Cost and Accessibility

157. Minn. R. 7852.1900, subp. 3(E), states that when reviewing a pipeline route permit application, the Commission shall consider “pipeline cost and accessibility.”¹⁵⁶

158. The total project costs are expected to be at least \$100 million.¹⁵⁷

F. Use of Existing Rights-of-Way and Right-of-Way Sharing or Paralleling

159. Minn. R. 7852.1900, subp. 3(F), states that when reviewing a pipeline route permit application, the Commission shall consider the “use of existing rights-of-way and right-of-way sharing or paralleling.”¹⁵⁸

160. The Project will parallel existing Enbridge pipelines within the existing Enbridge Mainline Corridor for 100 percent of its length.¹⁵⁹

G. Impact on Natural Resources and Features

161. Minn. R. 7852.1900, subp. 3(G), states that when reviewing a pipeline route permit application, the Commission shall consider the “natural resources and features.”¹⁶⁰

162. The Project’s potential impacts on the natural environment, including natural resources and features, is discussed in Section IX(B) above. As discussed, Enbridge has analyzed the

¹⁵⁴ Application at 6-11.

¹⁵⁵ Application at 6-12.

¹⁵⁶ Minn. R. 7852.1900, subp. 3(E).

¹⁵⁷ Application at 6-12.

¹⁵⁸ Minn. R. 7852.1900, subp. 3(F).

¹⁵⁹ Application at 3-11.

¹⁶⁰ Minn. R. 7852.1900, subp. 3(G).

potential environmental effects from the Project and has committed to various avoidance, minimization, and mitigation measures to limit such impacts.

H. Extent Human or Environmental Effects are Subject to Mitigation by Regulatory Control or Permit Conditions

163. Minn. R. 7852.1900, subp. 3(H), states that when reviewing a pipeline route permit application, the Commission shall consider the “extent to which human or environmental effects 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, cleanup, and restoration practices.”¹⁶¹
164. The Project’s potential human or environmental effects are mitigated by many factors. First, the Project is subject to permitting and oversight at various levels of government, including this Commission and the permits and approvals that will be required by Fond du Lac Band and other federal, state and local agencies charged with responsibility for management and/or protection of environmental resources. A list of each potential permit or approval that may be required for the Project is included in Section 6.18 of the Application. The Sample Route Permit also includes a number of conditions and requirements to avoid, minimize, and/or mitigate potential impacts.¹⁶²
165. In addition, the Project is subject to PHMSA’s engineering regulatory requirements and construction and operation requirements.
166. Finally, Enbridge has agreed to continue to work with the MDNR to address the recommendations related to environmental permitting and mitigation plans contained in its June 13, 2019 letter.¹⁶³

I. Cumulative Potential Effects of Related or Anticipated Future Pipeline Construction

167. Minn. R. 7852.1900, subp. 3(I), states that when reviewing a pipeline route permit application, the Commission shall consider the “cumulative potential effects of related to anticipated future pipeline construction.”¹⁶⁴
168. Other than the potential Line 3 Replacement Project and ongoing operations and maintenance on the Enbridge Mainline System, Enbridge is not aware of any anticipated future pipeline construction in the vicinity of the Project.¹⁶⁵
169. The design and routing of the Project and the Line 3 Replacement Project minimizes potential temporary and cumulative impacts. For example, land requirements have been minimized by the Project’s Preferred Route, which was selected in coordination with the

¹⁶¹ Minn. R. 7852.1900, subp. 3(H).

¹⁶² See, e.g., Sample Route Permit §§ 3, 4.4 and 5.

¹⁶³ Enbridge Reply Comments at 2 (June 14, 2019).

¹⁶⁴ Minn. R. 7852.1900, subp. 3(I).

¹⁶⁵ Application at 6-92.

Fond du Lac Band to primarily share and/or run parallel to the existing Enbridge Mainline Corridor. Enbridge has designed both projects to use workspace within or adjacent to the Corridor and largely within area previously disturbed as part of past Enbridge projects. The Project ~~and the Line 3 Replacement Project~~ would impact similar, and in some cases many of the same, resources that were impacted in previous projects. ~~New resource disturbance has been further minimized by Enbridge's proposed construction schedule and workspace overlap with the Line 3 Replacement Project. As such, t~~The combined impacts from the Project would not contribute to significant cumulative resource impacts.¹⁶⁶

170. The Project and the Line 3 Replacement Project are not, however, “connected actions.” First, neither project would directly induce the other. In other words, although Enbridge may construct the projects concurrently for efficiency and convenience, Enbridge intends to complete the Project as a separate, independent project from the Line 3 Replacement Project. Second, neither project is a prerequisite for the other. Either project may proceed independently of the other. Finally, each project is justified by itself. The justification for the Line 3 Replacement Project has already been fully analyzed by the Commission in Docket No. PL9/CN-14-916. The justification for the Project is to address specific concerns raised by the Fond du Lac Band regarding the above-grade installation of segments of the existing Line 4 pipeline and the impacts these segments have on the area hydrology and Band members’ use of the area. In short, the Project would proceed absent the Line 3 Replacement Project, and vice versa. Accordingly, none of the three criteria for “connected actions” apply to the Project and the Line 3 Replacement Project.¹⁶⁷

J. Other Local, State, or Federal Rules and Regulations

171. Minn. R. 7852.1900, subp. 3(J), states that when reviewing a pipeline route permit application, the Commission shall consider the “relevant applicable policies, rules, and regulations of other state and federal agencies, and local government land use laws, including ordinances adopted under Minnesota Statutes section 299J.05, relating to the location, design, construction, or operation of the proposed pipeline and associated facilities.”¹⁶⁸
172. As discussed in Section IX(A) above, the Project is consistent with the land use plans adopted by the local jurisdictions which are crossed by the Preferred Route.

CONCLUSIONS OF LAW

1. Any of the foregoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
2. The Commission has jurisdiction over the Application pursuant to Minn. Stat. § 216G.02.

¹⁶⁶ Application at 6-93 – 6-94.

¹⁶⁷ Comments, Enbridge (Mar. 15, 2019) at 4.

¹⁶⁸ Minn. R. 7852.1900, subp. 3(J).

3. The Project qualifies for review under the partial exemption process of Minn. Stat. § 216G.02 and Minn. R. 7852.0600.
4. The Applicant, DOC EERA, and the Commission have complied with the procedural requirements for a partial exemption from pipeline route selection procedures as set forth in Minn. R. 7852.0600, including publication of application notice in a newspaper in the counties where the pipeline will be located, and mailing the notice and application to required parties, including affected landowners, and holding a public informational meeting and comment period.
5. The Commission has considered all the pertinent standards and criteria in accordance with Minn. R. 7852.0700 relative to its determination for a partial exemption from pipeline route selection procedures and issuance of a pipeline routing permit.
6. The Commission concludes that a route permit for the new pipeline should be conditioned in a number of respects, including imposition of those conditions specified in Minn. R. 7852.3600 and conditions contained in the Sample Route Permit as further modified and agreed to by the Applicant.

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

ORDER

1. The Minnesota Public Utilities Commission hereby grants Enbridge a partial exemption from the pipeline route selection procedures of Minn. R. Ch. 7852.
2. The Minnesota Public Utilities Commission hereby issues a pipeline routing permit to Enbridge for construction of approximately 10 miles of crude oil pipeline and associated facilities along the route described in Section II. The pipeline routing permit is attached hereto with a map showing the approved route, including a description of the route with a variable width as shown in the map, and the inclusion of conditions and any special conditions.

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**Attachment to Staff Briefing Papers
Staff Exceptions Table, Docket PL9/PPL-18-752**

Permit Section Number	Change(s)	Reason(s) for Change
1.2 – Definition of “Coordination”	Delete final sentence	Sentence is not part of a definition
1.3 – Pipeline Safety	Insert the word “by”	Typographic correction
2 – Project Description	Abbreviations	Line edited for clarity
2.1.3 – Access Roads	Remove reference to Line 3 Project and clarify access road maintenance requirements	Changes avoid potential confusion between dockets and clarifies public safety requirements
2.2- Project Location	Insert the word “Carlton” for Perch Lake Township Sections	Typographic Correction
3.2 – Temporary Workspace	Delete reference to Line 3 Project	Clause is parenthetical
3.5 – Route Width Variations	Modifies criteria for alignment modifications	Any such alignment modifications require a permit amendment per Minn. R. 7852.3400
3.6 – Minimum Depth Cover	Replace language to incorporate Minnesota statutory requirements	Change provides harmonization of Minnesota’s statutory requirements with U.S. DOT regulations.
4.4.2 – Environmental Inspector	Add language requiring contact information	Change promotes effective communication
4.4.3 – Third Party Agency Monitors	Add Language requiring contact information	Change promotes effective communication
4.8 – Plan and Profile	Change “14 days” to “30 days”	Change ensures a complete review of plan and profile
Attachment 2 – Compliance Filing Procedure	Delete Item B.3.5 limiting Commission review time	Change ensures a complete review and provides consistency with Commission practices and procedures
Attachment 3 – Permit Compliance Filings	Populates table with compliance filings and dates	Clarifies expectations for compliance filings

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**PIPELINE ROUTING PERMIT
FOR CONSTRUCTION OF A LARGE CRUDE OIL PIPELINE
AND ASSOCIATED FACILITIES**

IN

St. Louis and Carlton Counties

**ISSUED TO
ENBRIDGE ENERGY, LIMITED PARTNERSHIP**

PUC DOCKET NO. PL-9/PPL-18-752

In accordance with the requirements of Minnesota Statutes Chapter 216G and
Minnesota Rules Chapter 7852 this route permit is hereby issued to:

ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Enbridge Energy, Limited Partnership is authorized by this route permit to construct approximately 10 miles of 36-inch diameter pipeline and associated facilities.

The pipeline and associated facilities shall be built within the route identified in this permit and as portrayed on the official route maps attached to this permit and in compliance with the conditions specified in this permit.

Approved and adopted this _____ day of [*Month, Year*]
By Order of the Commission

Daniel P. Wolf,
Executive Secretary

This document can be made available in alternative formats (i.e., large print or audio) by calling 651-296-0406 (voice). Persons with hearing or speech disabilities may call us through their preferred Telecommunications Relay Service.

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Attachment 1 Complaint Handling Procedures for Permitted Energy Facilities

Attachment 2 Compliance Filing Procedure for Permitted Energy Facilities

Attachment 3 Permit Compliance Filings

Appendix A Official Route Maps

1. ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this pipeline routing permit to Enbridge Energy, Limited Partnership (herein after “Permittee”) pursuant to Minnesota Statutes Chapter 216G and Minnesota Rules Chapter 7852. This pipeline routing permit authorizes the Permittee to construct the Fond du Lac Line 4 Project, which includes replacement of approximately 10 miles of Enbridge’s existing 48-inch outside diameter Line 4 pipeline with approximately 10 miles of new 36-inch outside diameter (O.D.), and associated facilities that will be relocated and buried on the south side of Enbridge’s existing mainline right-of-way (row) paralleling Enbridge’s proposed Line 3 replacement pipeline between mileposts 1060 and 1070 within the Fond du Lac Band (FDL) Reservation in the counties of St. Louis and Carlton, as identified in the attached route permit maps, hereby incorporated into this document as Appendix A.

1.1 Pre-Emption

Pursuant to Minn. Stat. § 216G.02, Subd. 4, this pipeline routing permit is the only route approval required for construction of the Project. This pipeline routing permit supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local, and special purpose governments.

1.2 Definitions

“**Affected landowner,**” as defined in Minn. R. 7852.0100 Subp. 3, “means an owner or lessee of record of real property, any part of which is within the proposed pipeline route.”

“**Associated facilities,**” as defined in Minn. R. 7852.0100 Subp. 7, “means all parts of those physical facilities through which hazardous liquids or gas moves in transportation, including but not limited to pipe, valves, and other appurtenances connected or attached to pipe, plumbing and compressor units, fabricated assemblies associated with pumping and compressor units, metering and delivery stations, regulations stations, holders, breakout tanks, fabricated assemblies, cathodic protection equipment, telemetering equipment, and communication instrumentation located on the right-of-way.”

“**Construction,**” as defined in Minn. R. 7852.0100 Subp. 11, “means any clearing of land, excavation, or other action for the purpose of constructing new pipeline that would adversely affect the natural environment of a pipeline route. Construction does not include changes needed for use of a route for purposes of maintenance, or replacement of an existing pipeline and associated facilities within existing rights-of-way, or for the minor relocation of less than three-quarters of a mile of an existing pipeline or for securing survey or geological data, including necessary borings to ascertain soil conditions.”

“**Consulting Tribe,**” means a Tribe included in the National Historic Preservation Act Section 106 consultation for this Project.

“**Coordination**” or “**coordinate with**” means “working cooperatively in good faith to reach consensus on the matters being coordinated and documenting this coordination.” In the event consensus cannot be reached in a reasonable time, the Permittee shall file with the Commission a proposed resolution of the issue that clearly summarizes the agreement and disagreement between entities. ~~Upon receipt of such a filing, the Commission shall place the matter on its agenda for discussion and decision.~~

“Pipeline project” or **“project,”** as defined in Minn. R. 7852.0100 Subp. 27, “means a pipeline and associated facilities that are planned or under construction.”

“Pipeline routing permit,” as defined in Minn. R. 7852.0100 Subp. 28, “means the written document issued by the commission to the permittee that designates a route for a pipeline and associated facilities, conditions for right-of-way preparation, construction, clean-up, and restoration. ”

“Right-of-way,” as defined in Minn. R. 7852.0100 Subp. 30, “means the interest in real property used or proposed to be used within a route to accommodate a pipeline and associated facilities.”

“Route,” as defined in Minn. R. 7852.0100 Subp. 31, “means the proposed location of a pipeline between two end points. A route may have a variable width from the minimum required for the pipeline right-of-way up to 1.25 miles.”

“Traditional Cultural Landscapes,” means a subtype of historic properties recognized as eligible for listing on the Minnesota State and/or National Register of Historic Places, as further defined by National Park Service Preservation Brief 36, “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes” and other federal guidance.

“Traditional Cultural Properties,” or TCPs, means a subtype of historic properties recognized as eligible for listing on the Minnesota State and/or National Register of Historic Places, as further defined in National Register Bulletin #38, “Guidelines for Evaluating and Documenting Traditional Cultural Properties” and other federal guidance.

“Traditional Cultural Resources Survey,” or TCR Survey, which will be conducted in accordance with existing state and federal guidance and requirements, is intended to comply with the Permittee’s federal, state, and contracted obligations to conduct a survey of tribal historic properties and other cultural resources that may be affected by the Project, and must include: field surveys to identify Tribal Sites (preserving confidentiality of sites); literature review; the results of Tribal consultation; and other matters.

“Tribal Cultural Resources,” is an umbrella term to refer to both TCPs and Traditional Cultural Landscapes.

“Tribal Monitor,” means a monitor the Permittee is required to hire to represent the interests of Tribes in the field during construction and as provided under certain permit conditions.

“Tribe,” means a federally recognized Indian tribe.

1.3 Pipeline Safety

Pursuant to Minn. Stat. § 216G.02, Subd. 3(a) this pipeline routing permit may not set safety standards for the construction of the Project. Pipeline safety regulations are promulgated [by](#) the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration in the Federal Code of Federal Regulations Part 195 – Transportation of Hazardous Liquids by Pipeline (49 CFR 195).

2. PROJECT DESCRIPTION

The Fond du Lac Line 4 Project, includes replacement of approximately 10 miles of Enbridge’s existing 48-inch outside diameter (O.D.)-Line 4 pipeline with approximately 10 miles of new 36-inch O.D. pipeline, and associated facilities that will be relocated and buried on the south side of Enbridge’s existing mainline right-of-way (row) paralleling Enbridge’s proposed Line 3 replacement pipeline between Mileposts (MPs) 1060 and 1070 within the Fond du Lac Band Reservation in the counties of St. Louis and Carlton, as identified in the attached route permit maps, hereby incorporated into this document as Appendix A.

2.1 Associated Facilities

Associated facilities include mainline valves, access roads and cathodic protection equipment. This Route Permit authorizes, the following Associated Facilities:

2.1.1 Valves

The Permittee will install remote sectionalizing valves per federal Pipeline Hazardous Materials Safety Administration (PHMSA) regulations along the pipeline to protect populated areas, major waterbody crossings, drinking water sources, and environmentally sensitive areas. The Project will require the following valve site work: the removal of an existing mainline valve at the existing MP 1060 valve site; the installation of a new mainline valve at MP 1062; and the removal and replacement of an existing mainline valve at MP 1070.

The valves to be installed will be 36-inch American National Standards Institute (ANSI) 600 weld by weld end, full port, gate valves. The valves will be manufactured in accordance with industry standard, American Petroleum Institute (API) Specification 6D for Steel, Gate, Plug, Ball and Check Valves for Pipeline Service.

Valve Design Parameters	
Design Parameter	Specification
Diameter	36-inch outside diameter (NPS36)
American National Standards Institute Rating	ANSI 600
Maximum Operating Pressure	1440 psig

The new mainline valves are motor-actuated and a new electrical service and control building, including the installation of an electrical service meter, will be required to remotely operate the valves.

2.1.2 Cathodic Protection

The Project will receive cathodic protection by tying into Enbridge’s existing impressed current systems. New cathodic protection test stations will be installed along the Project at locations that correlate with test stations on the existing Line 4. A cathodic protection test station is a wire or cable attached to an underground metallic structure (i.e., Line 4 pipeline) that is encased in a PVC pipe that extends 3 to 4 feet above grade with a cap. The approximate locations of cathodic protection systems are provided in the table below:

Line 4 Cathodic Protection Sites		
Mile Post	Cathodic Protection Type	County
1060.1	Coupon Test Station	St. Louis
1062.5	Coupon Test Station	Carlton
1064.3	Coupon Test Station	Carlton
1065.7	Coupon Test Station	Carlton
1066.5	Coupon Test Station	Carlton
1068.5	Coupon Test Station	Carlton
1070.0	Coupon Test Station	Carlton
1060.1	Rectifiers	Carlton
1065.7	Rectifiers	Carlton
1066.4	Rectifiers	Carlton
1070.0	Rectifiers	Carlton

2.1.3 Access Roads

The Permittee will typically use public roads to gain access to the construction workspace where public roads cross the right-of-way. In areas where public roads are limited, existing privately owned roads may be used. If public or privately-owned roads are not available, the Permittee will construct new access roads. Prior to use of private access roads, modifications to existing non-private roads, and construction of new access roads, the Permittee must obtain landowner permission, conduct environmental surveys, and obtain applicable environmental permits and clearances.

Eleven new temporary roads and two new operational roads access roads for the valve sites are proposed to facilitate Project construction ~~in coordination with the Line 3 Replacement Project~~. The proposed access roads will be located along existing trails and roads that lead to the right-of-way in areas where public roads do not provide adequate access for construction. [The operational access roads will be frequently maintained throughout the life of the Project to ensure clear and unobstructed access to the pipeline in the event of an emergency response incident or other event.](#)

Line 4 Access Roads		
Mile Post	Road Name	Length (ft.)
1060.1	AR590	4,211
1064.3	Township Road 536	4,872
1065.7	Ditchbank Road	5,415
1066.4	Magney Road	2,672
1066.6	Cary Road	18,922
1066.9	AR593	1,389
1067.4	AR594	1,336
1068.5	Strand Road	10,397
1068.9	AR597	2,019
1069.4	AR705	360
1069.5	Reponen Road	15,805
1070.0	MOOREHEAD Valve	130
1062.5	STONE BROOK Valve (Township Road 535)	138

2.2 Project Location

County	Township Name	Township	Range	Section(s)
St. Louis	Arrowhead	T50N	R19W	35,36
Carlton	North Carlton	T49N	R19W	1
Carlton	Perch Lake	T49N	R18W	6,7,8,17,16,21,22,26,27,35,36

3. DESIGNATED ROUTE

The route designated by the Commission in this permit is the route described below and shown on the official route maps in Appendix A of this permit. The route is generally described as follows:

Approximately 10 miles of new permanent right-of-way located on the south side of Enbridge’s existing mainline right-of-way paralleling Enbridge’s proposed Line 3 replacement pipeline between mileposts 1060 and 1070 within the Fond du Lac Band Reservation in St. Louis and Carlton Counties.

The designated route width is limited to a maximum of 750 feet unless otherwise indicated on the route maps attached to this permit. The final alignment must be located within this designated route. The identified route widths on the attached route maps provide the Permittee with flexibility for minor adjustments of the alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (that is, permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized by this permit or the Commission.

3.1 Permanent Right-of-Way

This Permit authorizes the Permittee to obtain a new permanent right-of-way for the pipeline and valve sites up to 20 feet in upland and wetland areas, and up to 40 feet in saturated wetlands. The proposed area necessary for new right-of-way (permanent and temporary) varies in width based on the terms of existing easements and the current alignment of existing pipelines or utilities within existing easements.

3.2 Temporary Workspace

The Permittee is authorized by this permit to acquire up to a 140 foot-wide temporary workspace, ~~much of which will be disturbed during the Line 3 Replacement Project~~. The temporary workspace will be located adjacent to and contiguous with the proposed new right-of-way and will be identified by distinctive staking of construction limits prior to clearing.

The Permittee shall limit temporary workspace to special construction access needs required outside of the authorized permanent right-of-way. Temporary right-of-way shall be selected to limit the removal and impacts to vegetation.

3.3 Additional Temporary Workspace

The Permittee is authorized to use additional temporary workspace outside of the typical construction workspace to facilitate specific aspects of construction. Additional temporary workspace may include areas to stage equipment and hold spoil material and areas in which construction methods require additional workspace. The table below provides typical dimensions for additional temporary workspace (length X width) allowed under this permit. As applicable, additional temporary workspace may be reviewed and modified by federal and state permitting authorities as part of other approval processes.

Typical Dimensions of Additional Temporary Workspace	
Feature	Dimensions in feet on each side of feature in addition to the 120 foot wide or 95 foot wide temporary ROW
Open-cut road crossings	100 x 75 feet
Bored Road, Foreign Pipeline, and Utility Crossings	100 x 75 feet
Railroad Crossings	200 x 75 feet
Pipeline Cross-Unders	100 x 75 feet
Waterbody Crossings, including Horizontal Directional Drill crossings	200 x 75 feet
Wetland Crossings	200 x 75 feet

3.4 Right-of-Way Conformance

The Project's anticipated alignment shown in the maps in Appendix A is intended to minimize potential impacts relative to criteria identified in Minn. R. 7852.1900. The actual right-of-way will generally conform to this anticipated alignment, identified on these official route maps, unless changes are requested by individual landowners and agreed to by the Permittee or for unforeseen conditions that are encountered or as otherwise provided for by this permit.

Any right-of-way modifications within this designated route shall be located to have comparable overall impacts relative to the criteria in Minn. R. 7852.1900 as the right-of-way identified in this permit, and shall be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 4.8 of this permit.

3.5 Route Width Variations

Route width variations may be allowed to accommodate the potential site-specific constraints listed below. These constraints may arise from any of the following:

1. Unforeseen circumstances encountered during the detailed engineering and design process.
2. Federal or state agency requirements.
3. Existing infrastructure within the pipeline route, including but not limited to railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside of the designated route ~~shall not result in significant changes in the human or~~

~~environmental impacts relative to the criteria in Minn. R. 7852.1900 and shall be specifically identified in and approved as part of the plan and profile submitted pursuant to section 4.8 of this permit must be reviewed by the Commission under Minn. R. 7852.3400.~~

3.6 Minimum Depth of Cover

Minn. Stat. § 216G.07, subd. 1, requires the pipeline trench to be excavated to a depth of at least 54 inches (4.5 feet) of backfill from ground surface to the top of pipeline in all areas where the pipeline crosses the right-of-way of any public drainage facility or any county, town, or municipal street or highway and where the pipeline crosses cultivated agricultural land. This depth requirement may be waived in the manner provided in Minn. Stat. § 216G.07, subd. 2 and 3. Even if waivers are procured pursuant to Minn. Stat. § 216G.07, subd. 2, the Permittee must bury the pipeline to a minimum depth that complies with U.S. Department of Transportation regulations (49 CFR 195.248) and in agricultural areas to a depth below cultivation.

~~In accordance with federal requirements (49 C.F.R. 195.248 (a)), the depth of cover between the top of the pipe and the ground level, road bed, or river bottom can range between 18 to 48 inches, depending on the location of the pipe and the presence of rock.~~

~~Based on site characteristics for this Project, federal regulations allow a depth of cover of 30 inches or more. Where the pipeline crosses cultivated agricultural lands, state law requires that a minimum depth of cover of 54 inches be maintained, unless waived by the landowners. This Project does not cross cultivated agricultural lands and the minimum depth of cover by Minnesota state law will not apply.~~

4. Pre-Construction Conditions

The following pre-construction conditions require submissions to the Commission. All submissions must be made by electronic filing (eFiling). Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit.

4.1 Permit Distribution to Units of Government

The Permittee shall, within 10 days of receipt of the pipeline routing permit from the Commission, send an electronic copy of the permit (including the Commission's complaint handling procedures), a complete set of the official route maps depicting the designated route and a complete set of all available mitigation plans to the following governmental units: tribal governments, the office of each regional development commission of a development region, soil and water conservation district, watershed district, watershed management district, office of the auditor of each county, and the clerk of each city and township crossed by the designated route.

4.2 Permit Distribution to Affected Landowners

For the purposes of this section, an affected landowner is any landowner or designee that is within or adjacent to the designated pipeline route authorized by this permit. Within 60 days of permit issuance, the Permittee shall send a printed copy of the permit and, as separate information piece, the complaint procedures to all affected landowners and known tenants. As applicable, official route maps depicting the location of the designated route on an affected landowner's property must also be provided. The permit shall also be accompanied by a cover letter that:

1. Identifies for affected landowners the mitigation plans that have been or are being prepared and where all mitigation plans are available, for example, on which websites, units of governments,

etc.; and

2. Clarifies that the requirements of the permit take precedence over any easement agreements made between the Permittee and the affected landowner.

In no case shall the affected landowner receive this route permit and complaint procedures less than 14 days prior to the start of construction on their property. The Permittee shall provide all affected landowners with information concerning, at a minimum, the initial survey, right-of-way acquisition, right-of-way preparation, construction, restoration, and future operation and maintenance.

As provided by applicable laws and regulations the Permittee shall provide educational materials about the project and any restrictions or dangers associated with the project to affected landowners within the route whose land is crossed by the pipeline and, upon request, to any interested persons.

4.3 Construction Environmental Control Plan

The Permittee must develop and file with the Commission a Construction Environmental Control Plan (CECP). The CECP shall include the sub-plans or procedures as outlined in subsections 4.3.1 – 4.3.13. The sub-plans or procedures address the following: environmental protection; agricultural protection; construction spill prevention, containment, and control; drilling mud containment, response, and notification; contaminated soils; archaeological and historical resource survey plan; unanticipated discoveries; protected species; noxious weeds and invasive species, including application of herbicides; restoration and revegetation; blasting; winter construction; soil erosion and sediment control including stormwater; fugitive dust control; and stream and wetland crossing and restoration procedures.

The Permittee may combine these sub-plans or procedures within the CECP, as appropriate, to most efficiently incorporate the information required by these subsections in a concise and logical way.

The CECP shall be written to comply with the conditions for right-of-way preparation, construction, cleanup, and restoration contained in Minn. R. 7852.3600. The practices described in the CECP must meet or exceed federal, state, tribal, and local environmental protection and erosion control requirements, specifications, and practices. The CECP must include all known environmental control plans and special conditions imposed by permits or licenses issued by federal, state, and local governments, and list permits required for construction of the Project. The CECP shall incorporate those specific construction practices and material specifications described in the Permittee's Application to the Commission for a Route Permit for the Line 4 Project.

The initial CECP shall be filed with the Commission at least 60 days prior to the first plan and profile submission as described in Section 4.8 of this permit. The initial CECP must be approved as a compliance filing prior to construction. Following Commission approval, the Permittee may submit updates to the CECP to include new or additional information without requiring additional approvals (for example, Minnesota Department of Natural Resources (DNR) license to cross public lands and waters and the associated conditions, Fond du Lac Standard Wetland Activity Permit and 401 Water Quality Certification, United States Army Corps of Engineers (Corps) Section 404 and Section 10 permits and associated conditions).

4.3.1 Environmental Protection Plan

The Environmental Protection Plan (EPP) shall outline construction-related environmental policies, procedures, and mitigation measures. It must be based on the Federal Energy Regulatory Commission's Upland Erosion Control, Revegetation, and Maintenance Plan (May 2013) and Wetland and Waterbody Construction and Mitigation Procedures (May 2013). The plan shall be designed to address typical circumstances that may be encountered along the Project, including but not limited to: mitigation

measures such as erosion and sediment controls; restoration and revegetation; construction related spill response procedures; drilling mud release notification; waste management; stream and wetland crossing requirements; highway, road, and rail crossings; construction dewatering; and water appropriation.

The Permittee shall clear the permanent right-of-way and temporary right-of-way preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and vegetation in areas such as trail and stream crossings where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not impact the safe operation, maintenance, and inspection of the pipeline and are in compliance with all applicable laws and regulations. The plan shall specify that care will be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of all pipeline construction and restoration activities.

The plan shall require that tree stumps will be removed when necessitated due to trench location or at the request of the landowner, and that cleared vegetation may be disposed of in a manner authorized by the responsible governmental unit or as agreed to with the landowner, provided disposal complies with local regulations. The plan shall require that stream banks be stabilized in accordance with the requirements of applicable tribal, state or federal permits.

The plan shall require the Permittee to remove all waste and scrap that is the product of construction from the right-of-way and all premises on which construction activities were conducted and properly disposed of upon completion of each task, unless otherwise negotiated with the affected landowner, except that personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.3.2 Spill Prevention, Containment, and Control Procedures

The Permittee shall develop Spill Prevention, Containment and Control Procedures that describe planning, prevention and control measures to minimize impacts resulting from spills of fuels, petroleum products, or other regulated substances during construction. At minimum, the procedures shall address: planning and prevention, including training, supervision, and inspection; storage and handling of fuels and other hazardous liquids; initial spill management; spill notification responsibilities; spill containment and cleanup; and storage and disposal of contaminated materials. The procedures may be included as part of the EPP.

4.3.3 Drilling Mud Containment, Response, and Notification Procedures

The Permittee shall develop Drilling Mud Containment, Response, and Notification procedures. The procedures shall outline measures that will minimize the potential for release of drilling fluids/mud into wetlands, waterbodies or onto the adjacent surface soils. At minimum the procedures shall address: on-site observation during construction; inadvertent release response in upland and wetland locations; containment in upland and wetland locations; notification and resumption of suspended drilling operations; winter drilling; clean-up; restoration; and post-construction monitoring. The procedures may be included as part of the EPP.

4.3.4 Petroleum-Contaminated Soil Management Plan

The Permittee shall develop a Petroleum-Contaminated Soil Plan to address previously petroleum-contaminated soils along the pipeline route. New spills shall be managed in accordance with the Spill Prevention, Containment, and Control procedures outlined within the Environmental Protection Plan. At minimum, the plan must include: identification of petroleum-contaminated soil; containment; documentation; reporting; backfilling; site investigation; and proper disposal of contaminated soils.

4.3.5 Archaeological and Historic Resources Plan

The Permittee shall develop and implement an Archaeological and Historic Resources Plan (Plan) to identify and avoid impacts to archaeological and historic properties, including traditional cultural properties (TCP) and traditional cultural landscapes.

The Permittee shall develop this Plan, incorporating outcomes of consultation required in conjunction with any state approvals (permits, licenses, etc.) needed in order to construct the Project including state agencies' and departments' consultation with 1) the State Historic Preservation Office (SHPO) pursuant to the Minnesota Historic Sites Act (M.S. 138.665-666), and 2) the SHPO, the Office of the State Archaeologist (OSA), the Minnesota Indian Affairs Council (MIAC) pursuant to the Minnesota Field Archaeology Act (M.S. 138.40). The permittee shall also incorporate into the Plan the outcomes of federal consultation with any consulting tribes participating in the Bureau of Indian Affairs and U.S. Corps of Engineers review of this project pursuant to Section 106 of the National Historic Preservation Act.

The Plan therefore must include mitigation procedures resulting from (1) the federal Section 106 process, (2) the Minnesota Historic Sites Act/Minnesota Field Archaeology Act review, and (3) any additional surveys, mitigation, or avoidance procedures developed in coordination with the FDL, SHPO, the OSA, the MIAC, and any consulting tribes participating in the Section 106 process.

The Plan, including specific mitigation and avoidance procedures for archaeological and historic properties identified, including TCPs and traditional cultural landscapes, must be filed with the Commission for approval upon completion (with appropriate protections for any confidential and sensitive data). Construction cannot start on any portion of the pipeline Project until the Commission approves the final Plan, which must include the survey results, and mitigation and avoidance procedures.

4.3.6 Unanticipated Discoveries Plan

The Permittee shall develop, in coordination with the FDL, SHPO, OSA, MIAC, Bureau of Indian Affairs, United States Army Corps of Engineers (Corps) and any consulting tribes, an Unanticipated Discoveries Plan (UDP) to identify guidelines to be used in the event previously unrecorded archeological or historic properties, or human remains, are encountered during construction, or if unanticipated effects to previously identified archaeological or historic properties occur during construction. The UDP shall describe how previously unrecorded, non-human burial, archaeological sites found during construction shall be marked and all construction work must stop at the discovery location. The UDP shall require notification to the FDL, BIA, Corps SHPO, the OSA, the MIAC, and the Commission of such discovery. The UDP shall also specify that excavation at such locations shall not resume unless authorized by coordination with the FDL, BIA, Corps, SHPO and the OSA/MIAC.

The UDP shall specify that if human remains are encountered during construction the Permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the OSA pursuant to M.S. 307.08. The UDP shall also specify that construction at the human remains location shall not proceed until authorized by local law enforcement authorities and the OSA and/or MIAC.

The UDP shall require that, prior to construction, workers shall be trained about the need to avoid archaeological, historic and cultural properties, how to identify archaeological, historic, and cultural properties, and procedures to follow if undocumented archaeological, historic and cultural properties, including human burials and gravesites, are found during construction.

4.3.7 Rare and Sensitive Environmental Resource Procedures

The Permittee shall develop procedures in coordination with the U.S. Fish and Wildlife Service and the DNR regarding conservation measures for rare and sensitive environmental resources, including state and federally listed species of plant, fungi or animal species; and sensitive habitats, including calcareous fens

and native plant communities. For state listed species, the Permittee must obtain a Threatened and Endangered Species Takings permit from the DNR, or provide documentation of DNR concurrence that a Takings Permit is not required. The Permittee shall not provide specific pipeline milepost or sensitive resource location; provided that site-specific plans shall be made available to resource agencies with applicable jurisdictional authority upon request. The Rare and Sensitive Environmental Resource Procedures may be included as part of the EPP.

4.3.8 Noxious Weeds and Invasive Species Control Procedures

The Permittee shall develop Noxious Weeds and Invasive Species Procedures to prevent the introduction of invasive species on lands disturbed by construction activities and limit the spread of invasive species already present within the construction right-of-way (including tree pests such as eastern Larch beetle and Emerald ash borer). The procedures shall be based on applicable state regulations and information provided by the FDL, DNR, MDA, USDA Farm Service Agency (FSA), and USDA Natural Resources Conservation Service (NRCS). The Permittee must develop the procedures in coordination with FDL, DNR and MDA. The procedures may be included as part of the EPP.

The procedures shall outline precautions the Permittee will use against the spread of noxious weeds during construction and restoration of all areas affected by construction. It shall describe the process to select site-appropriate seed, certified free of noxious weeds when utilizing seed to establish temporary and permanent vegetative cover on exposed soil. The procedures shall discuss the process to be used to consult with landowners on the selection and use of seed for replanting. The procedures shall prescribe the use of native seed mixes to the greatest extent possible.

The procedures shall restrict herbicide use to those products and methods of application approved by the FDL, MDA and the U.S. Environmental Protection Agency, and shall state a preference for selective foliage or basal application when practicable. The procedures shall specify that the Permittee must contact the landowner or his designee to obtain approval for the use of herbicide prior to any application on their property, and that individual landowners may request that there be no application of herbicides on any part of the right-of-way within the landowner's property. The procedures shall describe the process to be used to provide notice of herbicide application to affected landowners.

The procedures must include a section evaluating the potential for the occurrence of aquatic invasive species in the project area and describing, if any, the best management practices that apply. The procedures shall identify any infested waters or otherwise indicate that aquatic invasive species are not anticipated. The DNR must be notified if any aquatic invasive species are identified in an area not previously identified as an infested water.

4.3.9 Revegetation and Restoration Monitoring Procedures

The Permittee shall develop Revegetation and Restoration Monitoring Procedures. The procedures shall outline practices to restore, to the greatest extent possible, the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the pipeline to the conditions that existed immediately before construction of the pipeline. The procedures must ensure that revegetation and restoration are compatible with the safe operation, maintenance, and inspection of the pipeline.

At minimum the procedures must outline the following: project seed specifications; temporary revegetation; permanent revegetation; special restoration areas; specialized seed mixes, for example, residential areas, pasture areas, wildlife areas, etc.; seed bed preparation and seeding procedures; soil amendments; seeding periods; timing of final seeding; mulch and erosion control; dormant seeding; and monitoring. The procedures may be included as part of the EPP.

4.3.10 Winter Construction Procedures

The Permittee shall develop Winter Construction Procedures outlining winter construction techniques and methodologies to safely, effectively, and efficiently construct the pipeline during winter months.

4.3.11 Soil Erosion and Sediment Control Plan

The Permittee shall develop a Soil Erosion and Sediment Control Plan addressing what types of erosion control measures will be implemented during each Project phase and shall at a minimum identify: plans for grading, construction, and restoration of the areas affected by construction activities; necessary soil information; detailed design features to maintain downstream water quality; a comprehensive revegetation plan to maintain and ensure adequate erosion control and slope stability and to restore the site after temporary activities; and measures to minimize the area of surface disturbance. The plan shall identify methods for disposal or storage of excavated material. Erosion and sedimentation control measures shall be implemented prior to construction and maintained until restoration activities are completed for each phase of the Project.

4.3.12 Fugitive Dust Control Plan

The Permittee shall develop a Fugitive Dust Control Plan. The Fugitive Dust Control plan shall address dust control measures to minimize fugitive dust from construction activities and access road traffic.

4.3.13 Wetland and Water Resource Procedures

The Permittee shall develop Wetland and Water Resource Procedures to address stream and wetland crossing requirements, including but not limited to: construction methods, timing, erosion control and restoration. These procedures must be based on the FERC Wetland and Waterbody Construction and Mitigation Procedures (May 2013).

The procedures shall require wetlands and riparian areas be accessed using the least impactful manner that minimizes travel through wetland areas and prevents unnecessary impacts, and that no additional temporary workspace areas be placed within wetlands or water resources. The procedures shall specify that in order to minimize impacts, construction in wetland areas shall be according to permit requirements by the applicable permitting authority. The procedures shall specify that should a permit not be required, excavated trench spoil shall be contained and not placed back into the wetland or riparian area, and when constructing in wetlands during unfrozen conditions mats shall be used to protect wetland vegetation, as necessary.

The procedures shall further specify that dewatering during periods of excessive precipitation or in areas where the natural groundwater table intersects the pipeline trench will be discharged in such a way as to minimize the potential for scour and water containing sediment to reach a wetland or waterbody, in accordance with the Permittee's Environmental Protection Plan and applicable state permits.

The procedures will specify that restoration of the wetlands will be performed by Permittee in accordance with the requirements of applicable state and federal permits or laws and landowner agreements.

4.4 Environmental Inspector and Environmental Monitoring Plan

The Permittee must prepare an Environmental Monitor Control Plan (EMCP) that defines the roles and responsibilities of the Environmental Inspector(s), Third Party Agency Monitor(s), and Tribal Monitor(s) in observing construction activities, and responsibilities to address concerns related to compliance with permit conditions as outlined in Sections 4.4.1 to 4.4.5 of this permit. It shall describe the reporting

structure that will be employed to document compliance, and interaction with other monitors such as agency monitors. The EMCP shall outline the training used to communicate environmental requirements to construction personnel to comply with Section 4.7 of this permit.

The EMCP shall also include the following:

1. Identification of and contact information for an Environmental Inspector to oversee the construction process and monitor compliance with the CECP and all plans therein.
2. A process for reporting construction status to the Commission.
3. A process for internal tracking of construction management, including required plan or permit inspection forms.

The EMCP shall be filed with the Commission at least 60 days prior to the first plan and profile submission as described in Section 4.8 of this permit. The EMCP must be approved as a compliance filing prior to construction.

All amendments, modifications, or changes to the EMCP shall be filed with the Commission and any other agency or governmental unit with responsibility for implementing requirements of the EMCP.

4.4.1 Field Representative

At least 14 days prior to the start of construction and continuously throughout construction and completion of restoration of the areas affected by construction, the Permittee shall advise the Commission in writing of the person or persons designated to be the field representative with responsibility to oversee compliance with the conditions of this Permit during construction of the project. This person shall be accessible by telephone during normal business hours throughout right-of-way preparation, construction, cleanup, and restoration.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the field representative 14 days prior to commencing construction. The Permittee shall provide the field representative's contact information to affected landowners, residents, public officials, and other interested persons 14 days prior to commencing construction. The Permittee may change the field representative at any time upon notice to the Commission by eFiling as well as posting to a project website maintained by the Permittee and by providing a telephone number to affected landowners, residents, local government units and other interested persons that provides current contact information for the field representative.

4.4.2 Environmental Inspector

The Permittee will provide appropriate construction oversight to confirm and document compliance with the conditions of this Permit, the mitigation measures and all other applicable federal, state, tribal and local permits during construction of the project. The Permittee will employ experienced Environmental Inspectors (EIs) to manage unforeseen situations that are not directly addressed by the above documents. The EI, through coordination with Permittee staff, will have authority to stop activities and order corrective mitigation for actions that are not in compliance with the measures of the EPP, landowner agreements or environmental permit conditions. The Permittee will require the EI to maintain appropriate records to document compliance with these and other applicable permit conditions. [The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the EI's 14 days prior to commencing construction and upon any change that may occur during the construction of the pipeline.](#)

4.4.3 Third Party Agency Monitors

Prior to any construction, the Permittee shall identify one or more independent third party agency monitor(s) on behalf of the Department of Commerce, Department of Natural Resources, and FDL (upon request of the Band) to implement the roles and responsibilities as outlined in the EMCP. These third party monitors will report directly to and will be under the control of the Department of Commerce, Department of Natural Resources, and the FDL (if requested), with the cost borne by the Permittee.

4.4.4 County Inspector Notification Requirements

The Permittee shall at least 14 days prior to the start of construction provide notice to all affected landowners with the name, telephone number and email address of the County Inspector designated by the County, if so appointed.

4.4.5 Tribal Monitors

Prior to any construction, the Permittee shall identify one independent third party tribal monitor to implement the roles in observing construction activities, and responsibilities to address concerns related to observed or suspected cultural resources or human remains as outlined in the EMCP. Funding for tribal monitors shall be provided by the Permittee.

4.5 Electronic Reporting and Monitoring System

The Permittee shall provide a real-time, web-based reporting and monitoring system for use by the Permittee, Environmental Inspectors, third party state agency monitors, and tribal monitors to receive, manage, file, and share inspection forms, records, photos, and inspection and monitoring reports. The reporting and monitoring system shall be password protected with the capability to upload, download and archive inspection forms.

4.6 Roads

Prior to commencement of construction, the Permittee shall identify all state, county, city and township roads that will be used for the project and shall notify the state, county, city, or township governing body having jurisdiction over the roads to determine if the governmental body would like to inspect the roads prior to use of these roads. The Permittee shall file verification to the Commission that notification has occurred prior to commencement of construction.

4.7 Employee Training and Education of Permit Terms and Conditions

Prior to any construction, the Permittee shall file an affirmative statement with the Commission, certified by a senior company official, that all Permittee personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of environmental mitigation measures in this permit that are appropriate to their jobs before becoming involved with construction and restoration activities associated with the project.

4.8 Plan and Profile

At least ~~14~~30 days before right-of-way preparation for construction begins on any portion of the project, the Permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the portion of the pipeline for which construction is scheduled. The documentation shall include maps depicting the plan and profile including the designated route, right-of-way, and pipeline alignment approved per this permit.

The Permittee shall not commence construction until the ~~14~~30 days has expired or until the Commission has advised the Permittee in writing that it has completed its review of the plan and profile documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission the Permittee shall consult with any other regulatory agency with jurisdiction and notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

The Permittee shall also provide the Minnesota Office of Pipeline Safety with the same information provided to the Commission. The Permittee's plan and profile and specifications and drawings, shall become a condition of this permit and shall be complied with by the Permittee in accordance with Minn. R. 7852.3500.

4.9 Public Status Reports

The Permittee shall report to the Commission on progress during finalization of the route and construction of the pipeline. The Permittee shall report weekly. Reports shall begin with the submittal of the plan and profile for the project and continue until completion of restoration.

In the event the Permittee proceeds with phased construction of the Project, such weekly reports shall be filed beginning with the submittal of the plan and profile for that phase and continue until completion of restoration of that phase. If there is any period of time where no construction activity is occurring, restoration of the prior phase of the Project has been completed, and the overall Project is not yet completed, Permittee need only provide status reports monthly.

5. CONSTRUCTION CONDITIONS

The Permittee shall comply with the following conditions during pipeline right-of-way preparation, construction, cleanup, and restoration over the life of this permit.

5.1 Notification

The Permittee shall notify landowners or their designee at least 14 days in advance but not greater than 60 days in advance of entering the property.

5.2 Access to Property for Construction

The Permittee shall obtain all necessary permits authorizing access to public rights-of-way prior to any construction. The Permittee shall obtain approval of the landowners for access to private property prior to any construction. The Permittee shall consult with property owners to identify and address any special problems the landowners may have that are associated with the pipeline prior to any construction.

The Permittee shall work with landowners to provide access to their property, to locate the pipeline on their property to minimize the loss of agricultural land, forest, and wetlands, with due regard for proximity to homes and water supplies, even if the deviations will increase the cost of the pipeline, so long as the landowner's requested relocation does not adversely affect environmentally sensitive areas.

The Permittee shall negotiate agreements with landowners that will give the landowners access to their property; minimize the impact on planned future development of the property; and to assume any additional costs for such development that may be the result of installing roads, driveways and utilities that must cross the right-of-way. The Permittee shall not unreasonably deny a landowner's request to cross the easement to access the landowner's property.

5.3 Complaint Procedures

The complaint procedures shall be in accordance with the requirements of Minn. R. 7852.3700, and in Attachment 1. Complaint procedures shall be incorporated into the CECP and EMCP required by this permit.

The Permittee shall file with the Commission any substantial complaints received by the Permittee during the course of construction or restoration that are not resolved within 30 days of the complaint (Minn. R. 7852.3700).

Upon request, the Permittee shall assist the Commission or its designee with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

5.4 Construction Practices

The Permittee shall comply with all applicable state statutes and rules. The Permittee shall obtain all required permits for the project and comply with the conditions of these permits. The Permittee shall file a listing of all required permits with the Commission prior to construction and submit a copy of any permit requested by the Commission.

The Permittee shall comply with the CECP (Section 4.3). The obligation to comply with the CECP as a condition of this permit shall expire with the termination of Commission jurisdiction over this permit as prescribed by Minn. R. 7852.3900, unless otherwise specified in the CECP. The Permittee shall also comply with all additional conditions that may be added as a result of permits issued by other agencies or governmental units.

5.4.1 Public Services, Public Utilities, and Existing Easements

During construction, the Permittee shall minimize any disruption to public services or public utilities. Where any impacts to utilities have the potential to occur the Permittee must work with landowners, utilities, and local agencies to determine the most appropriate mitigation measures if not already considered as part of this permit.

5.4.2 Noise

The Permittee shall comply with noise standards established under Minn. R. 7030.0010 to 7030.0080. Construction and maintenance activities shall be limited to daytime working hours to the extent practicable.

5.4.3 Roads

The Permittee is responsible for maintenance and repair of roads that will be subject to extra wear and tear due to transportation of equipment and project related materials. The Permittee shall make arrangements with road authorities for maintenance and repair of roads used for the Project. The Permittee shall cooperate with road authorities to develop appropriate signage and traffic management during construction.

Equipment involved in pipeline construction shall be moved into the right-of-way using existing public or private roads unless a temporary access road is negotiated with the landowner. Additional access roads required during construction will require approval by the Environmental Inspector and the Agricultural Monitor when on agricultural lands.

The Permittee shall promptly repair private roads or lanes damaged when moving equipment or when accessing construction workspace, unless otherwise negotiated with the affected landowner.

5.4.4 Pollution and Hazardous Wastes

All appropriate precautions to protect against pollution of the environment must be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of all wastes generated during pipeline construction and restoration of the right-of-way.

5.4.5 Restoration

Within 60 days after completion of all restoration activities the Permittee shall advise the Commission in writing of the completion of such activities. Restoration will be considered successful if construction debris is removed (unless requested otherwise by the landowner or land management agency), the area has revegetated, proper drainage has been restored, and the condition of the disturbed work space blends with the adjacent undisturbed lands to the extent possible.

5.5 Public Safety and Security

The Permittee will work with local authorities to prohibit public access to the right-of-way during construction to promote public safety and, as needed, security.

5.6 Damages

The Permittee shall fairly restore or compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during construction.

6. DELAY IN CONSTRUCTION

When the Commission issues a pipeline routing permit, the permittee may begin construction or improvement of the route in accordance with the conditions of the permit. However, if construction and improvement have not begun within four years after the pipeline routing permit has been issued by the Commission, the Commission shall suspend the permit. If at that time, or at a later time after suspension, the permittee decides to construct the proposed pipeline, it shall certify to the Commission that there have been no significant changes in any material aspects of the conditions or circumstances existing when the permit was issued. If the Commission determines that there are no significant changes, it shall reinstate the permit. If the Commission determines that there is a significant change, it may order public information meetings or a new hearing and consider the matter further, or it may require the permittee to submit a new application (Minn. R. 7852.3300).

7. POST-CONSTRUCTION CONDITIONS

The following post-construction compliance procedures require submissions to the Commission. All submissions must be made by electronic filing (eFiling). Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit.

7.1 Notification to Commission

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

7.2 Post-Construction Landowner Approval

The Permittee shall work with affected landowners to obtain their signature(s) on a final, written release that indicates the affected landowner(s) is/are satisfied by the post-construction restoration of their properties to conditions that comply with the terms and conditions of this pipeline routing permit and any specific agreements between the landowner(s) and Permittee. All signed releases must be available prior to filing of the Pipeline Construction Completion Certificate as required in Section 12 of this permit.

7.3 As-Builts

Within 180 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed for the project.

7.4 GPS Data

Within 90 days after completion of construction the Permittee shall submit to the Commission, in the format requested by the Commission, geospatial information (that is, ArcGIS compatible map files) for the pipeline and associated facilities.

8. RIGHT OF ENTRY

The Permittee shall allow Commission designated representatives to perform the following, upon reasonable notice, upon presentation of credentials and at all times in compliance with the Permittee's site safety standards:

- a. To enter upon the facilities easement of the property for the purpose of obtaining information, examining records, and conducting surveys or investigations.
- b. To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations.
- c. To sample and monitor upon the facilities easement of the property.
- d. To examine and copy any documents pertaining to compliance with the conditions of this permit.

9. PERMIT AMENDMENT

The Permittee may apply to the Commission for an amendment of the route designation or to conditions specified in the permit in accordance with the requirements and procedures of Minn. R. 7852.3400.

10. PERMIT MODIFICATION OR SUSPENSION

If the Commission determines that substantial evidence supports a finding that a violation of the terms or conditions of this pipeline routing permit has occurred or is likely to occur, it may take action to modify or suspend this permit in accordance with Minn. R. 7852.3800. The Commission may at any time re-consider modification or suspension of this permit if the Permittee has undertaken effective measures to correct the violations.

11. PIPELINE CONSTRUCTION COMPLETION CERTIFICATE

In accordance with Minn. R. 7852.3900, the Permittee shall file with the Commission a written certification that construction of the pipeline and restoration of areas affected by construction of the pipeline has been

completed in compliance with all permit conditions and landowner agreements. The certification shall be considered by the Commission within 60 days of its filing. The Commission shall accept or reject the certification of completion and make a final determination regarding cost or reimbursements due. If the certification is rejected, the Commission shall inform the Permittee in writing which deficiencies, if corrected, will allow the certification to be accepted. When corrections to the deficiencies are completed, the Permittee shall notify the Commission, and the certification shall be reconsidered as soon as possible. After acceptance of the certification, the Commission's jurisdiction over the Permittee's pipeline routing permit shall be terminated.

Attachment 1
Complaint Handling Procedures for Permitted Energy Facilities

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of reporting and resolving complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup, restoration, operation, and maintenance.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 7829.1700 relevant to this permit.

D. Definitions

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

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

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

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

E. Complaint Documentation and Processing

1. The permittee shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.
2. A person presenting the complaint should to the extent possible, include the following information in their communications:
 - a. name, address, phone number, and email address;
 - b. date of complaint;
 - c. tract or parcel number; and
 - d. whether the complaint relates to a permit matter or a compliance issue.

3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - a. docket number and project name;
 - b. name of complainant, address, phone number and email address;
 - c. precise description of property or parcel number;
 - d. name of permittee representative receiving complaint and date of receipt;
 - e. nature of complaint and the applicable permit condition(s);
 - f. activities undertaken to resolve the complaint; and
 - g. final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit. The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Consumer Affairs Office at 1-800-657-3782 (voice messages are acceptable) or consumer.puc@state.mn.us. For e-mail reporting, the email subject line should read "PUC EFP Complaint" and include the appropriate project docket number.

Monthly Reports: During project construction and restoration, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed by the 15th of each month to Daniel P. Wolf, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>.

If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

G. Complaints Received by the Commission

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

H. Commission Process for Unresolved Complaints

Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and appropriate persons if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the staff notification. The complaint will be presented to the Commission for a decision as soon as practicable.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may filed by mail or email to:

(To Be Determined)

This information shall be maintained current by informing the Commission of any changes as they become effective.

Attachment 2
Compliance Filing Procedures for Permitted Energy Facilities

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

A. Purpose

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

B. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

C. Definitions

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

D. Responsibilities

1. The permittee shall file all compliance filings with Daniel P. Wolf, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>

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

2. All filings must have a cover sheet that includes:
 - a. Date
 - b. Name of submitter/permittee
 - c. Type of permit (site or route)
 - d. Project location
 - e. Project docket number
 - f. Permit section under which the filing is made
 - g. Short description of the filing
3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being electronically filed, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Daniel P. Wolf, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any electronically filed document.

Where the terms of the permit require that a filing be “approved as a compliance filing” be approved by the Commission, the following process and timeline shall apply:

1. DOC-EERA shall file comments and recommendations within 20 days of the filing.
2. The Executive Secretary will act on DOC-EERA comments and recommendations as appropriate.

Where the terms of the permit require that a compliance filing be approved by the Commission, the following process and timeline shall apply:

1. Commenting agencies shall have 15 days from the date of compliance filing to submit written comments to the Commission. Written comments must generally conform to the requirements in D above.
2. The Permittee shall submit written reply comments within 5 days of the close of the comment period.
3. DOC-EERA shall file comments and recommendations within 10 days of the close of the reply period.
4. The Commission may approve or reject the compliance filing, with or without oral argument.

~~5. The Commission shall act on a compliance filing no later than 60 days after its submittal.~~

Attachment 3
Permit Compliance Filings

PERMIT COMPLIANCE FILINGS¹

PERMITTEE: Enbridge Energy
PERMIT TYPE: Pipeline
PROJECT LOCATION: Carlton and Saint Louis Counties
PUC DOCKET NUMBER: PL9/PPL-18-752

Filing Number	Permit Section	Description of Compliance Filing	Due Date
<u>1</u>	<u>4.1</u>	<u>Permit Distribution Documentation</u>	<u>Within 10 days of permit issuance</u>
<u>2</u>	<u>4.2</u>	<u>Permit distribution to affected landowners including information and educational materials on initial survey, right-of-way acquisition and preparation, construction, restoration, and future operation and maintenance.</u>	<u>Within 60 days of permit issuance and no later than 14 days prior to start of construction on landowners property.</u>
<u>3</u>	<u>4.3</u>	<u>Construction Environmental Control Plan (CECP)</u>	<u>At least 60 days prior to first plan and profile submittal</u>
<u>4</u>	<u>4.3.1</u>	<u>Environmental Protection Plan (EPP)</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>5</u>	<u>4.3.2</u>	<u>Spill Prevention, Containment, and Control Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>6</u>	<u>4.3.3</u>	<u>Drilling Mud Containment, Response, and Notification Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>7</u>	<u>4.3.4</u>	<u>Petroleum-Contaminated Soil Management Plan</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>8</u>	<u>4.3.5</u>	<u>Archaeological and Historic Resources Plan</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>9</u>	<u>4.3.6</u>	<u>Unanticipated Discoveries Plan</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>10</u>	<u>4.3.7</u>	<u>Rare and Sensitive Environmental Resource Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>11</u>	<u>4.3.8</u>	<u>Revegetation and Restoration Monitoring Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>12</u>	<u>4.3.9</u>	<u>Revegetation and Restoration Monitoring Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>13</u>	<u>4.3.10</u>	<u>Winter Construction Procedures</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>
<u>14</u>	<u>4.3.11</u>	<u>Soil Erosion and Sediment Control Plan</u>	<u>Filed with or as part of the CECP in Section 4.3.</u>

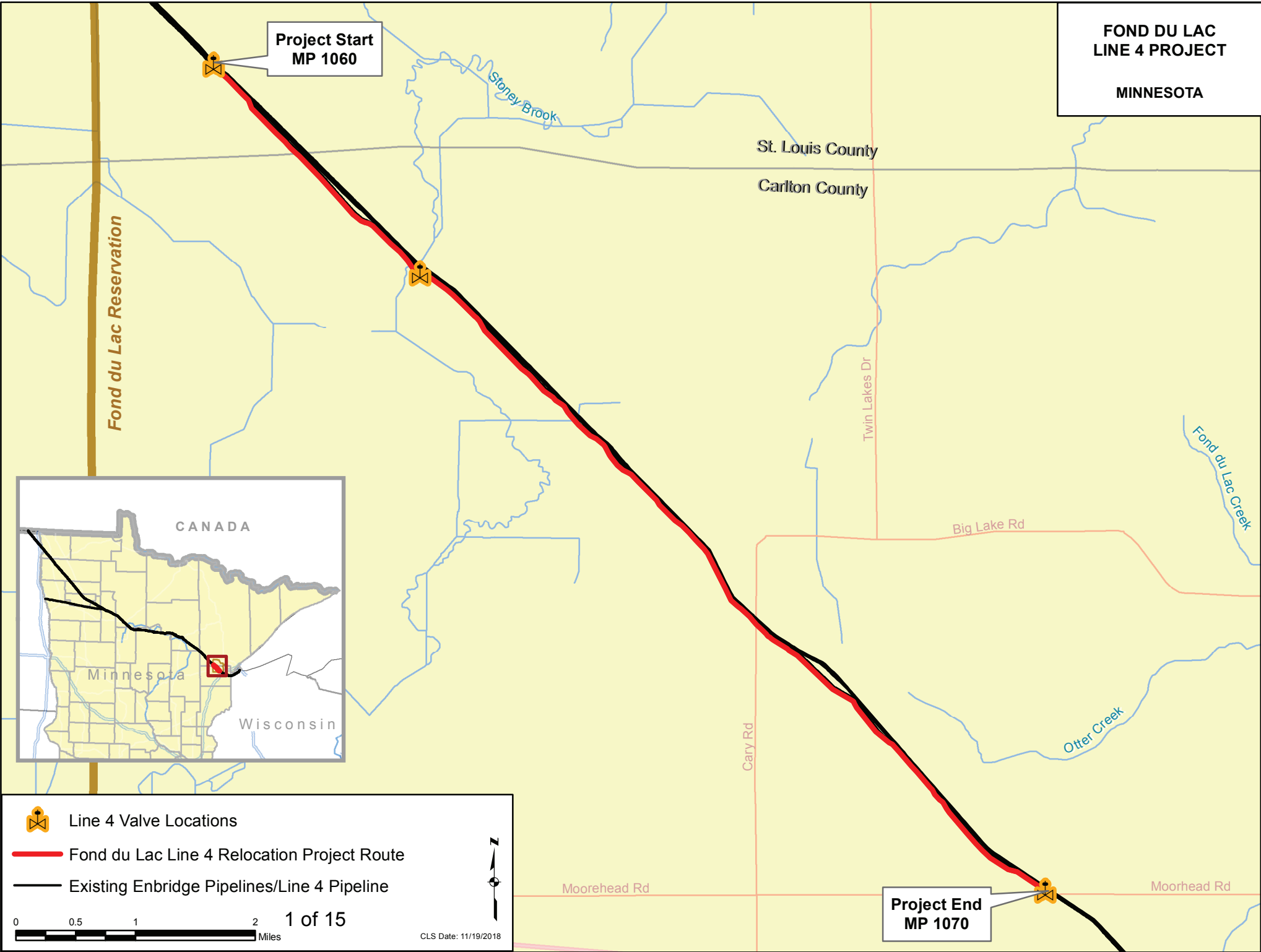
¹ This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description of Compliance Filing	Due Date
<u>15</u>	<u>4.3.12</u>	<u>Fugitive Dust Control Plan</u>	<u>Filed with or as part of the CECF in Section 4.3.</u>
<u>16</u>	<u>4.3.13</u>	<u>Wetland and Water Resource Procedures</u>	<u>Filed with or as part of the CECF in Section 4.3.</u>
<u>17</u>	<u>4.4</u>	<u>Environmental Monitor Control Plan</u>	<u>At least 60 days prior to the first plan and profile submittal.</u>
<u>18</u>	<u>4.4.1</u>	<u>Designate Field Representative and provide contact information.</u>	<u>14 days prior to starting construction.</u>
<u>19</u>	<u>4.4.2</u>	<u>Environmental Inspector</u>	<u>14 days prior to starting construction.</u>
<u>20</u>	<u>4.4.3</u>	<u>Third Party Agency Monitors</u>	<u>14 days prior to starting construction.</u>
<u>21</u>	<u>4.4.4</u>	<u>County Inspector Notification Requirements</u>	<u>14 days prior to starting construction.</u>
<u>22</u>	<u>4.4.5</u>	<u>Tribal Monitors</u>	<u>14 days prior to starting construction.</u>
<u>23</u>	<u>4.5</u>	<u>Develop Electronic Reporting and Monitoring System</u>	<u>At least 60 days prior to the first plan and profile submittal.</u>
<u>24</u>	<u>4.6</u>	<u>Identification of roads used for the project</u>	<u>Prior to any construction.</u>
<u>25</u>	<u>4.7</u>	<u>Employee Training Certification</u>	<u>60 days prior to any construction.</u>
<u>26</u>	<u>4.8</u>	<u>Plan and Profile</u>	<u>At least 30 days prior to construction on any portion of the project.</u>
<u>27</u>	<u>4.9</u>	<u>Weekly Project Status Reports</u>	<u>Weekly starting with submittal of a plan and profile through completion of restoration.</u>
<u>28</u>	<u>5.1</u>	<u>Notification of entering property</u>	<u>14 days prior, but not greater than 60 days in advance.</u>
<u>29</u>	<u>5.3</u>	<u>Complaint Procedures</u>	<u>Within 30 days of receipt of any complaint not resolved</u>
<u>30</u>	<u>5.4</u>	<u>Listing of all required permits</u>	<u>Filed with or as part of the CECF in Section 4.3.</u>
<u>31</u>	<u>5.4.5</u>	<u>Restoration Report</u>	<u>Within 60 days after completion of restoration activities</u>
<u>32</u>	<u>7.1</u>	<u>Post-Construction Notification to Commission</u>	<u>At least 3 days before pipeline placed into service</u>

Filing Number	Permit Section	Description of Compliance Filing	Due Date
<u>33</u>	<u>7.3</u>	<u>As-Built Plans and Specifications</u>	<u>Within 180 days after completion of construction</u>
<u>34</u>	<u>7.4</u>	<u>GPS Data</u>	<u>Within 90 days after completion of construction</u>

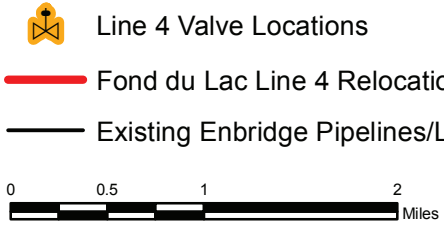
Appendix A
Official Route Maps

**FOND DU LAC
LINE 4 PROJECT**
MINNESOTA



**Project Start
MP 1060**

**Project End
MP 1070**

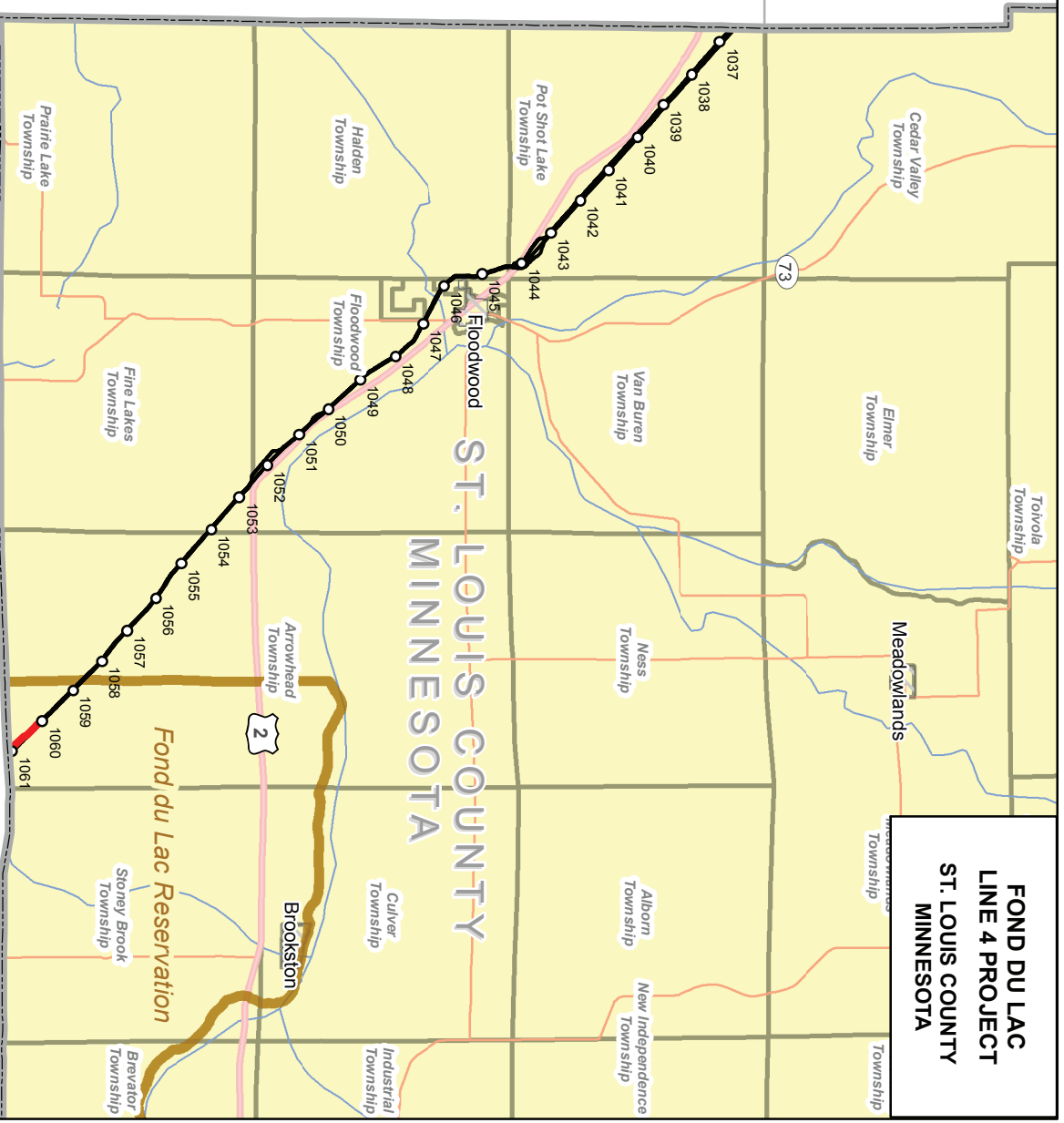


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CLS Date: 11/19/2018



**FOND DU LAC
LINE 4 PROJECT
ST. LOUIS COUNTY
MINNESOTA**



AITKIN COUNTY
MINNESOTA

CARLTON COUNTY
MINNESOTA

○ Existing Enbridge Pipeline Mileposts

— Fond du Lac Line 4 Relocation Project Route

— Existing Line 4/Enbridge Pipelines

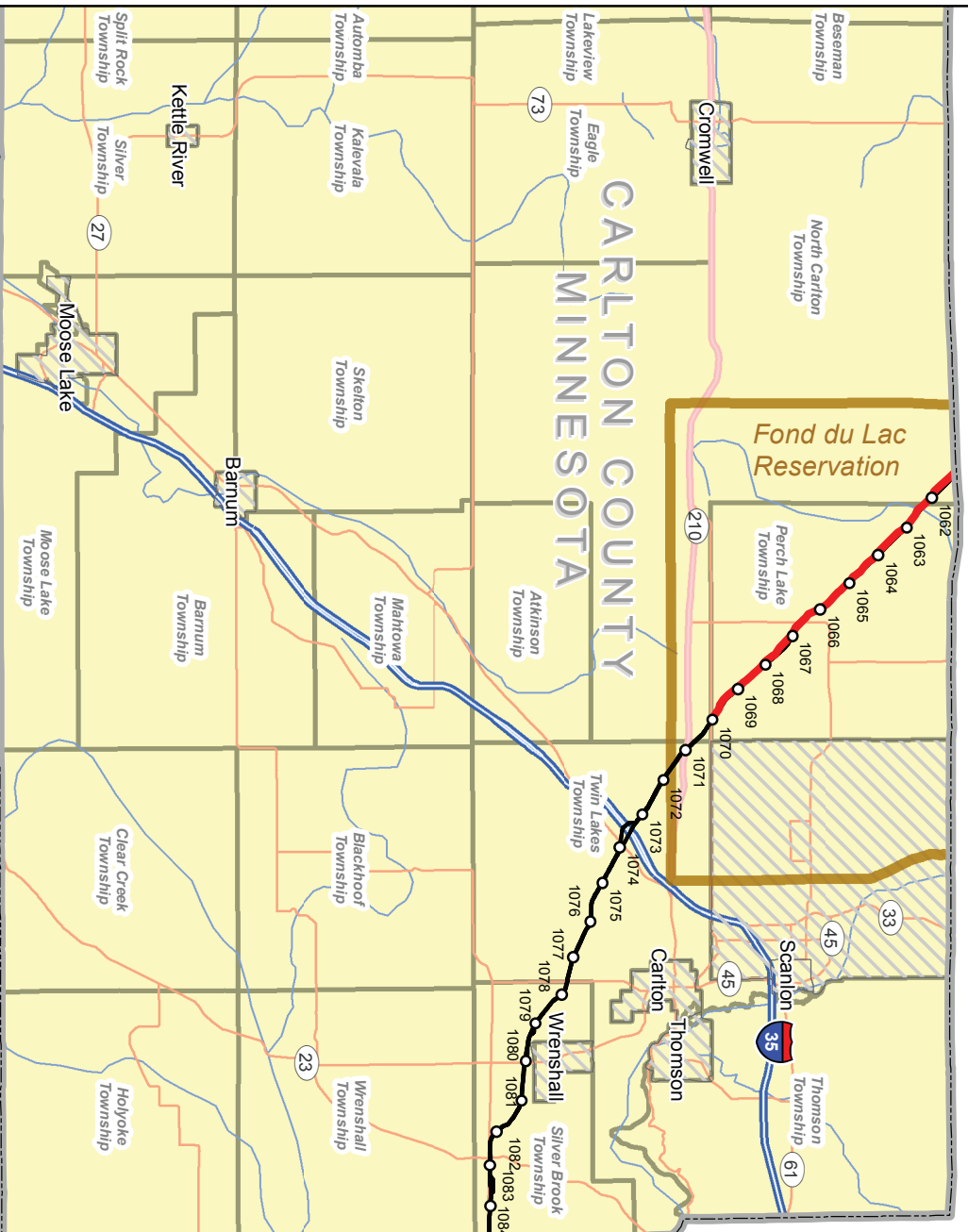


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**FOND DU LAC
LINE 4 PROJECT
CARLTON COUNTY
MINNESOTA**

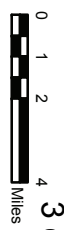
**ST. LOUIS COUNTY
MINNESOTA**



**DOUGLAS COUNTY
WISCONSIN**

**PINE COUNTY
MINNESOTA**

- Existing Enbridge Pipeline Mileposts
- Fond du Lac Line 4 Relocation Project Route
- Existing Line 4/Enbridge Pipelines



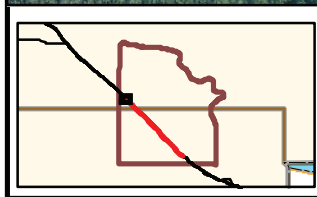
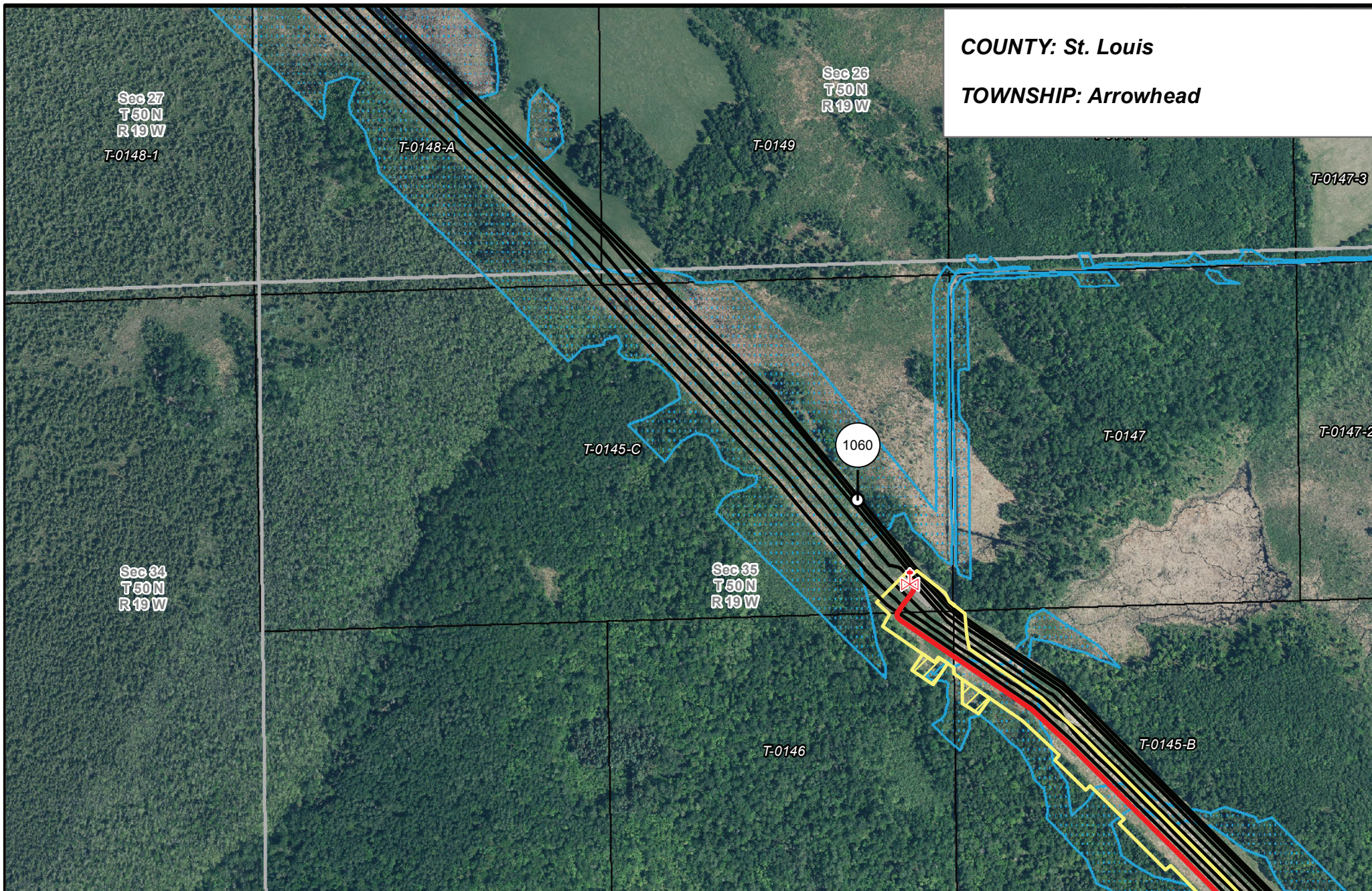
3 of 15

Sheet 2 of 2



CLS Date: 11/6/2018

COUNTY: St. Louis
TOWNSHIP: Arrowhead

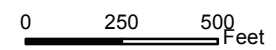


Fond du Lac Line 4 Relocation
 Valve Location
4 of 15

Mile Post
 Temporary Workspace
 Additional Temporary Workspace
 Existing Enbridge Pipelines
 Existing Electric Transmission
 Existing Third Party Pipelines

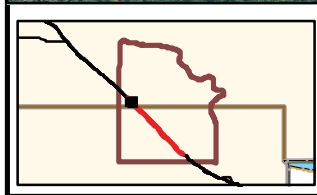
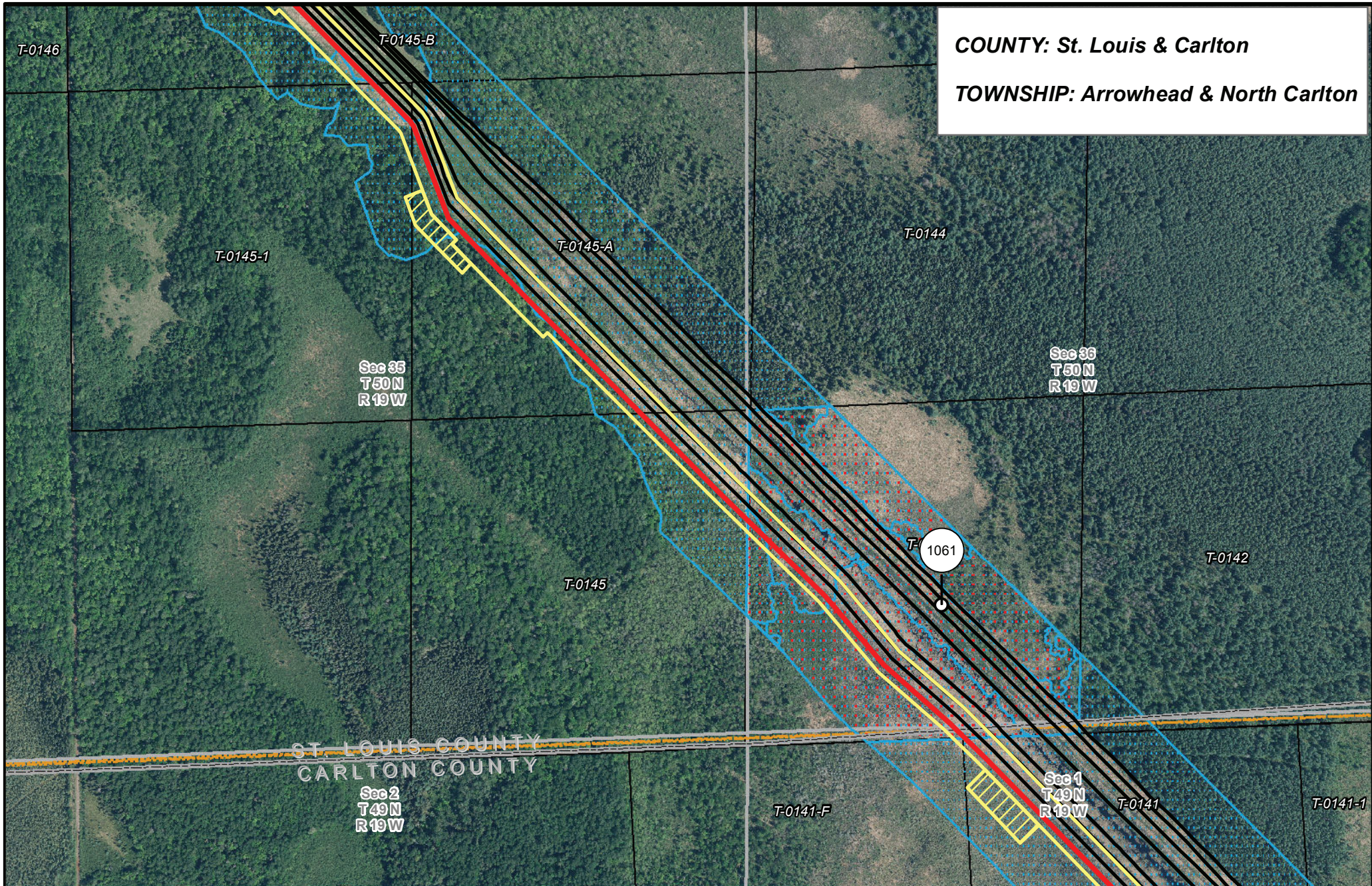
Surveyed Waterbodies
 ESA
 Surveyed Wetlands
 NWI Wetlands

Tract Boundary
 MN Section Boundary
 Township/City Boundary
 County Boundary



**FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019**
DRAWN: CLS CHECKED: --
DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: St. Louis & Carlton
TOWNSHIP: Arrowhead & North Carlton

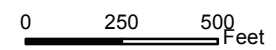


Fond du Lac Line 4 Relocation
 Valve Location
 5 of 15

Mile Post
 Temporary Workspace
 Additional Temporary Workspace
 Existing Enbridge Pipelines
 Existing Electric Transmission
 Existing Third Party Pipelines

Surveyed Waterbodies
 ESA
 Surveyed Wetlands
 NWI Wetlands

Tract Boundary
 MN Section Boundary
 Township/City Boundary
 County Boundary

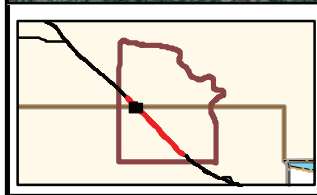
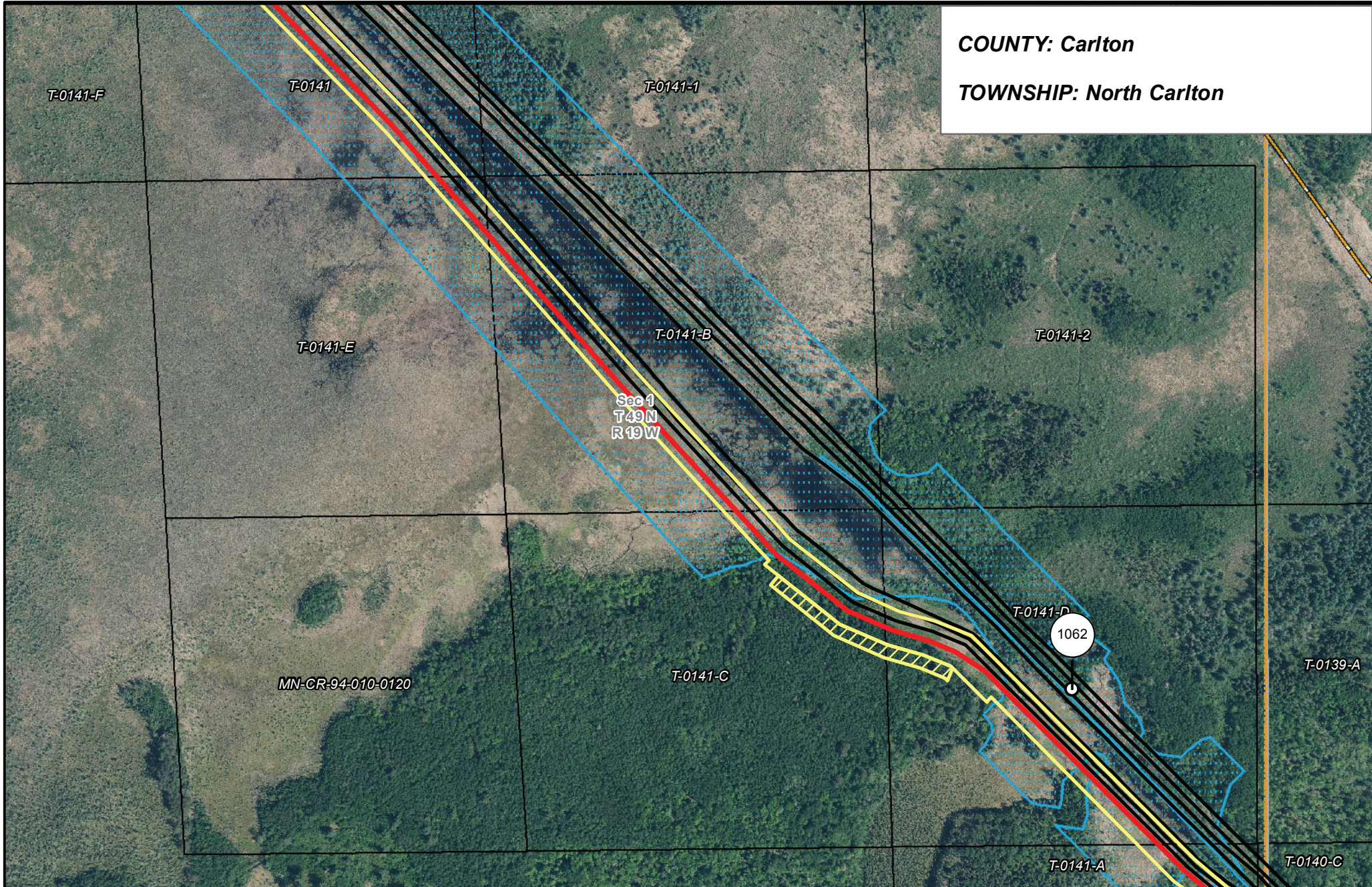


**FOND DU LAC LINE 4
 RELOCATION PROJECT
 REVISED 03/14/2019**

DRAWN: CLS	CHECKED: --
DATE: 3/14/2019	SCALE: 1:6,000

COUNTY: Carlton

TOWNSHIP: North Carlton



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Fond du Lac Line 4 Relocation	Mile Post	Surveyed Waterbodies	Tract Boundary
Valve Location	Temporary Workspace	ESA	MN Section Boundary
	Additional Temporary Workspace	Surveyed Wetlands	Township/City Boundary
Existing Enbridge Pipelines	NWI Wetlands	County Boundary	
Existing Electric Transmission			
Existing Third Party Pipelines			

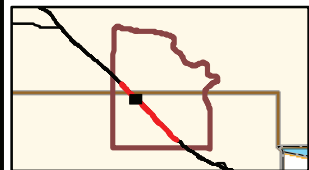
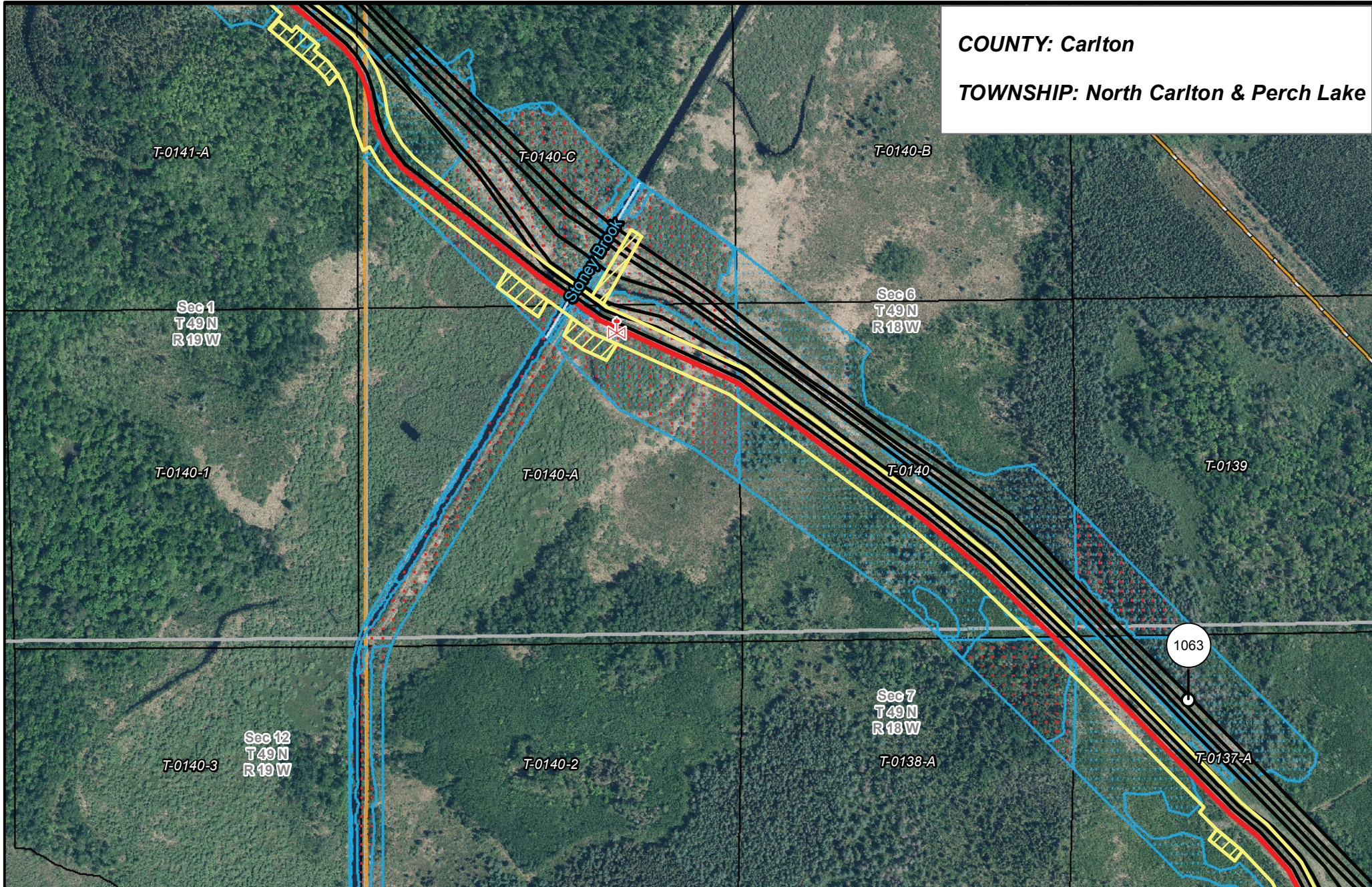
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FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019







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DATE: 3/14/2019	SCALE: 1:6,000





COUNTY: Carlton





TOWNSHIP: North Carlton & Perch Lake



 Fond du Lac Line 4 Relocation
 Valve Location
7 of 15

 Mile Post
 Temporary Workspace
 Additional Temporary Workspace
 Existing Enbridge Pipelines
 Existing Electric Transmission
 Existing Third Party Pipelines

 Surveyed Waterbodies
 ESA
 Surveyed Wetlands
 NWI Wetlands

 Tract Boundary
 MN Section Boundary
 Township/City Boundary
 County Boundary

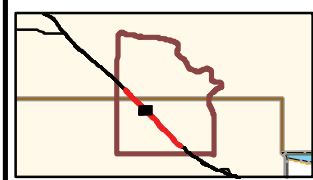
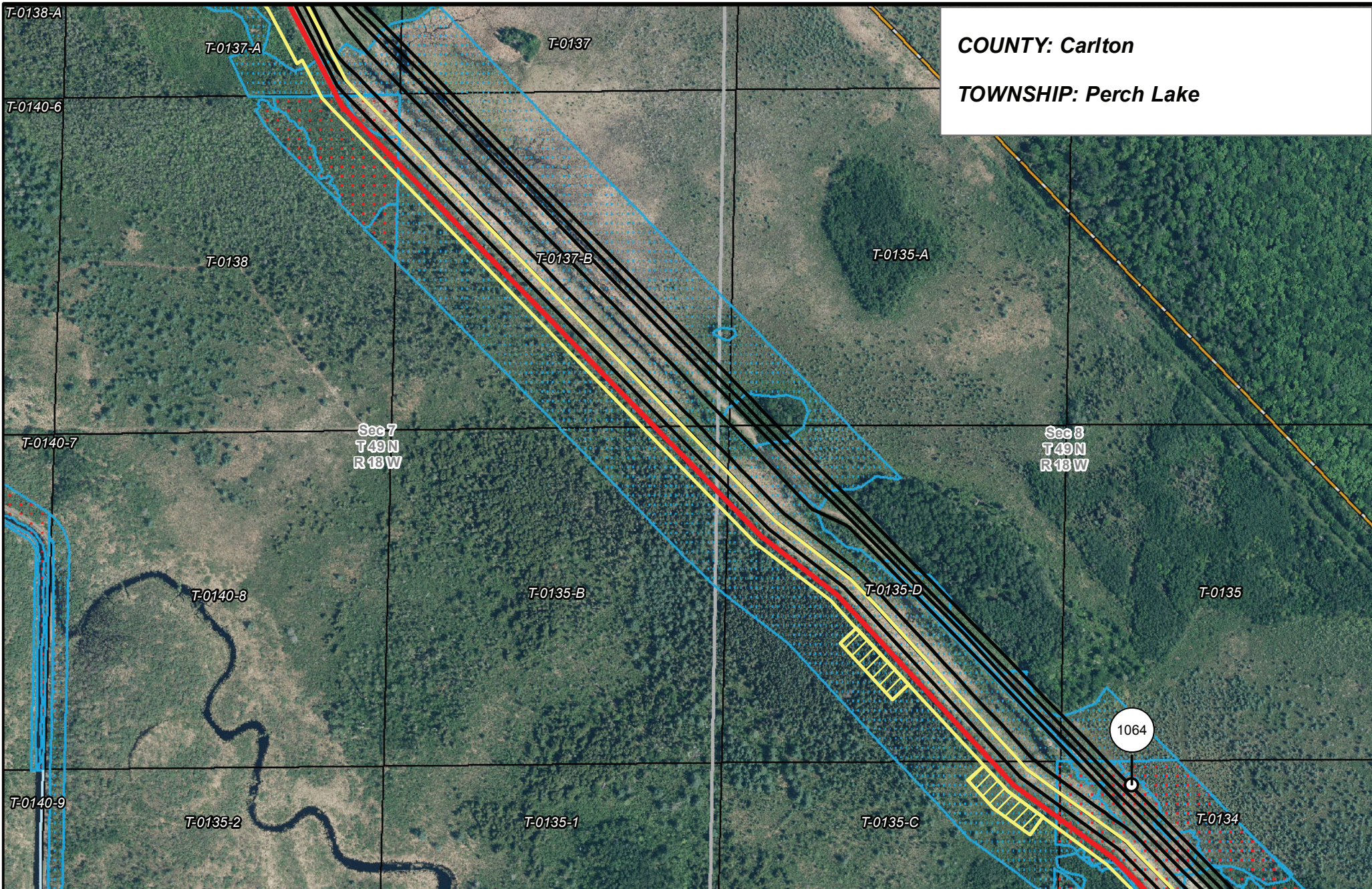
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**FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019**

DRAWN: CLS CHECKED: --
 DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake

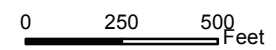


Fond du Lac Line 4 Relocation
Valve Location
8 of 15

- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines

- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands

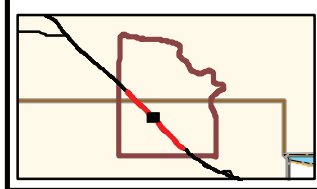
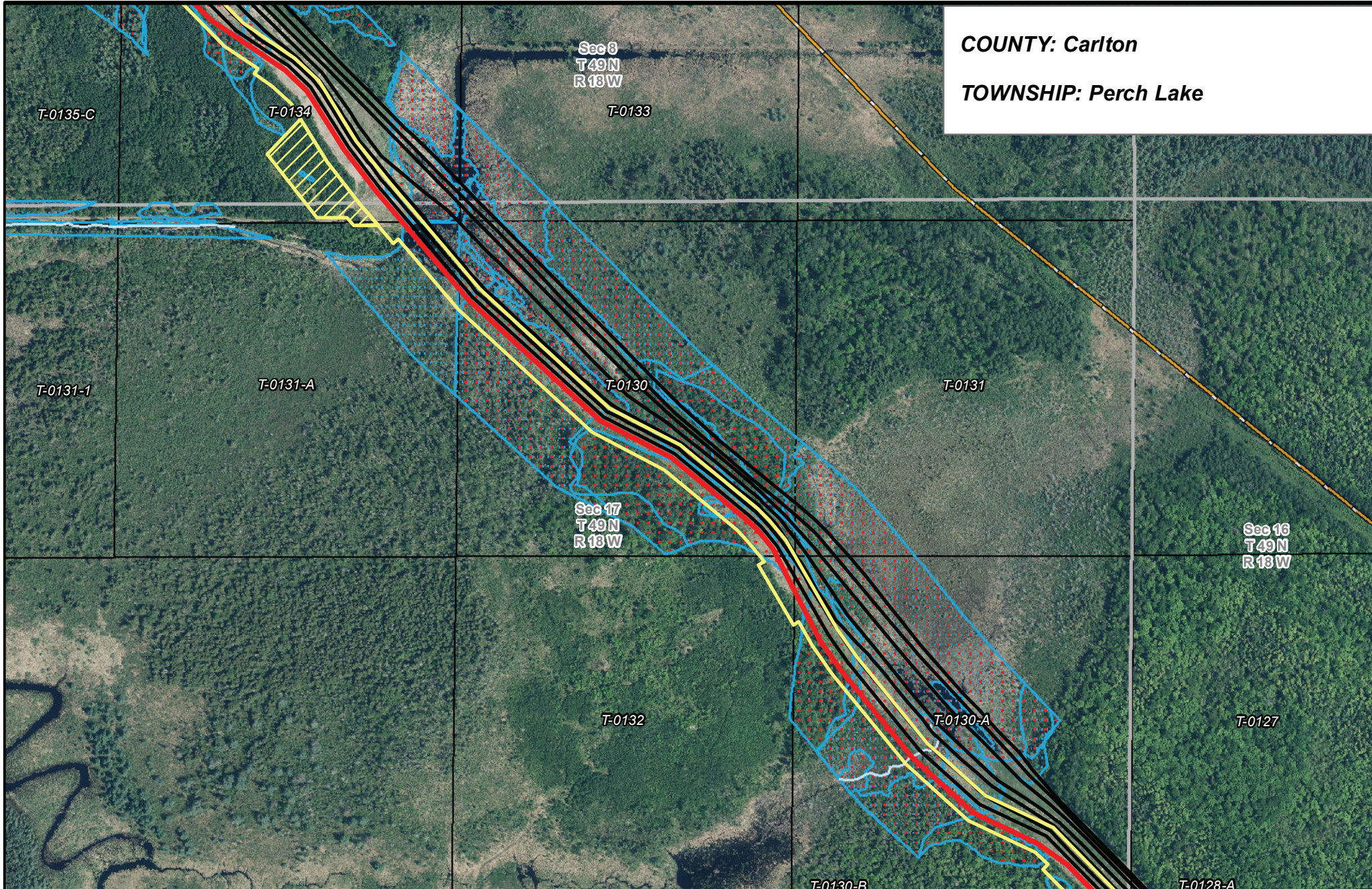
- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary



**FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019**

DRAWN: CLS CHECKED: --
DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake

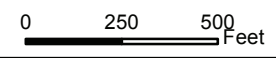


Fond du Lac Line 4 Relocation
Valve Location
9 of 15

Mile Post
Temporary Workspace
Additional Temporary Workspace
Existing Enbridge Pipelines
Existing Electric Transmission
Existing Third Party Pipelines

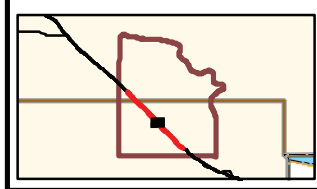
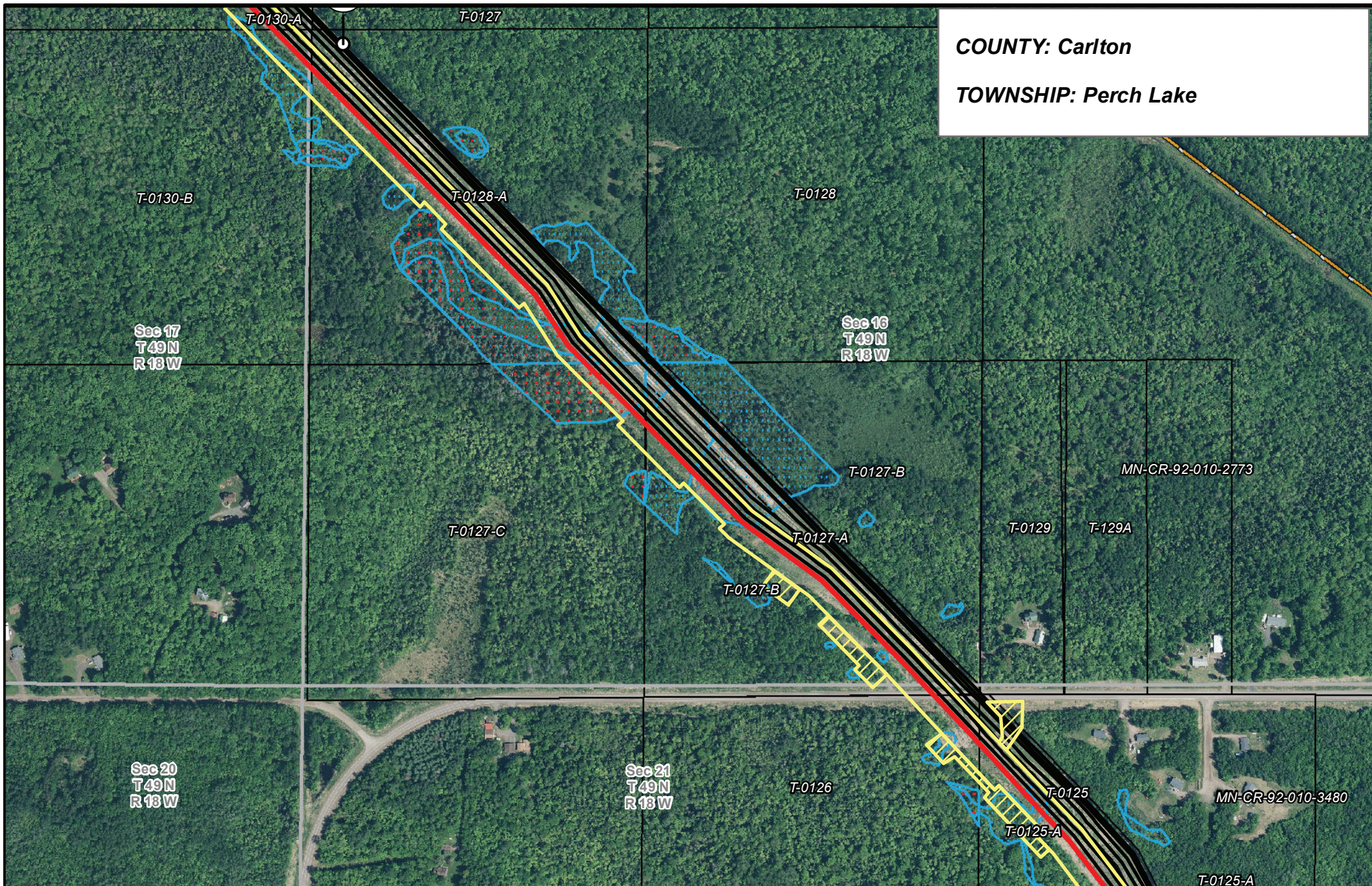
Surveyed Waterbodies
ESA
Surveyed Wetlands
NWI Wetlands

Tract Boundary
MN Section Boundary
Township/City Boundary
County Boundary



**FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019**
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DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake

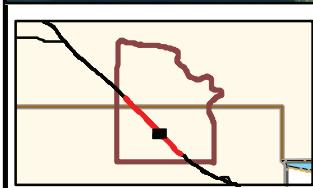
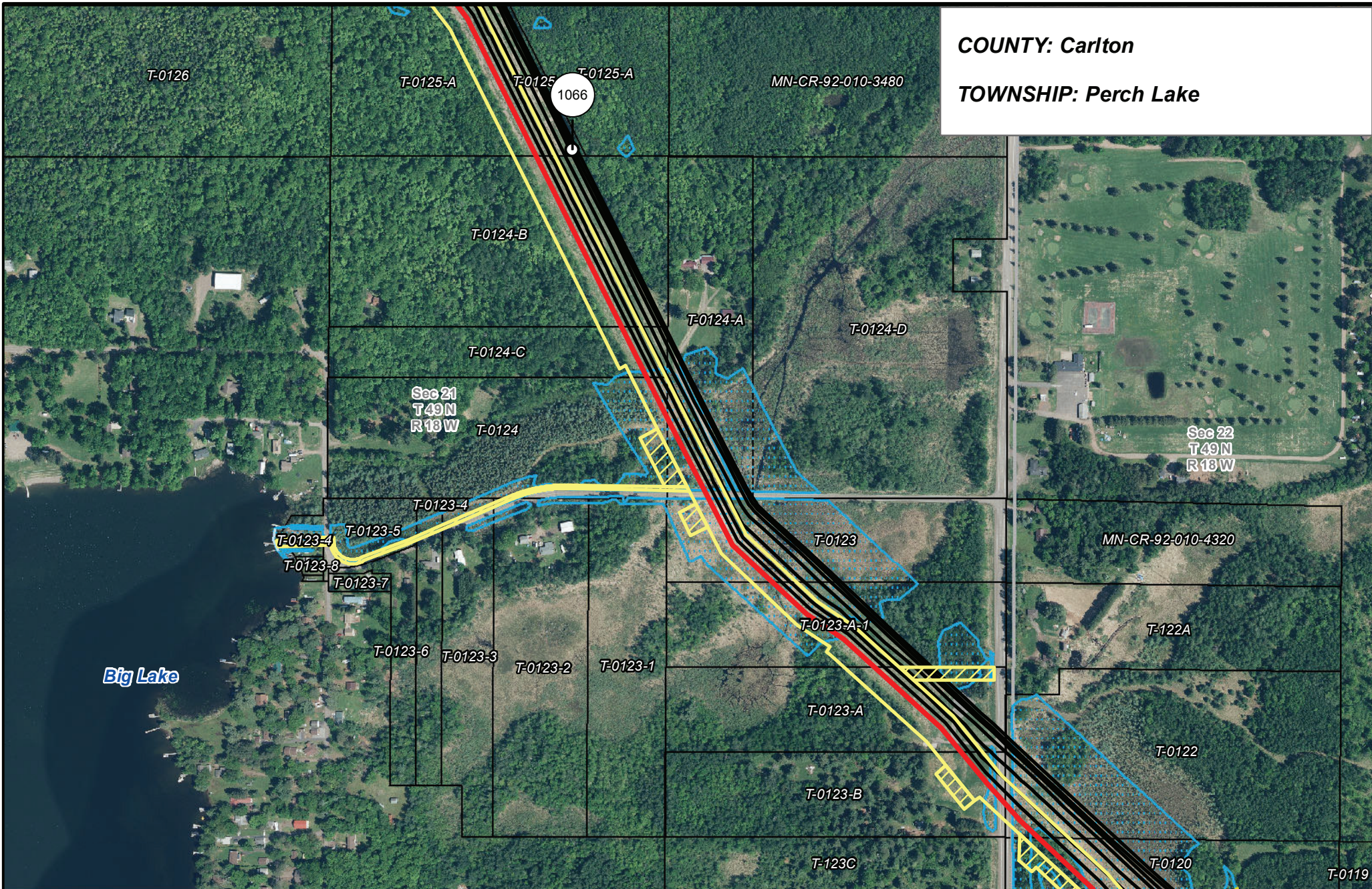


- Fond du Lac Line 4 Relocation
- Valve Location
- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines
- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands
- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary

FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019

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DATE: 3/14/2019	SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake



Fond du Lac Line 4 Relocation
Valve Location
11 of 15

- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines

- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands

- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary

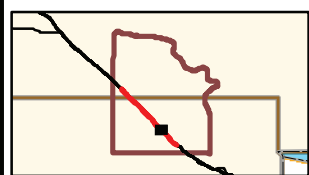
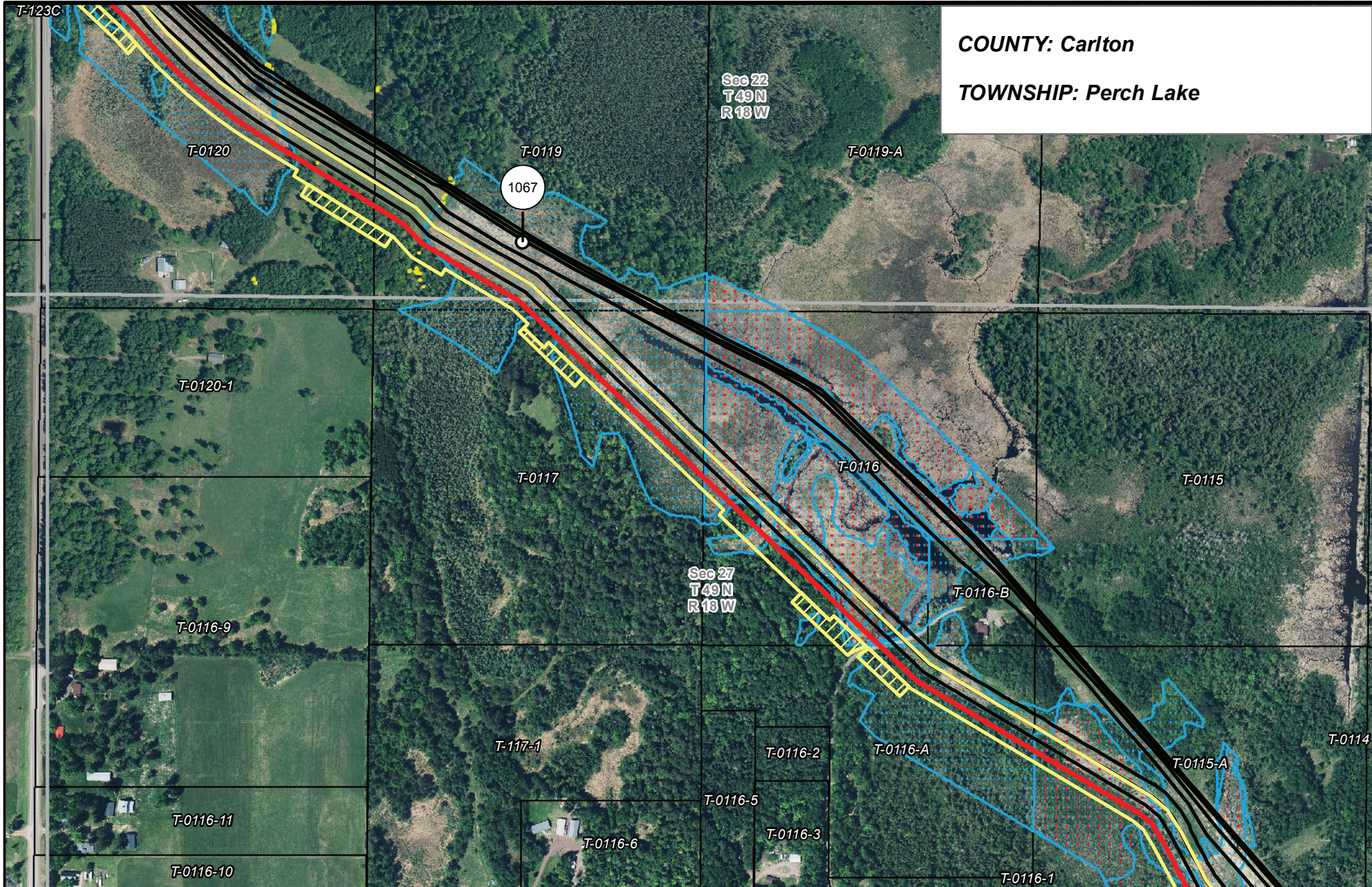
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FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019

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DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake



Fond du Lac Line 4 Relocation
Valve Location
12 of 15

- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines

- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands

- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary

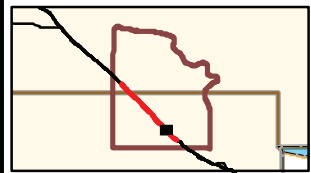
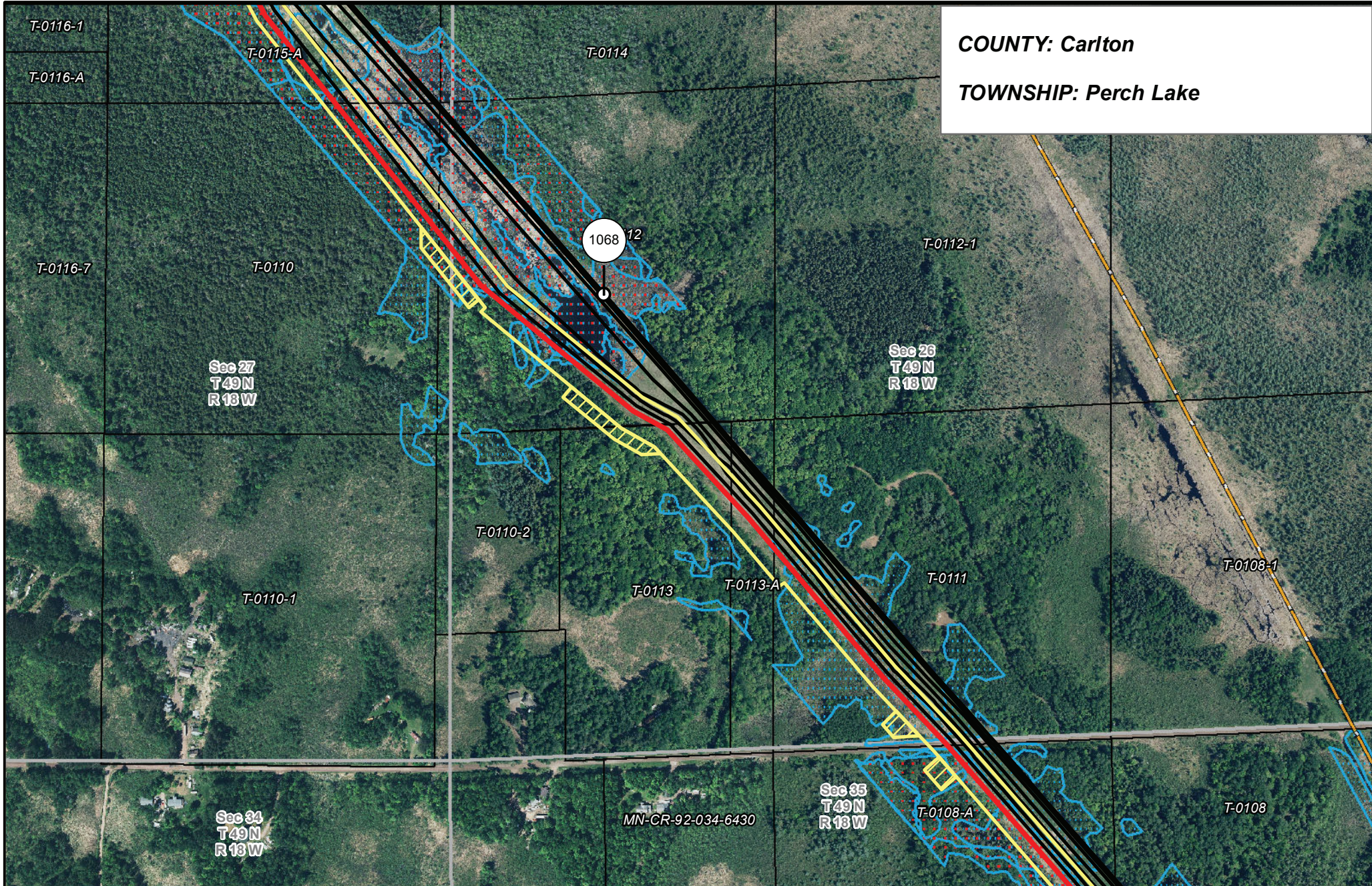
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FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019

DRAWN: CLS CHECKED: --
DATE: 3/14/2019 SCALE: 1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake



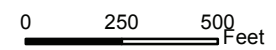
- Fond du Lac Line 4 Relocation
- Valve Location

13 of 15

- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines

- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands

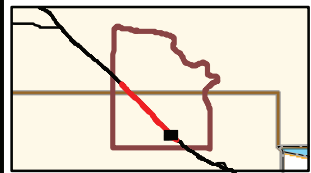
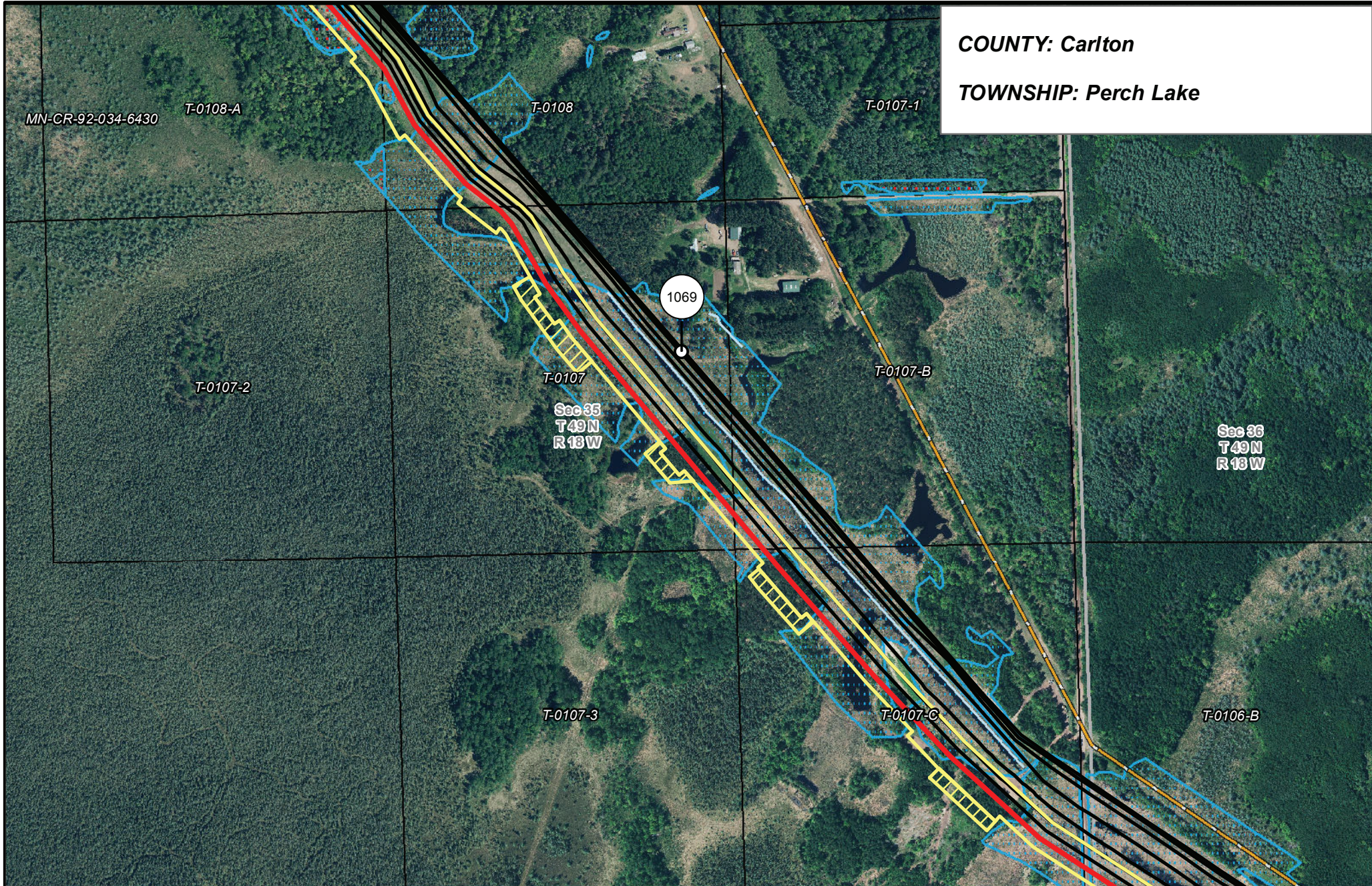
- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary



**FOND DU LAC LINE 4
 RELOCATION PROJECT
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COUNTY: Carlton
TOWNSHIP: Perch Lake

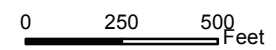


Fond du Lac Line 4 Relocation
Valve Location
14 of 15

- Mile Post
- Temporary Workspace
- Additional Temporary Workspace
- Existing Enbridge Pipelines
- Existing Electric Transmission
- Existing Third Party Pipelines

- Surveyed Waterbodies
- ESA
- Surveyed Wetlands
- NWI Wetlands

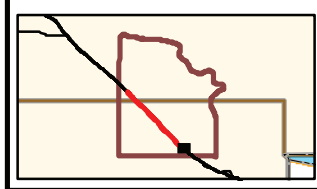
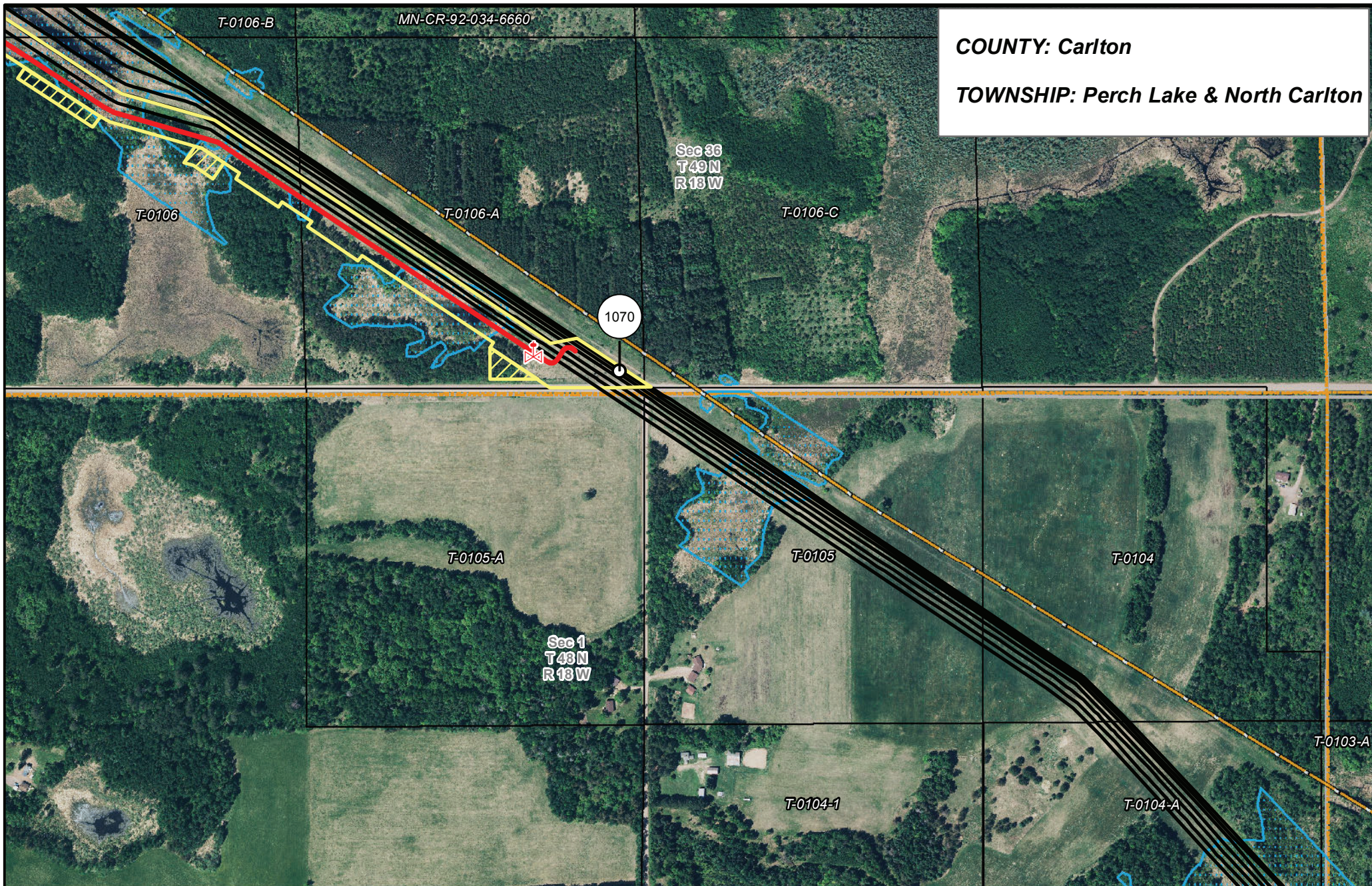
- Tract Boundary
- MN Section Boundary
- Township/City Boundary
- County Boundary



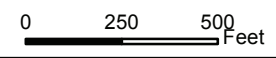
FOND DU LAC LINE 4
RELOCATION PROJECT
REVISED 03/14/2019

DRAWN:	CLS	CHECKED:	--
DATE:	3/14/2019	SCALE:	1:6,000

COUNTY: Carlton
TOWNSHIP: Perch Lake & North Carlton



Fond du Lac Line 4 Relocation	Mile Post	Surveyed Waterbodies	Tract Boundary
Valve Location	Temporary Workspace	ESA	MN Section Boundary
15 of 15	Additional Temporary Workspace	Surveyed Wetlands	Township/City Boundary
Existing Enbridge Pipelines	NWI Wetlands	County Boundary	
Existing Electric Transmission			
Existing Third Party Pipelines			



**FOND DU LAC LINE 4
 RELOCATION PROJECT
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<small>DATE:</small> 3/14/2019	<small>SCALE:</small> 1:6,000