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██████████
St. Paul District, U.S. Army Corps of Engineers
Civil Works
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St. Paul, Minnesota 55101

Subject: Enbridge Energy, Limited Partnership
Line 3 Replacement Project
Section 408 Review Request

Dear ██████████,

Enbridge Energy, Limited Partnership ("Enbridge") submits this letter and enclosed information as its official request to the U.S. Army Corps of Engineers ("USACE") to grant permission under 33 USC § 408 ("Section 408") for the Line 3 Replacement Project ("L3R" or "Project") crossing of the Lost River in Red Lake County, Minnesota. Section 408 authorizes the USACE to grant Section 408 permission for the alteration, occupation or use of a federally authorized civil works project ("USACE project") if the activity will not be injurious to the public interest or affect the USACE project's ability to meet its authorized purpose. The authorization also requires St. Paul District, USACE ("District") issuance of an individual permit under Section 404 of the Clean Water Act ("Section 404 Application" or "Application").

On June 28, 2018, the Minnesota Public Utilities Commission ("MPUC") granted a Route Permit for Enbridge's Preferred Project Route¹ including Route Segment Alternative ("RSA")-05; RSA-22 with permission of the Fond du Lac Band of Lake Superior Chippewa ("FdL"), or RSA-21 in the event FdL does not grant permission for RSA-22.² On August 31, 2018, Enbridge and FdL came to an agreement to proceed with the RSA-22 route. The MPUC's written Order granting Enbridge's Route Permit identifying the Preferred Project Route inclusive of RSA-05 and RSA-22 as the MPUC Designated Route (hereafter referred to as the "Designated Route") is forthcoming.

L3R consists of approximately 355 miles of new 36-inch-diameter pipeline traversing the states of North Dakota, Minnesota, and Wisconsin, and terminating at the existing Enbridge Superior terminal facility near Superior, Wisconsin. The section of L3R which is the subject of this application, includes the replacement of approximately 282 miles of the existing 34-inch-diameter Line 3 pipeline with 330 miles of 36-inch³-diameter pipeline and associated facilities from the Red River valve in North Dakota to the Minnesota/Wisconsin border (refer to Figure 2.0-1). Enbridge's Designated Route generally follows the existing Line 3 pipeline along the Enbridge Mainline System right-of-way from the North Dakota/Minnesota border in Kittson County to the Clearbrook Terminal in Clearwater County. Next, L3R turns south from Clearbrook to generally follow an

¹ The Preferred Route is defined as the Applicant's proposed route, which includes the pipeline centerline within the associated construction workspace.

² Refer to Section 7.3.1 (RSA-05), Section 7.3.6 (RSA-21), and Section 7.3.7 (RSA-22) of the Revised FEIS.

³ 36-inch-diameter steel pipeline is a more standard pipeline than 34-inch in the industry and among the Enbridge Mainline System. The decision to replace with 36-inch-diameter pipeline makes pipe, pipefitting, valves, and maintenance equipment more readily available. A 36-inch pipeline is more energy efficient than a 34-inch pipeline.

existing third-party crude oil pipeline right-of-way to Hubbard County. The route then turns east to generally follow other existing electric transmission lines until it rejoins the Enbridge Mainline System right-of-way in St. Louis County, through the FdL Reservation to the Minnesota/Wisconsin border in Carlton County.

In light of the change to the Designated Route, Enbridge has withdrawn its original Section 404 applications for the Project (September 2015 and February 2018 submittals) and concurrently submitted a new application to reflect the Designated Route. Similarly, the Designated Route no longer crosses the USACE Sandy River project; therefore, with this letter, Enbridge is officially withdrawing its February 2018 Section 408 Review Request for the Lost and Sandy rivers USACE project crossings, and submitting this revised Section 408 Review Request solely for the Lost River USACE project crossing.

The USACE Flood Control Act authorized a flood control project on the Lost River in 1966 that encompassed the crossing location of the Project. The former Red Lake Drainage and Conservancy District received federal funding for improvements on the Lost River including channel clearing and snagging, deepening, widening, or straightening and appurtenant work, therefore requiring Section 408 permission. The Red Lake Watershed District as the current non-federal sponsor, will provide a statement of no objection to support the Section 408 permission. Enbridge will provide the letter to the District separately when received.

If you have any questions or need additional information, please contact Bobby Hahn at 218-522-4751 or Bobby.Hahn@enbridge.com. Thank you for your assistance. We look forward to continuing to cooperate actively with the District during its review of the requested Section 408 permission and the Section 404 Application for the L3R Project.

Sincerely,



Barry Simonson
Director Line 3 – MP Line 3 Replacement & Decommission

Enclosures: Lost River Crossing - Application Information

cc: Bobby Hahn, Enbridge
[Redacted]
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Linda Fisher, Fredrikson & Byron
Naomi Christenson, Merjent



U.S. Army Corps of Engineers - St. Paul District Section 408 Review Request

Enbridge Energy, Limited Partnership • Line 3 Replacement Project

September 2018



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TABLE OF CONTENTS

1.0	PROJECT DESCRIPTION.....	1
1.1	SECTION 408 AUTHORITY	1
1.2	PROPOSED CROSSING	4
2.0	CONSTRUCTION AND OPERATION METHODS	5
2.1	TYPICAL CONSTRUCTION SEQUENCE	5
2.2	WATERBODY CROSSING METHODS	6
	2.2.1 Dam and Pump Method.....	6
	2.2.2 Flume Method.....	8
2.3	OPERATION AND MAINTENANCE ACTIVITIES.....	8
3.0	GENERAL CONSTRUCTION AND OPERATION IMPACTS AND MITIGATION MEASURES.....	9
4.0	REFERENCES.....	10

TABLES

Table 1.2-1 Lost River Crossing Attributes	4
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FIGURES

Figure 1.0-1 General Project Location Map	2
Figure 1.1-1 Lost River Flood Control Project.....	3

ATTACHMENTS

Attachment A – Crossing Location Maps and Site-Specific Environmental Crossing Plan
Attachment B – Property Owner Tax IDs
Attachment C – Typical Drawings
Attachment D – Environmental Protection Plan

ACRONYMS AND ABBREVIATIONS

ATWS	additional temporary workspace
BMPs	best management practices
CFR	Code of Federal Regulations
ECDs	erosion control devices
Enbridge	Enbridge Energy, Limited Partnership
EPA	U.S. Environmental Protection Agency
EPP	Environmental Protection Plan
ESA	Endangered Species Act
Flood Control Project	USACE Flood Control Act of 1958 authorized a flood control project on the Lost River
HDD	horizontal directional drill
HUC	Hydrologic Unit Code
ISS	in stream support
Lost River Crossing	Project crossing of the Lost River at MP 885.8
L3R or Project	Line 3 Replacement Project
MDNR	Minnesota Department of Natural Resources
MP	milepost
MPCA	Minnesota Pollution Control Agency
NPDES	National Pollutant Discharge Elimination System
OHWM	ordinary high water mark
PWI	Public Waters Inventory
Section 408	Section 14 of the Rivers and Harbors Act of 1899, as amended, and codified in 33 United States Code 408
TCSB	temporary clear span bridge
USACE	U.S. Army Corps of Engineers

1.0 PROJECT DESCRIPTION

Enbridge Energy, Limited Partnership (“Enbridge”) submits this information to the U.S. Army Corps of Engineers (“USACE”) for the crossing of the Lost River along its Line 3 Replacement Project (“L3R” or “Project”) that requires a Section 408 permission.

L3R consists of approximately 355 miles of new 36-inch-diameter pipeline traversing the states of North Dakota, Minnesota, and Wisconsin, and terminating at the existing Enbridge Superior terminal facility near Superior, Wisconsin. The section of L3R which is the subject of this application, includes the replacement of approximately 282 miles of the existing 34-inch-diameter Line 3 pipeline with 330 miles of 36-inch¹-diameter pipeline and associated facilities from the Red River valve in North Dakota to the Minnesota/Wisconsin border (refer to Figure 1.0-1). The Project generally follows the existing Line 3 pipeline along the Enbridge Mainline System right-of-way from the North Dakota/Minnesota border in Kittson County to the Clearbrook Terminal in Clearwater County. Next, L3R turns south from Clearbrook to generally follow an existing third-party crude oil pipeline right-of-way to Hubbard County. The route then turns east to generally follow other existing electric transmission lines until it rejoins the Enbridge Mainline System right-of-way in St. Louis County, through the Fond du Lac Reservation to the Minnesota/Wisconsin border in Carlton County.

1.1 SECTION 408 AUTHORITY

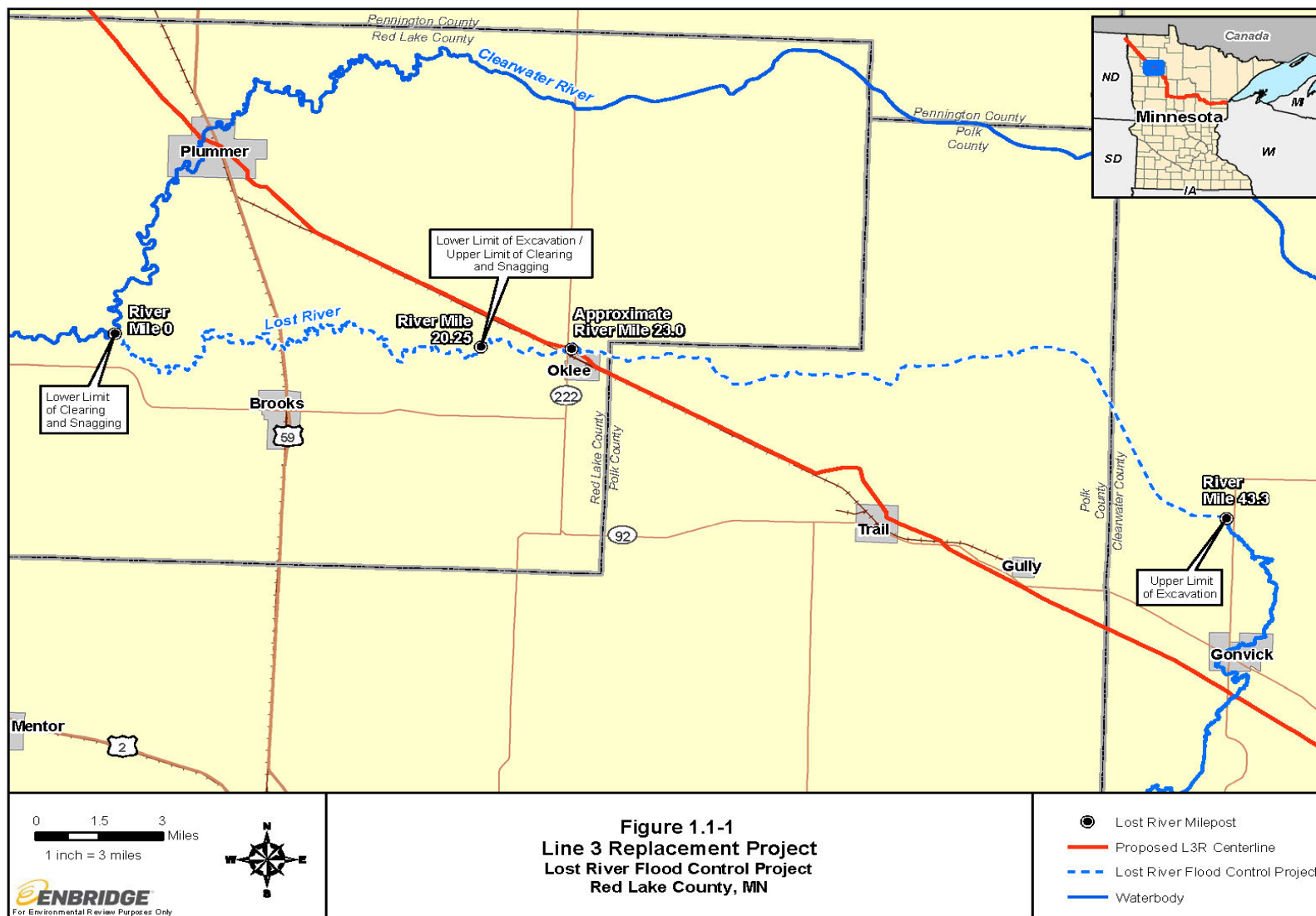
Section 14 of the Rivers and Harbors Act of 1899, as amended, and codified in 33 United States Code 408 (“Section 408”) authorizes the Secretary of the Army to grant permission for the alteration or occupation or use of any USACE federally authorized Civil Works project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project (Engineering Circular [“EC”] 1165-2-1016, par. 6a). For purposes of Section 408 authorization, “alteration” includes “occupation” and “use” and refers to “any action by any entity other than the USACE that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural integrity, of a USACE project.” Alterations also include actions approved as “encroachments” pursuant to 33 CFR 208.10 (EC 1165-2-216, par. 6a).

The Project would cross the Lost River (“Lost River Crossing”) at milepost (“MP”) 885.8 (river mile 23) in Red Lake County, Minnesota in Township 150 Range 41 Section 1. The USACE Flood Control Act of 1958 authorized a flood control project on the Lost River (“Flood Control Project”) from the confluence of the Lost and Clearwater Rivers (river mile 0.0) and extending upstream to approximate river mile 43.3. The extent of the Flood Control Project is depicted on Figure 1.1-1.

¹ 36-inch-diameter steel pipeline is a more standard pipeline than 34-inch in the industry and among the Enbridge Mainline System. The decision to replace with 36-inch-diameter pipeline makes pipe, pipefitting, valves, and maintenance equipment more readily available. A 36-inch pipeline is more energy efficient than a 34-inch pipeline.



Figure 1.1-1 Lost River Flood Control Project



The former Red Lake Drainage and Conservancy District, whose territory included the Lost River, provided lands and right-of-way and received federal funding for improvements on the Lost River which included channel clearing and snagging, deepening, widening, or straightening and appurtenant work. Although federal funding for the Flood Control Project has been exhausted and the USACE no longer has a real estate interest at the Lost River Crossing, USACE Section 408 permission is required to construct and operate the Lost River Crossing. The Red Lake Watershed District, as the current non-federal sponsor, would need to provide a written Statement of No Objection to support Section 408 permission.

1.2 PROPOSED CROSSING

The Project will cross the Lost River at MP 885.8 in Red Lake County, Minnesota in Township 150 Range 41 Section 1. The L3R preferred route at the Lost River Crossing is co-located with Enbridge's mainline system where seven other pipelines occur (refer to Attachment A). The property owners tax IDs associated with the crossing are depicted on Attachment A, as well as included in tabular form in Attachment B.

Enbridge conducted waterbody field surveys within the L3R environmental survey corridor between 2013 and 2017 to delineate waterbody features at crossing locations and describe their attributes (e.g., width, flow regime, bed characteristics, dominant vegetation). The Lost River Crossing was initially surveyed on October 2, 2014. The crossing location has a perennial flow regime and is within the Clearwater River watershed (Hydrologic Unit Code ["HUC"] 9020305); refer to Table 1.2-1 for additional information.

Table 1.2-1 Lost River Crossing Attributes									
MP	Feature ID	Top-of-Bank Width (feet)	Crossing Length (feet)	OHWB Width (feet) ^a	OHWB Depth (feet) ^b	Agency Designation	Proposed Crossing Method	Construction Timing Restriction ^c	Bridge Type
885.5	s-150n41w1-b	80	50	50	3	MDNR PWI	Dry Crossing	PWI Cool/Warm Water Fishery - No in-channel work from March 15 - June 15	Span - instream support
^a Width of the channel in feet between the Ordinary High-Water Mark (OHWM) on both channel banks. ^b Estimated or measured channel depth in feet from the OHWM to the channel bed. ^c Timing restrictions are based on anticipated state agency permit conditions. MDNR – Minnesota Department of Natural Resources PWI – Public Water Inventory									

As part of the waterbody delineation surveys, Enbridge also recorded dominant vegetation at each waterbody crossing location. Enbridge identified wild rice (*Zizania palustris*) as the dominant vegetation present along the bank edges of the crossing. Enbridge conducted an additional field review effort on October 6, 2017 to confirm and document the presence of wild rice at the Lost River Crossing. The wild rice occurs at and adjacent to the proposed crossing location as well as within Enbridge existing mainline system corridor. The Lost River is not currently identified as a wild rice water by the Minnesota Department of Natural Resources ("MDNR") or the Minnesota Pollution Control Agency ("MPCA") (MDNR, 2017; MPCA, 2016).

Enbridge is proposing to install the L3R pipeline at the Lost River Crossing using a dry crossing method (dam and pump or flume). Descriptions of these crossing techniques are included below. Permitted crossings are subject to further restrictions by Enbridge and applicable permits.

At the Lost River Crossing, a span bridge with in-stream support will be installed (refer to Typical Span Type Bridge in Attachment C) to provide an efficient, economical way to transport heavy construction equipment across the river. Enbridge recently updated its safety specifications to require in-stream supports be installed for bridge structures that span greater than 20 feet. A flume pipe is proposed to provide the support which will not impede flow of the waterbody. The bridge timber mats will be cabled together and anchored to the waterbody bank.

Enbridge plans to commence construction as soon as all construction related regulatory approvals are obtained. Enbridge will adhere to the MDNR timing restriction of March 15 through June 15 for no in-channel work. As described in Enbridge's Environmental Protection Plan ("EPP") (refer to Attachment D), all in-stream work activities will be minimized to the extent practicable on an area and time duration basis. Enbridge plans to complete all in-stream construction activities at the Lost River Crossing within 48 hours. Stabilization and restoration will occur immediately following the installation of the pipeline; once the stream banks are stabilized, the dams and pump or flume have been removed. The temporary bridge will be maintained until final cleanup and restoration is completed adjacent to the crossing location.

2.0 CONSTRUCTION AND OPERATION METHODS

2.1 TYPICAL CONSTRUCTION SEQUENCE

Additional details on the typical construction sequence and best management practices ("BMPs") that would be implemented during construction are provided in Section 1.0 of Enbridge's EPP (Attachment D).

Construction of L3R will generally require a 120-foot-wide construction workspace in uplands². The construction workspace will allow for temporary storage of topsoil and spoil, as well as accommodate safe operation of construction equipment. Enbridge will generally use a 95-foot-wide construction workspace in wetland areas and at waterbody crossing locations, including the the Lost River Crossing. The construction workspace adjacent to the Lost River Crossing will be surveyed, staked, and prepared for clearing. Clearing and grading, as necessary, and bridge installation will occur to provide construction access and safe movement of equipment and personnel during construction. Enbridge will install silt fence³ and other erosion control devices ("ECDs") at this time as well. Appropriate safety measures will be implemented before excavation begins, including notification through the One-Call system to ensure third-party utilities and adjacent pipelines are properly marked. Two independent four-way sweeps will be conducted to positively locate any existing underground utilities not identified by the one call. Pipe, valves, and fittings will be transported to the workspace by truck and placed along the workspace by sideboom tractors (also known as pipelayers) or cranes. After individual pipe sections are strung along the workspace, they will be bent to conform to the contours of the trench and terrain. The pipe segments will be lined up, clamped, welded, and treated with a protective coating, and the welds

² Uplands are defined as an elevated region of land lying above the level where water flows or collects in basins

³ Silt fence: A silt fence is a sediment control device used on construction sites to protect nearby wetlands and waterbodies from stormwater runoff. A typical fence consists of a piece of synthetic fabric (sometimes referred to as geotextile fabric) stretched between a series of stakes where runoff is expected to reach wetlands or waterbodies. The fabric filters remove sediment from the water before it reaches the wetland or waterbody.

will be inspected. Trenching may occur before or after the pipe has been welded. Trenching is typically conducted using a backhoe or trenching machine. Where appropriate, topsoil will be segregated according to applicable permit conditions. The prepared pipe will be lowered into the trench and, where applicable, tied into existing facilities. During backfilling, subsoil will be replaced first and then the topsoil will be replaced. Precautions, such as padding the trench with soil, will be taken during backfilling to protect the pipe from rock damage.

The installation of the pipeline at the Lost River Crossing will occur after mainline pipeline construction on either side of the river is completed, and will then be tied-in to the mainline pipeline. Trench dewatering is often necessary when a section of pipe installed under the stream is being tied-in to the pipeline. During the tie-in process, the water will be pumped into a filtration device located in a well-vegetated area and in a manner to prevent the migration of heavily silt-laden water into waterbodies or wetlands.

As identified in Attachment A, additional temporary workspace (“ATWS”) is required outside of the typical construction workspace adjacent to the Lost River crossing to stage equipment, store pre-fabricated pipe, and to hold spoil material associated with the crossing. Enbridge will also use ATWS to accommodate equipment and resources used for appropriating and discharging water to complete activities. Typical dimensions of such ATWS vary according to site-specific conditions, but are generally 200 feet by 100 feet for waterbody crossings. ATWS will be set back approximately 50 from the river. Once the pipeline has been welded and inspected, and the trench has been backfilled, the pipeline will be hydrostatically tested⁴ to ensure its integrity prior to the line being filled with crude oil and placed into service. The construction workspace will then be cleaned up and restoration activities will commence. Restoration will include implementing temporary and permanent stabilization measures, such as slope breakers⁵, mulching, and seeding.

2.2 WATERBODY CROSSING METHODS

Additional details on the waterbody crossing methods and BMPs that would be implemented during the crossing are provided in Section 2.0 of Enbridge’s EPP (Attachment D).

2.2.1 Dam and Pump Method

Installation

The dam and pump method is a dry crossing technique that is suitable for low flow streams and is generally preferred for crossing meandering channels. The dam and pump method involves damming of the stream upstream and downstream of the proposed trench before excavation (refer to Attachment C) and pumping water around the construction area. The following procedures will be used for dam and pump crossings:

1. Dams may be constructed of sandbags, inflatable dams, aqua-dams, sheet piling, and/or steel plates. The dams will prevent the stream from flowing into the construction area. The

⁴ Hydrostatic testing: Hydrostatic testing is a process of verifying the integrity of the pipeline before it is placed into service. Hydrostatic testing involves filling the pipeline with water to a designated pressure and holding it for a specified period of time.

⁵ Slope breaker: A slope breaker is an erosion control device to reduce stormwater runoff velocity and divert it from the disturbed construction area to more stable ground. A typical slope breaker consists of a ridge or channel constructed diagonally across the right-of-way on a hill.

dams will be continuously monitored for a proper seal. Additional sandbags, plastic sheeting, steel plating, or similar materials will be used where necessary to minimize the amount of water seeping around the dams and into the construction work area. The dam will not be removed until after the pipeline has been installed, the trench has been backfilled, and the banks have been stabilized.

2. Pumping of the stream across the right-of-way will commence simultaneously with dam construction to prevent interruption of downstream flow. Stream flow will be pumped across the construction area through a hose and will be discharged to an energy-dissipation device, such as plywood boards, to prevent scouring of the streambed.
3. The pumps and fuel containers will be located on the upstream side of the crossing and will be placed in impermeable, sided structures which will act as containment units. The pumps used for this crossing method will not be placed directly in the stream or on the streambed. Pumps will have a capacity greater than the anticipated stream flow. The pumping operation will be staffed 24 hours a day and pumping will be monitored and adjusted as necessary to maintain an even flow of water across the work area and near-normal water levels upstream and downstream from the crossing. The pump intake will be suspended to prevent sediment from being sucked from the bottom of stream and will be equipped with a screen, or equivalent device, to prevent fish uptake.
4. Where possible, excavating equipment will operate from one or both banks, without entering the stream. If equipment must encroach into the stream, it will operate on clean construction mats (free of soil and plant material prior to being transported onto the construction right-of-way). Streambed material will be segregated as stated in the wet trench method and will be placed within a spoil containment structure in approved construction work area limits. Storage of streambed spoil within the stream will only be allowed if expressly approved in the applicable permits.
5. Earthen trench plugs (hard plugs) between the stream and the upland trench will be left undisturbed during excavation of the in-stream trench to prevent diversion of the stream flow into the open trench and to prevent water that may have accumulated in the adjacent upland trench from entering the waterbody. Trench plugs will be removed immediately prior to pipe placement, and then replaced when the pipe is in place. Trench water accumulated upslope of trench plugs will be dewatered appropriately prior to trench plug removal.
6. Standing water that is isolated in the construction area by the dams will be managed in accordance with an environmental inspector approved water discharge plan to ensure that the BMPs are applied in such a way as to minimize the potential for scour and water containing sediment from reaching a wetland or waterbody.
7. Backfilling will begin after the pipe is positioned in the trench to the desired depth. Backfill material will consist of the spoil material and parent streambed excavated from the trench unless otherwise specified in state or federal permits. The in-stream trench will be backfilled so that the stream bottom is similar to its pre-construction condition, with no impediments to normal water flow.

2.2.2 Flume Method

Installation

The flume method is a dry crossing technique that is suitable for crossing relatively narrow streams that have straight channels and are relatively free of large rocks and bedrock at the point of crossing (refer to Attachment C). This method involves placement of flume pipe(s) in the stream bed to convey stream flow across the construction area without introducing sediment to the water. The procedures for using the flume method are described below.

- The flume(s) will be of sufficient diameter to transport the maximum flows anticipated to be generated from the watershed. The flume(s), typically 40 to 60 feet in length, will be installed before trenching and will be aligned so as not to impound water upstream of the flume(s) or cause downstream bank erosion. The flumes will not be removed until after the pipeline has been installed, trench has been backfilled, and the stream banks have been stabilized.
- The upstream and downstream ends of the flume(s) will be incorporated into dams made of sand bags and plastic sheeting (or equivalent). The upstream dam will be constructed first and will funnel stream flow into the flume(s). The downstream dam will prevent backwash of water into the trench and construction work area. The dams will be continuously monitored for a proper seal. Adjustments to the dams will be made where necessary to prevent large volumes of water from seeping around the dams and into the trench and construction work area.

The procedures described in bullets 4 through 7 in Section 2.1.1 for the dam and pump method will also apply to the flume crossing method.

2.3 OPERATION AND MAINTENANCE ACTIVITIES

The operation and maintenance of the pipeline will be subject to 49 Code of Federal Regulations (“CFR”) 195 Transportation of Hazardous Liquids by Pipeline and 49 CFR 194 Response Plans for Onshore Oil Pipelines. In order to minimize or mitigate adverse effects from storage and transportation of hazardous materials within the L3R pipeline, Enbridge will comply with the operation and maintenance regulations in 49 CFR 195 and the emergency response planning regulations in 49 CFR 194. As required by 49 CFR 195, a manual for operations, maintenance, and emergencies will include written procedures for conducting normal operations and maintenance activities as well as handling abnormal operations and emergencies. Enbridge will implement an ongoing inspection program to monitor the integrity of the pipeline system. Monitoring activities include regular inspection of the cathodic protection system, which addresses the possible corrosion potential for a steel pipe installed below the ground surface. In addition, Enbridge will use computerized inspection tools that travel through the inside of the pipeline to check pipe integrity.

The Enbridge Mainline System is patrolled by air biweekly (26 times a year not to exceed 3 weeks between flights) to inspect surface conditions of land on or adjacent to the pipeline right-of-way. The permanent right-of-way will be periodically (every 3 to 5 years) cleared of woody vegetation to facilitate aerial inspection of the pipeline and maintain visibility of pipeline markers, which will be located at property lines and crossings of roads and waterbodies.

3.0 GENERAL CONSTRUCTION AND OPERATION IMPACTS AND MITIGATION MEASURES

Impacts occurring within the temporary construction workspace and ATWS will be temporary; once construction has ended, Enbridge will allow temporary construction workspace and ATWS to revert to prior vegetation and use. As discussed above, the permanent right-of-way will be periodically cleared of woody vegetation to facilitate inspection.

Enbridge will avoid or minimize impacts at the Lost River by implementing the erosion and sediment control and hazardous materials management measures outlined below, and described in detail in Enbridge's EPP (Attachment D).

- Section 10.0 of the EPP addresses planning, prevention, and control measures to minimize impacts resulting from spills of fuels, petroleum products, or other regulated substances as a result of construction. Sections 10.9.1 and 10.10 state that if a spill should occur during refueling operations, operations shall stop until the spill can be controlled and the situation corrected.
- Section 10.6.3 requires that the storage of petroleum products, refueling, maintenance, and lubricating operations take place in upland areas that are more than 100 feet from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. Per Section 10.6.5, concrete wash water, grindings and slurry will not be discharged to wetlands, waterbodies, or storm sewer systems, or allowed to drain onto adjacent properties.
- Per Section 1.9, temporary ECDs will be installed at the edge of the construction workspace to slow water leaving the site and prevent siltation of waterbodies and wetlands downslope. Riparian buffers will be maintained to provide an additional barrier to prevent sedimentation.

For all waterbody crossings regardless of method, flumes and temporary dams will be removed from the streambed after the crossing has been returned to original grade and the banks have been reconstructed and stabilized with erosion control materials. Temporary erosion control measures will be installed and maintained until permanent erosion control measures are installed and effective. Permanent slope breakers will be installed, where needed, across the full width of the right-of-way during final cleanup. Stream banks disturbed during construction will be restored to pre-construction conditions unless the slope is determined to be unstable. Mitigation measures such as bioengineering, rock riprap, or reshaping the banks may be utilized to prevent slumping. Enbridge recognizes site-specific approval will be necessary in the event riprap is required to achieve bank stabilization.

A temporary seed mix (e.g., annual rye or annual oats) and mulch and/or erosion control blankets will be installed within a 50-foot buffer on either side of the stream, with exception to actively cultivated land. Silt fence or functional equivalent as approved in advance by Enbridge will be installed upslope of the temporary seeding area (Section 2.5.1 of the EPP). Where necessary for access, the travel lane portion of the construction workspace and the temporary bridge will remain in place until final cleanup activities are completed. Temporary bridges will be removed after final cleanup, seeding, mulching, and other right-of-way restoration activities have been completed. The temporary erosion control measures will be removed after vegetation has been re-established.

4.0 REFERENCES

Minnesota Department of Natural Resources. 2017. Wild Rice Locations on Lakes and Rivers Identified by DNR Wildlife. Geospatial dataset available online at: ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/env_wild_rice_lakes_rivers_wld/metadata/metadata.html. Accessed November 2017.

Minnesota Pollution Control Agency. 2016. MPCA wild rice waters database (wq-s6-43x). Updated July 19, 2016. Available online at: <https://www.pca.state.mn.us/document/wq-s6-43xlsx>. Accessed November 2017.

U.S. Army Corps of Engineers. Undated. Section 408. Available online at: <http://www.usace.army.mil/Missions/Civil-Works/Section408/>. Accessed November 2017.