Enbridge Energy, Limited Partnership (Enbridge) plans to protect approximately 400 linear feet of the Bad River shoreline within the Bad River Reservation in Ashland County, Wisconsin (refer to attached design drawings). The proposed bank stabilization activities (Project) will protect the shoreline from possible future erosion using a tree revetment. The tree revetment will stabilize the riverbank by absorbing stream flow energy and protecting exposed soils. The Project does not require dredging within the Bad River. The tree revetment will be placed from the top of the bank to the toe of the bank, all below the ordinary high watermark of the Bad River.

The Project is specifically intended to be protective of waters and address the Band’s concerns, stated in the lawsuit that the Band filed in federal court, that existing waters are being threatened by an alleged nuisance. In its suit, the Band contends that Line 5 could rupture at the meander due to alleged future erosion of the banks caused by the flow of the Bad River, which could encroach towards Line 5. In this Project, Enbridge proposes to prevent the possible future erosion that the Band is concerned about.

As you know, on May 9, 2023, Enbridge submitted a proposal to install temporary sandbags on property Enbridge owns, particularly in the monument series F-C area, where recent erosion has been concentrated, and which now includes the location where the riverbank is closest to Line 5. The project is also located on property that Enbridge owns at the Meander. Enbridge is willing to modify the sandbag project in any reasonable way requested by MNRD that would result in MNRD approving the project.

As a longer-term solution to the Band’s concerns regarding erosion, Enbridge submits this Project. Enbridge anticipates a duration of up to 5 to 6 weeks to complete. Activities will occur outside of April 1 through June 1 to minimize adverse impacts on fish movement, fish spawning, egg incubation periods and high stream flows, but, should the Band see fit, the Project can be installed at any time.

Bank stabilization activities will occur in accordance with the following:

- **U.S. Army Corps of Engineers (USACE), Bank Stabilization Regional General Permit:** The Project will result in discharge of fill into a water of the U.S. and requires authorization under Section 404 of the Clean Water Act.

- **Bad River Reservation Clean Water Act Section 401 Water Quality Certification (401 WQC):** The Project requires an individual 401 WQC for coverage under the USACE Bank Stabilization RGP.

- **Bad River Reservation Antidegradation Decision:** The MNRD will evaluate if the Project will lower water quality in the Bad River, an Outstanding Tribal Resource Water, on a short-term, temporary basis in accordance with the Antidegradation Policy in the Water Quality Standards of the Bad River Band of Lake Superior Tribe of Chippewa Indians.

- **Bad River Reservation Wetland and Watercourse Protection Ordinance (WWPO) Permit:** The Project requires a permit from the MNRD under the WWPO for depositing fill material into a watercourse.
• Wisconsin Department of Natural Resources (WDNR) Chapter 30: The Project requires a permit from the WDNR for the placement of the sandbags below the ordinary high water mark (OHWM) of the Bad River.

1. Equipment

The primary equipment will consist of:

• helicopter to transport trees
• small excavator(s)
• skid steers
• UTVs to transport personnel, materials, and equipment
• pontoon, boats or amphibious vehicles for crossing the Bad River with personnel, materials, and equipment

The contractor will properly size all equipment to minimize the amount of temporary impact and sedimentation of the river. The contractor will decontaminate all equipment for invasive and exotic viruses and species prior to use and after use as outlined in the Bad River Reservation Invasive Species Management Plan and NR 40, Wis. Adm. Code. Enbridge will arrange for an invasive species inspection with the MNRD for all equipment prior to bringing equipment on the Reservation.

Enbridge is willing to employ any reasonable equipment requested by MNRD in connection with this work.

2. Access and Staging Areas

To minimize potential impacts associated with access, Enbridge will use pre-existing roads, the Line 5 corridor, and an existing trail that are routinely traveled by MNRD. Minor ground disturbance along the worker access route near the west bank of the Bad River may occur to facilitate installation of the temporary stairs that Enbridge may build to allow workers to safely traverse the steep slope. Workers will then cross the Bad River in boats or amphibious vehicles depending on site conditions. Workers will enter/exit the boats/amphibious vehicles from floating, temporary docks on the east and west banks of the Bad River (transported via helicopter to the site). After crossing the river, workers travel east on foot along the existing Line 5 pipeline corridor (no vegetation removal is proposed for worker access along the Line 5 corridor east of the river). If conditions allow, workers may also use a boat or pontoon to access the Project location. The boat/pontoon will launch from the Tribal boat launch located south of US-2 and travel upstream (south) to the Project location. The contractor may cut/remove obstructions within the Bad River to allow boat/pontoon passage.

Enbridge plans to use 2 staging areas:

1) a 350-foot-by-350-foot staging area located west of Government Road and north of the existing ROW; and

2) a 50-foot-by-50-foot staging area located within the L5 ROW along the worker access route.

Enbridge will obtain landowner permission for access prior to beginning work. Enbridge will use construction mats within the staging area west of Government Road. Enbridge may use construction mats in the other temporary workspaces and access routes if frozen conditions do not exist to minimize ground disturbance. Wetland impacts associated with access will be
3. Vegetation Clearing

Enbridge will clearly mark the limits of the staging prior to commencing construction activities. The contractor will clear trees and brush within the staging areas, temporary workspaces, and along the access routes. Tree clearing will occur as described in Section 7.0 of the Environmental Protection Plan (EPP), taking care to avoid any cedar or birch trees present and leaving stumps and root systems intact. Enbridge will complete an inventory of trees in May or June of 2023 and submit to the MNRD.

Enbridge is willing to employ any reasonable measures requested by MNRD in connection with this work.

4. Erosion and Sediment Control

The contractor will install and maintain sediment and erosion control best management practices (BMPs) at the staging areas in accordance with the Enbridge EPP and the attached Project-specific design drawings, as appropriate. Enbridge may adjust sediment and erosion control BMPs during construction based on site conditions. Enbridge does not anticipate the installation of the tree revetment to result in sediment contribution to the Bad River. However, the contractor will install silt curtain in accordance with the Project-specific design drawings. Enbridge is willing to employ any reasonable measures requested by MNRD in connection with this work.

5. Revetment Installation

Prior to installation of the tree revetment, Enbridge will use a small excavator operating within the Bad River to remove debris located along the shoreline. To isolate the excavator within the Bad River, Enbridge will install a temporary dam using an aqua-dam (refer to attached design drawing). The contractor will use a small, portable pump to transfer the water from within the dammed area and discharge back into the river through an energy-dissipation device, such as plywood boards, to prevent scouring of the streambed. Enbridge will either use a helicopter equipped with a long line logging hook to transport the debris to the staging area west of Government Road for load out into trailers for disposal.

The contractor will use a helicopter to transport and install whole trees (with branches but minus the root wads) roped together and anchored into the bank with lumber stakes. Tree materials for the tree revetment will consist of pine or hardwood species with trunk diameters up to 18 inches and segment lengths up to 10 feet. Enbridge will use suitable trees or cleared from within the identified staging area west of Government Road and the temporary workspace adjacent to the tree revetment area. If sufficient suitable trees are not available from these locations, Enbridge will obtain them from an off-site location. The tree installation will overlap at a minimum one-third each tree length. The tree revetment toe will consist of a double layer of trees to provide a base for the single layer of trees going to the top of the bank. The trees will be tied together using natural fiber rope tied to lumber stakes that will be driven into the bank a minimum of six feet. Timber Pile Design and Construction Manual (Collin, 2002) was used to determine the resistant force of the lumber anchors. For each tree placed on the bank, 2 pairs of 4-inch diameter piles embedded 5.5 feet in the ground need to be installed on either side to hold it in place.

Enbridge is willing to employ any reasonable measures requested by MNRD in connection with
6. Clean-up and Restoration

Upon completion of the work, the contractor will demobilize equipment from the site and remove construction mats.

Enbridge will seed any disturbed areas in accordance with Section 21.0 of the EPP with an appropriate seed mix (Minnesota Bureau of Water and Soil Resources (BWSR) 34-361 "Riparian Northeast" mix in wetland areas and Natural Resources Conservation Service "WI CP2 Mesic Prairie Mix" within upland locations, or other mixes as required by the MNDRD.

Enbridge will remove temporary, non-biodegradable erosion and sediment control BMPs from the site after vegetation establishes to 70 percent uniform cover. Enbridge is willing to employ any reasonable measures requested by MNDRD in connection with this work.

7. Post-Construction Inspection

Enbridge will use the cameras installed in the Project area to continuously monitor the area during high-flow or flood events, or as frequently as the MNDRD reasonably requests.

Aerial inspections will continue to be conducted following spring runoff and when river flow exceeds 4,000 cubic feet per second at the USGS Odanah gage (station no. 04027000), after flow levels recede. In person inspections will be conducted annually or if the site experienced 1:10 year flood or higher when site is safely accessible. The inspection will be conducted by the design consultant. Ground photographs will be collected. Noted areas of tree revetment loss, if any, will be surveyed and compared with post-construction survey.

In addition to monitoring, Enbridge has submitted applications to reroute Line 5 outside of the reservation boundaries. The tree revetment can be removed once the reroute is in operation.

8. Anticipated Temporary Wetland Impacts

The table below summarizes the estimated temporary wetland impact for within the staging area, access, and workspace:

<table>
<thead>
<tr>
<th>Estimated Temporary Wetland Impact</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
</tr>
<tr>
<td>Access</td>
<td>0.23</td>
</tr>
<tr>
<td>Staging</td>
<td>2.60</td>
</tr>
<tr>
<td>Temporary Workspace</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.75</strong></td>
</tr>
</tbody>
</table>

Enbridge based the wetland impacts estimates on the Project plans in relation to field delineations completed in 2019 and September 2020.

The technical memorandum dated November 1, 2019 (attached) provides additional information related to field delineated Wetland H. Note, the 2019 wetland delineation boundaries were digitized using aerial photography at that time. Therefore, Enbridge adjusted the boundaries to align with the current top of bank conditions more closely to be representative of the present environment.

The technical memorandum dated October 2020 provides additional information related to the
field delineated wetlands west of the Bad River.

9. Endangered and Threatened Resources

Enbridge accessed the US Fish and Wildlife’s (USFWS) Information for Planning and Consultation (IPaC) online tool accessed May 15, 2023 (https://ecos.fws.gov/ipac) that identifies four federally protected species as potentially occurring near the Project:

- Canada lynx (*Lynx canadensis*) – threatened
- Grey wolf (*Canis lupus*) - endangered
- Northern long-eared bat (*Myotis septentrionalis*) – threatened
- Piping plover (*Charadrius melodus*) – endangered
- Red knot (*Calidris canutus rufa*) – threatened

The Canada lynx is solitary species with a large range, prefers mature coniferous forest habitat, and is rare at southern extent of its range. Canada lynx tend to avoid human activities and would likely avoid the Project site during construction. The Project is not within designated critical habitat for the Canada lynx. Therefore, the Project is not anticipated to have an adverse effect on Canada lynx.

Gray wolves tend to avoid human activities and would likely avoid the Project site during construction. The Project will leave no permanent features that would potentially harm gray wolves. Enbridge understands that MNRD restricts activities in the vicinity of active wolf dens during the denning season and that the avoidance buffer is determined on a Project-specific basis. Enbridge is not aware that there are any active dens within the vicinity of the Project. If the MNRD is aware of any active dens, Enbridge is willing to take any reasonable steps to avoid any disturbance.

As previously noted, the Project requires tree clearing. According to the USFWS determination key¹, the Project may affect, but is not likely to adversely affect the Northern long-eared bat.

The Piping plover is associated with fairly wide, sandy, sparsely or unvegetated beaches when nesting. Outside breeding season, birds may be found on beaches, lagoon edges or areas of rubble. Nests on sandy beaches with areas of gravel or pebble substrate and little or no vegetation. The Project is not within designated critical habitat for the Piping plover. There are no sandy beaches located within the Project; therefore, there will be no effect to Piping plover or its habitat.

The Red knot migrates through Wisconsin and may be found along the shores of Lake Superior, Green Bay, or along Lake Michigan. During migration, the Red knot uses coastal zones, generally coastal marine and estuarine habitats, with large areas of exposed intertidal sediments. Red knots prefer muddy or sandy coastal areas, specifically the mouths of bays and estuaries and tidal flats/inlets. The Project is not within designated critical habitat for the Red knot. The Project will not occur within the mouths of bays and estuaries and tidal flats/inlet; therefore, there will be no effect to Red knot or its habitat.

10. Historical and Cultural Resources

An archeological survey of the existing Line 5 corridor occurred in 2018 and the results of the survey were submitted to the Bad River Tribal Historic Preservation Office (THPO). Portions of the proposed Project area are outside of survey area for that study. Enbridge can and will hire a contractor to complete any surveys required by USACE and THPO or, if THPO intends to

¹ https://ipac.ecosphere.fws.gov/, accessed May 15, 2023
complete the surveys Enbridge will reimburse the costs.

The USACE is responsible for compliance with Section 106 if the National Historic Preservation Act that requires federal agencies to consider the potential impacts to Historic Properties that may result from project activities. Historic Properties are defined as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria” (36 CFR 800.16 (l) (1)). As part of the compliance process, the federal agency must consult with the THPO.

Enbridge understands that the USACE will initiate consultation with the THPO regarding the proposed Project. Enbridge is not aware of any listed Historic Properties or of any properties that have been formally determined to be eligible for inclusion on the National Register within the Project area.