



Application for a Lease for Short-Term Use of Non-Forestry Roads

Enbridge Energy, Limited Partnership • Line 3 Replacement Project

November 2020

ENBRIDGE®

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ACRONYMS AND ABBREVIATIONS

40	MDNR 40-acre parcel
ATWS	additional temporary workspace
AR	access road
BMPs	best management practices
EI	environmental inspector
Enbridge	Enbridge Energy, Limited Partnership
EPP	Environmental Protection Plan
HDD	horizontal directional drill
IEMs	independent environmental monitors
INS	Invasive and Noxious Species
L3R or Project	Line 3 Replacement Project
MDNR	Minnesota Department of Natural Resources
MP	milepost
MPCA	Minnesota Pollution Control Agency
MPCA Stormwater Permit	MPCA National Pollutant Discharge Elimination System/State Disposal System Construction Stormwater General Permit
NHIS	Natural Heritage Information System
NPC	Native Plant Communities
OHV	off-highway vehicle
PCMP	Post-Construction Wetland and Waterbody Monitoring Plan
Procedures	Summary of Construction Methods and Procedures
short-term non-forestry roads	short-term use of new and existing MDNR non-forestry roads
SOBS	Sites of Biodiversity Significance
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMP	Post-Construction Vegetation Management Plan for Public Lands and Waters

1.0 APPLICANT INFORMATION

On November 30, 2018, Enbridge Energy, Limited Partnership ("Enbridge") applied for a Lease to the Minnesota Department of Natural Resources ("MDNR") for use of temporary short-term access roads and corner improvements associated with its Line 3 Replacement Project ("L3R" or "Project") on public lands[1] that are not administered by the MDNR Forestry division. A revised application was submitted on December 20, 2019. This application comprises an update to Enbridge's request for short-term use of new and existing MDNR non-forestry roads ("short-term non-forestry roads") to support construction of the Project. Information on the Project applicant follows in this section.

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2.0 ACCESS ROAD SITING

Enbridge first attempts to utilize existing roads to access the construction workspace as much as possible (i.e., as temporary access roads). Roads that can currently accommodate construction vehicles and traffic in their existing condition will not require improvement or modification; however, roads that cannot accommodate construction vehicles will require widening or grading for safety. Both public and private roads require landowner or land-managing agency permissions and applicable environmental permits to use. Where publicly or privately owned roads are not available, Enbridge will construct new temporary access roads.

In general, Enbridge is able to use existing public roads (haul routes) in the western portion of the Project area to access the construction workspace, thereby avoiding or minimizing new improvements and associated resource impacts. However, as existing maintained public roads become less frequent along the eastern portion of the Project, more improved temporary access roads are required to gain access to the construction workspace.

Enbridge considers a number of factors and criteria in order to determine the need and number of access roads and to site them. In terms of providing accessibility to the construction workspace, access roads are needed:

- Approximately every mile along the construction workspace to allow sequential construction crews ability to ingress and egress from the construction workspace and to allow other crews to pass or to move around.

[1] For purposes of this Application, the term "public land" includes all tracts or lots of real property belonging to the state and under the control and supervision of the Commissioner of Natural Resources.

- On either side of horizontal direction drills ("HDDs") as this technique can take several weeks to complete.

- On either side of push-pull locations as this technique can also take up to a few weeks to complete and due to the highly saturated or inundated conditions of the wetlands being crossed, use of the travel lane may be restricted or access may not possible for some equipment.

- On either side of waterbody crossings where bridges are not installed (i.e., HDD locations).

- On either side of areas with seasonal restrictions (e.g., fishery restrictions, restrictions associated with rare and sensitive species) to avoid travel along the construction workspace through the restricted area at applicable time periods.

The selection and use of access roads is also dictated by the following factors:

- The location of the temporary access roads depends on the location and ability to use haul routes. Haul routes are existing public roads that are used by construction vehicles and equipment to travel as close as possible to the construction workspace before utilizing an existing private road, MDNR-managed road, or developing a new road to access the construction workspace. Haul routes do not require improvements for use by construction equipment or vehicles except in very limited areas (e.g., corner improvements, intersections); haul routes may require some maintenance within the existing roadbed (e.g., grading).

- As described above, it is Enbridge's preference to utilize existing maintained roads that do not require improvements. However, access roads must be of sufficient width to accommodate bi-directional construction equipment and cannot have sharp curves due to limited turning radius of stringing trucks and semi-trucks with trailers. Due to the weight of the equipment, it is also preferable to use existing roads with a developed roadbed of durable material, such as pavement, concrete, gravel, or dirt.

- Enbridge must receive permission to use all public and private roads from state and local administrators, to private landowners.

Where existing maintained roads are not available for use due to any of the factors above, Enbridge then looks to use existing linear disturbance paths along the construction workspace that connect or can be connected to haul routes for access. The use of existing paths avoids new habitat fragmentation and minimizes impact as compared to developing a new road. Widening of an existing path has the potential to impact adjacent resources; however, this impact is preferable for the same reason. Examples of existing linear disturbances may include existing off-road vehicle or snowmobile trails, foot trails, two-lane farm access, developed agricultural lands, or utility corridors. In situations where access is required for any of the reasons described above, and an existing disturbance is also not available in the vicinity of the construction workspace, Enbridge will develop a greenfield, or "new," road. In these cases, using environmental survey data Enbridge avoids and minimizes impacts on sensitive features and limits the amount of forest clearing necessary to achieve access.

Another example of how Enbridge avoids and minimizes impacts on resources are the use of shoo-flies. As described in Section 1.4 of the Environmental Protection Plan ("EPP;" Attachment

A), shoo-flies are short detours off of the main access road or construction workspace used to avoid or minimize impacts on sensitive features. This is most often used to avoid or reduce impacts on wetlands.

3.0 PROPOSED ACTIVITIES

Enbridge will utilize haul routes,[2] access roads,[3] or shoo-flies to access the Project construction workspace. Right-of-way access is presented in more detail in Section 1.4 of the EPP (Attachment A) and Section 2.1 of the Summary of Construction Methods and Procedures document (the "Procedures;" see Appendix A to Attachment A).

This Lease application is for use of short-term non-forestry roads (and in some cases, associated additional temporary workspace ["ATWS"]) that are located on public lands to support construction of the Project (see Attachments B and C). Enbridge has also identified locations where Enbridge will improve an existing non-MDNR road for the Project, but the extent of the improvements will occur on MDNR lands (referred to as "corner improvements"). The extent of the corner improvements on public lands is presented in this Application. Short-term non-forestry roads may be new or existing roads that will be utilized during construction and through restoration of the Project. Corner improvements will occur on existing roads. Road improvements and maintenance will be required as described in Section 3.1.

3.1 ACCESS ROAD IMPROVEMENTS AND MAINTENANCE

Attachment B of the lease application identifies the existing condition of each road (e.g., paved, gravel, dirt, trail), and the proposed temporary improvements to that road (e.g., widening to 30 feet, grading, fill). To safely allow construction equipment and vehicles to pass, access roads need to be developed to allow two-way traffic, have a reasonably level surface, wider curves to allow for turning radius, and with stable surface material to withstand the weight of the equipment.

For existing access roads that are not 30 feet wide, Enbridge may need to widen the roadbed. Widening may require mowing or tree trimming/clearing along the edge(s) of the existing roadbed. The existing roadbed may be graded to level it out and fill in rivets and holes. Where road widening is needed in wetland areas, Enbridge will install construction mats; construction mats may also be used in some upland areas to expand the roadbed. However, more commonly in uplands, Enbridge will grade the existing roadbed crown to level and expand the road to the needed width. In limited areas, additional dirt or gravel fill may be required; however, typically the soil at the site will be used to level and expand the road.

For existing developed roads that are 30 feet wide, Enbridge will only perform maintenance activities within the existing roadbed. This may include grading of gravel/dirt roads to smooth out bumps and holes and to flatten areas that would pose travel risks for equipment and vehicles, addition of fill as required, which may include dirt, gravel, or the use of construction matting. Gravel will only be placed on existing gravel roads; the application of gravel on a non-graveled roadbed creates an impermeable surface that must be permitted under the Minnesota Pollution Control Agency Construction ("MPCA") National Pollutant Discharge Elimination System/State Disposal

[2] Existing public roads will typically be used as haul routes, which are used to deliver equipment and materials to the workspace during construction.

[3] An access road is a road used to access the pipeline construction workspace, operational right-of-way, or associated facility. Access roads can be public roads or private drives and can be existing, modified, or newly constructed.

System Construction Stormwater General Permit ("MPCA Stormwater Permit").[4] If Enbridge determines that gravel is needed on a non-graveled roadbed for safety or stability reasons, the gravel will be removed after construction is complete. As further discussed in Section 5.1, Enbridge will utilize construction mats in lieu of gravel on the portions of existing non-graveled roads through S1-S3 ranked Native Plant Communities ("NPC") or High or Outstanding Sites of Biodiversity Significance ("SOBS").

Enbridge may also place rock on top of geotextile fabric at select roadside wetlands to provide corner improvements to approaches to the construction workspace as illustrated in Figure 47 of the EPP. The geotextile fabric is used to maintain separation between the underlying soil and the temporary fill, distribute load, and stabilize the underlying soil while maintaining drainage patterns. This will occur at road intersections or the intersection of an access road with the construction workspace. Construction mats may be used at some of these intersections (see Figure 2 of the EPP). However, if the construction mats cannot be installed flush with the existing road without excessive grading to key the mats in, the mats can become a safety hazard for passing vehicles. Also, large construction vehicles need a wide path with stable footing to make turns safely off road intersections. Small wetlands or wetland ditches may be present at some of these intersections. As illustrated in Figure 47 of the EPP, in these situations Enbridge will install geotextile fabric at the bottom of the ditch and will install a culvert/flume pipe as needed to obstruct any actual or potential water flow. Crushed rock will be placed on top of the geotextile fabric and the culvert/flume pipe to form the solid base of the intersection. Once construction activities are complete, this material will be completely removed, and the areas will be restored as described in Section 7.0 of the EPP. Exact locations of where crushed rock on top of geotextile fabric in wetland/waterbody ditches will be determined in the field based on conditions at the time of construction. Table 3.1-1 contains locations with potential candidates for rock over geotextile fabric along roads in this lease application.

Table 3.1-1
Potential Candidates for Rock Fill over Geotextile Fabric along Temporary Access Roads

Lease Type	Road Name	Map Page	New or Existing	Existing Conditions	Improvements Needed
STNF	HR Corner Improvements MDNR 1	75-78	New	Roadside Ditch	Rock over geotextile fabric and extended culvert/flume at intersection of 320th Place and 560th St.
STNF	HR Corner Improvements MDNR 2	80	New	Roadside Ditch	Rock over geotextile fabric and extended culvert/flume at intersection of 270th Ave and 590th St.

Enbridge will source crushed rock and gravel needed for road maintenance from active sand pits and quarries. Cleared crush stone and gravel will be screened and/or washed as part of the standard aggregate processing,[5] which reduces the risk that it contains invasive or noxious species. Certified-Invasive and Noxious Species ("INS") free gravel is not available in Minnesota. Clean construction mats will be used as described in the INS Management Plan (Appendix B of the EPP), and Enbridge will be responsible for monitoring for INS on MDNR-managed lands and

[4] See 25.15 and 25.22 of the Construction Stormwater General Permit available on-line: https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf.

[5] Standard process for aggregate material processing includes screening for appropriate rock size, crushing, sorting, and/or washing (see https://www.cemexusa.com/products-and-services/aggregates/how-aggregates-are-extracted).

access roads following construction as described in the INS Management Plan and post-construction monitoring efforts as outlined in Section 8.0.

The process for developing ice roads is described in Section 1.4 of the Winter Construction Plan (Attachment E); mats may not be used on frost roads, depending on conditions. Note that for areas that may be constructed during winter or frozen conditions, temporary access roads will still be required in the spring in order to revisit the construction workspace for final grading and restoration activities.

All temporary access roads will be restored to pre-construction conditions as described in Section 7.0 of the EPP.

3.2 SITE-SPECIFIC ROAD INFORMATION

Attachment B of this Application includes a table that provides the following information by short-term non-forestry road or corner improvement:

Location and Identification Information:

- Enbridge access road ID on each MDNR 40-acre parcel, or "40;"
- Locations of staging and laydown areas (ATWS) associated with an access road, if necessary;
- MDNR public land[6] ID from the License to Cross Public Lands application, when relevant; and
- Locational information (Project milepost ["MP"], County, township/range/section, MDNR 40, and Government Lot).

Existing Condition of Road or Trail:

- Identification if the road is aligned with an existing foot, off-highway vehicle ("OHV"), and/ or snowmobile trail;
- Existing road conditions description (e.g., greenfield, trail, utility corridor, dirt or gravel road); and
- Existing average cleared width of existing road (if any).

Description of Proposed Activities for each Road:

- Identification if this is a new or existing road feature, and if it is proposed for temporary/ short-term (construction only) or permanent/long-term (operations) use;
- Proposed road type (access road, haul route improvement, or shoo-fly);

[6] For this Application, the term "public land" includes land under the control of MDNR.

- Proposed road width (standard width of 30 feet);
- Length for widening greater than 30 feet around corners;
- Total road length and width by MDNR 40; and
- Description of the maintenance or improvement activities that are proposed (including if rock over geotextile fabric in wetlands may be used and where bridges or culverts exist or are proposed).

Best Management Practices, Restoration, and Justification:

- Special conditions (i.e., wetlands, seasonal use roads, timing restrictions, additional best management practices ["BMPs"] if applicable).
- Description of how temporary roads will be restored following construction; and
- Justification and rationale for use.

Attachment C contains a map set illustrating the length and width of the short-term non-forestry roads and corner improvements on each MDNR 40, including where the feature will cross delineated wetlands and Minnesota public waters;[7] where roads may be widened from the standard 30-foot width around corners; staging and laydown areas; the locations of NPCs ranked S1-S3 and SOBS ranked High or Outstanding; locations of Old Growth Forests as communicated by MDNR; and locations of INS identified during Enbridge field surveys, where applicable. The use of construction mats is also identified at wetland crossings.

Based on feedback from MDNR, Enbridge utilized its cadastral survey data to determine the boundaries of public lands (as opposed to public land boundaries available through Minnesota Geospatial Commons), and the corresponding extent of each road that is located on a public land. Enbridge's cadastral survey boundaries and Minnesota Geospatial Commons boundaries are displayed on maps in Attachment C.

3.3 CONSTRUCTION SCHEDULE AND TERM OF LEASE

Enbridge plans to commence construction of the new pipeline and associated facilities as soon as all construction-related regulatory approvals have been obtained.

Short-term existing forestry roads will be utilized during construction and through restoration of the Project. Enbridge is requesting a 2-year lease term from the MDNR for the new access road.

4.0 SPECIAL FEATURES ASSOCIATED WITH ACCESS ROADS

From 2013 through 2020, Enbridge conducted environmental surveys on public lands crossed by a 250- to 450-foot-wide environmental survey corridor, including a 30- to 50-foot buffer on proposed access roads. The results of these surveys have been documented and submitted to the MDNR on an annual basis per the conditions of the MDNR's Short-Term Lease. The 2013-

[7] Public water or public waters means those waters of the state identified under Minnesota Statutes, section 103G.005, subdivision 15 or 15a, or 103G.201, as shown on the public water inventory maps.

2019 Environmental and Cultural Surveys on MDNR-Administered Lands Report was submitted to the MDNR in January 2020 and contains information on all resources identified on public lands through the end of the 2019 field season. The report will be updated for 2020 survey data at the completion of the 2020 survey season. Survey findings are summarized in the following sections.

4.1 WETLANDS AND WATERBODIES

Enbridge conducted wetland delineation and waterbody field surveys between 2013 and 2020. Wetlands were identified and mapped in accordance with the Great Plains, Midwest, and Northcentral and Northeast Regional Supplements of the 1987 Corps of Engineers Wetland Delineation Manual.[8] Enbridge also identified waterbody locations (i.e., lakes, streams, rivers, and drainage ditches). Wetland and waterbody survey data related to existing short-term forestry roads is shown on the maps in Attachment C and are noted in Attachment B. One short-term non-forestry road will cross a public water. Information regarding this crossing is presented in Table 4.1-1.

Table 4.1-1
Public Waters Crossed by Short-Term Non-Forestry Roads on the Line 3 Replacement Project

Approximate Milepost/Map No.	Road Name	Waterbody Name (Kittle Number)	County	Description of Modification/Improvements
1066.2 / Map Page 79	AR708	Willow River (M-117)	Aitkin	This is at the location of an existing bridge over the Willow River. The road and bridge will be used for light travel over the waterbody before construction of the permanent bridge is complete. No improvements (e.g., bridges or culverts) are needed at the public water crossing.

Enbridge does not anticipate needing a Work in Public Waters Permit for any MDNR-administered road impacts. MDNR has also noted that an existing culvert is in place near

Some roads in this Application cross non-public waters; these roads will require temporary bridges or culverts as identified in Table 4.1-2 and in Attachment B, and temporary bridges are illustrated as appropriate in Attachment C of the application. All these bridges or culverts are temporary and will be removed once restoration is complete. Bridge designs are addressed in Section 2.4 of the EPP and Section 2.4.2 of the Summary of Construction Methods and Procedures (Appendix A of the EPP).

Table 4.1-2
Roads/Culverts at Delineated Non-Public Water Crossings

Lease Type	Road Name	Map Page	New or Existing	Existing Conditions	Improvements Needed
STNF	AR394.1d/ AR394.1-e	44	Existing	Cleared Trail (foot, OHV, snowmobile)	Temporary bridge will be installed at feature ID s-139n25w5-aa. Based on field review, the bridge will likely consist of a flume pipe under the mat road which will be sized to allow unrestricted flow. However, mats may instead be installed with a gap/span pattern to allow unrestricted flow through the mats.

[8] Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1. USACE waterways experiment Station, Vicksburg, Mississippi.

Lease Type	Road Name	Map Page	New or Existing	Existing Conditions	Improvements Needed
STNF	AR394.6	49	New	Greenfield (forest, scrub-shrub, herbaceous)	Temporary bridge will be installed at feature ID s-139n25w4-aa. Based on field review, the bridge will likely consist of a flume pipe under the mat road which will be sized to allow unrestricted flow. However, mats may instead be installed with a gap/span pattern to allow unrestricted flow through the mats.
STNF	AR701	52	Existing	Cleared Trail (foot, OHV, snowmobile)	Waterbody is perpendicular to the raised railroad bed trail but does not enter and will not impact the proposed road corridor.
STNF	AR701	55	Existing	Cleared Trail (foot, OHV, snowmobile)	Waterbody is perpendicular to the raised railroad bed trail but does not enter and will not impact the proposed road corridor.
STNF	HR Corner Improvements MDNR 1	75-78	New	Roadside Ditch	Non-public wetland found at this existing road intersection (feature ID: w-50n25w17-hb); Enbridge will install flume pipes with either construction mat spans on top or will install geotextile fabric with the flume and crushed rock top to allow for turning radius of large construction vehicles/equipment.

MDNR has also noted that a flume pipe may need to be installed under the construction mat road, or that a gap pattern may be needed to allow unrestricted flow at flowage areas (non-delineated waterbodies) along AR391.2 near MP 1042.7 (Map Pages 22/23) and AR391.3 near MP 1042.9 (Map Pages 24/25). Enbridge will use multiple mat configurations in inundated areas depending upon the depth of inundation and presence of channelized flow to maintain surface flow. These different mat configurations are illustrated in Figure 49 of the EPP, and will be selected based on site-specific conditions.

All access road wetland impacts included in this lease application are included in the U.S. Army Corps of Engineers ("USACE") Section 404 application, as follows:

- The temporary installation of construction mats, and in limited areas the use of rock on geotextile fabric, in wetlands is considered a temporary wetland impact by the USACE and is mitigated as such in the Compensatory Wetland Mitigation Plan.

- The clearing of forested and scrub-shrub vegetation to improve or develop new temporary access roads is considered a temporary loss and is mitigated at a higher mitigation ratio based on vegetation type in the Compensatory Wetland Mitigation Plan.

In all cases, the mitigation ratio is dependent upon the quality of the wetland. As agreed to with the USACE, MPCA, and MDNR during consultation on the Compensatory Wetland Mitigation Plan, Enbridge proposed higher compensatory mitigation ratios for impacts on wetlands with High or Outstanding SOBS or NPCs ranked S1, S2, or S3, or that contain state-listed plant species identified during field surveys. The Post-Construction Wetland and Waterbody Monitoring Plan ("PCMP"; see Section 8.0 for additional information) developed by Enbridge focuses on monitoring of aquatic resources affected by the Project after construction and restoration are complete. This plan has been developed with input from the USACE, MPCA, and MDNR.

4.2 SENSITIVE SPECIES AND PLANT COMMUNITIES

Enbridge initiated consultation in early 2013 with the Midwest Region Ecological Services Field Office of the U.S. Fish and Wildlife Service ("USFWS") for the Minnesota portion of the Project. The initial consultation letter included a list of federally endangered, threatened, and candidate species that may occur in the Project area in Minnesota. Three federally listed species may be affected by the Project: gray wolf, Canada lynx, and northern long-eared bat. The Project's action agencies under Section 7 of the Endangered Species Act, the USACE and Bureau of Indian Affairs, submitted a Biological Assessment to the USFWS on March 25, 2019 that assessed potential impacts and describes mitigation measures that Enbridge will implement to avoid and minimize impacts on these federally listed species. The USFWS responded with a letter of concurrence on August 6, 2019. In the letter, the USFWS concurred that the Project will not adversely affect the gray wolf and Canada lynx and may affect, but incidental take is not prohibited for northern long-eared bat. With this letter of concurrence, the USFWS concluded informal consultation for the Project under Section 7 of the federal Endangered Species Act.

Enbridge also initiated consultation with the MDNR Endangered Species Review Coordinator in early 2013 to understand the potential presence of state-threatened and endangered species near the Project. Enbridge has conducted periodic reviews of Minnesota Natural Heritage Information System ("NHIS") data provided by the MDNR. Enbridge submitted its final NHIS Review and Avoidance Plan in October 2020 (see Attachment D). NHIS-related commitments are presented in Section 5.1 of this Application as well as noted in Attachment B when relevant.

Enbridge submitted its initial Endangered Species Permit for Minnesota State-Listed Species application on September 13, 2018; updates to that application were submitted on January 29, 2020 and September 14, 2020. There will be no take of state-listed threatened and endangered plants associated with access roads in this Application.

4.3 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Enbridge conducted archaeological and historic resources surveys along the L3R route, including all access roads, from 2013 through 2020. In addition, Tribal Cultural Resources Surveys have been conducted along the entire L3R route. The results of archaeological and architectural history surveys conducted by Enbridge and Tribal Cultural Resources Surveys, and applicable mitigation and avoidance procedures have been provided to the MDNR for review under the Field Archeology Act (Minnesota Statutes 138.31-138.42). Enbridge has prepared a Final Avoidance, Mitigation Plan, and Implementation Plan for Construction to address these resources, and it contains an Unanticipated Discoveries Plan.

4.4 INVASIVE AND NOXIOUS SPECIES

Enbridge has conducted surveys for federally, state-, and locally listed terrestrial INS species on public lands. The purpose of the surveys was to document the occurrence of terrestrial INS species in upland and wetland areas. The surveys provide information that is used in designing and implementing mitigation measures during construction to minimize the potential for introducing or spreading terrestrial INS.

Maps presented in Attachment C show the locations of Minnesota-listed terrestrial noxious and invasive plant species along short-term non-forestry roads and corner improvements considered in this Application and within Enbridge's environmental survey corridor.

4.5 TRAIL CROSSINGS

Access roads which cross an existing hiking, OHV, or snowmobile trail are presented in Attachment B and trails are shown on maps in Attachment C.

Enbridge will coordinate with the trail organizations and the MDNR to develop appropriate notification measures during construction. MDNR will require that a person be stationed at the trail crossing to conduct flagging during active construction activities. Enbridge will install visible snow fencing should construction occur during the winter, as well as long-term signage, and will work with the MDNR and trail managing organization to distribute other forms of public outreach to minimize impacts on recreational uses of the trail, as needed.

5.0 BEST MANAGEMENT PRACTICES

Enbridge will implement the following standard BMPs during short-term non-forest road construction, which are further described in the EPP and Winter Construction Plan (Attachments A and E, respectively).

- Enbridge will first flag the boundaries of the access roads in accordance with Section 1.1 of the EPP, including the identification of avoidance areas. Enbridge will post signs for environmental features, including wetland boundaries, waterbody crossings, and notifications for environmentally sensitive features that require signs per agency consultations or permits. Areas that require avoidance, fencing, or other BMPs will be denoted as Environmentally Sensitive Areas on the alignment sheets. Only members of Enbridge's Environmental Compliance Team, including Environmental Inspectors ("EIs"), will have access to the site-specific location and identity of these features. The Independent Environmental Monitors ("IEMs") will also have access to this information (see Section 6.0).

- Enbridge will maintain public access to public lands crossed by the Project, but only to the extent it is safe and practicable to do so during construction. Access to construction areas, however, will be limited or restricted at times such as during excavation and pipeline installation activities. Enbridge may request that the MDNR restrict public access to certain tracts during construction activities to ensure the safety of Enbridge workers and the public and will work with MDNR to obtain approval if necessary. Enbridge will notify MDNR land managers prior to construction of new access roads and should roads require closure, MDNR will require a 48-hour notice. Following construction, Enbridge will incorporate barriers to restrict access within the operational right-of-way as practicable as requested by the MDNR as described in Section 1.22 of the EPP.

- All Enbridge construction equipment and vehicles will be confined to the approved construction workspace and access roads as described in Section 1.5 of the EPP. Any construction-related work not contemplated in this Lease application (e.g., the laydown of material needed to construct the roads outside of the workspace presented in this application) would require notification of MDNR Regional Operations Staff and will be authorized by the MDNR on a case-by-case basis.

- Monitor upcoming weather forecasts to determine if significant rainfall is anticipated during construction and will implement wet weather shutdown procedures to prevent wet-weather impacts (e.g., rutting) as described in Section 1.3 of the EPP.

- Enbridge will implement temporary erosion and sediment control BMPs in accordance with the MPCA Stormwater Permit requirements[9] and as described in Sections 1.9, 1.17, 2.2, and 3.4 of the EPP. Enbridge is currently developing a Stormwater Pollution Prevention Plan ("SWPPP") as required by the MPCA Stormwater Permit (see Section 5.0 of the MPCA Stormwater Permit). Relevant BMPs for temporary access roads in this Application include:

    - Perimeter controls will be established along access roads where ground disturbance activities, such as grading, are required. Perimeter controls will be established on the downslope side of access roads to prevent sediment flow into off-road surface waters where widening, grading, and/or fill are required, with moveable installation across the travel lane at wetland/upland boundaries to accommodate travel lane activities. These BMPs will be established prior to initiation of ground disturbance activities (see 9.2 and 9.6 of the General Permit and Section 1.9 of the EPP).

    - Enbridge will properly install and maintain redundant sediment control measures immediately prior to or at the same time as ground disturbance activities at surface waters (i.e., wetlands and waterbodies) located within 50 feet of the Project and where stormwater flows to the surface water (refer to the Environmental Plan Sheets in the SWPPP. Redundant controls will not be installed adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins.

    - Construction mats will be installed across the portions of access roads that traverse wetlands or experience temporary or seasonal wet conditions to avoid rutting. Where construction mats are installed without associated grading, erosion and sediment control BMPs will be installed at the discretion of the EI based on site-specific conditions (see Section 3.1 of the EPP).

    - Enbridge will install perimeter controls along the downgradient perimeter of the construction workspace and improved temporary access roads in non-cultivated wetlands where slopes are greater than 3 percent to prevent sedimentation into adjacent wetlands outside of the construction workspace (required by the MPCA's Section 401 Water Quality Certification and Section 3.4 of the EPP).

    - Section 8.0 of the MPCA Stormwater Permit addresses stabilization measures and timing for areas temporarily impacted. Sections 1.9.1 and 7.0 of the EPP reflect these required measures. Stabilization[10] of all exposed areas, including stockpiles, must be initiated immediately[11] to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. In areas within 1 mile of, and draining to, a special or impaired water, stabilization measures will be initiated within 24 hours and completed

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9 https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf.

10 Stabilization means that the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, erosion control blanket, mats or other material that prevents erosion from occurring. Grass seeding, agricultural crop seeding or other seeding alone is not stabilization. Mulch materials must achieve approximately 90 percent ground coverage (Minnesota Rules 7090).

11 Initiated immediately means taking an action to commence soil stabilization as soon as practicable, but no later than the end of the work day, following the day when the land-disturbing activities temporarily or permanently cease (Minnesota Rules 7090).

within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site. On portions of the Project where work will be occurring during applicable "work in water restrictions" for Public Waters, all exposed soil areas within 200 feet of the water's edge, and that drain to that water, will be stabilized within 24 hours. Stabilization of all exposed soils within 200 feet of the public water's edge, and that drain to that water, will be initiated immediately and completed within 7 calendar days whenever construction activity has permanently or temporarily ceased on any portion of the site outside of the restriction period.

- INS will be managed in accordance with Enbridge's INS Management Plan (Appendix B of the EPP). Construction mats will be new/unused or cleaned prior to arriving to the Project.

- Section 1.8.1 of the EPP states that on public lands, mulch and mechanically cut woody debris must be uniformly broadcast to less than 2-inch thickness and in a manner that maintains visible ground. An Environmental Inspector will proceed with the clearing crews to monitor these activities on public lands. Should an accumulation of mulch or mechanically cut woody debris occur on public lands, Enbridge will remove the material and haul off-site to an approved location. However, woody debris or mulch that scatters during normal use of clearing equipment is acceptable, provided it does not accumulate as described above. Management of timber on public lands is addressed in Section 1.8.2 of the EPP. Fees for tree removal will be assessed on a "per-cord" basis, based on desktop review. The fee for timber removal will be a single payment, rolled into the Lease fee. Enbridge will avoid removal of bearing and legacy trees (e.g., trees that serve as cadastral monuments) and will coordinate with the applicable county should removal be required.

- No deicing products will be used on the Project as described in Section 1.4 of the Winter Construction Plan (Attachment E).

- Wastes will be handled, stored, and disposed of in accordance with Section 9.0 of the EPP.

- Spill Prevention, Containment, and Control measures will be implemented as described in Section 10.0 of the EPP, including restricting refueling activities necessary for road construction to upland areas, and requiring sufficient spill response kits for each construction crew. Section 10.6.3 of the EPP describes circumstances where refueling or fuel storage near streams, wetlands, and waterbodies is unavoidable due to site-specific conditions or unique construction constraints, and the additional precautions that would be put in place in those instances. Equipment that is parked overnight on public lands in areas with aquifers ranked as high vulnerability to contamination will be supplied with kiddie pools to place underneath vehicles and equipment to capture potential leaks as described in Section 10.6.4 of the EPP.

5.1 SENSITIVE RESOURCES BEST MANAGEMENT PRACTICES

Enbridge's October 2020 NHIS Review and Avoidance Plan (Attachment D) contains a review of NHIS data and other MDNR data sources for rare or sensitive ecological resources along the Project, including access roads; an assessment of the potential for impacts on those resources; and a description of measures for avoiding or minimizing impacts. Enbridge will implement the following additional BMPs during short-term non-forest road construction to address NHIS-related

commitments. The locations where these additional BMPs will apply are presented in Attachments B (see "Special Conditions" column) and on maps in Attachment C.

State-protected bats BMPs (Section 4.2.2 of Attachment D):

- Enbridge will not remove trees during the months of June and July on lands administered by MDNR, unless a bat protection plan has been approved by MDNR.

NPCs ranked S1-S3 and SOBS ranked High or Outstanding (Section 5.2.2 of Attachment D and Table E-2 of Attachment D):

- On public lands and wherever practicable at waterbody crossings, Enbridge will utilize wildlife-friendly erosion and sediment control BMPs that contain biodegradable netting (Category 3N or 4N natural fibers[12]) and will avoid the use of plastic mesh.

- Enbridge will limit the areas where burning may occur. MDNR Forestry must issue Enbridge or its contractor a burn permit and Enbridge anticipates MDNR will not issue permits in these areas.

- Enbridge will not utilize field cultivators or chisel plows on public lands.

- Enbridge will avoid the use of hydroseeding on public lands; however, Enbridge may use hydroseeding on steep slope to ensure seed is maintained in place until revegetation is successfully achieved.

- Enbridge has reviewed the locations where fill may be needed in upland areas on roads within these communities and will commit to installing construction mats in uplands in lieu of offsite fill or gravel, with exceptions for existing gravel roads where gravel may be added to aid in road maintenance. These potential areas are identified in Attachment B.

- Enbridge will manage INS using an integrated approach described in the INS Management Plan included as Appendix B of the EPP. The INS Management Plan contains specific measures that will be implemented to manage INS within or in proximity to all MDNR-administered lands, including those in High or Outstanding SOBS and NPCs ranked as S1-S3.

[12] Category 3N or 4N as described in Table 3885-2 (3885.2A Erosion Control Blanket Requirements) in Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition (http://www.dot.state.mn.us/pre-letting/spec/2018/2018-spec-book-final.pdf).

Old Growth Forests (Section 5.4.2 of Attachment D)

- Portions of AR567-b (Attachments B and C, Map Pages 102,103, and 104) are adjacent to or cross Old-Growth Forests; therefore, Enbridge will stake construction exclusion areas where Old Growth is adjacent to these road boundaries.

6.0 ENVIRONMENTAL INSPECTION AND MONITORING DURING CONSTRUCTION

Enbridge will comply with applicable federal, state, and local rules and regulations, and take all appropriate precautions to protect against environmental degradation. Enbridge will provide appropriate construction oversight to confirm and document compliance with the measures of the EPP and requirements of applicable federal, state, Tribal, and local permits. Enbridge's EIs will assist in interpreting and implementing the requirements of the EPP and verify compliance with these procedures for Enbridge. Enbridge has also committed to applicable agencies to fund a comprehensive third-party monitoring program to be deployed during Project construction, which utilizes IEMs. The details of this inspection and monitoring program are described in Enbridge's Environmental Monitor Control Plan.

7.0 REVEGETATION

Areas that are temporarily disturbed for construction of the access roads, including ATWS associated with a road, will be revegetated in accordance with Section 7.0 of the EPP. Decompaction of temporary access roads on public lands can be accomplished using tillage radish as described in Section 7.1.1 of the EPP. Enbridge will use the seed mixes as recommended by the MDNR in the Planting Plan, which will be a part of the Post-Construction Vegetation Management Plan for Public Lands and Waters ("VMP;" Attachment F). Seed will be applied uniformly at specified rates across the prepared construction workspace by drilling, broadcasting, hydroseeding, or air seeding, as outlined in Section 7.4 of the EPP. Enbridge will also work with MDNR to provide compensation for woody revegetation planting within temporary access road footprints on public lands.

8.0 POST-CONSTRUCTION MONITORING

Enbridge will implement post-construction monitoring at wetlands and waterbodies, including those portions crossed by these temporary access roads, as described in Enbridge's PCMP (Attachment G). The PCMP: (i) requires pre-construction data collected to establish aquatic resources baseline conditions; (ii) establishes the data, analyses, and procedures required to monitor topography, hydrology, and vegetation; (iii) establishes objective and verifiable ecological performance standards to evaluate the success of restoration of aquatic resources to pre-construction conditions; (iv) requires the submission of annual monitoring reports to the USACE, MPCA, and MDNR and an annual meeting with the agencies to review the results; and (v) includes an adaptive management approach that specifies types of corrective actions that may be employed in the event that monitoring identifies a problem in achieving the final goal of restoring the temporarily impacted wetlands to pre-construction conditions.

Section 1.0 of the VMP contains Enbridge's proposal for a post-construction monitoring program on public lands, including temporary impacts related to access roads under MDNR jurisdiction.

The VMP addresses monitoring for upland areas on public lands that are not addressed in the PCMP.